

dspj

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```
study_sc <- read.csv(file="/Desktop/Study 2 - Storage conditions -MDataSci 2021.csv")
study_sc
```

##	Sample	Group	Dimethylglycine_HMDB0000092	Glyoxylic.acid_HMDB0000119
## 1	HP 2_8degC_1	2_8degC	1426172	1591380
## 2	HP 2_8degC_2	2_8degC	1517956	1686277
## 3	HP 2_8degC_3	2_8degC	1664485	1827098
## 4	HP 2_8degC_4	2_8degC	1159526	1294607
## 5	HP RT_1	RT	676603	762540
## 6	HP RT_2	RT	727034	807206
## 7	HP RT_3	RT	751274	832044
## 8	HP RT_4	RT	593974	644762
## 9	HP RT_BHT_1	BHT	560734	625327
## 10	HP RT_BHT_2	BHT	645725	690614
## 11	HP RT_BHT_3	BHT	638131	683988
## 12	HP-20degC_1	-20degC	1080539	1201990
## 13	HP-20degC_2	-20degC	1399573	1557938
## 14	HP-20degC_3	-20degC	2075023	2308202
## 15	HP-20degC_4	-20degC	1376262	1518899
##	Pyruvic.acid_HMDB0000243	L.Lactic.acid_HMDB0000190		
## 1		100740	1972502	
## 2		142948	2729996	
## 3		130359	2211164	
## 4		93469	1557122	
## 5		174855	3666034	
## 6		126424	2724566	
## 7		150530	4151215	
## 8		149130	4112542	
## 9		128295	2821701	
## 10		165197	2506349	
## 11		107752	2553007	
## 12		117525	1409613	
## 13		98968	1282860	
## 14		118428	1765898	
## 15		133935	1568057	
##	Alpha.Hydroxyisobutyric.acid_HMDB0000729	Glycolic.acid_HMDB0000115		
## 1		80250	3891814	
## 2		85646	6069966	
## 3		94101	5831749	
## 4		63105	4042984	
## 5		96213	3692688	

## 6		66314	3069220
## 7		87792	3886825
## 8		94976	4503385
## 9		88315	3315107
## 10		90194	5603085
## 11		79504	4904847
## 12		71354	3202735
## 13		66754	3560592
## 14		92520	5017534
## 15		80930	5647582
##	Caproic.acid_HMDB0000535 L.Alanine_HMDB0000161		
## 1	2386481	513996	
## 2	2952691	517222	
## 3	2782558	567592	
## 4	1781499	448708	
## 5	1314990	774759	
## 6	709370	698348	
## 7	1073135	856665	
## 8	658502	791352	
## 9	655856	579283	
## 10	976099	546050	
## 11	594031	610859	
## 12	1332556	499903	
## 13	1625191	421395	
## 14	2137935	527216	
## 15	2417288	433660	
##	Alpha.ketoisovaleric.acid_HMDB0000019 Glycine_HMDB0000123		
## 1	18467	293208	
## 2	23619	433227	
## 3	17357	278424	
## 4	15182	232698	
## 5	21773	601689	
## 6	19513	362324	
## 7	22056	621096	
## 8	25182	529609	
## 9	15528	422202	
## 10	16290	376645	
## 11	16303	355603	
## 12	15218	406728	
## 13	17876	278811	
## 14	21984	307932	
## 15	18470	364052	
##	Oxalic.acid_HMDB0002329 Hydroxylamine_HMDB0003338		
## 1	829278	25569700	
## 2	878273	23568231	
## 3	887167	25995002	
## 4	896777	22312024	
## 5	866407	25375319	
## 6	701095	22250336	
## 7	799671	25106415	
## 8	826389	26397542	
## 9	818548	25127911	
## 10	806312	23577880	
## 11	878587	24816638	

## 12	865059	17564741
## 13	747411	23775344
## 14	884191	24611554
## 15	950614	24122452
##	X2.Hydroxybutyric.acid_HMDB0000008	Acetoacetic.acid_HMDB0000060
## 1	670578	2316511
## 2	823919	2591941
## 3	743398	2478066
## 4	628976	2142033
## 5	648197	2372970
## 6	623682	1752641
## 7	763503	2296590
## 8	783277	2295288
## 9	676295	2458412
## 10	722486	2291952
## 11	653541	2223661
## 12	653016	1641862
## 13	549081	2045119
## 14	814680	2520963
## 15	704432	2550187
##	Hydroxypropionic.acid_HMDB0000700	Pyruvic.acid_HMDB0000243.1
## 1	2782115	61335
## 2	3430399	55779
## 3	3195594	62823
## 4	2599312	46503
## 5	3447595	62401
## 6	2989947	52069
## 7	3420000	65205
## 8	3767570	73887
## 9	3574370	62570
## 10	3639789	55058
## 11	3374721	58519
## 12	2307165	46395
## 13	1974971	52702
## 14	2859658	61461
## 15	2655373	63028
##	X3.Hydroxybutyric.acid_HMDB0000357	X.S..3.Hydroxyisobutyric.acid_HMDB0000023
## 1	2860526	1312269
## 2	3891827	1641486
## 3	3301267	1490424
## 4	2493673	1190808
## 5	3030239	1336496
## 6	2434597	1166550
## 7	3325949	1475653
## 8	3598852	1601514
## 9	3527182	1415879
## 10	3329444	1461956
## 11	2777354	1245927
## 12	2813572	1237701
## 13	2193420	978124
## 14	3764434	1578658
## 15	3457221	1418311
##	X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	
## 1	133303	

## 2	159820	
## 3	157291	
## 4	122223	
## 5	112244	
## 6	104224	
## 7	131697	
## 8	148885	
## 9	128849	
## 10	143957	
## 11	135779	
## 12	118149	
## 13	114516	
## 14	160469	
## 15	146269	
## D.Alpha.aminobutyric.acid_HMDB0000650		
## 1	63104	
## 2	64794	
## 3	78495	
## 4	69006	
## 5	85267	
## 6	86915	
## 7	88496	
## 8	97372	
## 9	79753	
## 10	80632	
## 11	82768	
## 12	64081	
## 13	55140	
## 14	77136	
## 15	60824	
## X3.Methyl.2.oxovaleric.acid_HMDB0000491 Beta.Alanine_HMDB0000056		
## 1	67141	72600
## 2	64500	70152
## 3	66092	67713
## 4	56621	61242
## 5	55988	128643
## 6	49909	97237
## 7	65791	134593
## 8	73171	105028
## 9	51910	104708
## 10	56641	110808
## 11	56561	110279
## 12	54714	113810
## 13	44749	59273
## 14	76190	76087
## 15	51570	65711
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354		
## 1	1637	
## 2	3491	
## 3	2163	
## 4	2085	
## 5	3327	
## 6	2119	
## 7	3728	

## 8		2988	
## 9		2048	
## 10		1801	
## 11		2617	
## 12		2566	
## 13		1740	
## 14		3054	
## 15		2449	
##	X3.Methyl.2.oxovaleric.acid_HMDB0000491.1 Malonic.acid_HMDB0000691		
## 1		43587	58567
## 2		52560	77604
## 3		45301	71738
## 4		36508	57854
## 5		45246	105786
## 6		44014	72180
## 7		52908	73057
## 8		68801	71293
## 9		39734	66572
## 10		44623	81542
## 11		44830	60807
## 12		40709	66044
## 13		32399	62400
## 14		53871	62362
## 15		47254	71290
##	X3.Aminoisobutanoic.acid_HMDB0003911 X3.Hydroxyisovaleric.acid_HMDB0000754		
## 1		11545	436624
## 2		9904	514456
## 3		10936	498535
## 4		8370	408428
## 5		14609	543396
## 6		17325	459723
## 7		20801	554460
## 8		17967	613810
## 9		16306	546170
## 10		15589	554227
## 11		19470	510675
## 12		11250	405735
## 13		10512	310302
## 14		10345	481082
## 15		10483	407185
##	Ketoleucine_HMDB0000695 L.Valine_HMDB0000883 ITSD_Valine Urea_HMDB0000294		
## 1	158511	23059351	4133382 36869675
## 2	199013	23039031	4143518 37733299
## 3	169741	23988604	4679020 37199029
## 4	143531	22108666	3934716 36362818
## 5	155188	25206086	5336843 38354668
## 6	142844	25022731	5041728 37674174
## 7	169781	26317277	5870405 39062998
## 8	185734	25769480	5805908 39315580
## 9	144817	24240270	5102147 37215952
## 10	144343	24247428	5448574 37363843
## 11	137032	24333310	5120951 37357874
## 12	142416	22130720	3953669 37300015
## 13	144297	21130734	3282423 36366645

## 14	182819	23671767	4420277	38064716
## 15	161206	22017405	4091713	37315810
##	Benzoic.acid_HMDB00001870	Caprylic.acid_HMDB0000482	Glycerol_HMDB0000131	
## 1	7143039	473391	2612449	
## 2	12300348	706567	3759835	
## 3	12602431	689279	2680759	
## 4	4248061	416886	2075463	
## 5	5019941	404497	5292323	
## 6	5498991	251667	4637211	
## 7	5729852	350369	6013128	
## 8	5157615	387065	5497545	
## 9	7640548	385577	4604137	
## 10	8668435	404316	4049436	
## 11	9537945	339290	4307414	
## 12	7375304	480464	2096525	
## 13	4640372	472396	1725038	
## 14	7088531	622868	2029686	
## 15	3776711	509211	1776103	
##	Ethanolamine_HMDB0000149	L.Leucine_HMDB0000687	Acetylglycine_HMDB0000532	
## 1	1846927	19054057	29402	
## 2	2037245	19710206	47576	
## 3	1962281	19043497	50313	
## 4	1411555	16936400	33463	
## 5	3480357	21845964	34909	
## 6	3319504	22131391	27626	
## 7	4207868	23634912	37616	
## 8	3421378	23438576	39086	
## 9	2106968	21070528	29259	
## 10	2300510	21260375	47576	
## 11	2306192	21152183	34652	
## 12	1158665	17096328	30858	
## 13	1422849	15399651	25660	
## 14	1567476	19081420	37646	
## 15	1539275	16880211	41674	
##	L.Isoleucine_HMDB0000172	Nicotinic.acid_HMDB0001488	Maleic.acid_HMDB0000176	
## 1	11701159	32906	25469	
## 2	12557620	27040	39330	
## 3	11230801	24009	33748	
## 4	9564141	20431	22523	
## 5	15123396	26428	26051	
## 6	14891103	20571	15752	
## 7	17744238	22879	27714	
## 8	17565408	26642	28329	
## 9	13478116	23856	26421	
## 10	13286100	23613	28808	
## 11	13584150	22046	19388	
## 12	9698273	31722	20726	
## 13	8659357	21980	20262	
## 14	11242978	26851	33646	
## 15	9626173	23281	37120	
##	L.Proline_HMDB0000162	Phenylacetic.acid_HMDB0000209		
## 1	21797825	37973		
## 2	22024168	53312		
## 3	21257207	46525		

## 4	19524834	36227	
## 5	22324434	36453	
## 6	22900183	30467	
## 7	23730038	35030	
## 8	23879350	37200	
## 9	21160077	35032	
## 10	21477253	35813	
## 11	21805582	31338	
## 12	19727143	34052	
## 13	17610761	33927	
## 14	22117821	50565	
## 15	20380795	51292	
##	Succinic.acid_HMDB0000254	Glycine_HMDB0000123.1	
## 1	717673	21175074	
## 2	790131	23405583	
## 3	802481	22109250	
## 4	639726	19383077	
## 5	900906	26680221	
## 6	743197	25755896	
## 7	879351	26602860	
## 8	889775	26884675	
## 9	765809	23822549	
## 10	833351	23616022	
## 11	705818	24067027	
## 12	573234	18382560	
## 13	497423	19341130	
## 14	680097	21339835	
## 15	689250	20387893	
##	Methylsuccinic.acid_HMDB0001844	Glyceric.acid_HMDB0000139	
## 1	23197	2625900	
## 2	26562	3650342	
## 3	38906	3014689	
## 4	26204	2317531	
## 5	36678	2119515	
## 6	21675	2338209	
## 7	25165	2467428	
## 8	23733	2482870	
## 9	26478	2672367	
## 10	39099	2599260	
## 11	32612	2362520	
## 12	23905	2159748	
## 13	21911	2310049	
## 14	28372	2786587	
## 15	30684	3443202	
##	Fumaric.acid_HMDB0000134	Uracil_HMDB0000300	Pelargonic.acid_HMDB0000847
## 1	217180	117371	1708604
## 2	290955	121179	2419142
## 3	270262	116329	2492681
## 4	194230	83531	1576778
## 5	318352	130512	1085853
## 6	237520	116011	713548
## 7	358059	130673	1079975
## 8	343657	139376	1121108
## 9	271969	108519	1023734

## 10	292621	103144	1180730
## 11	239440	99303	965229
## 12	234507	93591	1931309
## 13	205996	96971	1621725
## 14	274891	110660	2446385
## 15	243254	107699	1696999
##	L.Serine_HMDB0000187 L.Threonine_HMDB0000167 Mesaconic.acid_HMDB0000749		
## 1	16905059	4921226	12301
## 2	19182246	5888290	12277
## 3	15673835	5210697	14168
## 4	9198681	4067794	10058
## 5	24646778	7762199	12413
## 6	23278412	7077896	11285
## 7	25437971	8738477	12940
## 8	24082730	8105756	13403
## 9	18435827	5516040	10423
## 10	14236874	5507360	14821
## 11	16993695	5478124	10783
## 12	10993144	4242618	14851
## 13	10488826	3743942	11366
## 14	10491506	4827073	14205
## 15	8575544	4205146	10776
##	Glutaric.acid_HMDB0000661 Thymine_HMDB0000262 Beta.Alanine_HMDB0000056.1		
## 1	224726	10133	390546
## 2	234391	5873	315886
## 3	230516	6510	353996
## 4	205128	6302	323188
## 5	243031	10970	581278
## 6	213211	7105	582644
## 7	222181	9852	601924
## 8	219370	10707	684925
## 9	171692	8792	529013
## 10	192262	7304	568057
## 11	180560	5616	568606
## 12	225499	4682	331247
## 13	187742	6379	300977
## 14	218194	8050	399662
## 15	206783	7181	256072
##	L.Homoserine_HMDB0000719 Capric.acid_HMDB0000511 Citramalic.acid_HMDB0000426		
## 1	4194	513362	53695
## 2	24209	964836	51915
## 3	19242	940858	47928
## 4	8855	508170	39467
## 5	4032	391491	134665
## 6	3756	332971	60350
## 7	8251	522029	71773
## 8	8003	472351	63682
## 9	2767	439246	42012
## 10	19501	932588	57223
## 11	23467	900241	43437
## 12	4168	421314	55461
## 13	9407	580521	50116
## 14	10642	717449	49411
## 15	9178	624721	41837

##	Malic.acid_HMDB0000744	Niacinamide_HMDB0001406	Adipic.acid_HMDB0000448
## 1	156390	1020833	117434
## 2	224240	1020071	109506
## 3	194108	993309	93849
## 4	148534	880212	86206
## 5	155694	1292202	138697
## 6	126340	1073512	129550
## 7	162605	1332269	150004
## 8	165650	1343466	122711
## 9	121865	1039654	80157
## 10	147487	1156032	104444
## 11	132888	1065466	98114
## 12	123686	1017829	91648
## 13	119537	930722	96598
## 14	175692	1111567	85636
## 15	197819	856592	70234
##	D.Threitol_HMDB0004136	Dihydrouracil_HMDB0000076	Erythritol_HMDB0002994
## 1	56387	31559	607938
## 2	65310	31868	730425
## 3	74032	32695	685286
## 4	6219	28633	608851
## 5	60446	36983	696698
## 6	48912	25729	606024
## 7	66369	38476	759230
## 8	59728	37328	779353
## 9	54672	26423	650480
## 10	62902	27794	738042
## 11	59641	29923	648883
## 12	54759	22563	610303
## 13	54342	25916	561007
## 14	65610	34284	749850
## 15	56086	24897	650257
##	N.Acetylserine_HMDB0002931	L.Aspartic.acid_HMDB0000191	
## 1	33119	16838123	
## 2	51876	17821026	
## 3	31422	16400439	
## 4	14537	14244837	
## 5	72484	20005699	
## 6	58547	20001817	
## 7	80582	21027618	
## 8	68408	20472619	
## 9	35142	16998759	
## 10	19034	16995359	
## 11	27272	17194308	
## 12	11625	14880842	
## 13	11562	14564234	
## 14	16536	15699700	
## 15	18340	13086986	
##	L.Methionine_HMDB0000696	X4.Hydroxyproline_HMDB0000725	
## 1	34562	5213844	
## 2	21531	6257025	
## 3	24838	5578159	
## 4	19882	4483495	
## 5	135795	7083186	

## 6	172107	6385616
## 7	154252	7902798
## 8	140937	7437344
## 9	94497	5586012
## 10	114787	5890010
## 11	123841	5592769
## 12	36855	5241713
## 13	43540	4389890
## 14	36643	5583380
## 15	12440	4407247
##	Pyroglutamic.acid_HMDB0000267 Cytosine_HMDB0000630	
## 1	29227259	60236
## 2	30801111	50699
## 3	29687625	64783
## 4	27656329	56510
## 5	31760193	62205
## 6	31536796	61410
## 7	32719715	71441
## 8	31977652	57966
## 9	30640942	45922
## 10	29764231	70062
## 11	29739921	55301
## 12	30077457	62604
## 13	28355536	66486
## 14	29501466	58486
## 15	27828051	56862
##	Gamma.Aminobutyric.acid_HMDB0000112 Threonic.acid_HMDB0000943	
## 1	177741	2610244
## 2	171477	3127127
## 3	137335	2918482
## 4	104827	2524202
## 5	234388	2316563
## 6	143875	2219897
## 7	178222	2664884
## 8	215450	2819231
## 9	184735	2422845
## 10	154367	2658815
## 11	125228	2456777
## 12	234938	2443048
## 13	87170	2396636
## 14	155141	3128527
## 15	149267	2848755
##	L.Cysteine_HMDB0000574 L.2.Hydroxyglutaric.acid_HMDB0000694	
## 1	1667511	432188
## 2	1947532	479517
## 3	1859002	468866
## 4	1598280	383790
## 5	1514772	349158
## 6	1568174	289098
## 7	1765901	354641
## 8	1828726	384821
## 9	1550347	317317
## 10	1761056	351718
## 11	1634946	298610

## 12	1544592	383708
## 13	1593196	306257
## 14	1983388	437416
## 15	1798449	424869
##	Creatinine_HMDB0000562 X3.Hydroxyglutaric.acid_HMDB0000428	
## 1	29306	11724
## 2	23496	14146
## 3	35723	13416
## 4	28927	10584
## 5	51485	10671
## 6	71789	7438
## 7	60457	9748
## 8	50696	8996
## 9	50189	5499
## 10	67670	9919
## 11	70146	10298
## 12	26166	13830
## 13	28639	11140
## 14	32143	12226
## 15	31585	13650
##	Oxoglutaric.acid_HMDB0000208 Phenylpyruvic.acid_HMDB0000205	
## 1	40399	977
## 2	49774	3545
## 3	45311	578
## 4	36653	211
## 5	45163	208
## 6	29461	268
## 7	41290	354
## 8	48817	481
## 9	48826	252
## 10	36929	114
## 11	42570	1384
## 12	42620	1666
## 13	33122	1454
## 14	42100	789
## 15	39408	1034
##	Pimelic.acid_HMDB0000857 Phenyllactic.acid_HMDB0000779	
## 1	8686	23855
## 2	9185	33510
## 3	9038	33386
## 4	11303	22081
## 5	15221	20889
## 6	11666	14079
## 7	10093	26243
## 8	16552	22144
## 9	12343	19031
## 10	8618	13158
## 11	8303	22312
## 12	12586	30552
## 13	7572	25955
## 14	7988	23497
## 15	6746	23033
##	Phosphoenolpyruvic.acid_HMDB0000263 Ornithine_HMDB0000214	
## 1	649149	334952

## 2	696760	32627
## 3	624637	222444
## 4	740760	273977
## 5	304673	969120
## 6	288977	1132269
## 7	329431	971591
## 8	346698	299678
## 9	171188	166148
## 10	228743	474112
## 11	202864	696705
## 12	768181	242557
## 13	668421	410846
## 14	620778	80582
## 15	641246	39780
##	Hypotaurine_HMDB0000965	Triethanolamine_HMDB0032538
## 1	105997	698803
## 2	102106	1092816
## 3	131893	587648
## 4	94444	380579
## 5	186217	10819587
## 6	195703	7286839
## 7	203329	11151232
## 8	199124	10397322
## 9	133597	853065
## 10	129019	416806
## 11	129806	890253
## 12	103524	295391
## 13	103428	502718
## 14	164453	244595
## 15	94567	251636
##	X2.Aminobenzoic.acid_HMDB0001123	L.Glutamic.acid_HMDB0000148
## 1	7720	1446386
## 2	6483	1207672
## 3	6940	1337612
## 4	6182	1246538
## 5	20588	1679860
## 6	20469	1743756
## 7	20085	1926280
## 8	23542	1789642
## 9	17292	1352935
## 10	17240	1672296
## 11	16981	1686511
## 12	2710	1472746
## 13	5707	1347240
## 14	4148	1358641
## 15	5294	1024944
##	X4.Hydroxybenzoic.acid_HMDB0000500	X5.Aminopentanoic.acid_HMDB0003355
## 1	277773	23470
## 2	303932	34935
## 3	315397	27436
## 4	249149	23159
## 5	504929	29067
## 6	466378	18479
## 7	568155	34820

## 8	554804	37412
## 9	384396	22976
## 10	421851	20851
## 11	376491	7313
## 12	177761	23542
## 13	182384	28362
## 14	223034	27451
## 15	204706	30291
##	X2.3.Dihydroxybutanedioic.acid_HMDB0059916 L.Phenylalanine_HMDB0000159	
## 1	55668	2532294
## 2	68965	2034479
## 3	54046	2272331
## 4	46420	2136040
## 5	51250	4801350
## 6	46851	5349910
## 7	43217	5959800
## 8	49585	5194784
## 9	38809	3577675
## 10	53967	4432602
## 11	50481	4603140
## 12	40941	2176417
## 13	54506	1977472
## 14	56037	1927155
## 15	59985	1543841
##	Dodecanoic.acid_HMDB0000638 Lyxose_HMDB0003402_1 D.Xylose_HMDB0000098	
## 1	591234	76798 29449
## 2	713887	113615 48176
## 3	616976	111493 31184
## 4	509707	84580 22603
## 5	665545	27156 21595
## 6	539724	31842 14810
## 7	742663	41191 11935
## 8	698881	44515 24023
## 9	769412	40666 21736
## 10	907574	41861 21970
## 11	751373	41152 22715
## 12	489745	78236 35204
## 13	539113	41308 182297
## 14	675652	96669 46890
## 15	624294	94802 33701
##	Lyxose_HMDB0003402_2 D.Arabinose_HMDB0029942 L.Asparagine_HMDB0000168	
## 1	35805	392308 398757
## 2	38493	577414 128257
## 3	35555	557332 280418
## 4	30836	524754 417223
## 5	99432	88488 482668
## 6	22282	69352 594513
## 7	25662	80741 582536
## 8	29129	129655 384531
## 9	24760	92462 182568
## 10	29056	109075 489900
## 11	31491	87711 539131
## 12	38924	411089 361996
## 13	319904	184148 422850

## 14	64139	528881	145074
## 15	42394	621875	114993
##	D.Ribulose_HMDB0000621	D.Ribose_HMDB0000283	D.Xylulose_HMDB0001644
## 1	173138	105963	232025
## 2	342430	127563	512322
## 3	295926	139605	425751
## 4	186999	127796	294195
## 5	65866	21398	81658
## 6	33909	13075	43919
## 7	30091	23992	72690
## 8	42315	30583	76817
## 9	38103	20230	44925
## 10	46295	30789	72131
## 11	42893	20600	57279
## 12	125723	105046	205062
## 13	384919	45483	610137
## 14	236397	133523	361226
## 15	410476	165229	613021
##	X3.Sulfinioalanine_HMDB0000996	Suberic.acid_HMDB0000893	L.Lysine_HMDB0000182
## 1	28609	39544	45564
## 2	12926	49231	3383
## 3	22097	33017	20114
## 4	19064	33682	37748
## 5	21470	63664	90454
## 6	27149	42945	128825
## 7	26194	53036	94919
## 8	20791	45499	13240
## 9	16823	32598	4878
## 10	30024	41683	75520
## 11	33136	33556	108843
## 12	28053	41139	38929
## 13	25335	38630	57159
## 14	17765	38552	2793
## 15	13457	30331	5567
##	Levoglucozan_HMDB0000640	D.Arabitol_HMDB0000568	Ribitol_HMDB0000508
## 1	626574	67512	20632
## 2	788246	88841	23165
## 3	747172	89559	23918
## 4	593153	64430	16406
## 5	826549	108421	19326
## 6	742335	80360	21918
## 7	793700	90777	21519
## 8	776235	98371	19025
## 9	691618	79741	19494
## 10	749954	103683	21477
## 11	779631	91778	20942
## 12	692343	111851	17633
## 13	9020978	73884	21461
## 14	1441645	88630	21387
## 15	787556	98526	19162
##	cis.Aconitic.acid_HMDB0000072	Quinolinic.acid_HMDB0000232	
## 1	19557	4045	
## 2	23126	6039	
## 3	13757	4855	

## 4	17060	3316
## 5	20139	5719
## 6	16478	4506
## 7	16887	4421
## 8	23819	5741
## 9	19760	2982
## 10	19966	4104
## 11	16719	3662
## 12	20512	6041
## 13	43756	4297
## 14	23366	4841
## 15	15798	3945
##	Putrescine_HMDB0001414	Glycerol.3.phosphate_HMDB0000126
## 1	68716	540651
## 2	59632	433681
## 3	43895	404958
## 4	28279	361450
## 5	51691	263450
## 6	36393	217189
## 7	47694	255457
## 8	59560	252224
## 9	46263	289528
## 10	43533	368899
## 11	25010	325432
## 12	55363	580979
## 13	23909	346663
## 14	37416	417630
## 15	44909	396048
##	Vanillic.acid_HMDB0000484	L.Glutamine_HMDB0000641
## 1	84490	687131
## 2	103156	56826
## 3	105500	377453
## 4	78016	630971
## 5	105774	415339
## 6	105835	660124
## 7	125802	739962
## 8	111451	414430
## 9	98260	140524
## 10	104171	511249
## 11	105694	707916
## 12	81299	386198
## 13	103370	663921
## 14	110020	146112
## 15	97854	124736
##	X2.Phosphoglyceric.acid_HMDB0000362	Azelaic.acid_HMDB0000784
## 1	109426	95209
## 2	132973	101596
## 3	116104	91873
## 4	93904	81372
## 5	111332	133913
## 6	93307	81298
## 7	139018	93040
## 8	136732	89327
## 9	61853	65198

## 10	89368	82240	
## 11	80435	58527	
## 12	97021	191391	
## 13	102598	77436	
## 14	107627	83426	
## 15	104774	59019	
##	L.Dihydroorotic.acid_HMDB0003349 O.Phosphoethanolamine_HMDB0000224		
## 1	272599	25862	
## 2	390597	28208	
## 3	347134	21293	
## 4	300575	19128	
## 5	95005	30152	
## 6	70014	21012	
## 7	86203	26550	
## 8	107550	27200	
## 9	83355	35956	
## 10	99786	37979	
## 11	89252	36375	
## 12	229853	18907	
## 13	161994	18447	
## 14	335334	19548	
## 15	385182	17989	
##	X3.Phosphoglyceric.acid_HMDB0000807 Isocitric.acid_HMDB0000193		
## 1	477080	57992	
## 2	641578	65799	
## 3	548247	70007	
## 4	471802	48111	
## 5	595320	68802	
## 6	427510	56096	
## 7	634902	72941	
## 8	717016	53287	
## 9	306371	41501	
## 10	380092	73843	
## 11	339452	56418	
## 12	491162	47538	
## 13	467674	54956	
## 14	532310	62022	
## 15	481049	51119	
##	Hypoxanthine_HMDB0000157 Citric.acid_HMDB0000094 L.Arginine_HMDB0000517		
## 1	115036	1743589	260167
## 2	-1745	2055709	195629
## 3	65070	1842605	269553
## 4	172734	1529636	217641
## 5	30036	1440109	144026
## 6	171912	1553951	182032
## 7	76392	1682331	201943
## 8	32699	1727175	144767
## 9	25918	1117959	83615
## 10	111020	1405648	217723
## 11	289517	1274472	231586
## 12	125242	1509532	134796
## 13	204853	1615935	221236
## 14	29451	1815447	176011
## 15	19474	1590287	195218

##	Ornithine_HMDB0000214.1	Dopamine_HMDB0000073	Myristic.acid_HMDB0000806
## 1	3326815	233936	1196759
## 2	1625188	126591	1497032
## 3	2390032	177560	1196371
## 4	2374826	165391	1013765
## 5	10244491	517844	1706868
## 6	11957953	601050	1561752
## 7	12308369	607333	1778420
## 8	10215403	509791	1811706
## 9	4906492	255644	1714549
## 10	6186209	355463	2106759
## 11	7690760	405602	1712948
## 12	1716930	112866	984958
## 13	3180750	199756	1069084
## 14	1382698	102019	1190743
## 15	901502	92453	1074808
##	X1.5.Anhydrosorbitol_HMDB0002712	D.Tagatose_HMDB0003418	Psicose_1
## 1	167916	6313755	42917
## 2	200476	9442854	177241
## 3	199143	9716650	170638
## 4	176138	7653830	152741
## 5	174321	2319995	20945
## 6	160918	1452237	33346
## 7	194330	1898123	8256
## 8	210918	1760101	1778544
## 9	166015	1435937	32961
## 10	198689	1850023	46971
## 11	163313	1649430	39587
## 12	191168	7155757	145360
## 13	178236	3669970	3655334
## 14	212770	8916374	187774
## 15	186244	8491777	175318
##	Sebacic.acid_HMDB0000792	D.Fructose_HMDB0000660	Gluconolactone_HMDB0000150
## 1	46012	1768738	135666
## 2	51594	2607554	188413
## 3	60692	2392059	177993
## 4	40889	1672805	124968
## 5	64699	1336231	106335
## 6	54756	770883	105292
## 7	78885	915983	107653
## 8	69088	808612	82349
## 9	47507	736939	84989
## 10	72917	928471	107893
## 11	42141	662759	90373
## 12	45388	1900792	105297
## 13	43736	1109055	158412
## 14	52095	1893886	154184
## 15	46424	2999133	185008
##	L.Sorbose_HMDB0001266	D.Mannose_HMDB0000169	
## 1	1116177	927622	
## 2	1631464	906044	
## 3	1567963	866271	
## 4	1047955	820316	
## 5	798995	1562451	

## 6	477572	1597677
## 7	549668	1776926
## 8	442749	1991898
## 9	418423	1540661
## 10	584475	1776337
## 11	415626	1601613
## 12	1235249	1067381
## 13	669091	1361195
## 14	1195104	1178135
## 15	1970325	863363
##	Hydroxyphenyllactic.acid_HMDB0000755	D.Glucose_HMDB0000122
## 1	153383	31738983
## 2	244979	32065931
## 3	196779	31795203
## 4	138814	31410070
## 5	228316	34914948
## 6	141261	34878642
## 7	215833	35303170
## 8	281013	36325095
## 9	254589	34189108
## 10	225518	34999429
## 11	150347	34948235
## 12	145014	33313534
## 13	129548	34592194
## 14	258900	33182006
## 15	216680	31988229
##	N.Acetylglutamine_HMDB00006029	L.Lysine_HMDB0000182.1 D.Mannose_HMDB0000169.1
## 1	2115882	1148646 257307
## 2	2164019	502433 211188
## 3	2121120	861905 243776
## 4	2063058	938196 256573
## 5	3627922	2352307 490379
## 6	3675413	2990136 571003
## 7	4226202	2958745 608767
## 8	4743274	2493966 638191
## 9	3643651	1525017 465371
## 10	4123844	2408638 564912
## 11	3723504	2654501 571919
## 12	2693843	820232 285214
## 13	3342754	1096886 392539
## 14	2948936	543299 266418
## 15	2059327	372657 204912
##	Tyramine_HMDB0000306	L.Histidine_HMDB0000177 D.Glucose_HMDB0000122.1
## 1	2934489	231728 19457732
## 2	1334075	104658 19531642
## 3	2221467	160374 19414313
## 4	2518874	204177 19287783
## 5	5741666	457990 24799965
## 6	7542420	560910 24628730
## 7	7183867	551746 25810716
## 8	6245438	477173 26545670
## 9	3799580	316751 24653969
## 10	5939479	493608 25440650
## 11	6733090	522786 25258778

## 12	2091885	184990	21897312
## 13	2806850	230222	23982618
## 14	1514437	108535	22983306
## 15	1022388	86125	18801515
##	X1.Hexadecanol_HMDB0003424 L.Tyrosine_HMDB0000158 Mannitol_HMDB0000765		
## 1	76452	8843292	222127
## 2	89381	3654056	235328
## 3	91567	6212319	277250
## 4	60857	7398059	199223
## 5	70015	12520300	357523
## 6	72308	16652360	278585
## 7	75340	17072848	365498
## 8	74950	13356299	504902
## 9	81618	7079334	258678
## 10	94162	11958957	356420
## 11	81274	13395049	269474
## 12	82613	7443256	274313
## 13	82976	8562839	222674
## 14	79659	4065212	217843
## 15	87279	2797268	191519
##	Sorbitol_HMDB0000247 ITSD_Sorbitol Galacturonic.acid_HMDB0002545		
## 1	9499146	3132187	734965
## 2	1120989	3981507	936243
## 3	977070	3779050	868105
## 4	1119115	3469195	786762
## 5	789331	3935257	780923
## 6	1363274	3983998	823934
## 7	836721	4499483	903777
## 8	676027	4779928	985756
## 9	649175	4168399	794923
## 10	818383	4809573	853458
## 11	1045573	4018233	818887
## 12	842304	3027301	755364
## 13	1163166	3475668	829795
## 14	567323	3828339	981735
## 15	547034	3487320	820440
##	Pantothenic.acid_HMDB0000210 Palmitoleic.acid_HMDB0003229		
## 1	7422	262778	
## 2	14699	318536	
## 3	12868	282486	
## 4	8326	213982	
## 5	11146	348481	
## 6	11214	292678	
## 7	12543	352527	
## 8	10310	382695	
## 9	10124	564179	
## 10	14528	588735	
## 11	7280	531065	
## 12	10682	227906	
## 13	8912	211361	
## 14	13729	276833	
## 15	15848	252799	
##	Xanthine_HMDB0000292 Gluconic.acid_HMDB0000625 Palmitic.acid_HMDB0000220		
## 1	13680	682965	17594904

## 2	2066	714041	19088825
## 3	4859	645082	17510774
## 4	10484	568915	16103977
## 5	8812	545401	19163863
## 6	34834	585756	16650636
## 7	19926	633360	18803591
## 8	7913	543807	19352309
## 9	1467	441296	20752714
## 10	3285	438283	21058671
## 11	7876	437594	19413973
## 12	7450	464352	16918820
## 13	10960	685300	17217125
## 14	1191	747714	18083739
## 15	1380	653351	18047622
##	Glucaric.acid_HMDB0000663 N.Acetylmannosamine_HMDB0001129		
## 1	30770	104170	
## 2	47246	72816	
## 3	38712	84168	
## 4	36779	63175	
## 5	41436	90263	
## 6	56719	92019	
## 7	52910	109794	
## 8	52533	110838	
## 9	43503	103993	
## 10	45811	111020	
## 11	42778	107247	
## 12	32753	80515	
## 13	40155	95326	
## 14	36819	114676	
## 15	37716	81037	
##	N.Acetyl.D.glucosamine_HMDB0000215 D.Ribulose.5.phosphate_HMDB0000618		
## 1	84938	79736	
## 2	78564	92881	
## 3	86309	87390	
## 4	67836	65656	
## 5	100614	29153	
## 6	96466	28370	
## 7	107933	30201	
## 8	124828	24372	
## 9	102819	24140	
## 10	111217	55035	
## 11	97538	22502	
## 12	75308	92944	
## 13	89353	71991	
## 14	86578	123200	
## 15	78093	103961	
##	Uric.acid_HMDB0000289 D.Ribose.5.phosphate_HMDB0001548		
## 1	3349376	58293	
## 2	1727598	80330	
## 3	2604185	85460	
## 4	3380602	81699	
## 5	3272359	21332	
## 6	4777294	14453	
## 7	4171519	25153	

## 8	3102649	26961	
## 9	2747975	28245	
## 10	4313515	27817	
## 11	4610786	33485	
## 12	2801077	107450	
## 13	4101262	50606	
## 14	1991975	95294	
## 15	1697495	98035	
##	myo.Inositol_HMDB0000211 D.Ribose.5.phosphate_HMDB0001548.1		
## 1	3844579	92640	
## 2	4127216	136925	
## 3	3917267	113367	
## 4	3179437	122284	
## 5	4547084	44812	
## 6	3727504	25971	
## 7	4207286	27130	
## 8	4021807	23707	
## 9	3516268	38696	
## 10	4606679	43480	
## 11	3768498	48280	
## 12	3765528	117017	
## 13	3652165	107835	
## 14	3886630	154836	
## 15	3395659	150935	
##	Heptadecanoic.acid_HMDB0002259 Octadecanol_HMDB0002350		
## 1	360128	271869	
## 2	403091	400659	
## 3	365024	333780	
## 4	315927	243180	
## 5	315941	302037	
## 6	255919	216426	
## 7	323480	285183	
## 8	333495	314626	
## 9	231461	312598	
## 10	263247	330352	
## 11	231068	256669	
## 12	260261	276772	
## 13	276645	260387	
## 14	290514	319891	
## 15	265493	306788	
##	Glutathione_HMDB0000125 Linoleic.acid_HMDB0000673 Oleic.acid_HMDB0000207		
## 1	806910	1515528	2535293
## 2	685959	1953155	2956247
## 3	591476	1269616	2296064
## 4	709058	982849	1881566
## 5	625585	1458551	2804603
## 6	598054	1041718	2454353
## 7	764989	1401115	2901689
## 8	657246	1727321	3251243
## 9	384816	3039882	6002062
## 10	699244	2985887	6309518
## 11	746106	2484597	5484412
## 12	708217	1160219	1873622
## 13	756451	1005039	1788166

## 14	708669	1497384	2292837
## 15	398366	1493449	2140518
##	Elaidic.acid_HMDB0000573	alpha.Glucose.1.6.bisphosphate_HMDB0003514	
## 1	201444		123978
## 2	226354		146104
## 3	216184		101316
## 4	162843		118005
## 5	246439		72154
## 6	181922		54450
## 7	254410		74143
## 8	272578		78474
## 9	399179		52257
## 10	458180		70253
## 11	356086		49005
## 12	173921		113969
## 13	168650		117606
## 14	221894		130224
## 15	187304		124937
##	Stearic.acid_HMDB0000827	L.Tryptophan_HMDB0000929	
## 1	8978039	92130	
## 2	11197669	114222	
## 3	8949345	86550	
## 4	7416472	77083	
## 5	10472389	110507	
## 6	6675165	66942	
## 7	9165772	100148	
## 8	9657400	100908	
## 9	10980491	112222	
## 10	11287359	116373	
## 11	9071181	93444	
## 12	8779521	93811	
## 13	8603045	89806	
## 14	9641531	102342	
## 15	9702029	104012	
##	Fructose.1.phosphate_HMDB0001076	Mannose.6.phosphate_HMDB0001078	
## 1	68149		29166
## 2	80515		30223
## 3	70584		21593
## 4	58868		22126
## 5	53074		21825
## 6	17344		21477
## 7	35164		20543
## 8	25953		21531
## 9	26382		21027
## 10	38852		22152
## 11	18344		26187
## 12	56298		35363
## 13	38810		31304
## 14	75170		25478
## 15	53098		21181
##	Arachidonic.acid_HMDB0001043	Glucose.6.phosphate_HMDB0001401	
## 1	84201		12078
## 2	64765		23906
## 3	86401		19011

## 4	118340	13230
## 5	77179	11041
## 6	96562	4518
## 7	88080	9832
## 8	74902	3653
## 9	455773	8297
## 10	542560	8667
## 11	490837	6691
## 12	96604	10186
## 13	107051	9464
## 14	68546	21250
## 15	73055	15895
##	X6.Phosphogluconic.acid_HMDB0001316 Inositol.phosphate_HMDB0002985	
## 1	51501	222236
## 2	74334	226651
## 3	56567	232457
## 4	41611	193257
## 5	47051	183886
## 6	45513	192094
## 7	47624	199781
## 8	51767	215647
## 9	63041	228354
## 10	60624	294343
## 11	57422	216111
## 12	51160	214013
## 13	49595	212665
## 14	63259	260669
## 15	57519	240029
##	Uridine_HMDB0000296 Stigmasterol_HMDB0000937	
## 1	77706	5078807
## 2	83926	6326150
## 3	122566	5855086
## 4	65270	3819777
## 5	89554	6889005
## 6	69398	3981796
## 7	76903	6341711
## 8	119234	7092788
## 9	84074	6919589
## 10	104201	6089486
## 11	78502	5404848
## 12	56187	4706109
## 13	70600	4675317
## 14	82090	5852278
## 15	85698	6047077
##	D.Sedoheptulose.7.phosphate_HMDB0001068 Sucrose_HMDB0000258	
## 1	2832	1582940
## 2	8365	1453751
## 3	4165	1360706
## 4	4352	699933
## 5	6580	2377553
## 6	2863	1849690
## 7	2523	1640040
## 8	6227	1702734
## 9	5641	2555027

## 10		4372	2743023
## 11		5691	1295047
## 12		3759	1993969
## 13		6412	1860120
## 14		6495	966079
## 15		3098	962019
##	MG.18.0e.0.0.0.0._HMDB0011143	Trehalose_HMDB0000975	D.Maltose_HMDB0000163
## 1		226467	2250788 856000
## 2		279571	439349 205406
## 3		251630	366872 158065
## 4		191838	224136 76907
## 5		239961	2110805 831730
## 6		158963	512520 216781
## 7		230621	572257 232393
## 8		261009	611152 255378
## 9		292232	405252 170659
## 10		281899	478809 209904
## 11		248246	412413 170477
## 12		222420	8848515 3354293
## 13		193325	786710 310727
## 14		265925	604507 242247
## 15		257435	304054 136614
##	Lactitol_HMDB0040937	Xanthylic.acid_HMDB0001554	
## 1		38063	364001
## 2		39952	134353
## 3		51457	195269
## 4		39453	407070
## 5		50190	9796
## 6		46054	129625
## 7		51065	50165
## 8		53199	6913
## 9		43887	4526
## 10		53412	24346
## 11		38978	67967
## 12		53638	360786
## 13		44281	446259
## 14		89800	128876
## 15		42446	139153
##	Adenosine.monophosphate_HMDB0000045	Cholesterol_HMDB0000067	
## 1		7301	5644816
## 2		14407	6020618
## 3		7742	6263993
## 4		5052	5277272
## 5		1551	5116960
## 6		1199	5653514
## 7		3331	6235203
## 8		1454	6238185
## 9		113	6015531
## 10		2641	7386359
## 11		2736	6591402
## 12		8572	5729825
## 13		4900	6538775
## 14		12029	6996995
## 15		10073	5841090


```
##      Lathosterol_HMDB0001170 X7b.Hydroxycholesterol_HMDB0006119
## 1                23558                        525597
## 2                23632                        535842
## 3                24783                        554371
## 4                18253                        480930
## 5                20178                        428768
## 6                21400                        316166
## 7                25484                        443281
## 8                28553                        435282
## 9                34844                        10153
## 10               37677                        13283
## 11               32515                        9701
## 12               24820                        390464
## 13               26001                        410805
## 14               29921                        478722
## 15               26089                        413517
```

```
Group <- study_sc$Group
x <- as.matrix(study_sc[, 3:188])
```

```
# Splits the data into subsets, computes summary statistics for each, and returns the result in a convenient format
```

```
# Sample size of each group
table(Group)
```

```
## Group
## -20degC 2_8degC      BHT      RT
##         4       4       3       4
```

```
# The mean of each group
aggregate(x, by = list(Group), FUN = mean)
```

```
##      Group.1 Dimethylglycine_HMDB0000092 Glyoxylic.acid_HMDB0000119
## 1 -20degC                1482849.2                1646757
## 2 2_8degC                1442034.8                1599840
## 3      BHT                614863.3                666643
## 4      RT                687221.2                761638
##      Pyruvic.acid_HMDB0000243 L.Lactic.acid_HMDB0000190
## 1                117214.0                1506607
## 2                116879.0                2117696
## 3                133748.0                2627019
## 4                150234.8                3663589
##      Alpha.Hydroxyisobutyric.acid_HMDB0000729 Glycolic.acid_HMDB0000115
## 1                77889.50                4357111
## 2                80775.50                4959128
## 3                86004.33                4607680
## 4                86323.75                3788030
##      Caproic.acid_HMDB0000535 L.Alanine_HMDB0000161
## 1                1878242.5                470543.5
## 2                2475807.2                511879.5
## 3                741995.3                578730.7
## 4                938999.2                780281.0
```

##	Alpha.ketoisovaleric.acid_HMDB0000019		Glycine_HMDB0000123	
## 1	18387.00		339380.8	
## 2	18656.25		309389.2	
## 3	16040.33		384816.7	
## 4	22131.00		528679.5	
##	Oxalic.acid_HMDB0002329		Hydroxylamine_HMDB0003338	
## 1	861818.8		22518523	
## 2	872873.8		24361239	
## 3	834482.3		24507476	
## 4	798390.5		24782403	
##	X2.Hydroxybutyric.acid_HMDB0000008		Acetoacetic.acid_HMDB0000060	
## 1	680302.2		2189533	
## 2	716717.8		2382138	
## 3	684107.3		2324675	
## 4	704664.8		2179372	
##	Hydroxypropionic.acid_HMDB0000700		Pyruvic.acid_HMDB0000243.1	
## 1	2449292		55896.50	
## 2	3001855		56610.00	
## 3	3529627		58715.67	
## 4	3406278		63390.50	
##	X3.Hydroxybutyric.acid_HMDB0000357		X.S..3.Hydroxyisobutyric.acid_HMDB0000023	
## 1	3057162		1303198	
## 2	3136823		1408747	
## 3	3211327		1374587	
## 4	3097409		1395053	
##	X2.Hydroxy.3.methylbutyric.acid_HMDB0000407			
## 1	134850.8			
## 2	143159.2			
## 3	136195.0			
## 4	124262.5			
##	D.Alpha.aminobutyric.acid_HMDB0000650		X3.Methyl.2.oxovaleric.acid_HMDB0000491	
## 1	64295.25		56805.75	
## 2	68849.75		63588.50	
## 3	81051.00		55037.33	
## 4	89512.50		61214.75	
##	Beta.Alanine_HMDB0000056		X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	
## 1	78720.25		2452.250	
## 2	67926.75		2344.000	
## 3	108598.33		2155.333	
## 4	116375.25		3040.500	
##	X3.Methyl.2.oxovaleric.acid_HMDB0000491.1		Malonic.acid_HMDB0000691	
## 1	43558.25		65524.00	
## 2	44489.00		66440.75	
## 3	43062.33		69640.33	
## 4	52742.25		80579.00	
##	X3.Aminoisobutanoic.acid_HMDB0003911		X3.Hydroxyisovaleric.acid_HMDB0000754	
## 1	10647.50		401076.0	
## 2	10188.75		464510.8	
## 3	17121.67		537024.0	
## 4	17675.50		542847.2	
##	Ketoleucine_HMDB0000695		L.Valine_HMDB0000883 ITSD_Valine Urea_HMDB0000294	
## 1	157684.5	22237656	3937020	37261796
## 2	167699.0	23048913	4222659	37041205
## 3	142064.0	24273669	5223891	37312556

## 4	163386.8	25578894	5513721	38601855
##	Benzoic.acid_HMDB00001870	Caprylic.acid_HMDB0000482	Glycerol_HMDB0000131	
## 1	5720230	521234.8	1906838	
## 2	9073470	571530.8	2782126	
## 3	8615643	376394.3	4320329	
## 4	5351600	348399.5	5360052	
##	Ethanolamine_HMDB0000149	L.Leucine_HMDB0000687	Acetylglycine_HMDB0000532	
## 1	1422066	17114402	33959.50	
## 2	1814502	18686040	40188.50	
## 3	2237890	21161029	37162.33	
## 4	3607277	22762711	34809.25	
##	L.Isoleucine_HMDB0000172	Nicotinic.acid_HMDB0001488	Maleic.acid_HMDB0000176	
## 1	9806695	25958.50	27938.50	
## 2	11263430	26096.50	30267.50	
## 3	13449455	23171.67	24872.33	
## 4	16331036	24130.00	24461.50	
##	L.Proline_HMDB0000162	Phenylacetic.acid_HMDB0000209	Succinic.acid_HMDB0000254	
## 1	19959130	42459.00	610001.0	
## 2	21151008	43509.25	737502.8	
## 3	21480971	34061.00	768326.0	
## 4	23208501	34787.50	853307.2	
##	Glycine_HMDB0000123.1	Methylsuccinic.acid_HMDB0001844		
## 1	19862854	26218.00		
## 2	21518246	28717.25		
## 3	23835199	32729.67		
## 4	26480913	26812.75		
##	Glyceric.acid_HMDB0000139	Fumaric.acid_HMDB0000134	Uracil_HMDB0000300	
## 1	2674896	239662.0	102230.2	
## 2	2902116	243156.8	109602.5	
## 3	2544716	268010.0	103655.3	
## 4	2352006	314397.0	129143.0	
##	Pelargonic.acid_HMDB0000847	L.Serine_HMDB0000187	L.Threonine_HMDB0000167	
## 1	1924104	10137255	4254695	
## 2	2049301	15239955	5022002	
## 3	1056564	16555465	5500508	
## 4	1000121	24361473	7921082	
##	Mesaconic.acid_HMDB0000749	Glutaric.acid_HMDB0000661	Thymine_HMDB0000262	
## 1	12799.50	209554.5	6573.000	
## 2	12201.00	223690.2	7204.500	
## 3	12009.00	181504.7	7237.333	
## 4	12510.25	224448.2	9658.500	
##	Beta.Alanine_HMDB0000056.1	L.Homoserine_HMDB0000719	Capric.acid_HMDB0000511	
## 1	321989.5	8348.75	586001.2	
## 2	345904.0	14125.00	731806.5	
## 3	555225.3	15245.00	757358.3	
## 4	612692.8	6010.50	429710.5	
##	Citramalic.acid_HMDB0000426	Malic.acid_HMDB0000744	Niacinamide_HMDB0001406	
## 1	49206.25	154183.5	979177.5	
## 2	48251.25	180818.0	978606.2	
## 3	47557.33	134080.0	1087050.7	
## 4	82617.50	152572.2	1260362.2	
##	Adipic.acid_HMDB0000448	D.Threitol_HMDB00004136	Dihydrouracil_HMDB0000076	
## 1	86029.00	57699.25	26915.00	
## 2	101748.75	50487.00	31188.75	

## 3	94238.33	59071.67	28046.67
## 4	135240.50	58863.75	34629.00
##	Erythritol_HMDB0002994 N.Acetylserine_HMDB0002931 L.Aspartic.acid_HMDB0000191		
## 1	642854.2	14515.75	14557940
## 2	658125.0	32738.50	16326106
## 3	679135.0	27149.33	17062809
## 4	710326.2	70005.25	20376938
##	L.Methionine_HMDB0000696 X4.Hydroxyproline_HMDB0000725		
## 1	32369.50	4905558	
## 2	25203.25	5383131	
## 3	111041.67	5689597	
## 4	150772.75	7202236	
##	Pyroglutamic.acid_HMDB0000267 Cytosine_HMDB0000630		
## 1	28940628	61109.5	
## 2	29343081	58057.0	
## 3	30048365	57095.0	
## 4	31998589	63255.5	
##	Gamma.Aminobutyric.acid_HMDB0000112 Threonic.acid_HMDB0000943		
## 1	156629.0	2704242	
## 2	147845.0	2795014	
## 3	154776.7	2512812	
## 4	192983.8	2505144	
##	L.Cysteine_HMDB0000574 L.2.Hydroxyglutaric.acid_HMDB0000694		
## 1	1729906	388062.5	
## 2	1768081	441090.2	
## 3	1648783	322548.3	
## 4	1669393	344429.5	
##	Creatinine_HMDB0000562 X3.Hydroxyglutaric.acid_HMDB0000428		
## 1	29633.25	12711.50	
## 2	29363.00	12467.50	
## 3	62668.33	8572.00	
## 4	58606.75	9213.25	
##	Oxoglutaric.acid_HMDB0000208 Phenylpyruvic.acid_HMDB0000205		
## 1	39312.50	1235.7500	
## 2	43034.25	1327.7500	
## 3	42775.00	583.3333	
## 4	41182.75	327.7500	
##	Pimelic.acid_HMDB0000857 Phenyllactic.acid_HMDB0000779		
## 1	8723.000	25759.25	
## 2	9553.000	28208.00	
## 3	9754.667	18167.00	
## 4	13383.000	20838.75	
##	Phosphoenolpyruvic.acid_HMDB0000263 Ornithine_HMDB0000214		
## 1	674656.5	193441.2	
## 2	677826.5	216000.0	
## 3	200931.7	445655.0	
## 4	317444.8	843164.5	
##	Hypotaurine_HMDB0000965 Triethanolamine_HMDB0032538		
## 1	116493.0	323585.0	
## 2	108610.0	689961.5	
## 3	130807.3	720041.3	
## 4	196093.2	9913745.0	
##	X2.Aminobenzoic.acid_HMDB0001123 L.Glutamic.acid_HMDB0000148		
## 1	4464.75	1300893	

## 2	6831.25	1309552
## 3	17171.00	1570581
## 4	21171.00	1784884
##	X4.Hydroxybenzoic.acid_HMDB0000500	X5.Aminopentanoic.acid_HMDB0003355
## 1	196971.2	27411.50
## 2	286562.8	27250.00
## 3	394246.0	17046.67
## 4	523566.5	29944.50
##	X2.3.Dihydroxybutanedioic.acid_HMDB0059916	L.Phenylalanine_HMDB0000159
## 1	52867.25	1906221
## 2	56274.75	2243786
## 3	47752.33	4204472
## 4	47725.75	5326461
##	Dodecanoic.acid_HMDB0000638	Lyxose_HMDB0003402_1
## 1	582201.0	77753.75
## 2	607951.0	96621.50
## 3	809453.0	41226.33
## 4	661703.2	36176.00
##	Lyxose_HMDB0003402_2	D.Arabinose_HMDB0029942
## 1	116340.25	436498.2
## 2	35172.25	512952.0
## 3	28435.67	96416.0
## 4	44126.25	92059.0
##	D.Ribulose_HMDB0000621	D.Ribose_HMDB0000283
## 1	289378.75	112320.2
## 2	249623.25	125231.8
## 3	42430.33	23873.0
## 4	43045.25	22262.0
##	X3.Sulfinolalanine_HMDB0000996	Suberic.acid_HMDB0000893
## 1	21152.5	37163.00
## 2	20674.0	38868.50
## 3	26661.0	35945.67
## 4	23901.0	51286.00
##	Levoglucozan_HMDB0000640	D.Arabitol_HMDB0000568
## 1	2985630.5	93222.75
## 2	688786.2	77585.50
## 3	740401.0	91734.00
## 4	784704.8	94482.25
##	cis.Aconitic.acid_HMDB0000072	Quinolinic.acid_HMDB0000232
## 1	25858.00	4781.000
## 2	18375.00	4563.750
## 3	18815.00	3582.667
## 4	19330.75	5096.750
##	Putrescine_HMDB0001414	Glycerol.3.phosphate_HMDB0000126
## 1	40399.25	435330
## 2	50130.50	435185
## 3	38268.67	327953
## 4	48834.50	247080
##	Vanillic.acid_HMDB0000484	L.Glutamine_HMDB0000641
## 1	98135.75	330241.8
## 2	92790.50	438095.2
## 3	102708.33	453229.7
## 4	112215.50	557463.8
##	X2.Phosphoglyceric.acid_HMDB0000362	Azelaic.acid_HMDB0000784

## 1	103005.00	102818.0	
## 2	113101.75	92512.5	
## 3	77218.67	68655.0	
## 4	120097.25	99394.5	
##	L.Dihydroorotic.acid_HMDB0003349	O.Phosphoethanolamine_HMDB0000224	
## 1	278090.75	18722.75	
## 2	327726.25	23622.75	
## 3	90797.67	36770.00	
## 4	89693.00	26228.50	
##	X3.Phosphoglyceric.acid_HMDB0000807	Isocitric.acid_HMDB0000193	
## 1	493048.8	53908.75	
## 2	534676.8	60477.25	
## 3	341971.7	57254.00	
## 4	593687.0	62781.50	
##	Hypoxanthine_HMDB0000157	Citric.acid_HMDB0000094	L.Arginine_HMDB0000517
## 1	94755.00	1632800	181815.2
## 2	87773.75	1792885	235747.5
## 3	142151.67	1266026	177641.3
## 4	77759.75	1600892	168192.0
##	Ornithine_HMDB0000214.1	Dopamine_HMDB0000073	Myristic.acid_HMDB0000806
## 1	1795470	126773.5	1079898
## 2	2429215	175869.5	1225982
## 3	6261154	338903.0	1844752
## 4	11181554	559004.5	1714686
##	X1.5.Anhydrosorbitol_HMDB0002712	D.Tagatose_HMDB0003418	Psicose_1
## 1	192104.5	7058470	1040946.50
## 2	185918.2	8281772	135884.25
## 3	176005.7	1645130	39839.67
## 4	185121.8	1857614	460272.75
##	Sebacic.acid_HMDB0000792	D.Fructose_HMDB0000660	Gluconolactone_HMDB0000150
## 1	46910.75	1975716.5	150725.25
## 2	49796.75	2110289.0	156760.00
## 3	54188.33	776056.3	94418.33
## 4	66857.00	957927.2	100407.25
##	L.Sorbose_HMDB0001266	D.Mannose_HMDB0000169	
## 1	1267442.2	1117518.5	
## 2	1340889.8	880063.2	
## 3	472841.3	1639537.0	
## 4	567246.0	1732238.0	
##	Hydroxyphenyllactic.acid_HMDB0000755	D.Glucose_HMDB0000122	
## 1	187535.5	33268991	
## 2	183488.8	31752547	
## 3	210151.3	34712257	
## 4	216605.8	35355464	
##	N.Acetylglutamine_HMDB0006029	L.Lysine_HMDB0000182.1	D.Mannose_HMDB0000169.1
## 1	2761215	708268.5	287270.8
## 2	2116020	862795.0	242211.0
## 3	3830333	2196052.0	534067.3
## 4	4068203	2698788.5	577085.0
##	Tyramine_HMDB0000306	L.Histidine_HMDB0000177	D.Glucose_HMDB0000122.1
## 1	1858890	152468.0	21916188
## 2	2252226	175234.2	19422868
## 3	5490716	444381.7	25117799
## 4	6678348	511954.8	25446270

##	X1.Hexadecanol_HMDB0003424	L.Tyrosine_HMDB0000158	Mannitol_HMDB0000765
## 1	83131.75	5717144	226587.2
## 2	79564.25	6526932	233482.0
## 3	85684.67	10811113	294857.3
## 4	73153.25	14900452	376627.0
##	Sorbitol_HMDB0000247	ITSD_Sorbitol	Galacturonic.acid_HMDB0002545
## 1	779956.8	3454657	846833.5
## 2	3179080.0	3590485	831518.8
## 3	837710.3	4332068	822422.7
## 4	916338.2	4299666	873597.5
##	Pantothenic.acid_HMDB0000210	Palmitoleic.acid_HMDB0003229	
## 1	12292.75	242224.8	
## 2	10828.75	269445.5	
## 3	10644.00	561326.3	
## 4	11303.25	344095.2	
##	Xanthine_HMDB0000292	Gluconic.acid_HMDB0000625	Palmitic.acid_HMDB0000220
## 1	5245.250	637679.2	17566826
## 2	7772.250	652750.8	17574620
## 3	4209.333	439057.7	20408453
## 4	17871.250	577081.0	18492600
##	Glucaric.acid_HMDB0000663	N.Acetylmannosamine_HMDB0001129	
## 1	36860.75	92888.50	
## 2	38376.75	81082.25	
## 3	44030.67	107420.00	
## 4	50899.50	100728.50	
##	N.Acetyl.D.glucosamine_HMDB0000215	D.Ribulose.5.phosphate_HMDB0000618	
## 1	82333.00	98024.00	
## 2	79411.75	81415.75	
## 3	103858.00	33892.33	
## 4	107460.25	28024.00	
##	Uric.acid_HMDB0000289	D.Ribose.5.phosphate_HMDB0001548	
## 1	2647952	87846.25	
## 2	2765440	76445.50	
## 3	3890759	29849.00	
## 4	3830955	21974.75	
##	myo.Inositol_HMDB0000211	D.Ribose.5.phosphate_HMDB0001548.1	
## 1	3674996	132655.75	
## 2	3767125	116304.00	
## 3	3963815	43485.33	
## 4	4125920	30405.00	
##	Heptadecanoic.acid_HMDB0002259	Octadecanol_HMDB0002350	
## 1	273228.2	290959.5	
## 2	361042.5	312372.0	
## 3	241925.3	299873.0	
## 4	307208.8	279568.0	
##	Glutathione_HMDB0000125	Linoleic.acid_HMDB0000673	Oleic.acid_HMDB0000207
## 1	642925.8	1289023	2023786
## 2	698350.8	1430287	2417292
## 3	610055.3	2836789	5931997
## 4	661468.5	1407176	2852972
##	Elaidic.acid_HMDB0000573	alpha.Glucose.1.6.bisphosphate_HMDB0003514	
## 1	187942.2	121684.00	
## 2	201706.2	122350.75	
## 3	404481.7	57171.67	

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## 4          238837.2          69805.25
## Stearic.acid_HMDB0000827 L.Tryptophan_HMDB0000929
## 1          9181532          97492.75
## 2          9135381          92496.25
## 3          10446344          107346.33
## 4          8992682          94626.25
## Fructose.1.phosphate_HMDB0001076 Mannose.6.phosphate_HMDB0001078
## 1          55844.00          28331.5
## 2          69529.00          25777.0
## 3          27859.33          23122.0
## 4          32883.75          21344.0
## Arachidonic.acid_HMDB0001043 Glucose.6.phosphate_HMDB0001401
## 1          86314.00          14198.75
## 2          88426.75          17056.25
## 3          496390.00          7885.00
## 4          84180.75          7261.00
## X6.Phosphogluconic.acid_HMDB0001316 Inositol.phosphate_HMDB0002985
## 1          55383.25          231844.0
## 2          56003.25          218650.2
## 3          60362.33          246269.3
## 4          47988.75          197852.0
## Uridine_HMDB0000296 Stigmasterol_HMDB0000937
## 1          73643.75          5320195
## 2          87367.00          5269955
## 3          88925.67          6137974
## 4          88772.25          6076325
## D.Sedoheptulose.7.phosphate_HMDB0001068 Sucrose_HMDB0000258
## 1          4941.000          1445547
## 2          4928.500          1274332
## 3          5234.667          2197699
## 4          4548.250          1892504
## MG.18.0e.0.0.0.0._HMDB0011143 Trehalose_HMDB0000975 D.Maltose_HMDB0000163
## 1          234776.2          2635946.5          1010970.2
## 2          237376.5          820286.2          324094.5
## 3          274125.7          432158.0          183680.0
## 4          222638.5          951683.5          384070.5
## Lactitol_HMDB0040937 Xanthylic.acid_HMDB0001554
## 1          57541.25          268768.50
## 2          42231.25          275173.25
## 3          45425.67          32279.67
## 4          50127.00          49124.75
## Adenosine.monophosphate_HMDB0000045 Cholesterol_HMDB0000067
## 1          8893.50          6276671
## 2          8625.50          5801675
## 3          1830.00          6664431
## 4          1883.75          5810966
## Lathosterol_HMDB0001170 X7b.Hydroxycholesterol_.HMDB0006119
## 1          26707.75          423377.00
## 2          22556.50          524185.00
## 3          35012.00          11045.67
## 4          23903.75          405874.25

```

```

# Standard deviation of each group
aggregate(x, by = list(Group), FUN = sd)

```



```

## Group.1 Dimethylglycine_HMDB0000092 Glyoxylic.acid_HMDB0000119
## 1 -20degC 420641.99 468886.50
## 2 2_8degC 212376.22 225356.24
## 3 BHT 47030.90 35933.76
## 4 RT 69511.65 83054.72
## Pyruvic.acid_HMDB0000243 L.Lactic.acid_HMDB0000190
## 1 14307.09 208549.3
## 2 23592.36 489548.1
## 3 29108.13 170205.9
## 4 19785.65 663603.3
## Alpha.Hydroxyisobutyric.acid_HMDB0000729 Glycolic.acid_HMDB0000115
## 1 11401.875 1164545.7
## 2 13087.060 1150928.2
## 3 5707.312 1172579.3
## 4 13846.835 590838.7
## Caproic.acid_HMDB0000535 L.Alanine_HMDB0000161
## 1 489836.4 51152.45
## 2 520114.5 48742.67
## 3 205082.9 32408.03
## 4 311325.0 65065.59
## Alpha.ketoisovaleric.acid_HMDB0000019 Glycine_HMDB0000123
## 1 2783.8211 57160.71
## 2 3578.7878 86483.17
## 3 443.7413 34043.19
## 4 2330.6876 117680.66
## Oxalic.acid_HMDB0002329 Hydroxylamine_HMDB0000338
## 1 84626.13 3320287.2
## 2 30030.01 1727976.0
## 3 38682.63 819960.2
## 4 70423.04 1777317.3
## X2.Hydroxybutyric.acid_HMDB0000008 Acetoacetic.acid_HMDB0000060
## 1 110458.41 432325.5
## 2 85696.04 195939.4
## 3 35130.15 120748.1
## 4 80392.04 286796.2
## Hydroxypropionic.acid_HMDB0000700 Pyruvic.acid_HMDB0000243.1
## 1 389893.2 7795.411
## 2 379258.6 7388.482
## 3 138082.4 3759.860
## 4 319248.5 8993.042
## X3.Hydroxybutyric.acid_HMDB0000357 X.S..3.Hydroxyisobutyric.acid_HMDB0000023
## 1 698967.6 257612.2
## 2 601956.5 198026.9
## 3 388618.4 113780.0
## 4 499168.4 186873.4
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407
## 1 22204.517
## 2 18373.524
## 3 7562.586
## 4 20062.611
## D.Alpha.aminobutyric.acid_HMDB0000650 X3.Methyl.2.oxovaleric.acid_HMDB0000491
## 1 9323.786 13575.749
## 2 6892.460 4770.208
## 3 1550.557 2708.645

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## 4	5402.971	10312.337		
##	Beta.Alanine_HMDB0000056	X2.Methyl.3.hydroxybutyric.acid_HMDB0000354		
## 1	24397.136	542.3261		
## 2	4882.710	799.0202		
## 3	3379.494	418.4547		
## 4	18050.086	684.7523		
##	X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	Malonic.acid_HMDB0000691		
## 1	9177.118	4214.055		
## 2	6590.659	9804.884		
## 3	2884.279	10702.619		
## 4	11405.949	16820.090		
##	X3.Aminoisobutanoic.acid_HMDB0003911	X3.Hydroxyisovaleric.acid_HMDB0000754		
## 1	408.2209	69999.77		
## 2	1388.8521	50249.79		
## 3	2065.0725	23171.78		
## 4	2541.6527	63457.36		
##	Ketoleucine_HMDB0000695	L.Valine_HMDB0000883	ITSD_Valine	Urea_HMDB0000294
## 1	18766.07	1055445.64	478275.3	695306.66
## 2	23475.15	767526.37	319066.5	575480.66
## 3	4364.28	51774.18	194808.5	83715.02
## 4	18524.85	585899.75	394402.5	740213.86
##	Benzoic.acid_HMDB0001870	Caprylic.acid_HMDB0000482	Glycerol_HMDB0000131	
## 1	1784645.3	69573.38	183680.6	
## 2	4077476.5	147925.49	705774.5	
## 3	949799.5	33471.42	277575.9	
## 4	322710.7	68320.34	569356.0	
##	Ethanolamine_HMDB0000149	L.Leucine_HMDB0000687	Acetylglycine_HMDB0000532	
## 1	186424.9	1512691.08	7108.793	
## 2	279803.9	1207389.49	10306.334	
## 3	113417.4	95232.11	9412.994	
## 4	405869.4	904897.43	5091.741	
##	L.Isoleucine_HMDB0000172	Nicotinic.acid_HMDB0001488	Maleic.acid_HMDB0000176	
## 1	1068275.4	4359.3561	8714.438	
## 2	1258992.0	5282.5193	7686.474	
## 3	151077.9	982.3983	4897.231	
## 4	1533255.3	2933.8501	5885.525	
##	L.Proline_HMDB0000162	Phenylacetic.acid_HMDB0000209	Succinic.acid_HMDB0000254	
## 1	1862471.8	9784.372	91686.92	
## 2	1130855.2	7934.521	75156.32	
## 3	322768.6	2390.301	63803.75	
## 4	729994.0	3017.702	73932.59	
##	Glycine_HMDB0000123.1	Methylsuccinic.acid_HMDB0001844		
## 1	1280703.6	4020.161		
## 2	1691945.7	6958.096		
## 3	225768.5	6311.323		
## 4	497751.0	6731.012		
##	Glyceric.acid_HMDB0000139	Fumaric.acid_HMDB0000134	Uracil_HMDB0000300	
## 1	577713.8	28366.40	8231.328	
## 2	574615.7	45048.07	17505.560	
## 3	161964.8	26810.63	4629.229	
## 4	168017.9	53815.22	9684.675	
##	Pelargonic.acid_HMDB0000847	L.Serine_HMDB0000187	L.Threonine_HMDB0000167	
## 1	372307.7	1067799	443879.2	
## 2	473540.1	4281724	754261.1	

## 3	111438.5	2133503	19865.0
## 4	191910.2	911220	692446.3
##	Mesaconic.acid_HMDB0000749	Glutaric.acid_HMDB0000661	Thymine_HMDB0000262
## 1	2027.6059	16455.34	1433.493
## 2	1681.0031	12996.50	1970.266
## 3	2441.9066	10317.49	1589.049
## 4	911.4792	12942.48	1767.973
##	Beta.Alanine_HMDB0000056.1	L.Homoserine_HMDB0000719	Capric.acid_HMDB0000511
## 1	60291.96	2860.374	123733.12
## 2	34036.67	9206.310	255432.03
## 3	22702.21	10986.703	275967.71
## 4	49068.92	2448.614	83984.48
##	Citramalic.acid_HMDB0000426	Malic.acid_HMDB0000744	Niacinamide_HMDB00001406
## 1	5606.464	38717.57	110145.45
## 2	6333.114	35123.96	66833.18
## 3	8400.982	12852.52	61117.78
## 4	35028.275	17977.39	126495.85
##	Adipic.acid_HMDB0000448	D.Threitol_HMDB00004136	Dihydrouracil_HMDB0000076
## 1	11444.26	5325.997	5109.220
## 2	14261.66	30378.469	1770.039
## 3	12598.82	4144.434	1763.627
## 4	11821.99	7271.326	5967.560
##	Erythritol_HMDB00002994	N.Acetylserine_HMDB00002931	L.Aspartic.acid_HMDB0000191
## 1	80127.91	3453.856	1091119.7
## 2	60309.40	15268.884	1509321.4
## 3	51021.21	8054.701	113894.5
## 4	77933.64	9162.506	486851.6
##	L.Methionine_HMDB0000696	X4.Hydroxyproline_HMDB0000725	
## 1	13666.84	601850.0	
## 2	6570.66	739308.2	
## 3	15026.25	173595.6	
## 4	16210.39	639558.2	
##	Pyroglutamic.acid_HMDB0000267	Cytosine_HMDB0000630	
## 1	1030708.4	4322.973	
## 2	1304237.8	5958.761	
## 3	513331.0	12169.582	
## 4	513337.6	5758.780	
##	Gamma.Aminobutyric.acid_HMDB0000112	Threonic.acid_HMDB0000943	
## 1	60589.51	348207.6	
## 2	33730.55	278700.8	
## 3	29755.62	127575.2	
## 4	40202.08	283487.9	
##	L.Cysteine_HMDB0000574	L.2.Hydroxyglutaric.acid_HMDB0000694	
## 1	201645.0	59165.27	
## 2	162702.2	43246.10	
## 3	106033.8	26937.71	
## 4	151496.7	40081.92	
##	Creatinine_HMDB0000562	X3.Hydroxyglutaric.acid_HMDB0000428	
## 1	2776.000	1269.796	
## 2	5002.154	1614.247	
## 3	10878.096	2668.034	
## 4	9840.299	1367.443	
##	Oxoglutaric.acid_HMDB0000208	Phenylpyruvic.acid_HMDB0000205	
## 1	4360.471	397.0880	

## 2	5723.423	1510.9025	
## 3	5951.149	696.8223	
## 4	8397.124	118.4409	
##	Pimelic.acid_HMDB0000857 Phenyllactic.acid_HMDB0000779		
## 1	2626.552	3442.818	
## 2	1185.304	6094.031	
## 3	2247.089	4637.758	
## 4	3010.703	5053.261	
##	Phosphoenolpyruvic.acid_HMDB0000263 Ornithine_HMDB0000214		
## 1	65332.15	169338.1	
## 2	51544.88	130611.5	
## 3	28826.12	266420.8	
## 4	25644.71	370277.9	
##	Hypotaurine_HMDB0000965 Triethanolamine_HMDB0032538		
## 1	32247.999	121517.6	
## 2	16247.086	299196.4	
## 3	2447.759	263267.0	
## 4	7285.468	1778239.4	
##	X2.Aminobenzoic.acid_HMDB0001123 L.Glutamic.acid_HMDB0000148		
## 1	1342.9220	192496.0	
## 2	669.4542	106240.6	
## 3	166.5863	188620.6	
## 4	1595.1729	104462.1	
##	X4.Hydroxybenzoic.acid_HMDB0000500 X5.Aminopentanoic.acid_HMDB0003355		
## 1	20983.44	2838.401	
## 2	29496.63	5480.830	
## 3	24231.16	8496.300	
## 4	46839.43	8401.622	
##	X2.3.Dihydroxybutanedioic.acid_HMDB0059916 L.Phenylalanine_HMDB0000159		
## 1	8279.103	264474.4	
## 2	9371.838	215615.6	
## 3	7938.857	549478.8	
## 4	3510.516	481230.6	
##	Dodecanoic.acid_HMDB0000638 Lyxose_HMDB0003402_1 D.Xylose_HMDB0000098		
## 1	83485.72	25670.7016	72090.7697
## 2	84133.28	18689.6534	10866.3027
## 3	85452.61	600.9578	511.2439
## 4	87236.01	8058.8068	5660.6224
##	Lyxose_HMDB0003402_2 D.Arabinose_HMDB0029942 L.Asparagine_HMDB0000168		
## 1	136167.170	189055.01	154004.64
## 2	3182.102	83305.05	133193.25
## 3	3408.108	11217.43	193224.32
## 4	36976.313	26267.32	98130.72
##	D.Ribulose_HMDB0000621 D.Ribose_HMDB0000283 D.Xylulose_HMDB0001644		
## 1	133395.094	50888.850	200056.08
## 2	82722.080	14022.424	126603.77
## 3	4115.551	5992.288	13622.10
## 4	16047.882	7242.914	16968.53
##	X3.Sulfinoalanine_HMDB0000996 Suberic.acid_HMDB0000893 L.Lysine_HMDB0000182		
## 1	6728.201	4710.492	26420.10
## 2	6522.084	7505.055	18841.15
## 3	8660.879	4991.712	53087.09
## 4	3234.667	9297.653	48849.46
##	Levoglucosan_HMDB0000640 D.Arabitol_HMDB0000568 Ribitol_HMDB0000508		

## 1	4037326.25	16023.07	1855.744
## 2	93661.13	13473.35	3388.143
## 3	44777.42	11971.06	1025.932
## 4	35113.09	11868.42	1482.312
##	cis.Aconitic.acid_HMDB0000072 Quinolinic.acid_HMDB0000232		
## 1	12333.312	917.3062	
## 2	3959.136	1167.2147	
## 3	1818.109	565.1914	
## 4	3411.146	732.0922	
##	Putrescine_HMDB0001414 Glycerol.3.phosphate_HMDB0000126		
## 1	13229.76	101541.18	
## 2	17814.50	76323.57	
## 3	11563.19	39745.51	
## 4	9648.62	20478.31	
##	Vanillic.acid_HMDB0000484 L.Glutamine_HMDB0000641		
## 1	12277.192	252064.4	
## 2	13615.667	287670.9	
## 3	3926.912	288111.3	
## 4	9440.712	167832.1	
##	X2.Phosphoglyceric.acid_HMDB0000362 Azelaic.acid_HMDB0000784		
## 1	4489.475	59955.05	
## 2	16185.846	8451.84	
## 3	14036.645	12228.64	
## 4	21827.023	23528.31	
##	L.Dihydroorotic.acid_HMDB0003349 O.Phosphoethanolamine_HMDB0000224		
## 1	100913.596	665.6858	
## 2	51979.470	4150.0711	
## 3	8323.837	1067.7785	
## 4	15774.800	3814.5729	
##	X3.Phosphoglyceric.acid_HMDB0000807 Isocitric.acid_HMDB0000193		
## 1	27885.94	6199.213	
## 2	79336.10	9630.468	
## 3	36925.03	16187.199	
## 4	121827.99	9562.135	
##	Hypoxanthine_HMDB0000157 Citric.acid_HMDB0000094 L.Arginine_HMDB0000517		
## 1	87526.89	129931.7	36414.87
## 2	74140.72	218539.6	35006.97
## 3	134528.78	144030.3	81723.68
## 4	66268.51	129915.8	28655.43
##	Ornithine_HMDB0000214.1 Dopamine_HMDB0000073 Myristic.acid_HMDB0000806		
## 1	982298.1	49364.45	84544.01
## 2	696811.5	44394.99	200195.70
## 3	1393646.2	76338.23	226906.13
## 4	1108158.0	52343.81	110942.68
##	X1.5.Anhydrosorbitol_HMDB0002712 D.Tagatose_HMDB0003418 Psicose_1		
## 1	14771.83	2380306.2	1743015.891
## 2	16396.71	1599415.3	62836.464
## 3	19690.74	207076.5	7008.417
## 4	22005.42	360220.5	878907.191
##	Sebacic.acid_HMDB0000792 D.Fructose_HMDB0000660 Gluconolactone_HMDB0000150		
## 1	3629.104	776915.6	33216.87
## 2	8477.596	459969.6	31136.48
## 3	16439.912	137107.0	11975.89
## 4	10012.348	259585.3	12077.53

##	L.Sorbose_HMDB0001266	D.Mannose_HMDB0000169	
## 1	534894.88	208295.77	
## 2	301276.31	47246.85	
## 3	96687.71	122329.34	
## 4	160787.14	196938.76	
##	Hydroxyphenyllactic.acid_HMDB0000755	D.Glucose_HMDB0000122	
## 1		60863.02	1064701.5
## 2		47818.65	269260.4
## 3		53793.12	453783.1
## 4		57627.69	674371.9
##	N.Acetylglutamine_HMDB0006029	L.Lysine_HMDB0000182.1	D.Mannose_HMDB0000169.1
## 1	538706.02	318019.6	78109.83
## 2	41371.92	269108.2	21595.00
## 3	257304.60	593993.4	59595.84
## 4	525615.79	323760.4	64012.01
##	Tyramine_HMDB0000306	L.Histidine_HMDB0000177	D.Glucose_HMDB0000122.1
## 1	768396.2	66920.02	2244283.0
## 2	678363.6	55470.90	102255.3
## 3	1517369.8	111490.04	411853.2
## 4	830051.0	51967.70	899552.3
##	X1.Hexadecanol_HMDB0003424	L.Tyrosine_HMDB0000158	Mannitol_HMDB0000765
## 1	3138.632	2728369	34637.67
## 2	14143.101	2196724	32770.21
## 3	7343.601	3310623	53587.40
## 4	2488.189	2297681	94084.23
##	Sorbitol_HMDB0000247	ITSD_Sorbitol	Galacturonic.acid_HMDB0002545
## 1	288792.1	328521.8	95833.21
## 2	4213916.5	371125.9	88753.43
## 3	198904.5	420292.1	29427.24
## 4	305489.1	409478.8	90453.22
##	Pantothenic.acid_HMDB0000210	Palmitoleic.acid_HMDB0003229	
## 1	3094.436	28677.19	
## 2	3512.221	43591.23	
## 3	3651.873	28940.64	
## 4	923.078	37523.34	
##	Xanthine_HMDB0000292	Gluconic.acid_HMDB0000625	Palmitic.acid_HMDB0000220
## 1	4792.230	122015.465	588944.4
## 2	5269.517	62600.954	1219302.4
## 3	3302.971	1968.828	874725.5
## 4	12559.109	42242.802	1248898.2
##	Glucaric.acid_HMDB0000663	N.Acetylmannosamine_HMDB0001129	
## 1	3079.983	16064.434	
## 2	6811.545	17621.640	
## 3	1583.855	3516.693	
## 4	6586.219	11102.062	
##	N.Acetyl.D.glucosamine_HMDB0000215	D.Ribulose.5.phosphate_HMDB0000618	
## 1		6698.971	21390.05
## 2		8422.750	11808.68
## 3		6898.435	18328.39
## 4		12511.420	2547.60
##	Uric.acid_HMDB0000289	D.Ribose.5.phosphate_HMDB0001548	
## 1	1075365.3	25366.795	
## 2	779428.2	12294.485	
## 3	1000778.9	3156.132	

## 4	786129.9	5536.359	
##	myo.Inositol_HMDB0000211	D.Ribose.5.phosphate_HMDB0001548.1	
## 1	209392.3	23711.703	
## 2	409709.0	18525.630	
## 3	570842.0	4792.002	
## 4	343304.7	9709.288	
##	Heptadecanoic.acid_HMDB0002259	Octadecanol_HMDB0002350	
## 1	13397.20	27224.60	
## 2	35684.61	69954.56	
## 3	18466.15	38454.39	
## 4	34940.96	43788.73	
##	Glutathione_HMDB0000125	Linoleic.acid_HMDB0000673	Oleic.acid_HMDB0000207
## 1	164603.13	246604.7	233866.6
## 2	88460.02	410963.5	449479.4
## 3	196465.21	306199.4	416991.3
## 4	73128.53	282092.5	327734.5
##	Elaidic.acid_HMDB0000573	alpha.Glucose.1.6.bisphosphate_HMDB0003514	
## 1	23957.71	7295.316	
## 2	27854.01	18513.158	
## 3	51253.15	11444.861	
## 4	39488.74	10571.402	
##	Stearic.acid_HMDB0000827	L.Tryptophan_HMDB0000929	
## 1	571190.6	6798.462	
## 2	1556389.6	15759.320	
## 3	1200769.0	12217.359	
## 4	1636279.1	19048.762	
##	Fructose.1.phosphate_HMDB0001076	Mannose.6.phosphate_HMDB0001078	
## 1	14959.925	6259.6555	
## 2	8895.065	4549.2818	
## 3	10333.509	2713.3144	
## 4	15301.033	555.4638	
##	Arachidonic.acid_HMDB0001043	Glucose.6.phosphate_HMDB0001401	
## 1	18505.95	5511.122	
## 2	22185.89	5482.192	
## 3	43659.17	1050.453	
## 4	10060.14	3716.636	
##	X6.Phosphogluconic.acid_HMDB0001316	Inositol.phosphate_HMDB0002985	
## 1	6269.730	22975.74	
## 2	13708.165	17438.59	
## 3	2818.624	42080.65	
## 4	2671.886	13522.66	
##	Uridine_HMDB0000296	Stigmasterol_HMDB0000937	
## 1	13299.71	731309.1	
## 2	24714.52	1095061.6	
## 3	13519.01	758533.7	
## 4	21945.16	1431913.3	
##	D.Sedoheptulose.7.phosphate_HMDB0001068	Sucrose_HMDB0000258	
## 1	1767.5341	558667.0	
## 2	2388.8720	393626.2	
## 3	747.5094	787350.7	
## 4	2151.5820	335090.2	
##	MG.18.0e.0.0.0.0._HMDB0011143	Trehalose_HMDB0000975	D.Maltose_HMDB0000163
## 1	33439.23	4146490.6	1563855.96
## 2	37310.90	957849.7	358551.66

```

## 3          23000.23          40559.3          22710.83
## 4          44311.98          773811.6          298860.41
## Lactitol_HMDB0040937 Xanthylic.acid_HMDB0001554
## 1          22057.222          159520.31
## 2          6202.215          131024.37
## 3          7338.986          32456.08
## 4          2995.014          57183.78
## Adenosine.monophosphate_HMDB0000045 Cholesterol_HMDB0000067
## 1          3015.1830          598981.5
## 2          4030.3233          432541.8
## 3          1487.7241          688325.7
## 4          976.1869          538184.8
## Lathosterol_HMDB0001170 X7b.Hydroxycholesterol_HMDB0006119
## 1          2218.928          38304.088
## 2          2923.304          31198.659
## 3          2585.097          1950.723
## 4          3841.124          60099.292

```

```
# correlation matrix
```

```
data.frame(cor(x))
```

```

## Dimethylglycine_HMDB0000092
## Dimethylglycine_HMDB0000092          1.000000000
## Glyoxylic.acid_HMDB0000119          0.999743355
## Pyruvic.acid_HMDB0000243          -0.405707288
## L.Lactic.acid_HMDB0000190          -0.613372843
## Alpha.Hydroxyisobutyric.acid_HMDB0000729          -0.032011833
## Glycolic.acid_HMDB0000115          0.408296408
## Caproic.acid_HMDB0000535          0.861970602
## L.Alanine_HMDB0000161          -0.589839534
## Alpha.ketoisovaleric.acid_HMDB0000019          0.088506514
## Glycine_HMDB0000123          -0.562253742
## Oxalic.acid_HMDB00002329          0.382927917
## Hydroxylamine_HMDB00003338          -0.019232932
## X2.Hydroxybutyric.acid_HMDB0000008          0.274993038
## Acetoacetic.acid_HMDB0000060          0.307811963
## Hydroxypropionic.acid_HMDB0000700          -0.520150985
## Pyruvic.acid_HMDB0000243.1          -0.120268467
## X3.Hydroxybutyric.acid_HMDB0000357          0.170636930
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023          0.148609920
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407          0.485275642
## D.Alpha.aminobutyric.acid_HMDB0000650          -0.593269077
## X3.Methyl.2.oxovaleric.acid_HMDB0000491          0.347518822
## Beta.Alanine_HMDB0000056          -0.752642278
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354          -0.035680878
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1          -0.057554430
## Malonic.acid_HMDB0000691          -0.333212830
## X3.Aminoisobutanoic.acid_HMDB0003911          -0.784907298
## X3.Hydroxyisovaleric.acid_HMDB0000754          -0.495482866
## Ketoleucine_HMDB0000695          0.448708324
## L.Valine_HMDB0000883          -0.560946577
## ITSD_Valine          -0.678552989
## Urea_HMDB0000294          -0.316999210
## Benzoic.acid_HMDB0001870          0.236488451

```


## Caprylic.acid_HMDB0000482	0.831041774
## Glycerol_HMDB0000131	-0.757006311
## Ethanolamine_HMDB0000149	-0.608718644
## L.Leucine_HMDB0000687	-0.634418052
## Acetylglycine_HMDB0000532	0.224481515
## L.Isoleucine_HMDB0000172	-0.642618224
## Nicotinic.acid_HMDB0001488	0.264811939
## Maleic.acid_HMDB0000176	0.496887110
## L.Proline_HMDB0000162	-0.330660092
## Phenylacetic.acid_HMDB0000209	0.738863740
## Succinic.acid_HMDB0000254	-0.434429328
## Glycine_HMDB0000123.1	-0.614950220
## Methylsuccinic.acid_HMDB0001844	-0.030660108
## Glyceric.acid_HMDB0000139	0.504960140
## Fumaric.acid_HMDB0000134	-0.337916978
## Uracil_HMDB0000300	-0.182117240
## Pelargonic.acid_HMDB0000847	0.907928006
## L.Serine_HMDB0000187	-0.579024893
## L.Threonine_HMDB0000167	-0.559536171
## Mesaconic.acid_HMDB0000749	0.201938140
## Glutaric.acid_HMDB0000661	0.327662591
## Thymine_HMDB0000262	-0.287639083
## Beta.Alanine_HMDB0000056.1	-0.771866781
## L.Homoserine_HMDB0000719	0.195384872
## Capric.acid_HMDB0000511	0.352469500
## Citramalic.acid_HMDB0000426	-0.335711893
## Malic.acid_HMDB0000744	0.523405678
## Niacinamide_HMDB0001406	-0.497716035
## Adipic.acid_HMDB0000448	-0.422397329
## D.Threitol_HMDB0004136	0.113197948
## Dihydrouracil_HMDB0000076	-0.017592788
## Erythritol_HMDB0002994	-0.074283008
## N.Acetylserine_HMDB0002931	-0.461592766
## L.Aspartic.acid_HMDB0000191	-0.553250285
## L.Methionine_HMDB0000696	-0.803183175
## X4.Hydroxyproline_HMDB0000725	-0.478681732
## Pyroglutamic.acid_HMDB0000267	-0.520706416
## Cytosine_HMDB0000630	-0.021912656
## Gamma.Aminobutyric.acid_HMDB0000112	-0.317472819
## Threonic.acid_HMDB0000943	0.643920993
## L.Cysteine_HMDB0000574	0.570317574
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.722186165
## Creatinine_HMDB0000562	-0.759136051
## X3.Hydroxyglutaric.acid_HMDB0000428	0.712595435
## Oxoglutaric.acid_HMDB0000208	-0.016207448
## Phenylpyruvic.acid_HMDB0000205	0.406951145
## Pimelic.acid_HMDB0000857	-0.575639690
## Phenyllactic.acid_HMDB0000779	0.570015439
## Phosphoenolpyruvic.acid_HMDB0000263	0.794625531
## Ornithine_HMDB0000214	-0.589208655
## Hypotaurine_HMDB0000965	-0.420016169
## Triethanolamine_HMDB0032538	-0.533000540
## X2.Aminobenzoic.acid_HMDB0001123	-0.840501978
## L.Glutamic.acid_HMDB0000148	-0.666527816

## X4.Hydroxybenzoic.acid_HMDB0000500	-0.718198113
## X5.Aminopentanoic.acid_HMDB0003355	0.245122947
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.580096545
## L.Phenylalanine_HMDB0000159	-0.807975695
## Dodecanoic.acid_HMDB0000638	-0.373558446
## Lyxose_HMDB0003402_1	0.822004122
## D.Xylose_HMDB0000098	0.375012455
## Lyxose_HMDB0003402_2	0.233246686
## D.Arabinose_HMDB0029942	0.830976584
## L.Asparagine_HMDB0000168	-0.608232658
## D.Ribulose_HMDB0000621	0.800158372
## D.Ribose_HMDB0000283	0.829752105
## D.Xylulose_HMDB0001644	0.790228188
## X3.Sulfinioalanine_HMDB0000996	-0.389057590
## Suberic.acid_HMDB0000893	-0.289436711
## L.Lysine_HMDB0000182	-0.547336511
## Levoglucosan_HMDB0000640	0.227396154
## D.Arabitol_HMDB0000568	-0.260961360
## Ribitol_HMDB0000508	0.297359240
## cis.Aconitic.acid_HMDB0000072	0.191682435
## Quinolinic.acid_HMDB0000232	0.155527781
## Putrescine_HMDB0001414	-0.005274269
## Glycerol.3.phosphate_HMDB0000126	0.593263565
## Vanillic.acid_HMDB0000484	-0.173402456
## L.Glutamine_HMDB0000641	-0.359630481
## X2.Phosphoglyceric.acid_HMDB0000362	0.260431098
## Azelaic.acid_HMDB0000784	0.010227832
## L.Dihydroorotic.acid_HMDB0003349	0.861231071
## O.Phosphoethanolamine_HMDB0000224	-0.633504581
## X3.Phosphoglyceric.acid_HMDB0000807	0.207401209
## Isocitric.acid_HMDB0000193	0.101592717
## Hypoxanthine_HMDB0000157	-0.220164465
## Citric.acid_HMDB0000094	0.690432911
## L.Arginine_HMDB0000517	0.418067615
## Ornithine_HMDB0000214.1	-0.752225153
## Dopamine_HMDB0000073	-0.742474863
## Myristic.acid_HMDB0000806	-0.724059735
## X1.5.Anhydrosorbitol_HMDB0002712	0.394798688
## D.Tagatose_HMDB0003418	0.877259194
## Psicose_1	0.095802092
## Sebacic.acid_HMDB0000792	-0.353391984
## D.Fructose_HMDB0000660	0.746251661
## Gluconolactone_HMDB0000150	0.843417506
## L.Sorbose_HMDB0001266	0.742681731
## D.Mannose_HMDB0000169	-0.759903536
## Hydroxyphenyllactic.acid_HMDB0000755	-0.043699688
## D.Glucose_HMDB0000122	-0.714455323
## N.Acetylglutamine_HMDB0006029	-0.731187063
## L.Lysine_HMDB0000182.1	-0.814729625
## D.Mannose_HMDB0000169.1	-0.829947025
## Tyramine_HMDB0000306	-0.810446243
## L.Histidine_HMDB0000177	-0.841373760
## D.Glucose_HMDB0000122.1	-0.695237148
## X1.Hexadecanol_HMDB0003424	0.242022633

## L.Tyrosine_HMDB0000158	-0.739037588
## Mannitol_HMDB0000765	-0.616965708
## Sorbitol_HMDB0000247	0.192454596
## ITSD_Sorbitol	-0.545099190
## Galacturonic.acid_HMDB0002545	0.223938041
## Pantothenic.acid_HMDB0000210	0.280033402
## Palmitoleic.acid_HMDB0003229	-0.640544560
## Xanthine_HMDB0000292	-0.313902974
## Gluconic.acid_HMDB0000625	0.806110297
## Palmitic.acid_HMDB0000220	-0.479007187
## Glucaric.acid_HMDB0000663	-0.553326415
## N.Acetylmannosamine_HMDB0001129	-0.253720546
## N.Acetyl.D.glucosamine_HMDB0000215	-0.657144426
## D.Ribulose.5.phosphate_HMDB0000618	0.913563910
## Uric.acid_HMDB0000289	-0.605381250
## D.Ribose.5.phosphate_HMDB0001548	0.788295482
## myo.Inositol_HMDB0000211	-0.239491783
## D.Ribose.5.phosphate_HMDB0001548.1	0.888229951
## Heptadecanoic.acid_HMDB0002259	0.428497612
## Octadecanol_HMDB0002350	0.287842186
## Glutathione_HMDB0000125	0.145603234
## Linoleic.acid_HMDB0000673	-0.435494451
## Oleic.acid_HMDB0000207	-0.593093525
## Elaidic.acid_HMDB0000573	-0.557573745
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.850535882
## Stearic.acid_HMDB0000827	-0.083496344
## L.Tryptophan_HMDB0000929	-0.101328034
## Fructose.1.phosphate_HMDB0001076	0.821053349
## Mannose.6.phosphate_HMDB0001078	0.367546126
## Arachidonic.acid_HMDB0001043	-0.524569572
## Glucose.6.phosphate_HMDB0001401	0.833661753
## X6.Phosphogluconic.acid_HMDB0001316	0.307960223
## Inositol.phosphate_HMDB0002985	0.273493059
## Uridine_HMDB0000296	-0.042021768
## Stigmasterol_HMDB0000937	-0.220040125
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.133706762
## Sucrose_HMDB0000258	-0.603569274
## MG.18.0e.0.0.0.0._HMDB0011143	0.016970813
## Trehalose_HMDB0000975	-0.005804621
## D.Maltose_HMDB0000163	-0.008492628
## Lactitol_HMDB00040937	0.396501340
## Xanthylic.acid_HMDB0001554	0.502001222
## Adenosine.monophosphate_HMDB0000045	0.858060407
## Cholesterol_HMDB0000067	0.124813010
## Lathosterol_HMDB0001170	-0.252295274
## X7b.Hydroxycholesterol_.HMDB0006119	0.644729810
## Glyoxylic.acid_HMDB0000119	
## Dimethylglycine_HMDB0000092	0.999743355
## Glyoxylic.acid_HMDB0000119	1.000000000
## Pyruvic.acid_HMDB0000243	-0.408884686
## L.Lactic.acid_HMDB0000190	-0.613252660
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.038873773
## Glycolic.acid_HMDB0000115	0.392191150
## Caproic.acid_HMDB0000535	0.861485086

## L.Alanine_HMDB0000161	-0.588501831
## Alpha.ketoisovaleric.acid_HMDB0000019	0.091060833
## Glycine_HMDB0000123	-0.557738118
## Oxalic.acid_HMDB0002329	0.378258901
## Hydroxylamine_HMDB0003338	-0.024335500
## X2.Hydroxybutyric.acid_HMDB0000008	0.267465356
## Acetoacetic.acid_HMDB0000060	0.302699233
## Hydroxypropionic.acid_HMDB0000700	-0.527286524
## Pyruvic.acid_HMDB0000243.1	-0.125547600
## X3.Hydroxybutyric.acid_HMDB0000357	0.164670878
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.141375945
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.471874297
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.597960317
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.343282539
## Beta.Alanine_HMDB0000056	-0.751463955
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.032786935
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.063745052
## Malonic.acid_HMDB0000691	-0.330939747
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.789241521
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.501554812
## Ketoleucine_HMDB0000695	0.446849002
## L.Valine_HMDB0000883	-0.563753885
## ITSD_Valine	-0.684256588
## Urea_HMDB0000294	-0.318009820
## Benzoic.acid_HMDB0001870	0.225128907
## Caprylic.acid_HMDB0000482	0.826809024
## Glycerol_HMDB0000131	-0.756738912
## Ethanolamine_HMDB0000149	-0.607481183
## L.Leucine_HMDB0000687	-0.637023476
## Acetyl glycine_HMDB0000532	0.209371647
## L.Isoleucine_HMDB0000172	-0.643444441
## Nicotinic.acid_HMDB0001488	0.269885994
## Maleic.acid_HMDB0000176	0.490625059
## L.Proline_HMDB0000162	-0.333265368
## Phenylacetic.acid_HMDB0000209	0.734705215
## Succinic.acid_HMDB0000254	-0.438403509
## Glycine_HMDB0000123.1	-0.616291339
## Methylsuccinic.acid_HMDB0001844	-0.043247270
## Glyceric.acid_HMDB0000139	0.497627350
## Fumaric.acid_HMDB0000134	-0.341039235
## Uracil_HMDB0000300	-0.181361030
## Pelargonic.acid_HMDB0000847	0.905160960
## L.Serine_HMDB0000187	-0.575773375
## L.Threonine_HMDB0000167	-0.557941842
## Mesaconic.acid_HMDB0000749	0.194452218
## Glutaric.acid_HMDB0000661	0.332834177
## Thymine_HMDB0000262	-0.280568211
## Beta.Alanine_HMDB0000056.1	-0.774082477
## L.Homoserine_HMDB0000719	0.178844788
## Capric.acid_HMDB0000511	0.335484721
## Citramalic.acid_HMDB0000426	-0.326938458
## Malic.acid_HMDB0000744	0.517307938
## Niacinamide_HMDB0001406	-0.497347837
## Adipic.acid_HMDB0000448	-0.416960179

## D.Threitol_HMDB0004136	0.103889950
## Dihydrouracil_HMDB0000076	-0.017423665
## Erythritol_HMDB0002994	-0.081767413
## N.Acetylserine_HMDB0002931	-0.456712669
## L.Aspartic.acid_HMDB0000191	-0.551114713
## L.Methionine_HMDB0000696	-0.803385868
## X4.Hydroxyproline_HMDB0000725	-0.478004083
## Pyroglutamic.acid_HMDB0000267	-0.517774428
## Cytosine_HMDB0000630	-0.026405291
## Gamma.Aminobutyric.acid_HMDB0000112	-0.311123386
## Threonic.acid_HMDB0000943	0.635077159
## L.Cysteine_HMDB0000574	0.559401870
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.718717619
## Creatinine_HMDB0000562	-0.765876349
## X3.Hydroxyglutaric.acid_HMDB0000428	0.708318229
## Oxoglutaric.acid_HMDB0000208	-0.017910698
## Phenylpyruvic.acid_HMDB0000205	0.406609231
## Pimelic.acid_HMDB0000857	-0.567389577
## Phenyllactic.acid_HMDB0000779	0.569159749
## Phosphoenolpyruvic.acid_HMDB0000263	0.798854068
## Ornithine_HMDB0000214	-0.585222693
## Hypotaurine_HMDB0000965	-0.418362119
## Triethanolamine_HMDB0032538	-0.527244207
## X2.Aminobenzoic.acid_HMDB0001123	-0.841684418
## L.Glutamic.acid_HMDB0000148	-0.667852165
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.719446497
## X5.Aminopentanoic.acid_HMDB0003355	0.249888977
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.574180629
## L.Phenylalanine_HMDB0000159	-0.809207773
## Dodecanoic.acid_HMDB0000638	-0.383984017
## Lyxose_HMDB0003402_1	0.817892991
## D.Xylose_HMDB0000098	0.377633257
## Lyxose_HMDB0003402_2	0.238300159
## D.Arabinose_HMDB0029942	0.829412150
## L.Asparagine_HMDB0000168	-0.607710026
## D.Ribulose_HMDB0000621	0.798718690
## D.Ribose_HMDB0000283	0.827854944
## D.Xylulose_HMDB0001644	0.788924293
## X3.Sulfinioalanine_HMDB0000996	-0.394359571
## Suberic.acid_HMDB0000893	-0.280190846
## L.Lysine_HMDB0000182	-0.546657183
## Levoglucosan_HMDB0000640	0.230341667
## D.Arabitol_HMDB0000568	-0.267714153
## Ribitol_HMDB0000508	0.287731663
## cis.Aconitic.acid_HMDB0000072	0.196993118
## Quinolinic.acid_HMDB0000232	0.157092123
## Putrescine_HMDB0001414	-0.001231172
## Glycerol.3.phosphate_HMDB0000126	0.592868413
## Vanillic.acid_HMDB0000484	-0.180043018
## L.Glutamine_HMDB0000641	-0.359236979
## X2.Phosphoglyceric.acid_HMDB0000362	0.260042774
## Azelaic.acid_HMDB0000784	0.018070168
## L.Dihydroorotic.acid_HMDB0003349	0.859488235
## O.Phosphoethanolamine_HMDB0000224	-0.639365136

## X3.Phosphoglyceric.acid_HMDB0000807	0.209901997
## Isocitric.acid_HMDB0000193	0.094239518
## Hypoxanthine_HMDB0000157	-0.223522014
## Citric.acid_HMDB0000094	0.689064763
## L.Arginine_HMDB0000517	0.407951969
## Ornithine_HMDB0000214.1	-0.750721265
## Dopamine_HMDB0000073	-0.741508712
## Myristic.acid_HMDB0000806	-0.730113350
## X1.5.Anhydrosorbitol_HMDB0002712	0.386526527
## D.Tagatose_HMDB0003418	0.876071751
## Psicose_1	0.096560310
## Sebacic.acid_HMDB0000792	-0.358733337
## D.Fructose_HMDB0000660	0.744944216
## Gluconolactone_HMDB0000150	0.840471093
## L.Sorbose_HMDB0001266	0.740733603
## D.Mannose_HMDB0000169	-0.762666303
## Hydroxyphenyllactic.acid_HMDB0000755	-0.046852821
## D.Glucose_HMDB0000122	-0.716268533
## N.Acetylglutamine_HMDB0006029	-0.733794431
## L.Lysine_HMDB0000182.1	-0.816804374
## D.Mannose_HMDB0000169.1	-0.833046278
## Tyramine_HMDB0000306	-0.812677479
## L.Histidine_HMDB0000177	-0.843479792
## D.Glucose_HMDB0000122.1	-0.696380639
## X1.Hexadecanol_HMDB0003424	0.227140382
## L.Tyrosine_HMDB0000158	-0.738989211
## Mannitol_HMDB0000765	-0.621657702
## Sorbitol_HMDB0000247	0.197635091
## ITSD_Sorbitol	-0.554021947
## Galacturonic.acid_HMDB0002545	0.216024782
## Pantothenic.acid_HMDB0000210	0.273266679
## Palmitoleic.acid_HMDB0003229	-0.649616889
## Xanthine_HMDB0000292	-0.307209406
## Gluconic.acid_HMDB0000625	0.810437580
## Palmitic.acid_HMDB0000220	-0.486159303
## Glucaric.acid_HMDB0000663	-0.556320854
## N.Acetylmannosamine_HMDB0001129	-0.259138396
## N.Acetyl.D.glucosamine_HMDB0000215	-0.662851135
## D.Ribulose.5.phosphate_HMDB0000618	0.912215199
## Uric.acid_HMDB0000289	-0.607034087
## D.Ribose.5.phosphate_HMDB0001548	0.787104918
## myo.Inositol_HMDB0000211	-0.243477869
## D.Ribose.5.phosphate_HMDB0001548.1	0.888718647
## Heptadecanoic.acid_HMDB0002259	0.430008448
## Octadecanol_HMDB0002350	0.281484085
## Glutathione_HMDB0000125	0.146302918
## Linoleic.acid_HMDB0000673	-0.443972713
## Oleic.acid_HMDB0000207	-0.602026695
## Elaidic.acid_HMDB0000573	-0.567380883
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.854239669
## Stearic.acid_HMDB0000827	-0.087500934
## L.Tryptophan_HMDB0000929	-0.103638554
## Fructose.1.phosphate_HMDB0001076	0.823914330
## Mannose.6.phosphate_HMDB0001078	0.371828457

## Arachidonic.acid_HMDB0001043	-0.534128940
## Glucose.6.phosphate_HMDB0001401	0.833065538
## X6.Phosphogluconic.acid_HMDB0001316	0.299924133
## Inositol.phosphate_HMDB0002985	0.259940959
## Uridine_HMDB0000296	-0.056025917
## Stigmasterol_HMDB0000937	-0.223993320
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.134945524
## Sucrose_HMDB0000258	-0.601430506
## MG.18.0e.0.0.0.0._HMDB0011143	0.008193862
## Trehalose_HMDB0000975	0.000385551
## D.Maltose_HMDB0000163	-0.002352652
## Lactitol_HMDB0040937	0.395113696
## Xanthylic.acid_HMDB0001554	0.508525815
## Adenosine.monophosphate_HMDB0000045	0.856759578
## Cholesterol_HMDB0000067	0.109641224
## Lathosterol_HMDB0001170	-0.264826277
## X7b.Hydroxycholesterol_.HMDB0006119	0.651668324
##	Pyruvic.acid_HMDB0000243
## Dimethylglycine_HMDB0000092	-0.405707288
## Glyoxylic.acid_HMDB0000119	-0.408884686
## Pyruvic.acid_HMDB0000243	1.000000000
## L.Lactic.acid_HMDB0000190	0.707271524
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.709824027
## Glycolic.acid_HMDB0000115	0.249234232
## Caproic.acid_HMDB0000535	-0.178653607
## L.Alanine_HMDB0000161	0.614046212
## Alpha.ketoisovaleric.acid_HMDB0000019	0.489036837
## Glycine_HMDB0000123	0.774312979
## Oxalic.acid_HMDB0002329	-0.007103692
## Hydroxylamine_HMDB0003338	0.264449791
## X2.Hydroxybutyric.acid_HMDB0000008	0.447589617
## Acetoacetic.acid_HMDB0000060	0.315612263
## Hydroxypropionic.acid_HMDB0000700	0.701207139
## Pyruvic.acid_HMDB0000243.1	0.459170091
## X3.Hydroxybutyric.acid_HMDB0000357	0.539463109
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.564629508
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.169322469
## D.Alpha.aminobutyric.acid_HMDB0000650	0.550816593
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.160616959
## Beta.Alanine_HMDB0000056	0.604255360
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.516725830
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.498272164
## Malonic.acid_HMDB0000691	0.883542234
## X3.Aminoisobutanoic.acid_HMDB0003911	0.412723291
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.717171118
## Ketoleucine_HMDB0000695	0.329627524
## L.Valine_HMDB0000883	0.636115454
## ITSD_Valine	0.694405895
## Urea_HMDB0000294	0.689111360
## Benzoic.acid_HMDB0001870	0.086113319
## Caprylic.acid_HMDB0000482	-0.055503948
## Glycerol_HMDB0000131	0.658415072
## Ethanolamine_HMDB0000149	0.643026126
## L.Leucine_HMDB0000687	0.640651016

## Acetylglycine_HMDB0000532	0.524867830
## L.Isoleucine_HMDB0000172	0.635000509
## Nicotinic.acid_HMDB0001488	0.023568734
## Maleic.acid_HMDB0000176	0.389672758
## L.Proline_HMDB0000162	0.571618345
## Phenylacetic.acid_HMDB0000209	0.125577725
## Succinic.acid_HMDB0000254	0.817255585
## Glycine_HMDB0000123.1	0.697097126
## Methylsuccinic.acid_HMDB0001844	0.499522105
## Glyceric.acid_HMDB0000139	0.125018802
## Fumaric.acid_HMDB0000134	0.841241867
## Uracil_HMDB0000300	0.660338712
## Pelargonic.acid_HMDB0000847	-0.232899643
## L.Serine_HMDB0000187	0.582369008
## L.Threonine_HMDB0000167	0.689329619
## Mesaconic.acid_HMDB0000749	0.404937537
## Glutaric.acid_HMDB0000661	0.353162288
## Thymine_HMDB0000262	0.464664711
## Beta.Alanine_HMDB0000056.1	0.531131625
## L.Homoserine_HMDB0000719	0.086273249
## Capric.acid_HMDB0000511	0.072504628
## Citramalic.acid_HMDB0000426	0.662141639
## Malic.acid_HMDB0000744	0.317197596
## Niacinamide_HMDB0001406	0.691086090
## Adipic.acid_HMDB0000448	0.488631183
## D.Threitol_HMDB0004136	0.499236676
## Dihydrouracil_HMDB0000076	0.453774397
## Erythritol_HMDB0002994	0.711308359
## N.Acetylserine_HMDB0002931	0.622634095
## L.Aspartic.acid_HMDB0000191	0.594050325
## L.Methionine_HMDB0000696	0.502046560
## X4.Hydroxyproline_HMDB0000725	0.715094338
## Pyroglutamic.acid_HMDB0000267	0.649114848
## Cytosine_HMDB0000630	0.237971017
## Gamma.Aminobutyric.acid_HMDB0000112	0.575958168
## Threonic.acid_HMDB0000943	0.133685222
## L.Cysteine_HMDB0000574	0.197969400
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.039416723
## Creatinine_HMDB0000562	0.416567632
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.107085701
## Oxoglutaric.acid_HMDB0000208	0.353873439
## Phenylpyruvic.acid_HMDB0000205	-0.177024075
## Pimelic.acid_HMDB0000857	0.393840053
## Phenyllactic.acid_HMDB0000779	-0.186823254
## Phosphoenolpyruvic.acid_HMDB0000263	-0.499193270
## Ornithine_HMDB0000214	0.290172894
## Hypotaurine_HMDB0000965	0.541860983
## Triethanolamine_HMDB0032538	0.592496624
## X2.Aminobenzoic.acid_HMDB0001123	0.579149673
## L.Glutamic.acid_HMDB0000148	0.414540739
## X4.Hydroxybenzoic.acid_HMDB0000500	0.671810465
## X5.Aminopentanoic.acid_HMDB0003355	0.415921532
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.091628054
## L.Phenylalanine_HMDB0000159	0.530873503

## Dodecanoic.acid_HMDB0000638	0.605502209
## Lyxose_HMDB0003402_1	-0.273197046
## D.Xylose_HMDB0000098	-0.378098776
## Lyxose_HMDB0003402_2	-0.246056914
## D.Arabinose_HMDB0029942	-0.327934002
## L.Asparagine_HMDB0000168	0.071975505
## D.Ribulose_HMDB0000621	-0.324825321
## D.Ribose_HMDB00000283	-0.332985853
## D.Xylulose_HMDB0001644	-0.330452948
## X3.Sulfinioalanine_HMDB0000996	-0.141770053
## Suberic.acid_HMDB0000893	0.667582352
## L.Lysine_HMDB00000182	0.115683902
## Levoglucosan_HMDB0000640	-0.336640898
## D.Arabitol_HMDB0000568	0.703599318
## Ribitol_HMDB00000508	0.196671622
## cis.Aconitic.acid_HMDB0000072	-0.223989903
## Quinolinic.acid_HMDB0000232	0.435878241
## Putrescine_HMDB0001414	0.399628205
## Glycerol.3.phosphate_HMDB0000126	-0.397920489
## Vanillic.acid_HMDB0000484	0.560108977
## L.Glutamine_HMDB0000641	-0.278676152
## X2.Phosphoglyceric.acid_HMDB0000362	0.350222920
## Azelaic.acid_HMDB0000784	0.173594499
## L.Dihydroorotic.acid_HMDB0003349	-0.298934107
## O.Phosphoethanolamine_HMDB0000224	0.448248518
## X3.Phosphoglyceric.acid_HMDB0000807	0.396854842
## Isocitric.acid_HMDB0000193	0.584622827
## Hypoxanthine_HMDB0000157	-0.582982059
## Citric.acid_HMDB0000094	0.009135488
## L.Arginine_HMDB0000517	-0.325711339
## Ornithine_HMDB0000214.1	0.483326287
## Dopamine_HMDB0000073	0.477794761
## Myristic.acid_HMDB0000806	0.701546752
## X1.5.Anhydrosorbitol_HMDB0002712	0.368416618
## D.Tagatose_HMDB0003418	-0.314632637
## Psicose_1	-0.239990292
## Sebacic.acid_HMDB0000792	0.817311914
## D.Fructose_HMDB0000660	-0.083776502
## Gluconolactone_HMDB0000150	-0.164509295
## L.Sorbose_HMDB0001266	-0.095893206
## D.Mannose_HMDB0000169	0.502715956
## Hydroxyphenyllactic.acid_HMDB0000755	0.673937742
## D.Glucose_HMDB0000122	0.458337610
## N.Acetylglutamine_HMDB0006029	0.481415365
## L.Lysine_HMDB0000182.1	0.415628706
## D.Mannose_HMDB0000169.1	0.428744026
## Tyramine_HMDB0000306	0.393289868
## L.Histidine_HMDB0000177	0.407852356
## D.Glucose_HMDB0000122.1	0.411488329
## X1.Hexadecanol_HMDB0003424	0.232766716
## L.Tyrosine_HMDB0000158	0.294567161
## Mannitol_HMDB0000765	0.667866908
## Sorbitol_HMDB0000247	-0.361480910
## ITSD_Sorbitol	0.676236904

## Galacturonic.acid_HMDB0002545	0.326959804
## Pantothenic.acid_HMDB0000210	0.598110227
## Palmitoleic.acid_HMDB0003229	0.427600054
## Xanthine_HMDB0000292	-0.108175159
## Gluconic.acid_HMDB0000625	-0.196847869
## Palmitic.acid_HMDB0000220	0.627819482
## Glucaric.acid_HMDB0000663	0.500354038
## N.Acetylmannosamine_HMDB0001129	0.219102639
## N.Acetyl.D.glucosamine_HMDB0000215	0.593607747
## D.Ribulose.5.phosphate_HMDB0000618	-0.305382007
## Uric.acid_HMDB0000289	-0.060110781
## D.Ribose.5.phosphate_HMDB0001548	-0.406707257
## myo.Inositol_HMDB0000211	0.796848463
## D.Ribose.5.phosphate_HMDB0001548.1	-0.431768563
## Heptadecanoic.acid_HMDB0002259	0.147532702
## Octadecanol_HMDB0002350	0.520244310
## Glutathione_HMDB0000125	-0.247266918
## Linoleic.acid_HMDB0000673	0.333712073
## Oleic.acid_HMDB0000207	0.319026987
## Elaidic.acid_HMDB0000573	0.436878774
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.335894453
## Stearic.acid_HMDB0000827	0.609666577
## L.Tryptophan_HMDB0000929	0.620352267
## Fructose.1.phosphate_HMDB0001076	-0.091886016
## Mannose.6.phosphate_HMDB0001078	-0.447490365
## Arachidonic.acid_HMDB0001043	0.081774448
## Glucose.6.phosphate_HMDB0001401	-0.048146015
## X6.Phosphogluconic.acid_HMDB0001316	0.196265359
## Inositol.phosphate_HMDB0002985	0.168716168
## Uridine_HMDB0000296	0.532986668
## Stigmasterol_HMDB0000937	0.732625395
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.150643959
## Sucrose_HMDB0000258	0.534190135
## MG.18.0e.0.0.0.0._HMDB0011143	0.462519539
## Trehalose_HMDB0000975	-0.096190430
## D.Maltose_HMDB0000163	-0.085145382
## Lactitol_HMDB00040937	0.168190867
## Xanthylic.acid_HMDB0001554	-0.773706796
## Adenosine.monophosphate_HMDB0000045	-0.212719985
## Cholesterol_HMDB0000067	0.094185583
## Lathosterol_HMDB0001170	0.188898565
## X7b.Hydroxycholesterol_.HMDB0006119	-0.114386495
##	L.Lactic.acid_HMDB0000190
## Dimethylglycine_HMDB0000092	-0.613372843
## Glyoxylic.acid_HMDB0000119	-0.613252660
## Pyruvic.acid_HMDB0000243	0.707271524
## L.Lactic.acid_HMDB0000190	1.000000000
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.585541803
## Glycolic.acid_HMDB0000115	-0.061535102
## Caproic.acid_HMDB0000535	-0.453651747
## L.Alanine_HMDB0000161	0.937675491
## Alpha.ketoisovaleric.acid_HMDB0000019	0.623128362
## Glycine_HMDB0000123	0.854529907
## Oxalic.acid_HMDB0002329	-0.238398228

## Hydroxylamine_HMDB0003338	0.500060983
## X2.Hydroxybutyric.acid_HMDB0000008	0.390707724
## Acetoacetic.acid_HMDB0000060	0.212519847
## Hydroxypropionic.acid_HMDB0000700	0.821724405
## Pyruvic.acid_HMDB0000243.1	0.647806086
## X3.Hydroxybutyric.acid_HMDB0000357	0.373917418
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.466448876
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.032702301
## D.Alpha.aminobutyric.acid_HMDB0000650	0.830973255
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.339828215
## Beta.Alanine_HMDB0000056	0.702056235
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.601544406
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.643256721
## Malonic.acid_HMDB0000691	0.543721809
## X3.Aminoisobutanoic.acid_HMDB0003911	0.768166821
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.855552167
## Ketoleucine_HMDB0000695	0.340313068
## L.Valine_HMDB0000883	0.917230844
## ITSD_Valine	0.886772276
## Urea_HMDB0000294	0.846188914
## Benzoic.acid_HMDB0001870	0.005713084
## Caprylic.acid_HMDB0000482	-0.368279044
## Glycerol_HMDB0000131	0.960831671
## Ethanolamine_HMDB0000149	0.933026771
## L.Leucine_HMDB0000687	0.928573119
## Acetyl glycine_HMDB0000532	0.186587399
## L.Isoleucine_HMDB0000172	0.969983870
## Nicotinic.acid_HMDB0001488	-0.067648267
## Maleic.acid_HMDB0000176	0.065119930
## L.Proline_HMDB0000162	0.831338983
## Phenylacetic.acid_HMDB0000209	-0.205315995
## Succinic.acid_HMDB0000254	0.881243704
## Glycine_HMDB0000123.1	0.949886596
## Methylsuccinic.acid_HMDB0001844	0.089669010
## Glyceric.acid_HMDB0000139	-0.124052449
## Fumaric.acid_HMDB0000134	0.872313921
## Uracil_HMDB0000300	0.823674381
## Pelargonic.acid_HMDB0000847	-0.511784264
## L.Serine_HMDB0000187	0.926374167
## L.Threonine_HMDB0000167	0.968535968
## Mesaconic.acid_HMDB0000749	0.097798625
## Glutaric.acid_HMDB0000661	0.239639368
## Thymine_HMDB0000262	0.675933994
## Beta.Alanine_HMDB0000056.1	0.837746203
## L.Homoserine_HMDB0000719	-0.037484619
## Capric.acid_HMDB0000511	-0.152369140
## Citramalic.acid_HMDB0000426	0.564976240
## Malic.acid_HMDB0000744	0.111742001
## Niacinamide_HMDB0001406	0.883058998
## Adipic.acid_HMDB0000448	0.761225489
## D.Threitol_HMDB0004136	0.334933312
## Dihydrouracil_HMDB0000076	0.726324797
## Erythritol_HMDB0002994	0.670641675
## N.Acetylserine_HMDB0002931	0.925723084

## L.Aspartic.acid_HMDB0000191	0.927197487
## L.Methionine_HMDB0000696	0.777879829
## X4.Hydroxyproline_HMDB0000725	0.947426334
## Pyroglutamic.acid_HMDB0000267	0.889881950
## Cytosine_HMDB0000630	0.076154410
## Gamma.Aminobutyric.acid_HMDB0000112	0.502582071
## Threonic.acid_HMDB0000943	-0.029393657
## L.Cysteine_HMDB0000574	0.073693854
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.185527196
## Creatinine_HMDB0000562	0.593339930
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.469023770
## Oxoglutaric.acid_HMDB0000208	0.419640133
## Phenylpyruvic.acid_HMDB0000205	-0.254144756
## Pimelic.acid_HMDB0000857	0.597761044
## Phenyllactic.acid_HMDB0000779	-0.180987570
## Phosphoenolpyruvic.acid_HMDB0000263	-0.680420882
## Ornithine_HMDB0000214	0.517001586
## Hypotaurine_HMDB0000965	0.803416816
## Triethanolamine_HMDB0032538	0.862052642
## X2.Aminobenzoic.acid_HMDB0001123	0.865646748
## L.Glutamic.acid_HMDB0000148	0.728846745
## X4.Hydroxybenzoic.acid_HMDB0000500	0.955615477
## X5.Aminopentanoic.acid_HMDB0003355	0.338996994
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.196592910
## L.Phenylalanine_HMDB0000159	0.843032560
## Dodecanoic.acid_HMDB0000638	0.521206782
## Lyxose_HMDB0003402_1	-0.496670673
## D.Xylose_HMDB0000098	-0.459588423
## Lyxose_HMDB0003402_2	-0.326731052
## D.Arabinose_HMDB0029942	-0.600611145
## L.Asparagine_HMDB0000168	0.356591694
## D.Ribulose_HMDB0000621	-0.629418712
## D.Ribose_HMDB0000283	-0.619628090
## D.Xylulose_HMDB0001644	-0.626672664
## X3.Sulfinioalanine_HMDB0000996	0.030897346
## Suberic.acid_HMDB0000893	0.660666564
## L.Lysine_HMDB0000182	0.288203452
## Levoglucosan_HMDB0000640	-0.353519755
## D.Arabitol_HMDB0000568	0.300934654
## Ribitol_HMDB0000508	0.150113235
## cis.Aconitic.acid_HMDB0000072	-0.239807524
## Quinolinic.acid_HMDB0000232	0.255779122
## Putrescine_HMDB0001414	0.349980423
## Glycerol.3.phosphate_HMDB0000126	-0.665828742
## Vanillic.acid_HMDB0000484	0.674625688
## L.Glutamine_HMDB0000641	0.099687570
## X2.Phosphoglyceric.acid_HMDB0000362	0.430176120
## Azelaic.acid_HMDB0000784	-0.021941344
## L.Dihydroorotic.acid_HMDB0003349	-0.570477237
## O.Phosphoethanolamine_HMDB0000224	0.524448624
## X3.Phosphoglyceric.acid_HMDB0000807	0.465387043
## Isocitric.acid_HMDB0000193	0.390560568
## Hypoxanthine_HMDB0000157	-0.318085883
## Citric.acid_HMDB0000094	-0.025001330

## L.Arginine_HMDB0000517	-0.303568833
## Ornithine_HMDB0000214.1	0.822145857
## Dopamine_HMDB0000073	0.811518214
## Myristic.acid_HMDB0000806	0.791996433
## X1.5.Anhydrosorbitol_HMDB0002712	0.129715751
## D.Tagatose_HMDB0003418	-0.592434377
## Psicose_1	-0.150526351
## Sebacic.acid_HMDB0000792	0.763617699
## D.Fructose_HMDB0000660	-0.478940254
## Gluconolactone_HMDB0000150	-0.501742856
## L.Sorbose_HMDB0001266	-0.499345633
## D.Mannose_HMDB0000169	0.720797642
## Hydroxyphenyllactic.acid_HMDB0000755	0.554166080
## D.Glucose_HMDB0000122	0.648751339
## N.Acetylglutamine_HMDB0006029	0.699831408
## L.Lysine_HMDB0000182.1	0.728873705
## D.Mannose_HMDB0000169.1	0.721448117
## Tyramine_HMDB0000306	0.716151607
## L.Histidine_HMDB0000177	0.704017025
## D.Glucose_HMDB0000122.1	0.624070543
## X1.Hexadecanol_HMDB0003424	-0.198354964
## L.Tyrosine_HMDB0000158	0.653367280
## Mannitol_HMDB0000765	0.816543911
## Sorbitol_HMDB0000247	-0.160788407
## ITSD_Sorbitol	0.766257667
## Galacturonic.acid_HMDB0002545	0.390547229
## Pantothenic.acid_HMDB0000210	0.069103942
## Palmitoleic.acid_HMDB0003229	0.458707720
## Xanthine_HMDB0000292	0.235950298
## Gluconic.acid_HMDB0000625	-0.206934831
## Palmitic.acid_HMDB0000220	0.535704206
## Glucaric.acid_HMDB0000663	0.729608277
## N.Acetylmannosamine_HMDB0001129	0.409377824
## N.Acetyl.D.glucosamine_HMDB0000215	0.787324038
## D.Ribulose.5.phosphate_HMDB0000618	-0.711819457
## Uric.acid_HMDB0000289	0.232439987
## D.Ribose.5.phosphate_HMDB0001548	-0.712353335
## myo.Inositol_HMDB0000211	0.582877598
## D.Ribose.5.phosphate_HMDB0001548.1	-0.760329946
## Heptadecanoic.acid_HMDB0002259	0.215356393
## Octadecanol_HMDB0002350	0.200350444
## Glutathione_HMDB0000125	-0.018959700
## Linoleic.acid_HMDB0000673	0.264649645
## Oleic.acid_HMDB0000207	0.332139391
## Elaidic.acid_HMDB0000573	0.388338007
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.576282293
## Stearic.acid_HMDB0000827	0.293614942
## L.Tryptophan_HMDB0000929	0.306565428
## Fructose.1.phosphate_HMDB0001076	-0.400453021
## Mannose.6.phosphate_HMDB0001078	-0.522031254
## Arachidonic.acid_HMDB0001043	0.050293536
## Glucose.6.phosphate_HMDB0001401	-0.353401761
## X6.Phosphogluconic.acid_HMDB0001316	-0.048973200
## Inositol.phosphate_HMDB0002985	-0.260349421

## Uridine_HMDB0000296	0.431732468
## Stigmasterol_HMDB0000937	0.648916884
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.110770863
## Sucrose_HMDB0000258	0.355446629
## MG.18.0e.0.0.0.0._HMDB0011143	0.240287649
## Trehalose_HMDB0000975	-0.261850757
## D.Maltose_HMDB0000163	-0.255393461
## Lactitol_HMDB0040937	-0.014494571
## Xanthylic.acid_HMDB0001554	-0.760850264
## Adenosine.monophosphate_HMDB0000045	-0.502188335
## Cholesterol_HMDB0000067	-0.048731830
## Lathosterol_HMDB0001170	0.080677771
## X7b.Hydroxycholesterol_.HMDB0006119	-0.100335219
##	Alpha.Hydroxyisobutyric.acid_HMDB0000729
## Dimethylglycine_HMDB0000092	-0.032011833
## Glyoxylic.acid_HMDB0000119	-0.038873773
## Pyruvic.acid_HMDB0000243	0.709824027
## L.Lactic.acid_HMDB0000190	0.585541803
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	1.000000000
## Glycolic.acid_HMDB0000115	0.453870297
## Caproic.acid_HMDB0000535	0.063960357
## L.Alanine_HMDB0000161	0.471260738
## Alpha.ketoisovaleric.acid_HMDB0000019	0.499541603
## Glycine_HMDB0000123	0.518180205
## Oxalic.acid_HMDB0002329	0.282352448
## Hydroxylamine_HMDB0003338	0.641103174
## X2.Hydroxybutyric.acid_HMDB0000008	0.700502110
## Acetoacetic.acid_HMDB0000060	0.697750580
## Hydroxypropionic.acid_HMDB0000700	0.732343437
## Pyruvic.acid_HMDB0000243.1	0.785560709
## X3.Hydroxybutyric.acid_HMDB0000357	0.793369924
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.806855709
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.608562033
## D.Alpha.aminobutyric.acid_HMDB0000650	0.516684829
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.608754495
## Beta.Alanine_HMDB0000056	0.355865176
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.461347580
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.636500735
## Malonic.acid_HMDB0000691	0.523847119
## X3.Aminoisobutanoic.acid_HMDB0003911	0.275866206
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.778853308
## Ketoleucine_HMDB0000695	0.566684795
## L.Valine_HMDB0000883	0.591385197
## ITSD_Valine	0.609681208
## Urea_HMDB0000294	0.637560339
## Benzoic.acid_HMDB0001870	0.353188908
## Caprylic.acid_HMDB0000482	0.298696521
## Glycerol_HMDB0000131	0.454745325
## Ethanolamine_HMDB0000149	0.396323832
## L.Leucine_HMDB0000687	0.550862751
## Acetyl glycine_HMDB0000532	0.600296500
## L.Isoleucine_HMDB0000172	0.510278792
## Nicotinic.acid_HMDB0001488	0.264128875
## Maleic.acid_HMDB0000176	0.621837724

## L.Proline_HMDB0000162	0.596287189
## Phenylacetic.acid_HMDB0000209	0.389023965
## Succinic.acid_HMDB0000254	0.761775658
## Glycine_HMDB0000123.1	0.545774331
## Methylsuccinic.acid_HMDB0001844	0.565588219
## Glyceric.acid_HMDB0000139	0.290956934
## Fumaric.acid_HMDB0000134	0.794761295
## Uracil_HMDB0000300	0.689268215
## Pelargonic.acid_HMDB0000847	0.125477690
## L.Serine_HMDB0000187	0.418309314
## L.Threonine_HMDB0000167	0.491999743
## Mesaconic.acid_HMDB0000749	0.480169733
## Glutaric.acid_HMDB0000661	0.294458657
## Thymine_HMDB0000262	0.565994978
## Beta.Alanine_HMDB0000056.1	0.411898942
## L.Homoserine_HMDB0000719	0.213412921
## Capric.acid_HMDB0000511	0.313108010
## Citramalic.acid_HMDB0000426	0.396069651
## Malic.acid_HMDB0000744	0.476444762
## Niacinamide_HMDB0001406	0.620443100
## Adipic.acid_HMDB0000448	0.214189375
## D.Threitol_HMDB0004136	0.696008244
## Dihydrouracil_HMDB0000076	0.679111443
## Erythritol_HMDB0002994	0.818630494
## N.Acetylserine_HMDB0002931	0.426275076
## L.Aspartic.acid_HMDB0000191	0.426110806
## L.Methionine_HMDB0000696	0.203947905
## X4.Hydroxyproline_HMDB0000725	0.566717881
## Pyroglutamic.acid_HMDB0000267	0.471063375
## Cytosine_HMDB0000630	0.003940850
## Gamma.Aminobutyric.acid_HMDB0000112	0.500133576
## Threonic.acid_HMDB0000943	0.498665299
## L.Cysteine_HMDB0000574	0.509212549
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.357889339
## Creatinine_HMDB0000562	0.173720244
## X3.Hydroxyglutaric.acid_HMDB0000428	0.005548845
## Oxoglutaric.acid_HMDB0000208	0.701729068
## Phenylpyruvic.acid_HMDB0000205	-0.139897170
## Pimelic.acid_HMDB0000857	0.209963996
## Phenyllactic.acid_HMDB0000779	0.074420090
## Phosphoenolpyruvic.acid_HMDB0000263	-0.374094366
## Ornithine_HMDB0000214	-0.101442671
## Hypotaurine_HMDB0000965	0.436370396
## Triethanolamine_HMDB0032538	0.316496232
## X2.Aminobenzoic.acid_HMDB0001123	0.350971416
## L.Glutamic.acid_HMDB0000148	0.218344956
## X4.Hydroxybenzoic.acid_HMDB0000500	0.468280582
## X5.Aminopentanoic.acid_HMDB0003355	0.389317073
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.190379289
## L.Phenylalanine_HMDB0000159	0.261332754
## Dodecanoic.acid_HMDB0000638	0.674433494
## Lyxose_HMDB0003402_1	0.036034686
## D.Xylose_HMDB0000098	-0.343340681
## Lyxose_HMDB0003402_2	-0.281288669

## D.Arabinose_HMDB0029942	-0.082028786
## L.Asparagine_HMDB0000168	-0.267934406
## D.Ribulose_HMDB0000621	-0.176952817
## D.Ribose_HMDB0000283	-0.075760581
## D.Xylulose_HMDB0001644	-0.201994860
## X3.Sulfinioalanine_HMDB0000996	-0.230776771
## Suberic.acid_HMDB0000893	0.347038206
## L.Lysine_HMDB0000182	-0.276819369
## Levoglucosan_HMDB0000640	-0.355450277
## D.Arabit01_HMDB0000568	0.492864259
## Ribitol_HMDB0000508	0.330927986
## cis.Aconitic.acid_HMDB0000072	-0.224652574
## Quinolinic.acid_HMDB0000232	0.302316852
## Putrescine_HMDB0001414	0.453780148
## Glycerol.3.phosphate_HMDB0000126	-0.157759147
## Vanillic.acid_HMDB0000484	0.553980786
## L.Glutamine_HMDB0000641	-0.436491290
## X2.Phosphoglyceric.acid_HMDB0000362	0.345052006
## Azelaic.acid_HMDB0000784	-0.018574917
## L.Dihydroorotic.acid_HMDB0003349	-0.035694352
## O.Phosphoethanolamine_HMDB0000224	0.466297665
## X3.Phosphoglyceric.acid_HMDB0000807	0.386478583
## Isocitric.acid_HMDB0000193	0.519392497
## Hypoxanthine_HMDB0000157	-0.669803406
## Citric.acid_HMDB0000094	0.149455341
## L.Arginine_HMDB0000517	-0.169629912
## Ornithine_HMDB0000214.1	0.176240674
## Dopamine_HMDB0000073	0.172242093
## Myristic.acid_HMDB0000806	0.525362234
## X1.5.Anhydrosorbitol_HMDB0002712	0.527285356
## D.Tagatose_HMDB0003418	-0.049783282
## Psicose_1	-0.232330694
## Sebacic.acid_HMDB0000792	0.634541902
## D.Fructose_HMDB0000660	0.040070346
## Gluconolactone_HMDB0000150	-0.024548909
## L.Sorbose_HMDB0001266	0.025205206
## D.Mannose_HMDB0000169	0.307722776
## Hydroxyphenyllactic.acid_HMDB0000755	0.847725369
## D.Glucose_HMDB0000122	0.231135996
## N.Acetylglutamine_HMDB0006029	0.300208156
## L.Lysine_HMDB0000182.1	0.124734602
## D.Mannose_HMDB0000169.1	0.187386760
## Tyramine_HMDB0000306	0.107320967
## L.Histidine_HMDB0000177	0.107067151
## D.Glucose_HMDB0000122.1	0.250456913
## X1.Hexadecanol_HMDB0003424	0.340639371
## L.Tyrosine_HMDB0000158	-0.019039253
## Mannitol_HMDB0000765	0.527105067
## Sorbitol_HMDB0000247	-0.124067733
## ITSD_Sorbitol	0.563320742
## Galacturonic.acid_HMDB0002545	0.496523226
## Pantothenic.acid_HMDB0000210	0.430890365
## Palmitoleic.acid_HMDB0003229	0.450406498
## Xanthine_HMDB0000292	-0.471742881

## Gluconic.acid_HMDB0000625	0.008920836
## Palmitic.acid_HMDB0000220	0.685011160
## Glucaric.acid_HMDB0000663	0.145844120
## N.Acetylmannosamine_HMDB0001129	0.477471846
## N.Acetyl.D.glucosamine_HMDB0000215	0.545786434
## D.Ribulose.5.phosphate_HMDB0000618	-0.070446489
## Uric.acid_HMDB0000289	-0.343554463
## D.Ribose.5.phosphate_HMDB0001548	-0.173989274
## myo.Inositol_HMDB0000211	0.650599503
## D.Ribose.5.phosphate_HMDB0001548.1	-0.199527162
## Heptadecanoic.acid_HMDB0002259	0.300746566
## Octadecanol_HMDB0002350	0.699388021
## Glutathione_HMDB0000125	-0.190383920
## Linoleic.acid_HMDB0000673	0.448268612
## Oleic.acid_HMDB0000207	0.357271932
## Elaidic.acid_HMDB0000573	0.489502680
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.162360635
## Stearic.acid_HMDB0000827	0.725406896
## L.Tryptophan_HMDB0000929	0.696575839
## Fructose.1.phosphate_HMDB0001076	0.166623243
## Mannose.6.phosphate_HMDB0001078	-0.388139256
## Arachidonic.acid_HMDB0001043	0.101259215
## Glucose.6.phosphate_HMDB0001401	0.220384412
## X6.Phosphogluconic.acid_HMDB0001316	0.455555487
## Inositol.phosphate_HMDB0002985	0.378661233
## Uridine_HMDB0000296	0.764926646
## Stigmasterol_HMDB0000937	0.904286567
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.307009993
## Sucrose_HMDB0000258	0.259264195
## MG.18.Oe.0.0.0.0._HMDB0011143	0.779131023
## Trehalose_HMDB0000975	-0.216180733
## D.Maltose_HMDB0000163	-0.208727954
## Lactitol_HMDB00040937	0.413365815
## Xanthylic.acid_HMDB0001554	-0.729881907
## Adenosine.monophosphate_HMDB0000045	0.000835186
## Cholesterol_HMDB0000067	0.308281408
## Lathosterol_HMDB0001170	0.395688954
## X7b.Hydroxycholesterol_.HMDB0006119	-0.018895553
##	
## Glycolic.acid_HMDB0000115	
## Dimethylglycine_HMDB0000092	0.408296408
## Glyoxylic.acid_HMDB0000119	0.392191150
## Pyruvic.acid_HMDB0000243	0.249234232
## L.Lactic.acid_HMDB0000190	-0.061535102
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.453870297
## Glycolic.acid_HMDB0000115	1.000000000
## Caproic.acid_HMDB0000535	0.555796837
## L.Alanine_HMDB0000161	-0.241791178
## Alpha.ketoisovaleric.acid_HMDB0000019	0.199054429
## Glycine_HMDB0000123	-0.166284895
## Oxalic.acid_HMDB0002329	0.573142021
## Hydroxylamine_HMDB0003338	0.324860090
## X2.Hydroxybutyric.acid_HMDB0000008	0.641461246
## Acetoacetic.acid_HMDB0000060	0.682311071
## Hydroxypropionic.acid_HMDB0000700	0.305227602

## Pyruvic.acid_HMDB0000243.1	0.253374197
## X3.Hydroxybutyric.acid_HMDB0000357	0.603830856
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.627751382
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.866602681
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.073684547
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.390700043
## Beta.Alanine_HMDB0000056	-0.347241241
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.172202231
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.367416057
## Malonic.acid_HMDB0000691	0.096403551
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.247989078
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.232682135
## Ketoleucine_HMDB0000695	0.536071346
## L.Valine_HMDB0000883	-0.067517987
## ITSD_Valine	0.003736177
## Urea_HMDB0000294	0.049285670
## Benzoic.acid_HMDB0001870	0.556940458
## Caprylic.acid_HMDB0000482	0.646052401
## Glycerol_HMDB0000131	-0.172538012
## Ethanolamine_HMDB0000149	-0.190972337
## L.Leucine_HMDB0000687	-0.057722884
## Acetylglycine_HMDB0000532	0.900783584
## L.Isoleucine_HMDB0000172	-0.120066053
## Nicotinic.acid_HMDB0001488	-0.050638104
## Maleic.acid_HMDB0000176	0.790617994
## L.Proline_HMDB0000162	0.111145219
## Phenylacetic.acid_HMDB0000209	0.746905030
## Succinic.acid_HMDB0000254	0.250079687
## Glycine_HMDB0000123.1	-0.033411524
## Methylsuccinic.acid_HMDB0001844	0.590748548
## Glyceric.acid_HMDB0000139	0.770184164
## Fumaric.acid_HMDB0000134	0.197161425
## Uracil_HMDB0000300	0.087230988
## Pelargonic.acid_HMDB0000847	0.528404908
## L.Serine_HMDB0000187	-0.229939354
## L.Threonine_HMDB0000167	-0.142088972
## Mesaconic.acid_HMDB0000749	0.249052142
## Glutaric.acid_HMDB0000661	0.126271703
## Thymine_HMDB0000262	-0.220324934
## Beta.Alanine_HMDB0000056.1	-0.250131115
## L.Homoserine_HMDB0000719	0.817571747
## Capric.acid_HMDB0000511	0.877879223
## Citramalic.acid_HMDB0000426	-0.260027980
## Malic.acid_HMDB0000744	0.801837215
## Niacinamide_HMDB0001406	-0.137479268
## Adipic.acid_HMDB0000448	-0.292177692
## D.Threitol_HMDB0004136	0.369614812
## Dihydrouracil_HMDB0000076	0.191466038
## Erythritol_HMDB0002994	0.502973325
## N.Acetylserine_HMDB0002931	-0.160714895
## L.Aspartic.acid_HMDB0000191	-0.209070024
## L.Methionine_HMDB0000696	-0.372293902
## X4.Hydroxyproline_HMDB0000725	-0.076510277
## Pyroglutamic.acid_HMDB0000267	-0.241736223

## Cytosine_HMDB0000630	-0.056371581
## Gamma.Aminobutyric.acid_HMDB0000112	-0.217556663
## Threonic.acid_HMDB0000943	0.801370562
## L.Cysteine_HMDB0000574	0.801387480
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.642202517
## Creatinine_HMDB0000562	-0.148073569
## X3.Hydroxyglutaric.acid_HMDB0000428	0.537528194
## Oxoglutaric.acid_HMDB0000208	0.316926243
## Phenylpyruvic.acid_HMDB0000205	0.347828990
## Pimelic.acid_HMDB0000857	-0.473646469
## Phenyllactic.acid_HMDB0000779	0.291425171
## Phosphoenolpyruvic.acid_HMDB0000263	0.161631977
## Ornithine_HMDB0000214	-0.478677658
## Hypotaurine_HMDB0000965	-0.262384171
## Triethanolamine_HMDB0032538	-0.332637638
## X2.Aminobenzoic.acid_HMDB0001123	-0.247471911
## L.Glutamic.acid_HMDB0000148	-0.358783958
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.135434476
## X5.Aminopentanoic.acid_HMDB0003355	0.173126605
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.748104735
## L.Phenylalanine_HMDB0000159	-0.301693814
## Dodecanoic.acid_HMDB0000638	0.447656759
## Lyxose_HMDB0003402_1	0.604364976
## D.Xylose_HMDB0000098	-0.093729999
## Lyxose_HMDB0003402_2	-0.219661506
## D.Arabinose_HMDB0029942	0.520870821
## L.Asparagine_HMDB0000168	-0.471826299
## D.Ribulose_HMDB0000621	0.461238314
## D.Ribose_HMDB0000283	0.506700063
## D.Xylulose_HMDB0001644	0.441448274
## X3.Sulfinoalanine_HMDB0000996	-0.327151863
## Suberic.acid_HMDB0000893	-0.198598714
## L.Lysine_HMDB0000182	-0.399317301
## Levoglucosan_HMDB0000640	-0.207164966
## D.Arabitol_HMDB0000568	0.218927667
## Ribitol_HMDB0000508	0.452631629
## cis.Aconitic.acid_HMDB0000072	-0.210069830
## Quinolinic.acid_HMDB0000232	0.115753645
## Putrescine_HMDB0001414	0.058058229
## Glycerol.3.phosphate_HMDB0000126	0.195167870
## Vanillic.acid_HMDB0000484	0.212281971
## L.Glutamine_HMDB0000641	-0.441572449
## X2.Phosphoglyceric.acid_HMDB0000362	0.297566663
## Azelaic.acid_HMDB0000784	-0.318518940
## L.Dihydroorotic.acid_HMDB0003349	0.571032354
## O.Phosphoethanolamine_HMDB0000224	0.127998221
## X3.Phosphoglyceric.acid_HMDB0000807	0.199616070
## Isocitric.acid_HMDB0000193	0.461090549
## Hypoxanthine_HMDB0000157	-0.307475915
## Citric.acid_HMDB0000094	0.458836963
## L.Arginine_HMDB0000517	0.445524355
## Ornithine_HMDB0000214.1	-0.388482723
## Dopamine_HMDB0000073	-0.365152214
## Myristic.acid_HMDB0000806	0.083033620

## X1.5.Anhydrosorbitol_HMDB0002712	0.561155741
## D.Tagatose_HMDB0003418	0.500163670
## Psicose_1	-0.167998093
## Sebacic.acid_HMDB0000792	0.153577672
## D.Fructose_HMDB0000660	0.551685070
## Gluconolactone_HMDB0000150	0.596660190
## L.Sorbose_HMDB0001266	0.553711447
## D.Mannose_HMDB0000169	-0.281984546
## Hydroxyphenyllactic.acid_HMDB0000755	0.411942588
## D.Glucose_HMDB0000122	-0.337674145
## N.Acetylglutamine_HMDB0006029	-0.292798966
## L.Lysine_HMDB0000182.1	-0.338747231
## D.Mannose_HMDB0000169.1	-0.325147681
## Tyramine_HMDB0000306	-0.338525860
## L.Histidine_HMDB0000177	-0.348490424
## D.Glucose_HMDB0000122.1	-0.365211590
## X1.Hexadecanol_HMDB0003424	0.627940045
## L.Tyrosine_HMDB0000158	-0.451212467
## Mannitol_HMDB0000765	-0.065606045
## Sorbitol_HMDB0000247	-0.161619473
## ITSD_Sorbitol	0.243408957
## Galacturonic.acid_HMDB0002545	0.493140282
## Pantothenic.acid_HMDB0000210	0.608762535
## Palmitoleic.acid_HMDB0003229	0.149056259
## Xanthine_HMDB0000292	-0.581677313
## Gluconic.acid_HMDB0000625	0.268572159
## Palmitic.acid_HMDB0000220	0.292452693
## Glucaric.acid_HMDB0000663	-0.044199852
## N.Acetylmannosamine_HMDB0001129	-0.074726627
## N.Acetyl.D.glucosamine_HMDB0000215	-0.089185354
## D.Ribulose.5.phosphate_HMDB0000618	0.441628689
## Uric.acid_HMDB0000289	-0.449381282
## D.Ribose.5.phosphate_HMDB0001548	0.362213176
## myo.Inositol_HMDB0000211	0.224241153
## D.Ribose.5.phosphate_HMDB0001548.1	0.416260640
## Heptadecanoic.acid_HMDB0002259	0.382564176
## Octadecanol_HMDB0002350	0.708034968
## Glutathione_HMDB0000125	-0.078731740
## Linoleic.acid_HMDB0000673	0.281027106
## Oleic.acid_HMDB0000207	0.151484979
## Elaidic.acid_HMDB0000573	0.209404460
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.349695426
## Stearic.acid_HMDB0000827	0.463225218
## L.Tryptophan_HMDB0000929	0.398828196
## Fructose.1.phosphate_HMDB0001076	0.443727496
## Mannose.6.phosphate_HMDB0001078	-0.134396998
## Arachidonic.acid_HMDB0001043	0.089474212
## Glucose.6.phosphate_HMDB0001401	0.620906297
## X6.Phosphogluconic.acid_HMDB0001316	0.654282800
## Inositol.phosphate_HMDB0002985	0.621142366
## Uridine_HMDB0000296	0.581057620
## Stigmasterol_HMDB0000937	0.343447258
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.266616498
## Sucrose_HMDB0000258	-0.338626963

## MG.18.0e.0.0.0.0._HMDB0011143	0.595473930
## Trehalose_HMDB0000975	-0.408804806
## D.Maltose_HMDB0000163	-0.404339617
## Lactitol_HMDB0040937	0.116154353
## Xanthylic.acid_HMDB0001554	-0.253326161
## Adenosine.monophosphate_HMDB0000045	0.550053894
## Cholesterol_HMDB0000067	0.462255705
## Lathosterol_HMDB0001170	0.267419910
## X7b.Hydroxycholesterol_.HMDB0006119	0.096232309
## Caproic.acid_HMDB0000535	
## Dimethylglycine_HMDB0000092	0.8619706023
## Glyoxylic.acid_HMDB0000119	0.8614850857
## Pyruvic.acid_HMDB0000243	-0.1786536075
## L.Lactic.acid_HMDB0000190	-0.4536517469
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.0639603569
## Glycolic.acid_HMDB0000115	0.5557968371
## Caproic.acid_HMDB0000535	1.0000000000
## L.Alanine_HMDB0000161	-0.5318460493
## Alpha.ketoisovaleric.acid_HMDB0000019	0.1185249713
## Glycine_HMDB0000123	-0.3986095607
## Oxalic.acid_HMDB0002329	0.5168383698
## Hydroxylamine_HMDB0003338	0.0634621969
## X2.Hydroxybutyric.acid_HMDB0000008	0.3199206079
## Acetoacetic.acid_HMDB0000060	0.4672613939
## Hydroxypropionic.acid_HMDB0000700	-0.3292880006
## Pyruvic.acid_HMDB0000243.1	-0.0619020927
## X3.Hydroxybutyric.acid_HMDB0000357	0.2635483160
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.2633239348
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.5126483664
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.6202593406
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.2819777778
## Beta.Alanine_HMDB0000056	-0.7183183722
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.0215174574
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.0443236083
## Malonic.acid_HMDB0000691	-0.0764718635
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.7925913878
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.3635095567
## Ketoleucine_HMDB0000695	0.5178559960
## L.Valine_HMDB0000883	-0.5152026576
## ITSD_Valine	-0.6040048439
## Urea_HMDB0000294	-0.3071669622
## Benzoic.acid_HMDB0001870	0.3498822333
## Caprylic.acid_HMDB0000482	0.8782151385
## Glycerol_HMDB0000131	-0.6142249557
## Ethanolamine_HMDB0000149	-0.4956177205
## L.Leucine_HMDB0000687	-0.5553703994
## Acetylglucine_HMDB0000532	0.4419269102
## L.Isoleucine_HMDB0000172	-0.5545998776
## Nicotinic.acid_HMDB0001488	0.3032589326
## Maleic.acid_HMDB0000176	0.6724224817
## L.Proline_HMDB0000162	-0.2581116989
## Phenylacetic.acid_HMDB0000209	0.8210057386
## Succinic.acid_HMDB0000254	-0.1825193743
## Glycine_HMDB0000123.1	-0.4918426285

## Methylsuccinic.acid_HMDB0001844	0.1322895865
## Glyceric.acid_HMDB0000139	0.6966082316
## Fumaric.acid_HMDB0000134	-0.2291138732
## Uracil_HMDB0000300	-0.0357993558
## Pelargonic.acid_HMDB0000847	0.8733085043
## L.Serine_HMDB0000187	-0.4158846780
## L.Threonine_HMDB0000167	-0.4395446705
## Mesaconic.acid_HMDB0000749	0.1160641240
## Glutaric.acid_HMDB0000661	0.4901026913
## Thymine_HMDB0000262	-0.2117848404
## Beta.Alanine_HMDB0000056.1	-0.7885541885
## L.Homoserine_HMDB0000719	0.2920899627
## Capric.acid_HMDB0000511	0.4237016223
## Citramalic.acid_HMDB0000426	-0.1937198190
## Malic.acid_HMDB0000744	0.7498936179
## Niacinamide_HMDB0001406	-0.4985371550
## Adipic.acid_HMDB0000448	-0.2996286052
## D.Threitol_HMDB0004136	0.1174462064
## Dihydrouracil_HMDB0000076	0.0392146740
## Erythritol_HMDB0002994	-0.0288550086
## N.Acetylserine_HMDB0002931	-0.2711923438
## L.Aspartic.acid_HMDB0000191	-0.4603551026
## L.Methionine_HMDB0000696	-0.8215717958
## X4.Hydroxyproline_HMDB0000725	-0.3865561779
## Pyroglutamic.acid_HMDB0000267	-0.4525357471
## Cytosine_HMDB0000630	-0.0713119667
## Gamma.Aminobutyric.acid_HMDB0000112	-0.1880961522
## Threonic.acid_HMDB0000943	0.6533175055
## L.Cysteine_HMDB0000574	0.5416203711
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.8658096138
## Creatinine_HMDB0000562	-0.7759911127
## X3.Hydroxyglutaric.acid_HMDB0000428	0.7948835118
## Oxoglutaric.acid_HMDB0000208	0.1488456023
## Phenylpyruvic.acid_HMDB0000205	0.4978835167
## Pimelic.acid_HMDB0000857	-0.4993771909
## Phenyllactic.acid_HMDB0000779	0.6541983800
## Phosphoenolpyruvic.acid_HMDB0000263	0.7779498282
## Ornithine_HMDB0000214	-0.5766590846
## Hypotaurine_HMDB0000965	-0.5220916491
## Triethanolamine_HMDB0032538	-0.4497311976
## X2.Aminobenzoic.acid_HMDB0001123	-0.7572940689
## L.Glutamic.acid_HMDB0000148	-0.7219057355
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.5854598191
## X5.Aminopentanoic.acid_HMDB0003355	0.3705494201
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.7209259301
## L.Phenylalanine_HMDB0000159	-0.7677535789
## Dodecanoic.acid_HMDB0000638	-0.2819245715
## Lyxose_HMDB0003402_1	0.8822531448
## D.Xylose_HMDB0000098	0.2021489095
## Lyxose_HMDB0003402_2	0.0787935212
## D.Arabinose_HMDB0029942	0.8825404282
## L.Asparagine_HMDB0000168	-0.6213263936
## D.Ribulose_HMDB0000621	0.8294099903
## D.Ribose_HMDB0000283	0.8723175245

## D.Xylulose_HMDB0001644	0.8021870270
## X3.Sulfinioalanine_HMDB0000996	-0.4982252080
## Suberic.acid_HMDB0000893	-0.1436425899
## L.Lysine_HMDB0000182	-0.5565447379
## Levoglucosan_HMDB0000640	0.0356951257
## D.Arabitol_HMDB0000568	-0.1917534057
## Ribitol_HMDB0000508	0.3079934182
## cis.Aconitic.acid_HMDB0000072	-0.0009879412
## Quinolinic.acid_HMDB0000232	0.2119136221
## Putrescine_HMDB0001414	0.2483647819
## Glycerol.3.phosphate_HMDB0000126	0.5959411914
## Vanillic.acid_HMDB0000484	-0.2416519022
## L.Glutamine_HMDB0000641	-0.4108260958
## X2.Phosphoglyceric.acid_HMDB0000362	0.3848507229
## Azelaic.acid_HMDB0000784	0.0525676927
## L.Dihydroorotic.acid_HMDB0003349	0.9278321123
## O.Phosphoethanolamine_HMDB0000224	-0.4793167021
## X3.Phosphoglyceric.acid_HMDB0000807	0.3156360097
## Isocitric.acid_HMDB0000193	0.2233853076
## Hypoxanthine_HMDB0000157	-0.3800687127
## Citric.acid_HMDB0000094	0.7340652713
## L.Arginine_HMDB0000517	0.4846888300
## Ornithine_HMDB0000214.1	-0.7197168825
## Dopamine_HMDB0000073	-0.6955752067
## Myristic.acid_HMDB0000806	-0.6083410049
## X1.5.Anhydrosorbitol_HMDB0002712	0.3244981570
## D.Tagatose_HMDB0003418	0.9086703518
## Psicose_1	-0.0663575085
## Sebacic.acid_HMDB0000792	-0.2464752372
## D.Fructose_HMDB0000660	0.9053708557
## Gluconolactone_HMDB0000150	0.9256561119
## L.Sorbose_HMDB0001266	0.8964644520
## D.Mannose_HMDB0000169	-0.8516701522
## Hydroxyphenyllactic.acid_HMDB0000755	0.0152211973
## D.Glucose_HMDB0000122	-0.8426084505
## N.Acetylglutamine_HMDB0006029	-0.8511624935
## L.Lysine_HMDB0000182.1	-0.8039492638
## D.Mannose_HMDB0000169.1	-0.8829729931
## Tyramine_HMDB0000306	-0.8075524987
## L.Histidine_HMDB0000177	-0.8293725898
## D.Glucose_HMDB0000122.1	-0.8686013928
## X1.Hexadecanol_HMDB0003424	0.3058881405
## L.Tyrosine_HMDB0000158	-0.7490618549
## Mannitol_HMDB0000765	-0.5526229015
## Sorbitol_HMDB0000247	0.2794921657
## ITSD_Sorbitol	-0.5030406944
## Galacturonic.acid_HMDB0002545	0.0829134782
## Pantothenic.acid_HMDB0000210	0.3779036000
## Palmitoleic.acid_HMDB0003229	-0.5803895439
## Xanthine_HMDB0000292	-0.3598838243
## Gluconic.acid_HMDB0000625	0.7502704227
## Palmitic.acid_HMDB0000220	-0.3612060535
## Glucaric.acid_HMDB0000663	-0.5090625370
## N.Acetylmannosamine_HMDB0001129	-0.4909177634

## N.Acetyl.D.glucosamine_HMDB0000215	-0.6767779605
## D.Ribulose.5.phosphate_HMDB0000618	0.8211543865
## Uric.acid_HMDB0000289	-0.6838837359
## D.Ribose.5.phosphate_HMDB0001548	0.7352601279
## myo.Inositol_HMDB0000211	-0.1138320962
## D.Ribose.5.phosphate_HMDB0001548.1	0.8288236346
## Heptadecanoic.acid_HMDB0002259	0.6709511840
## Octadecanol_HMDB0002350	0.4791853386
## Glutathione_HMDB0000125	0.0278927765
## Linoleic.acid_HMDB0000673	-0.3523435627
## Oleic.acid_HMDB0000207	-0.5358372260
## Elaidic.acid_HMDB0000573	-0.5090420641
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.8596449170
## Stearic.acid_HMDB0000827	0.0933535704
## L.Tryptophan_HMDB0000929	0.0488087965
## Fructose.1.phosphate_HMDB0001076	0.9060420925
## Mannose.6.phosphate_HMDB0001078	0.2668441308
## Arachidonic.acid_HMDB0001043	-0.5324229312
## Glucose.6.phosphate_HMDB0001401	0.8961235412
## X6.Phosphogluconic.acid_HMDB0001316	0.3541990328
## Inositol.phosphate_HMDB0002985	0.1909639214
## Uridine_HMDB0000296	0.0935782541
## Stigmasterol_HMDB0000937	-0.0652787955
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.1006385966
## Sucrose_HMDB0000258	-0.5161415719
## MG.18.0e.0.0.0.0._HMDB0011143	0.1262686133
## Trehalose_HMDB0000975	-0.0485521569
## D.Maltose_HMDB0000163	-0.0484764055
## Lactitol_HMDB00040937	0.0348845872
## Xanthylic.acid_HMDB0001554	0.4140313389
## Adenosine.monophosphate_HMDB0000045	0.8567788819
## Cholesterol_HMDB0000067	-0.1121770483
## Lathosterol_HMDB0001170	-0.3884908589
## X7b.Hydroxycholesterol_.HMDB0006119	0.7001149812
##	L.Alanine_HMDB0000161
## Dimethylglycine_HMDB0000092	-0.589839534
## Glyoxylic.acid_HMDB0000119	-0.588501831
## Pyruvic.acid_HMDB0000243	0.614046212
## L.Lactic.acid_HMDB0000190	0.937675491
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.471260738
## Glycolic.acid_HMDB0000115	-0.241791178
## Caproic.acid_HMDB0000535	-0.531846049
## L.Alanine_HMDB0000161	1.000000000
## Alpha.ketoisovaleric.acid_HMDB0000019	0.561681595
## Glycine_HMDB0000123	0.820955263
## Oxalic.acid_HMDB0002329	-0.325904030
## Hydroxylamine_HMDB0003338	0.374479735
## X2.Hydroxybutyric.acid_HMDB0000008	0.259549963
## Acetoacetic.acid_HMDB0000060	-0.014706317
## Hydroxypropionic.acid_HMDB0000700	0.663582737
## Pyruvic.acid_HMDB0000243.1	0.560003076
## X3.Hydroxybutyric.acid_HMDB0000357	0.184582315
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.298574685
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.138556682

## D.Alpha.aminobutyric.acid_HMDB0000650	0.873090696
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.313067050
## Beta.Alanine_HMDB0000056	0.774104536
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.581433588
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.574527773
## Malonic.acid_HMDB0000691	0.496001747
## X3.Aminoisobutanoic.acid_HMDB0003911	0.807361845
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.739791987
## Ketoleucine_HMDB0000695	0.204266944
## L.Valine_HMDB0000883	0.943041314
## ITSD_Valine	0.874864832
## Urea_HMDB0000294	0.853706901
## Benzoic.acid_HMDB0001870	-0.102804905
## Caprylic.acid_HMDB0000482	-0.475458615
## Glycerol_HMDB0000131	0.913982960
## Ethanolamine_HMDB0000149	0.961278698
## L.Leucine_HMDB0000687	0.907140238
## Acetyl glycine_HMDB0000532	0.029178372
## L.Isoleucine_HMDB0000172	0.950411415
## Nicotinic.acid_HMDB0001488	-0.067084412
## Maleic.acid_HMDB0000176	-0.137529890
## L.Proline_HMDB0000162	0.824316559
## Phenylacetic.acid_HMDB0000209	-0.343380978
## Succinic.acid_HMDB0000254	0.777923098
## Glycine_HMDB0000123.1	0.908740334
## Methylsuccinic.acid_HMDB0001844	0.033833440
## Glyceric.acid_HMDB0000139	-0.336419668
## Fumaric.acid_HMDB0000134	0.794240355
## Uracil_HMDB0000300	0.774142171
## Pelargonic.acid_HMDB0000847	-0.550345803
## L.Serine_HMDB0000187	0.914021282
## L.Threonine_HMDB0000167	0.974383539
## Mesaconic.acid_HMDB0000749	0.166940287
## Glutaric.acid_HMDB0000661	0.304369986
## Thymine_HMDB0000262	0.645438169
## Beta.Alanine_HMDB0000056.1	0.861064527
## L.Homoserine_HMDB0000719	-0.186006075
## Capric.acid_HMDB0000511	-0.303779009
## Citramalic.acid_HMDB0000426	0.624920821
## Malic.acid_HMDB0000744	-0.047102569
## Niacinamide_HMDB0001406	0.905524269
## Adipic.acid_HMDB0000448	0.825032073
## D.Threitol_HMDB0004136	0.315058330
## Dihydrouracil_HMDB0000076	0.694772730
## Erythritol_HMDB0002994	0.556707040
## N.Acetylserine_HMDB0002931	0.907299279
## L.Aspartic.acid_HMDB0000191	0.939137854
## L.Methionine_HMDB0000696	0.850573883
## X4.Hydroxyproline_HMDB0000725	0.947381229
## Pyroglutamic.acid_HMDB0000267	0.911731817
## Cytosine_HMDB0000630	0.242417242
## Gamma.Aminobutyric.acid_HMDB0000112	0.504779866
## Threonic.acid_HMDB0000943	-0.174205006
## L.Cysteine_HMDB0000574	-0.044572299

## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.289342218
## Creatinine_HMDB0000562	0.650897433
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.465684684
## Oxoglutaric.acid_HMDB0000208	0.238019434
## Phenylpyruvic.acid_HMDB0000205	-0.382422687
## Pimelic.acid_HMDB0000857	0.616993747
## Phenyllactic.acid_HMDB0000779	-0.206733725
## Phosphoenolpyruvic.acid_HMDB0000263	-0.654993197
## Ornithine_HMDB0000214	0.689680355
## Hypotaurine_HMDB0000965	0.918779469
## Triethanolamine_HMDB0032538	0.928353890
## X2.Aminobenzoic.acid_HMDB0001123	0.850640673
## L.Glutamic.acid_HMDB0000148	0.848076273
## X4.Hydroxybenzoic.acid_HMDB0000500	0.936119556
## X5.Aminopentanoic.acid_HMDB0003355	0.228200993
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.359348429
## L.Phenylalanine_HMDB0000159	0.895565982
## Dodecanoic.acid_HMDB0000638	0.330627514
## Lyxose_HMDB0003402_1	-0.564006796
## D.Xylose_HMDB0000098	-0.466946631
## Lyxose_HMDB0003402_2	-0.299133865
## D.Arabinose_HMDB0029942	-0.646973501
## L.Asparagine_HMDB0000168	0.521172666
## D.Ribulose_HMDB0000621	-0.704519781
## D.Ribose_HMDB0000283	-0.650290367
## D.Xylulose_HMDB0001644	-0.697328702
## X3.Sulfinoalanine_HMDB0000996	0.206302070
## Suberic.acid_HMDB0000893	0.670234720
## L.Lysine_HMDB0000182	0.461775825
## Levoglucosan_HMDB0000640	-0.331825496
## D.Arabitol_HMDB0000568	0.325638985
## Ribitol_HMDB0000508	0.115062185
## cis.Aconitic.acid_HMDB0000072	-0.276629854
## Quinolinic.acid_HMDB0000232	0.282946133
## Putrescine_HMDB0001414	0.249965454
## Glycerol.3.phosphate_HMDB0000126	-0.659913307
## Vanillic.acid_HMDB0000484	0.673048971
## L.Glutamine_HMDB0000641	0.262710767
## X2.Phosphoglyceric.acid_HMDB0000362	0.400939837
## Azelaic.acid_HMDB0000784	0.097802675
## L.Dihydroorotic.acid_HMDB0003349	-0.639284458
## O.Phosphoethanolamine_HMDB0000224	0.354041549
## X3.Phosphoglyceric.acid_HMDB0000807	0.438116461
## Isocitric.acid_HMDB0000193	0.382076358
## Hypoxanthine_HMDB0000157	-0.171587201
## Citric.acid_HMDB0000094	-0.059696916
## L.Arginine_HMDB0000517	-0.277283907
## Ornithine_HMDB0000214.1	0.904781366
## Dopamine_HMDB0000073	0.891805433
## Myristic.acid_HMDB0000806	0.677929227
## X1.5.Anhydrosorbitol_HMDB0002712	0.063022322
## D.Tagatose_HMDB0003418	-0.615977500
## Psicose_1	-0.168399465
## Sebacic.acid_HMDB0000792	0.748173836

## D.Fructose_HMDB0000660	-0.538830455
## Gluconolactone_HMDB0000150	-0.575076982
## L.Sorbose_HMDB0001266	-0.549529481
## D.Mannose_HMDB0000169	0.734629236
## Hydroxyphenyllactic.acid_HMDB0000755	0.371591343
## D.Glucose_HMDB0000122	0.694963159
## N.Acetylglutamine_HMDB0006029	0.720553441
## L.Lysine_HMDB0000182.1	0.804167074
## D.Mannose_HMDB0000169.1	0.759434303
## Tyramine_HMDB0000306	0.794088006
## L.Histidine_HMDB0000177	0.772263099
## D.Glucose_HMDB0000122.1	0.676092497
## X1.Hexadecanol_HMDB0003424	-0.322764257
## L.Tyrosine_HMDB0000158	0.778867314
## Mannitol_HMDB0000765	0.799179474
## Sorbitol_HMDB0000247	-0.154213874
## ITSD_Sorbitol	0.641635462
## Galacturonic.acid_HMDB0002545	0.307500459
## Pantothenic.acid_HMDB0000210	-0.017882495
## Palmitoleic.acid_HMDB0003229	0.316322637
## Xanthine_HMDB0000292	0.435908160
## Gluconic.acid_HMDB0000625	-0.203089045
## Palmitic.acid_HMDB0000220	0.325417123
## Glucaric.acid_HMDB0000663	0.690306938
## N.Acetylmannosamine_HMDB0001129	0.442655665
## N.Acetyl.D.glucosamine_HMDB0000215	0.745184197
## D.Ribulose.5.phosphate_HMDB0000618	-0.705846132
## Uric.acid_HMDB0000289	0.362869329
## D.Ribose.5.phosphate_HMDB0001548	-0.694802169
## myo.Inositol_HMDB0000211	0.540971109
## D.Ribose.5.phosphate_HMDB0001548.1	-0.780223718
## Heptadecanoic.acid_HMDB0002259	0.100727164
## Octadecanol_HMDB0002350	-0.044954733
## Glutathione_HMDB0000125	0.068328866
## Linoleic.acid_HMDB0000673	0.055719943
## Oleic.acid_HMDB0000207	0.176963730
## Elaidic.acid_HMDB0000573	0.235524598
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.634811585
## Stearic.acid_HMDB0000827	0.042010290
## L.Tryptophan_HMDB0000929	0.077379086
## Fructose.1.phosphate_HMDB0001076	-0.454097656
## Mannose.6.phosphate_HMDB0001078	-0.488863191
## Arachidonic.acid_HMDB0001043	-0.051956687
## Glucose.6.phosphate_HMDB0001401	-0.446160914
## X6.Phosphogluconic.acid_HMDB0001316	-0.272113639
## Inositol.phosphate_HMDB0002985	-0.380916008
## Uridine_HMDB0000296	0.300634112
## Stigmasterol_HMDB0000937	0.464589667
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.066003661
## Sucrose_HMDB0000258	0.309201504
## MG.18.0e.0.0.0.0._HMDB0011143	0.007278696
## Trehalose_HMDB0000975	-0.114575273
## D.Maltose_HMDB0000163	-0.109748873
## Lactitol_HMDB0040937	0.107848871

## Xanthylic.acid_HMDB0001554	-0.664866277
## Adenosine.monophosphate_HMDB0000045	-0.554193354
## Cholesterol_HMDB0000067	-0.099235665
## Lathosterol_HMDB0001170	-0.030587444
## X7b.Hydroxycholesterol_.HMDB0006119	-0.046101713
##	Alpha.ketoisovaleric.acid_HMDB0000019
## Dimethylglycine_HMDB0000092	0.088506514
## Glyoxylic.acid_HMDB0000119	0.091060833
## Pyruvic.acid_HMDB0000243	0.489036837
## L.Lactic.acid_HMDB0000190	0.623128362
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.499541603
## Glycolic.acid_HMDB0000115	0.199054429
## Caproic.acid_HMDB0000535	0.118524971
## L.Alanine_HMDB0000161	0.561681595
## Alpha.ketoisovaleric.acid_HMDB0000019	1.000000000
## Glycine_HMDB0000123	0.575714531
## Oxalic.acid_HMDB0002329	-0.060793832
## Hydroxylamine_HMDB0003338	0.438694650
## X2.Hydroxybutyric.acid_HMDB0000008	0.613931428
## Acetoacetic.acid_HMDB0000060	0.360807225
## Hydroxypropionic.acid_HMDB0000700	0.394786355
## Pyruvic.acid_HMDB0000243.1	0.608217879
## X3.Hydroxybutyric.acid_HMDB0000357	0.506237595
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.576474236
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.339414764
## D.Alpha.aminobutyric.acid_HMDB0000650	0.393658029
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.590714705
## Beta.Alanine_HMDB0000056	0.137362024
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.715541176
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.811977191
## Malonic.acid_HMDB0000691	0.385798211
## X3.Aminoisobutanoic.acid_HMDB0003911	0.200151395
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.462729994
## Ketoleucine_HMDB0000695	0.821559122
## L.Valine_HMDB0000883	0.488813878
## ITSD_Valine	0.357163672
## Urea_HMDB0000294	0.790491016
## Benzoic.acid_HMDB0001870	-0.050308264
## Caprylic.acid_HMDB0000482	0.167871446
## Glycerol_HMDB0000131	0.453527598
## Ethanolamine_HMDB0000149	0.573264782
## L.Leucine_HMDB0000687	0.492217473
## Acetylglutamine_HMDB0000532	0.256443164
## L.Isoleucine_HMDB0000172	0.581268831
## Nicotinic.acid_HMDB0001488	0.178635111
## Maleic.acid_HMDB0000176	0.422027992
## L.Proline_HMDB0000162	0.656425466
## Phenylacetic.acid_HMDB0000209	0.370680539
## Succinic.acid_HMDB0000254	0.539308851
## Glycine_HMDB0000123.1	0.587480297
## Methylsuccinic.acid_HMDB0001844	-0.165688367
## Glyceric.acid_HMDB0000139	0.255806356
## Fumaric.acid_HMDB0000134	0.687046835
## Uracil_HMDB0000300	0.838531259

## Pelargonic.acid_HMDB0000847	0.074412365
## L.Serine_HMDB0000187	0.577357794
## L.Threonine_HMDB0000167	0.663350804
## Mesaconic.acid_HMDB0000749	0.214289541
## Glutaric.acid_HMDB0000661	0.567513680
## Thymine_HMDB0000262	0.546290134
## Beta.Alanine_HMDB0000056.1	0.327708308
## L.Homoserine_HMDB0000719	0.026202958
## Capric.acid_HMDB0000511	-0.033898301
## Citramalic.acid_HMDB0000426	0.431722338
## Malic.acid_HMDB0000744	0.534414275
## Niacinamide_HMDB0001406	0.622507778
## Adipic.acid_HMDB0000448	0.569097131
## D.Threitol_HMDB0004136	0.404508565
## Dihydrouracil_HMDB0000076	0.735866316
## Erythritol_HMDB0002994	0.671514981
## N.Acetylserine_HMDB0002931	0.707333155
## L.Aspartic.acid_HMDB0000191	0.615888451
## L.Methionine_HMDB0000696	0.281198349
## X4.Hydroxyproline_HMDB0000725	0.688670214
## Pyroglutamic.acid_HMDB0000267	0.590231061
## Cytosine_HMDB0000630	0.019253332
## Gamma.Aminobutyric.acid_HMDB0000112	0.360759425
## Threonic.acid_HMDB0000943	0.463714264
## L.Cysteine_HMDB0000574	0.542193566
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.296988744
## Creatinine_HMDB0000562	0.013679741
## X3.Hydroxyglutaric.acid_HMDB0000428	0.073627781
## Oxoglutaric.acid_HMDB0000208	0.349961915
## Phenylpyruvic.acid_HMDB0000205	0.198219839
## Pimelic.acid_HMDB0000857	0.300409753
## Phenyllactic.acid_HMDB0000779	0.152449156
## Phosphoenolpyruvic.acid_HMDB0000263	-0.066304884
## Ornithine_HMDB0000214	0.113399605
## Hypotaurine_HMDB0000965	0.600901395
## Triethanolamine_HMDB0032538	0.645680734
## X2.Aminobenzoic.acid_HMDB0001123	0.323017753
## L.Glutamic.acid_HMDB0000148	0.287393453
## X4.Hydroxybenzoic.acid_HMDB0000500	0.472775610
## X5.Aminopentanoic.acid_HMDB0003355	0.698838638
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.399985945
## L.Phenylalanine_HMDB0000159	0.301065751
## Dodecanoic.acid_HMDB0000638	0.179688765
## Lyxose_HMDB0003402_1	0.009081536
## D.Xylose_HMDB0000098	-0.044851646
## Lyxose_HMDB0003402_2	-0.014374626
## D.Arabinose_HMDB0029942	-0.044500391
## L.Asparagine_HMDB0000168	-0.093886961
## D.Ribulose_HMDB0000621	0.012579987
## D.Ribose_HMDB0000283	-0.075469037
## D.Xylulose_HMDB0001644	0.020667978
## X3.Sulfinioalanine_HMDB0000996	-0.348495875
## Suberic.acid_HMDB0000893	0.633572070
## L.Lysine_HMDB0000182	-0.109779727

## Levoglucosan_HMDB0000640	-0.056563140
## D.Arabitol_HMDB0000568	0.198152096
## Ribitol_HMDB0000508	0.293046745
## cis.Aconitic.acid_HMDB0000072	0.133464297
## Quinolinic.acid_HMDB0000232	0.605379729
## Putrescine_HMDB0001414	0.419150998
## Glycerol.3.phosphate_HMDB0000126	-0.321880197
## Vanillic.acid_HMDB0000484	0.618869476
## L.Glutamine_HMDB0000641	-0.219268445
## X2.Phosphoglyceric.acid_HMDB0000362	0.802917290
## Azelaic.acid_HMDB0000784	0.015407344
## L.Dihydroorotic.acid_HMDB0003349	0.026928941
## O.Phosphoethanolamine_HMDB0000224	-0.039616365
## X3.Phosphoglyceric.acid_HMDB0000807	0.827814861
## Isocitric.acid_HMDB0000193	0.395968895
## Hypoxanthine_HMDB0000157	-0.534723543
## Citric.acid_HMDB0000094	0.613900068
## L.Arginine_HMDB0000517	-0.138696871
## Ornithine_HMDB0000214.1	0.367582527
## Dopamine_HMDB0000073	0.356037819
## Myristic.acid_HMDB0000806	0.288687143
## X1.5.Anhydrosorbitol_HMDB0002712	0.504557585
## D.Tagatose_HMDB0003418	-0.024421757
## Psicose_1	0.146755847
## Sebacic.acid_HMDB0000792	0.510252520
## D.Fructose_HMDB0000660	0.050930579
## Gluconolactone_HMDB0000150	0.116807592
## L.Sorbose_HMDB0001266	0.015598947
## D.Mannose_HMDB0000169	0.294356689
## Hydroxyphenyllactic.acid_HMDB0000755	0.603361411
## D.Glucose_HMDB0000122	0.302368314
## N.Acetylglutamine_HMDB0006029	0.297153766
## L.Lysine_HMDB0000182.1	0.176517371
## D.Mannose_HMDB0000169.1	0.200052160
## Tyramine_HMDB0000306	0.170067117
## L.Histidine_HMDB0000177	0.129138513
## D.Glucose_HMDB0000122.1	0.228417669
## X1.Hexadecanol_HMDB0003424	-0.109131004
## L.Tyrosine_HMDB0000158	0.161700773
## Mannitol_HMDB0000765	0.490590755
## Sorbitol_HMDB0000247	-0.061941502
## ITSD_Sorbitol	0.420175859
## Galacturonic.acid_HMDB0002545	0.725561053
## Pantothenic.acid_HMDB0000210	0.327734365
## Palmitoleic.acid_HMDB0003229	-0.127738195
## Xanthine_HMDB0000292	0.087911141
## Gluconic.acid_HMDB0000625	0.499430298
## Palmitic.acid_HMDB0000220	0.156577059
## Glucaric.acid_HMDB0000663	0.490794643
## N.Acetylmannosamine_HMDB0001129	0.242950404
## N.Acetyl.D.glucosamine_HMDB0000215	0.395309892
## D.Ribulose.5.phosphate_HMDB0000618	-0.046647597
## Uric.acid_HMDB0000289	-0.237401924
## D.Ribose.5.phosphate_HMDB0001548	-0.194495967

## myo.Inositol_HMDB0000211	0.453717110
## D.Ribose.5.phosphate_HMDB0001548.1	-0.114709779
## Heptadecanoic.acid_HMDB0002259	0.546874328
## Octadecanol_HMDB0002350	0.410166238
## Glutathione_HMDB0000125	0.135287003
## Linoleic.acid_HMDB0000673	-0.164156618
## Oleic.acid_HMDB0000207	-0.236277659
## Elaidic.acid_HMDB0000573	-0.155936707
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.140475031
## Stearic.acid_HMDB0000827	0.228154727
## L.Tryptophan_HMDB0000929	0.267762930
## Fructose.1.phosphate_HMDB0001076	0.128534242
## Mannose.6.phosphate_HMDB0001078	-0.150581298
## Arachidonic.acid_HMDB0001043	-0.518376304
## Glucose.6.phosphate_HMDB0001401	0.170550021
## X6.Phosphogluconic.acid_HMDB0001316	0.168366795
## Inositol.phosphate_HMDB0002985	-0.133480019
## Uridine_HMDB0000296	0.344793735
## Stigmasterol_HMDB0000937	0.510060998
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.381973967
## Sucrose_HMDB0000258	-0.101990442
## MG.18.0e.0.0.0.0._HMDB0011143	0.169369787
## Trehalose_HMDB0000975	-0.255911276
## D.Maltose_HMDB0000163	-0.248883295
## Lactitol_HMDB00040937	0.309342954
## Xanthylic.acid_HMDB0001554	-0.420097136
## Adenosine.monophosphate_HMDB0000045	0.171360814
## Cholesterol_HMDB0000067	0.009539852
## Lathosterol_HMDB0001170	-0.189636112
## X7b.Hydroxycholesterol_.HMDB0006119	0.470991258
##	
## Dimethylglycine_HMDB0000092	Glycine_HMDB0000123
## Glyoxylic.acid_HMDB0000119	-0.56225374
## Pyruvic.acid_HMDB0000243	-0.55773812
## L.Lactic.acid_HMDB0000190	0.77431298
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.85452991
## Glycolic.acid_HMDB0000115	0.51818020
## Caproic.acid_HMDB0000535	-0.16628490
## L.Alanine_HMDB0000161	-0.39860956
## Alpha.ketoisovaleric.acid_HMDB0000019	0.82095526
## Glycine_HMDB0000123	0.57571453
## Oxalic.acid_HMDB0002329	1.00000000
## Hydroxylamine_HMDB0003338	-0.10437307
## X2.Hydroxybutyric.acid_HMDB0000008	0.19327270
## Acetoacetic.acid_HMDB0000060	0.30962497
## Hydroxypropionic.acid_HMDB0000700	0.10263829
## Pyruvic.acid_HMDB0000243.1	0.58249896
## X3.Hydroxybutyric.acid_HMDB0000357	0.49971528
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.37255392
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.38343291
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.09393940
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.57673021
## Beta.Alanine_HMDB0000056	0.16260302
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.80243259
	0.73839524

## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.52719700
## Malonic.acid_HMDB0000691	0.66766521
## X3.Aminoisobutanoic.acid_HMDB0003911	0.62919046
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.65720854
## Ketoleucine_HMDB0000695	0.28272133
## L.Valine_HMDB0000883	0.70492397
## ITSD_Valine	0.70128369
## Urea_HMDB0000294	0.83478890
## Benzoic.acid_HMDB0001870	-0.14670891
## Caprylic.acid_HMDB0000482	-0.30593333
## Glycerol_HMDB0000131	0.81180450
## Ethanolamine_HMDB0000149	0.79295407
## L.Leucine_HMDB0000687	0.71445406
## Acetylglycine_HMDB0000532	0.09603345
## L.Isoleucine_HMDB0000172	0.79049227
## Nicotinic.acid_HMDB0001488	0.12356830
## Maleic.acid_HMDB0000176	0.10412110
## L.Proline_HMDB0000162	0.62741786
## Phenylacetic.acid_HMDB0000209	-0.14454220
## Succinic.acid_HMDB0000254	0.69621675
## Glycine_HMDB0000123.1	0.74816705
## Methylsuccinic.acid_HMDB0001844	0.03895844
## Glyceric.acid_HMDB0000139	-0.14175435
## Fumaric.acid_HMDB0000134	0.85381355
## Uracil_HMDB0000300	0.72129993
## Pelargonic.acid_HMDB0000847	-0.42475258
## L.Serine_HMDB0000187	0.76436230
## L.Threonine_HMDB0000167	0.84590613
## Mesaconic.acid_HMDB0000749	0.18378561
## Glutaric.acid_HMDB0000661	0.33399509
## Thymine_HMDB0000262	0.57933311
## Beta.Alanine_HMDB0000056.1	0.63291235
## L.Homoserine_HMDB0000719	-0.19573845
## Capric.acid_HMDB0000511	-0.28983385
## Citramalic.acid_HMDB0000426	0.69897687
## Malic.acid_HMDB0000744	0.08072794
## Niacinamide_HMDB0001406	0.82214685
## Adipic.acid_HMDB0000448	0.68029058
## D.Threitol_HMDB0004136	0.37736604
## Dihydrouracil_HMDB0000076	0.55406436
## Erythritol_HMDB0002994	0.58304143
## N.Acetylserine_HMDB0002931	0.82004748
## L.Aspartic.acid_HMDB0000191	0.74865331
## L.Methionine_HMDB0000696	0.63934309
## X4.Hydroxyproline_HMDB0000725	0.85462344
## Pyroglutamic.acid_HMDB0000267	0.84108900
## Cytosine_HMDB0000630	0.13375657
## Gamma.Aminobutyric.acid_HMDB0000112	0.71625207
## Threonic.acid_HMDB0000943	-0.08230343
## L.Cysteine_HMDB0000574	-0.04148332
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.16941961
## Creatinine_HMDB0000562	0.39238584
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.24024635
## Oxoglutaric.acid_HMDB0000208	0.43377295

## Phenylpyruvic.acid_HMDB0000205	-0.09127389
## Pimelic.acid_HMDB0000857	0.58310245
## Phenyllactic.acid_HMDB0000779	-0.04546939
## Phosphoenolpyruvic.acid_HMDB0000263	-0.50034421
## Ornithine_HMDB0000214	0.44955747
## Hypotaurine_HMDB0000965	0.66310099
## Triethanolamine_HMDB0032538	0.82208188
## X2.Aminobenzoic.acid_HMDB0001123	0.66552335
## L.Glutamic.acid_HMDB0000148	0.60442070
## X4.Hydroxybenzoic.acid_HMDB0000500	0.75043868
## X5.Aminopentanoic.acid_HMDB0003355	0.44940142
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.21920341
## L.Phenylalanine_HMDB0000159	0.68014085
## Dodecanoic.acid_HMDB0000638	0.39841256
## Lyxose_HMDB0003402_1	-0.46416745
## D.Xylose_HMDB0000098	-0.34017602
## Lyxose_HMDB0003402_2	-0.18797583
## D.Arabinose_HMDB0029942	-0.50881846
## L.Asparagine_HMDB0000168	0.23938804
## D.Ribulose_HMDB0000621	-0.49763424
## D.Ribose_HMDB0000283	-0.51420370
## D.Xylulose_HMDB0001644	-0.48263466
## X3.Sulfinioalanine_HMDB0000996	-0.04065613
## Suberic.acid_HMDB0000893	0.78306234
## L.Lysine_HMDB0000182	0.22633091
## Levoglucosan_HMDB0000640	-0.26499569
## D.Arabitol_HMDB0000568	0.57752489
## Ribitol_HMDB0000508	-0.04501842
## cis.Aconitic.acid_HMDB0000072	-0.12474294
## Quinolinic.acid_HMDB0000232	0.43804601
## Putrescine_HMDB0001414	0.43526235
## Glycerol.3.phosphate_HMDB0000126	-0.45369283
## Vanillic.acid_HMDB0000484	0.56532707
## L.Glutamine_HMDB0000641	-0.05800346
## X2.Phosphoglyceric.acid_HMDB0000362	0.43369300
## Azelaic.acid_HMDB0000784	0.29898765
## L.Dihydroorotic.acid_HMDB0003349	-0.49100219
## O.Phosphoethanolamine_HMDB0000224	0.37853553
## X3.Phosphoglyceric.acid_HMDB0000807	0.50008397
## Isocitric.acid_HMDB0000193	0.31062547
## Hypoxanthine_HMDB0000157	-0.42420985
## Citric.acid_HMDB0000094	-0.07408205
## L.Arginine_HMDB0000517	-0.51366896
## Ornithine_HMDB0000214.1	0.67281467
## Dopamine_HMDB0000073	0.64415138
## Myristic.acid_HMDB0000806	0.61646967
## X1.5.Anhydrosorbitol_HMDB0002712	0.17187571
## D.Tagatose_HMDB0003418	-0.49338602
## Psicose_1	-0.13457564
## Sebacic.acid_HMDB0000792	0.68288403
## D.Fructose_HMDB0000660	-0.29572280
## Gluconolactone_HMDB0000150	-0.42756288
## L.Sorbose_HMDB0001266	-0.31593827
## D.Mannose_HMDB0000169	0.61614328

## Hydroxyphenyllactic.acid_HMDB0000755	0.52479123
## D.Glucose_HMDB0000122	0.61466322
## N.Acetylglutamine_HMDB0006029	0.61041030
## L.Lysine_HMDB0000182.1	0.54930297
## D.Mannose_HMDB0000169.1	0.56927570
## Tyramine_HMDB0000306	0.52690022
## L.Histidine_HMDB0000177	0.53468587
## D.Glucose_HMDB0000122.1	0.56455868
## X1.Hexadecanol_HMDB0003424	-0.12882108
## L.Tyrosine_HMDB0000158	0.49824195
## Mannitol_HMDB0000765	0.71225790
## Sorbitol_HMDB0000247	-0.26439615
## ITSD_Sorbitol	0.53919084
## Galacturonic.acid_HMDB0002545	0.24098019
## Pantothenic.acid_HMDB0000210	0.21234484
## Palmitoleic.acid_HMDB0003229	0.30401444
## Xanthine_HMDB0000292	0.10845334
## Gluconic.acid_HMDB0000625	-0.21550242
## Palmitic.acid_HMDB0000220	0.48867715
## Glucaric.acid_HMDB0000663	0.53389911
## N.Acetylmannosamine_HMDB0001129	0.28044927
## N.Acetyl.D.glucosamine_HMDB0000215	0.60944161
## D.Ribulose.5.phosphate_HMDB0000618	-0.52210567
## Uric.acid_HMDB0000289	0.05823999
## D.Ribose.5.phosphate_HMDB0001548	-0.49816325
## myo.Inositol_HMDB0000211	0.59773770
## D.Ribose.5.phosphate_HMDB0001548.1	-0.57382627
## Heptadecanoic.acid_HMDB0002259	0.09394465
## Octadecanol_HMDB0002350	0.23893180
## Glutathione_HMDB0000125	-0.07120403
## Linoleic.acid_HMDB0000673	0.16604721
## Oleic.acid_HMDB0000207	0.18016236
## Elaidic.acid_HMDB0000573	0.25247471
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.40309297
## Stearic.acid_HMDB0000827	0.40381571
## L.Tryptophan_HMDB0000929	0.48494832
## Fructose.1.phosphate_HMDB0001076	-0.28494350
## Mannose.6.phosphate_HMDB0001078	-0.26692005
## Arachidonic.acid_HMDB0001043	-0.06740722
## Glucose.6.phosphate_HMDB0001401	-0.27387728
## X6.Phosphogluconic.acid_HMDB0001316	-0.04136007
## Inositol.phosphate_HMDB0002985	-0.28394228
## Uridine_HMDB0000296	0.17104455
## Stigmasterol_HMDB0000937	0.67047788
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.10546221
## Sucrose_HMDB0000258	0.43473970
## MG.18.Oe.0.0.0.0._HMD0011143	0.25550909
## Trehalose_HMDB0000975	0.09908702
## D.Maltose_HMDB0000163	0.10701556
## Lactitol_HMDB0040937	0.04071684
## Xanthylic.acid_HMDB0001554	-0.65955071
## Adenosine.monophosphate_HMDB0000045	-0.33125382
## Cholesterol_HMDB0000067	-0.15300964
## Lathosterol_HMDB0001170	0.01986807

## X7b.Hydroxycholesterol_HMDB0006119	-0.04644577
## Oxalic.acid_HMDB0002329	
## Dimethylglycine_HMDB0000092	0.382927917
## Glyoxylic.acid_HMDB0000119	0.378258901
## Pyruvic.acid_HMDB0000243	-0.007103692
## L.Lactic.acid_HMDB0000190	-0.238398228
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.282352448
## Glycolic.acid_HMDB0000115	0.573142021
## Caproic.acid_HMDB0000535	0.516838370
## L.Alanine_HMDB0000161	-0.325904030
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.060793832
## Glycine_HMDB0000123	-0.104373071
## Oxalic.acid_HMDB0002329	1.000000000
## Hydroxylamine_HMDB0003338	0.046445274
## X2.Hydroxybutyric.acid_HMDB0000008	0.367617147
## Acetoacetic.acid_HMDB0000060	0.527964050
## Hydroxypropionic.acid_HMDB0000700	0.005386664
## Pyruvic.acid_HMDB0000243.1	0.123054138
## X3.Hydroxybutyric.acid_HMDB0000357	0.441714930
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.402700112
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.545331761
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.243528796
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.293551621
## Beta.Alanine_HMDB0000056	-0.241343278
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.263965366
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.147880532
## Malonic.acid_HMDB0000691	0.002408588
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.444492344
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.018240127
## Ketoleucine_HMDB0000695	0.282879724
## L.Valine_HMDB0000883	-0.280045730
## ITSD_Valine	-0.202957245
## Urea_HMDB0000294	-0.060737168
## Benzoic.acid_HMDB0001870	0.184427375
## Caprylic.acid_HMDB0000482	0.542367949
## Glycerol_HMDB0000131	-0.366988662
## Ethanolamine_HMDB0000149	-0.413645949
## L.Leucine_HMDB0000687	-0.321247037
## Acetyl glycine_HMDB0000532	0.488872548
## L.Isoleucine_HMDB0000172	-0.346152527
## Nicotinic.acid_HMDB0001488	0.216748322
## Maleic.acid_HMDB0000176	0.600974341
## L.Proline_HMDB0000162	-0.111543925
## Phenylacetic.acid_HMDB0000209	0.632346159
## Succinic.acid_HMDB0000254	0.005312574
## Glycine_HMDB0000123.1	-0.331652993
## Methylsuccinic.acid_HMDB0001844	0.437591711
## Glyceric.acid_HMDB0000139	0.460434468
## Fumaric.acid_HMDB0000134	-0.029098200
## Uracil_HMDB0000300	-0.151294845
## Pelargonic.acid_HMDB0000847	0.522422674
## L.Serine_HMDB0000187	-0.428341881
## L.Threonine_HMDB0000167	-0.329033551
## Mesaconic.acid_HMDB0000749	0.015588243

## Glutaric.acid_HMDB0000661	0.216912860
## Thymine_HMDB0000262	-0.159346689
## Beta.Alanine_HMDB0000056.1	-0.446289962
## L.Homoserine_HMDB0000719	0.303480892
## Capric.acid_HMDB0000511	0.367147217
## Citramalic.acid_HMDB0000426	-0.114487451
## Malic.acid_HMDB0000744	0.581708675
## Niacinamide_HMDB0001406	-0.283412101
## Adipic.acid_HMDB0000448	-0.505669839
## D.Threitol_HMDB0004136	-0.038174185
## Dihydrouracil_HMDB0000076	0.090703529
## Erythritol_HMDB0002994	0.200598376
## N.Acetylserine_HMDB0002931	-0.294604055
## L.Aspartic.acid_HMDB0000191	-0.474591850
## L.Methionine_HMDB0000696	-0.590473232
## X4.Hydroxyproline_HMDB0000725	-0.288492964
## Pyroglutamic.acid_HMDB0000267	-0.407702497
## Cytosine_HMDB0000630	-0.346984727
## Gamma.Aminobutyric.acid_HMDB0000112	0.110207603
## Threonic.acid_HMDB0000943	0.531455520
## L.Cysteine_HMDB0000574	0.360456437
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.633591289
## Creatinine_HMDB0000562	-0.467812463
## X3.Hydroxyglutaric.acid_HMDB0000428	0.608549154
## Oxoglutaric.acid_HMDB0000208	0.499360813
## Phenylpyruvic.acid_HMDB0000205	0.230476562
## Pimelic.acid_HMDB0000857	-0.167005400
## Phenyllactic.acid_HMDB0000779	0.424366127
## Phosphoenolpyruvic.acid_HMDB0000263	0.394356296
## Ornithine_HMDB0000214	-0.583764720
## Hypotaurine_HMDB0000965	-0.427128611
## Triethanolamine_HMDB0032538	-0.349698208
## X2.Aminobenzoic.acid_HMDB0001123	-0.462679465
## L.Glutamic.acid_HMDB0000148	-0.555953155
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.380724409
## X5.Aminopentanoic.acid_HMDB0003355	0.101150599
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.325739021
## L.Phenylalanine_HMDB0000159	-0.513403363
## Dodecanoic.acid_HMDB0000638	0.018863221
## Lyxose_HMDB0003402_1	0.656416291
## D.Xylose_HMDB0000098	-0.272812435
## Lyxose_HMDB0003402_2	-0.316227269
## D.Arabinose_HMDB0029942	0.690635072
## L.Asparagine_HMDB0000168	-0.589363351
## D.Ribulose_HMDB0000621	0.392022745
## D.Ribose_HMDB0000283	0.700668412
## D.Xylulose_HMDB0001644	0.369361323
## X3.Sulfinioalanine_HMDB0000996	-0.467255133
## Suberic.acid_HMDB0000893	-0.238934661
## L.Lysine_HMDB0000182	-0.553490226
## Levoglucosan_HMDB0000640	-0.403083920
## D.Arabitool_HMDB0000568	0.258195568
## Ribitol_HMDB0000508	-0.274807209
## cis.Aconitic.acid_HMDB0000072	-0.391609029

## Quinolinic.acid_HMDB0000232	0.062611192
## Putrescine_HMDB0001414	0.129597782
## Glycerol.3.phosphate_HMDB0000126	0.426880594
## Vanillic.acid_HMDB0000484	-0.283293312
## L.Glutamine_HMDB0000641	-0.516703074
## X2.Phosphoglyceric.acid_HMDB0000362	0.082251785
## Azelaic.acid_HMDB0000784	0.059346484
## L.Dihydroorotic.acid_HMDB0003349	0.667847402
## O.Phosphoethanolamine_HMDB0000224	-0.100522115
## X3.Phosphoglyceric.acid_HMDB0000807	0.145091384
## Isocitric.acid_HMDB0000193	-0.059189727
## Hypoxanthine_HMDB0000157	-0.328749317
## Citric.acid_HMDB0000094	0.143890249
## L.Arginine_HMDB0000517	0.077657278
## Ornithine_HMDB0000214.1	-0.569283987
## Dopamine_HMDB0000073	-0.576124541
## Myristic.acid_HMDB0000806	-0.337780697
## X1.5.Anhydrosorbitol_HMDB0002712	0.298787854
## D.Tagatose_HMDB0003418	0.647012455
## Psicose_1	-0.378114737
## Sebacic.acid_HMDB0000792	-0.248269471
## D.Fructose_HMDB0000660	0.690673299
## Gluconolactone_HMDB0000150	0.394089633
## L.Sorbose_HMDB0001266	0.690491683
## D.Mannose_HMDB0000169	-0.565430164
## Hydroxyphenyllactic.acid_HMDB0000755	0.253986466
## D.Glucose_HMDB0000122	-0.575784819
## N.Acetylglutamine_HMDB0006029	-0.555758088
## L.Lysine_HMDB0000182.1	-0.582404166
## D.Mannose_HMDB0000169.1	-0.590682485
## Tyramine_HMDB0000306	-0.584297571
## L.Histidine_HMDB0000177	-0.578687147
## D.Glucose_HMDB0000122.1	-0.575509297
## X1.Hexadecanol_HMDB0003424	0.133804063
## L.Tyrosine_HMDB0000158	-0.647569882
## Mannitol_HMDB0000765	-0.273601294
## Sorbitol_HMDB0000247	-0.109671841
## ITSD_Sorbitol	-0.274821627
## Galacturonic.acid_HMDB0002545	0.024696226
## Pantothenic.acid_HMDB0000210	0.264575255
## Palmitoleic.acid_HMDB0003229	-0.121045457
## Xanthine_HMDB0000292	-0.713848464
## Gluconic.acid_HMDB0000625	0.086561143
## Palmitic.acid_HMDB0000220	0.012357572
## Glucaric.acid_HMDB0000663	-0.558659576
## N.Acetylmannosamine_HMDB0001129	-0.368111515
## N.Acetyl.D.glucosamine_HMDB0000215	-0.459629353
## D.Ribulose.5.phosphate_HMDB0000618	0.492329971
## Uric.acid_HMDB0000289	-0.700807501
## D.Ribose.5.phosphate_HMDB0001548	0.666245239
## myo.Inositol_HMDB0000211	-0.176597824
## D.Ribose.5.phosphate_HMDB0001548.1	0.602925519
## Heptadecanoic.acid_HMDB0002259	0.208806361
## Octadecanol_HMDB0002350	0.420245170

## Glutathione_HMDB0000125	-0.221626229
## Linoleic.acid_HMDB0000673	0.043754650
## Oleic.acid_HMDB0000207	-0.111911981
## Elaidic.acid_HMDB0000573	-0.085257892
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.444750762
## Stearic.acid_HMDB0000827	0.302732599
## L.Tryptophan_HMDB0000929	0.320354980
## Fructose.1.phosphate_HMDB0001076	0.567657658
## Mannose.6.phosphate_HMDB0001078	-0.006180224
## Arachidonic.acid_HMDB0001043	-0.100288718
## Glucose.6.phosphate_HMDB0001401	0.596293875
## X6.Phosphogluconic.acid_HMDB0001316	0.313663692
## Inositol.phosphate_HMDB0002985	0.190831559
## Uridine_HMDB0000296	0.155904112
## Stigmasterol_HMDB0000937	0.244146662
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.150034221
## Sucrose_HMDB0000258	-0.524278397
## MG.18.0e.0.0.0.0._HMDB0011143	0.476418067
## Trehalose_HMDB0000975	0.068173721
## D.Maltose_HMDB0000163	0.067247076
## Lactitol_HMDB00040937	0.076492182
## Xanthylic.acid_HMDB0001554	-0.012274476
## Adenosine.monophosphate_HMDB0000045	0.544681324
## Cholesterol_HMDB0000067	-0.130307517
## Lathosterol_HMDB0001170	-0.060719411
## X7b.Hydroxycholesterol._HMDB0006119	0.221001080
##	Hydroxylamine_HMDB0003338
## Dimethylglycine_HMDB0000092	-0.019232932
## Glyoxylic.acid_HMDB0000119	-0.024335500
## Pyruvic.acid_HMDB0000243	0.264449791
## L.Lactic.acid_HMDB0000190	0.500060983
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.641103174
## Glycolic.acid_HMDB0000115	0.324860090
## Caproic.acid_HMDB0000535	0.063462197
## L.Alanine_HMDB0000161	0.374479735
## Alpha.ketoisovaleric.acid_HMDB0000019	0.438694650
## Glycine_HMDB0000123	0.193272699
## Oxalic.acid_HMDB0002329	0.046445274
## Hydroxylamine_HMDB0003338	1.000000000
## X2.Hydroxybutyric.acid_HMDB0000008	0.329743141
## Acetoacetic.acid_HMDB0000060	0.735362276
## Hydroxypropionic.acid_HMDB0000700	0.547087011
## Pyruvic.acid_HMDB0000243.1	0.824473256
## X3.Hydroxybutyric.acid_HMDB0000357	0.378038600
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.413485897
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.412625654
## D.Alpha.aminobutyric.acid_HMDB0000650	0.404562832
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.417714437
## Beta.Alanine_HMDB0000056	-0.029282303
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.126084244
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.413686496
## Malonic.acid_HMDB0000691	0.168802502
## X3.Aminoisobutanoic.acid_HMDB0003911	0.297659338
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.494030430

## Ketoleucine_HMDB0000695	0.393849912
## L.Valine_HMDB0000883	0.473979118
## ITSD_Valine	0.438651585
## Urea_HMDB0000294	0.337543775
## Benzoic.acid_HMDB0001870	0.093295491
## Caprylic.acid_HMDB0000482	0.063937617
## Glycerol_HMDB0000131	0.385657905
## Ethanolamine_HMDB0000149	0.421217607
## L.Leucine_HMDB0000687	0.439920568
## Acetylglycine_HMDB0000532	0.273523618
## L.Isoleucine_HMDB0000172	0.444277319
## Nicotinic.acid_HMDB0001488	-0.145354098
## Maleic.acid_HMDB0000176	0.366922105
## L.Proline_HMDB0000162	0.450478038
## Phenylacetic.acid_HMDB0000209	0.206132390
## Succinic.acid_HMDB0000254	0.573996674
## Glycine_HMDB0000123.1	0.530966343
## Methylsuccinic.acid_HMDB0001844	0.295105065
## Glyceric.acid_HMDB0000139	0.242590742
## Fumaric.acid_HMDB0000134	0.439792109
## Uracil_HMDB0000300	0.600008089
## Pelargonic.acid_HMDB0000847	-0.104247724
## L.Serine_HMDB0000187	0.411135631
## L.Threonine_HMDB0000167	0.400624222
## Mesaconic.acid_HMDB0000749	-0.140365668
## Glutaric.acid_HMDB0000661	-0.020229725
## Thymine_HMDB0000262	0.659523204
## Beta.Alanine_HMDB0000056.1	0.367576554
## L.Homoserine_HMDB0000719	0.169860367
## Capric.acid_HMDB0000511	0.223328276
## Citramalic.acid_HMDB0000426	0.169683756
## Malic.acid_HMDB0000744	0.342371489
## Niacinamide_HMDB0001406	0.362028329
## Adipic.acid_HMDB0000448	0.234233068
## D.Threitol_HMDB0004136	0.365675398
## Dihydrouracil_HMDB0000076	0.676832452
## Erythritol_HMDB0002994	0.443875925
## N.Acetylserine_HMDB0002931	0.419530583
## L.Aspartic.acid_HMDB0000191	0.375712653
## L.Methionine_HMDB0000696	0.218347151
## X4.Hydroxyproline_HMDB0000725	0.336309955
## Pyroglutamic.acid_HMDB0000267	0.201051630
## Cytosine_HMDB0000630	-0.074613004
## Gamma.Aminobutyric.acid_HMDB0000112	-0.087941282
## Threonic.acid_HMDB0000943	0.292593471
## L.Cysteine_HMDB0000574	0.357415513
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.118008177
## Creatinine_HMDB0000562	0.225889788
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.252110396
## Oxoglutaric.acid_HMDB0000208	0.340317424
## Phenylpyruvic.acid_HMDB0000205	-0.261864304
## Pimelic.acid_HMDB0000857	-0.019814048
## Phenyllactic.acid_HMDB0000779	-0.092944685
## Phosphoenolpyruvic.acid_HMDB0000263	-0.397478961

## Ornithine_HMDB0000214	0.048477810
## Hypotaurine_HMDB0000965	0.361233044
## Triethanolamine_HMDB0032538	0.300739861
## X2.Aminobenzoic.acid_HMDB0001123	0.413127630
## L.Glutamic.acid_HMDB0000148	0.146108669
## X4.Hydroxybenzoic.acid_HMDB0000500	0.454924406
## X5.Aminopentanoic.acid_HMDB0003355	0.240377567
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.264542634
## L.Phenylalanine_HMDB0000159	0.272131912
## Dodecanoic.acid_HMDB0000638	0.482564958
## Lyxose_HMDB0003402_1	-0.115658158
## D.Xylose_HMDB0000098	-0.066761155
## Lyxose_HMDB0003402_2	0.003523928
## D.Arabinose_HMDB0029942	-0.181777806
## L.Asparagine_HMDB0000168	-0.066599424
## D.Ribulose_HMDB0000621	-0.025144669
## D.Ribose_HMDB0000283	-0.172486996
## D.Xylulose_HMDB0001644	-0.053390413
## X3.Sulfinoalanine_HMDB0000996	-0.173945261
## Suberic.acid_HMDB0000893	0.086515971
## L.Lysine_HMDB0000182	-0.097507955
## Levoglucosan_HMDB0000640	-0.014291888
## D.Arabitol_HMDB0000568	-0.192883448
## Ribitol_HMDB0000508	0.391672303
## cis.Aconitic.acid_HMDB0000072	-0.035838441
## Quinolinic.acid_HMDB0000232	-0.208319065
## Putrescine_HMDB0001414	0.096357437
## Glycerol.3.phosphate_HMDB0000126	-0.447101440
## Vanillic.acid_HMDB0000484	0.543446351
## L.Glutamine_HMDB0000641	-0.015894996
## X2.Phosphoglyceric.acid_HMDB0000362	0.267495906
## Azelaic.acid_HMDB0000784	-0.609782055
## L.Dihydroorotic.acid_HMDB0003349	-0.098399609
## O.Phosphoethanolamine_HMDB0000224	0.360969073
## X3.Phosphoglyceric.acid_HMDB0000807	0.218509784
## Isocitric.acid_HMDB0000193	0.346289112
## Hypoxanthine_HMDB0000157	-0.280874162
## Citric.acid_HMDB0000094	0.122489629
## L.Arginine_HMDB0000517	0.211647967
## Ornithine_HMDB0000214.1	0.274543734
## Dopamine_HMDB0000073	0.294660387
## Myristic.acid_HMDB0000806	0.400102977
## X1.5.Anhydrosorbitol_HMDB0002712	0.083822250
## D.Tagatose_HMDB0003418	-0.194299591
## Psicose_1	0.089104559
## Sebacic.acid_HMDB0000792	0.361700028
## D.Fructose_HMDB0000660	-0.141096957
## Gluconolactone_HMDB0000150	0.054512829
## L.Sorbose_HMDB0001266	-0.157401299
## D.Mannose_HMDB0000169	0.268448230
## Hydroxyphenyllactic.acid_HMDB0000755	0.500113760
## D.Glucose_HMDB0000122	0.169553397
## N.Acetylglutamine_HMDB0006029	0.240301773
## L.Lysine_HMDB0000182.1	0.222520345

## D.Mannose_HMDB0000169.1	0.243182411
## Tyramine_HMDB0000306	0.218698791
## L.Histidine_HMDB0000177	0.195455172
## D.Glucose_HMDB0000122.1	0.180341353
## X1.Hexadecanol_HMDB0003424	0.031277931
## L.Tyrosine_HMDB0000158	0.119915946
## Mannitol_HMDB0000765	0.292706992
## Sorbitol_HMDB0000247	0.169472482
## ITSD_Sorbitol	0.469018845
## Galacturonic.acid_HMDB0002545	0.370483007
## Pantothenic.acid_HMDB0000210	0.001428755
## Palmitoleic.acid_HMDB0003229	0.317363161
## Xanthine_HMDB0000292	-0.148106188
## Gluconic.acid_HMDB0000625	0.246340797
## Palmitic.acid_HMDB0000220	0.440762985
## Glucaric.acid_HMDB0000663	0.220543804
## N.Acetylmannosamine_HMDB0001129	0.473460961
## N.Acetyl.D.glucosamine_HMDB0000215	0.508705722
## D.Ribulose.5.phosphate_HMDB0000618	-0.275841808
## Uric.acid_HMDB0000289	-0.027492958
## D.Ribose.5.phosphate_HMDB0001548	-0.414026391
## myo.Inositol_HMDB0000211	0.246698200
## D.Ribose.5.phosphate_HMDB0001548.1	-0.275016073
## Heptadecanoic.acid_HMDB0002259	0.316584494
## Octadecanol_HMDB0002350	0.282484154
## Glutathione_HMDB0000125	-0.112656302
## Linoleic.acid_HMDB0000673	0.276386670
## Oleic.acid_HMDB0000207	0.259937385
## Elaidic.acid_HMDB0000573	0.311091635
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.209088000
## Stearic.acid_HMDB0000827	0.323288942
## L.Tryptophan_HMDB0000929	0.271620501
## Fructose.1.phosphate_HMDB0001076	-0.065074530
## Mannose.6.phosphate_HMDB0001078	-0.563982678
## Arachidonic.acid_HMDB0001043	0.068216733
## Glucose.6.phosphate_HMDB0001401	0.042330556
## X6.Phosphogluconic.acid_HMDB0001316	0.162681893
## Inositol.phosphate_HMDB0002985	0.092642236
## Uridine_HMDB0000296	0.671562533
## Stigmasterol_HMDB0000937	0.597043534
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.201607872
## Sucrose_HMDB0000258	-0.040727822
## MG.18.0e.0.0.0.0._HMDB0011143	0.389293033
## Trehalose_HMDB0000975	-0.733830628
## D.Maltose_HMDB0000163	-0.732125816
## Lactitol_HMDB0040937	0.016867536
## Xanthylic.acid_HMDB0001554	-0.474331596
## Adenosine.monophosphate_HMDB0000045	-0.214390606
## Cholesterol_HMDB0000067	0.189853012
## Lathosterol_HMDB0001170	0.207242888
## X7b.Hydroxycholesterol_.HMDB0006119	0.025564459
##	
## X2.Hydroxybutyric.acid_HMDB0000008	
## Dimethylglycine_HMDB0000092	0.274993038
## Glyoxylic.acid_HMDB0000119	0.267465356

## Pyruvic.acid_HMDB0000243	0.447589617
## L.Lactic.acid_HMDB0000190	0.390707724
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.700502110
## Glycolic.acid_HMDB0000115	0.641461246
## Caproic.acid_HMDB0000535	0.319920608
## L.Alanine_HMDB0000161	0.259549963
## Alpha.ketoisovaleric.acid_HMDB0000019	0.613931428
## Glycine_HMDB0000123	0.309624972
## Oxalic.acid_HMDB0002329	0.367617147
## Hydroxylamine_HMDB0003338	0.329743141
## X2.Hydroxybutyric.acid_HMDB0000008	1.000000000
## Acetoacetic.acid_HMDB0000060	0.621107413
## Hydroxypropionic.acid_HMDB0000700	0.562190756
## Pyruvic.acid_HMDB0000243.1	0.534382576
## X3.Hydroxybutyric.acid_HMDB0000357	0.915145976
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.966990525
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.851383739
## D.Alpha.aminobutyric.acid_HMDB0000650	0.328527772
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.815905624
## Beta.Alanine_HMDB0000056	0.062502866
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.601686265
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.800662977
## Malonic.acid_HMDB0000691	0.135629420
## X3.Aminoisobutanoic.acid_HMDB0003911	0.056855858
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.624488208
## Ketoleucine_HMDB0000695	0.859051437
## L.Valine_HMDB0000883	0.397056801
## ITSD_Valine	0.372869970
## Urea_HMDB0000294	0.615720917
## Benzoic.acid_HMDB0001870	0.446127994
## Caprylic.acid_HMDB0000482	0.509534517
## Glycerol_HMDB0000131	0.235447449
## Ethanolamine_HMDB0000149	0.208349017
## L.Leucine_HMDB0000687	0.397743229
## Acetylglycine_HMDB0000532	0.724643686
## L.Isoleucine_HMDB0000172	0.368205335
## Nicotinic.acid_HMDB0001488	0.261381371
## Maleic.acid_HMDB0000176	0.786553918
## L.Proline_HMDB0000162	0.620729491
## Phenylacetic.acid_HMDB0000209	0.672215538
## Succinic.acid_HMDB0000254	0.556403873
## Glycine_HMDB0000123.1	0.318553960
## Methylsuccinic.acid_HMDB0001844	0.203771770
## Glyceric.acid_HMDB0000139	0.610564461
## Fumaric.acid_HMDB0000134	0.661525707
## Uracil_HMDB0000300	0.534797832
## Pelargonic.acid_HMDB0000847	0.428979225
## L.Serine_HMDB0000187	0.217497246
## L.Threonine_HMDB0000167	0.349855490
## Mesaconic.acid_HMDB0000749	0.485687982
## Glutaric.acid_HMDB0000661	0.397390757
## Thymine_HMDB0000262	0.212579701
## Beta.Alanine_HMDB0000056.1	0.126590295
## L.Homoserine_HMDB0000719	0.394184827

## Capric.acid_HMDB0000511	0.453646535
## Citramalic.acid_HMDB0000426	-0.051107854
## Malic.acid_HMDB0000744	0.753734525
## Niacinamide_HMDB0001406	0.389027833
## Adipic.acid_HMDB0000448	0.088264641
## D.Threitol_HMDB0004136	0.496437577
## Dihydrouracil_HMDB0000076	0.561663496
## Erythritol_HMDB0002994	0.874528636
## N.Acetylserine_HMDB0002931	0.307395079
## L.Aspartic.acid_HMDB0000191	0.278241551
## L.Methionine_HMDB0000696	-0.057940807
## X4.Hydroxyproline_HMDB0000725	0.470015715
## Pyroglutamic.acid_HMDB0000267	0.353609271
## Cytosine_HMDB0000630	-0.119072710
## Gamma.Aminobutyric.acid_HMDB0000112	0.319590030
## Threonic.acid_HMDB0000943	0.866626663
## L.Cysteine_HMDB0000574	0.876930993
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.663019716
## Creatinine_HMDB0000562	-0.074263868
## X3.Hydroxyglutaric.acid_HMDB0000428	0.256685729
## Oxoglutaric.acid_HMDB0000208	0.610126476
## Phenylpyruvic.acid_HMDB0000205	0.225578428
## Pimelic.acid_HMDB0000857	-0.011229132
## Phenyllactic.acid_HMDB0000779	0.297040289
## Phosphoenolpyruvic.acid_HMDB0000263	0.009662528
## Ornithine_HMDB0000214	-0.356772246
## Hypotaurine_HMDB0000965	0.264775488
## Triethanolamine_HMDB0032538	0.123281099
## X2.Aminobenzoic.acid_HMDB0001123	0.029963500
## L.Glutamic.acid_HMDB0000148	0.013642009
## X4.Hydroxybenzoic.acid_HMDB0000500	0.233949147
## X5.Aminopentanoic.acid_HMDB0003355	0.509220876
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.382869269
## L.Phenylalanine_HMDB0000159	0.026931953
## Dodecanoic.acid_HMDB0000638	0.497111109
## Lyxose_HMDB0003402_1	0.469462859
## D.Xylose_HMDB0000098	-0.398240811
## Lyxose_HMDB0003402_2	-0.507963024
## D.Arabinose_HMDB0029942	0.324166166
## L.Asparagine_HMDB0000168	-0.460432801
## D.Ribulose_HMDB0000621	0.040632350
## D.Ribose_HMDB0000283	0.301772690
## D.Xylulose_HMDB0001644	0.035502295
## X3.Sulfinioalanine_HMDB0000996	-0.422032367
## Suberic.acid_HMDB0000893	0.169277877
## L.Lysine_HMDB0000182	-0.474635047
## Levoglucosan_HMDB0000640	-0.484653568
## D.Arabitol_HMDB0000568	0.299733463
## Ribitol_HMDB0000508	0.355364648
## cis.Aconitic.acid_HMDB0000072	-0.306675759
## Quinolinic.acid_HMDB0000232	0.383873927
## Putrescine_HMDB0001414	0.466685402
## Glycerol.3.phosphate_HMDB0000126	0.070606385
## Vanillic.acid_HMDB0000484	0.444921200

## L.Glutamine_HMDB0000641	-0.541117945
## X2.Phosphoglyceric.acid_HMDB0000362	0.563575587
## Azelaic.acid_HMDB0000784	-0.035861407
## L.Dihydroorotic.acid_HMDB0003349	0.356001048
## O.Phosphoethanolamine_HMDB0000224	0.145183923
## X3.Phosphoglyceric.acid_HMDB0000807	0.546843946
## Isocitric.acid_HMDB0000193	0.425754817
## Hypoxanthine_HMDB0000157	-0.677454372
## Citric.acid_HMDB0000094	0.564685303
## L.Arginine_HMDB0000517	-0.043054062
## Ornithine_HMDB0000214.1	-0.064309828
## Dopamine_HMDB0000073	-0.074080597
## Myristic.acid_HMDB0000806	0.275216296
## X1.5.Anhydrosorbitol_HMDB0002712	0.778881581
## D.Tagatose_HMDB0003418	0.329473402
## Psicose_1	-0.332774311
## Sebacic.acid_HMDB0000792	0.478114445
## D.Fructose_HMDB0000660	0.322533116
## Gluconolactone_HMDB0000150	0.238079997
## L.Sorbose_HMDB0001266	0.306148011
## D.Mannose_HMDB0000169	0.015509128
## Hydroxyphenyllactic.acid_HMDB0000755	0.782613056
## D.Glucose_HMDB0000122	-0.070122553
## N.Acetylglutamine_HMDB0006029	0.025499946
## L.Lysine_HMDB0000182.1	-0.131407853
## D.Mannose_HMDB0000169.1	-0.090089221
## Tyramine_HMDB0000306	-0.139069481
## L.Histidine_HMDB0000177	-0.163843791
## D.Glucose_HMDB0000122.1	-0.057220059
## X1.Hexadecanol_HMDB0003424	0.331866146
## L.Tyrosine_HMDB0000158	-0.220620458
## Mannitol_HMDB0000765	0.290596877
## Sorbitol_HMDB0000247	-0.142995300
## ITSD_Sorbitol	0.458274074
## Galacturonic.acid_HMDB0002545	0.775742118
## Pantothenic.acid_HMDB0000210	0.618570256
## Palmitoleic.acid_HMDB0003229	0.162670052
## Xanthine_HMDB0000292	-0.385038117
## Gluconic.acid_HMDB0000625	0.306339415
## Palmitic.acid_HMDB0000220	0.381725509
## Glucaric.acid_HMDB0000663	0.223498792
## N.Acetylmannosamine_HMDB0001129	0.227818690
## N.Acetyl.D.glucosamine_HMDB0000215	0.205286450
## D.Ribulose.5.phosphate_HMDB0000618	0.273829831
## Uric.acid_HMDB0000289	-0.538945836
## D.Ribose.5.phosphate_HMDB0001548	0.201773356
## myo.Inositol_HMDB0000211	0.381890707
## D.Ribose.5.phosphate_HMDB0001548.1	0.147025622
## Heptadecanoic.acid_HMDB0002259	0.497554818
## Octadecanol_HMDB0002350	0.763479790
## Glutathione_HMDB0000125	-0.028253969
## Linoleic.acid_HMDB0000673	0.248648360
## Oleic.acid_HMDB0000207	0.101988419
## Elaidic.acid_HMDB0000573	0.199857937

## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.234471720
## Stearic.acid_HMDB0000827	0.507070116
## L.Tryptophan_HMDB0000929	0.498316766
## Fructose.1.phosphate_HMDB0001076	0.394040452
## Mannose.6.phosphate_HMDB0001078	-0.196349213
## Arachidonic.acid_HMDB0001043	-0.138370458
## Glucose.6.phosphate_HMDB0001401	0.512802214
## X6.Phosphogluconic.acid_HMDB0001316	0.618555707
## Inositol.phosphate_HMDB0002985	0.439928433
## Uridine_HMDB0000296	0.514361269
## Stigmasterol_HMDB0000937	0.602857874
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.243577539
## Sucrose_HMDB0000258	-0.197021829
## MG.18.0e.0.0.0.0._HMDB0011143	0.666087237
## Trehalose_HMDB0000975	-0.212353703
## D.Maltose_HMDB0000163	-0.207102780
## Lactitol_HMDB0040937	0.472639038
## Xanthylic.acid_HMDB0001554	-0.510875944
## Adenosine.monophosphate_HMDB0000045	0.458654575
## Cholesterol_HMDB0000067	0.355445796
## Lathosterol_HMDB0001170	0.237672086
## X7b.Hydroxycholesterol_.HMDB0006119	0.239234394
##	Acetoacetic.acid_HMDB0000060
## Dimethylglycine_HMDB0000092	0.307811963
## Glyoxylic.acid_HMDB0000119	0.302699233
## Pyruvic.acid_HMDB0000243	0.315612263
## L.Lactic.acid_HMDB0000190	0.212519847
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.697750580
## Glycolic.acid_HMDB0000115	0.682311071
## Caproic.acid_HMDB0000535	0.467261394
## L.Alanine_HMDB0000161	-0.014706317
## Alpha.ketoisovaleric.acid_HMDB0000019	0.360807225
## Glycine_HMDB0000123	0.102638289
## Oxalic.acid_HMDB0002329	0.527964050
## Hydroxylamine_HMDB0003338	0.735362276
## X2.Hydroxybutyric.acid_HMDB0000008	0.621107413
## Acetoacetic.acid_HMDB0000060	1.000000000
## Hydroxypropionic.acid_HMDB0000700	0.464548130
## Pyruvic.acid_HMDB0000243.1	0.620095838
## X3.Hydroxybutyric.acid_HMDB0000357	0.745145784
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.697783088
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.742270265
## D.Alpha.aminobutyric.acid_HMDB0000650	0.044027697
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.454551522
## Beta.Alanine_HMDB0000056	-0.226014607
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.287433831
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.371831339
## Malonic.acid_HMDB0000691	0.199686844
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.125634178
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.400728902
## Ketoleucine_HMDB0000695	0.604759033
## L.Valine_HMDB0000883	0.135668922
## ITSD_Valine	0.153200325
## Urea_HMDB0000294	0.195076588

## Benzoic.acid_HMDB0001870	0.302079563
## Caprylic.acid_HMDB0000482	0.521765137
## Glycerol_HMDB0000131	0.066648247
## Ethanolamine_HMDB0000149	0.025282682
## L.Leucine_HMDB0000687	0.128285007
## Acetylglycine_HMDB0000532	0.598444515
## L.Isoleucine_HMDB0000172	0.097063282
## Nicotinic.acid_HMDB0001488	0.010770780
## Maleic.acid_HMDB0000176	0.835185064
## L.Proline_HMDB0000162	0.253971680
## Phenylacetic.acid_HMDB0000209	0.710059890
## Succinic.acid_HMDB0000254	0.450221051
## Glycine_HMDB0000123.1	0.196157818
## Methylsuccinic.acid_HMDB0001844	0.449821303
## Glyceric.acid_HMDB0000139	0.693583676
## Fumaric.acid_HMDB0000134	0.386455249
## Uracil_HMDB0000300	0.372088650
## Pelargonic.acid_HMDB0000847	0.343195560
## L.Serine_HMDB0000187	0.034512419
## L.Threonine_HMDB0000167	0.076592484
## Mesaconic.acid_HMDB0000749	-0.049895439
## Glutaric.acid_HMDB0000661	0.075235080
## Thymine_HMDB0000262	0.349456165
## Beta.Alanine_HMDB0000056.1	-0.077181576
## L.Homoserine_HMDB0000719	0.382631696
## Capric.acid_HMDB0000511	0.501478951
## Citramalic.acid_HMDB0000426	-0.004468728
## Malic.acid_HMDB0000744	0.719253092
## Niacinamide_HMDB0001406	0.062567226
## Adipic.acid_HMDB0000448	-0.161200089
## D.Threitol_HMDB0004136	0.356449771
## Dihydrouracil_HMDB0000076	0.487207315
## Erythritol_HMDB0002994	0.551380308
## N.Acetylserine_HMDB0002931	0.128299280
## L.Aspartic.acid_HMDB0000191	-0.011856030
## L.Methionine_HMDB0000696	-0.254289763
## X4.Hydroxyproline_HMDB0000725	0.088341771
## Pyroglutamic.acid_HMDB0000267	-0.053822951
## Cytosine_HMDB0000630	-0.317835507
## Gamma.Aminobutyric.acid_HMDB0000112	-0.022578415
## Threonic.acid_HMDB0000943	0.685332117
## L.Cysteine_HMDB0000574	0.636294785
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.541202624
## Creatinine_HMDB0000562	-0.170080768
## X3.Hydroxyglutaric.acid_HMDB0000428	0.162579194
## Oxoglutaric.acid_HMDB0000208	0.569371168
## Phenylpyruvic.acid_HMDB0000205	0.100936545
## Pimelic.acid_HMDB0000857	-0.256660291
## Phenyllactic.acid_HMDB0000779	0.174873808
## Phosphoenolpyruvic.acid_HMDB0000263	-0.053773985
## Ornithine_HMDB0000214	-0.426740200
## Hypotaurine_HMDB0000965	-0.044973174
## Triethanolamine_HMDB0032538	-0.086273384
## X2.Aminobenzoic.acid_HMDB0001123	-0.034433629

## L.Glutamic.acid_HMDB0000148	-0.346126455
## X4.Hydroxybenzoic.acid_HMDB0000500	0.066430622
## X5.Aminopentanoic.acid_HMDB0003355	0.376019753
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.546560789
## L.Phenylalanine_HMDB0000159	-0.187222678
## Dodecanoic.acid_HMDB0000638	0.544857232
## Lyxose_HMDB0003402_1	0.381265955
## D.Xylose_HMDB0000098	-0.123358241
## Lyxose_HMDB0003402_2	-0.147290444
## D.Arabinose_HMDB0029942	0.322854343
## L.Asparagine_HMDB0000168	-0.592651720
## D.Ribulose_HMDB0000621	0.323587073
## D.Ribose_HMDB0000283	0.316257571
## D.Xylulose_HMDB0001644	0.291783265
## X3.Sulfinioalanine_HMDB0000996	-0.596769243
## Suberic.acid_HMDB0000893	-0.021718692
## L.Lysine_HMDB0000182	-0.526124301
## Levoglucosan_HMDB0000640	-0.190121159
## D.Arabitol_HMDB0000568	-0.017647705
## Ribitol_HMDB0000508	0.320087009
## cis.Aconitic.acid_HMDB0000072	-0.144406997
## Quinolinic.acid_HMDB0000232	-0.104810876
## Putrescine_HMDB0001414	0.211415798
## Glycerol.3.phosphate_HMDB0000126	-0.056381993
## Vanillic.acid_HMDB0000484	0.321519144
## L.Glutamine_HMDB0000641	-0.547295943
## X2.Phosphoglyceric.acid_HMDB0000362	0.248208965
## Azelaic.acid_HMDB0000784	-0.468221863
## L.Dihydroorotic.acid_HMDB0003349	0.398544897
## O.Phosphoethanolamine_HMDB0000224	0.281151871
## X3.Phosphoglyceric.acid_HMDB0000807	0.222475533
## Isocitric.acid_HMDB0000193	0.322717061
## Hypoxanthine_HMDB0000157	-0.614551334
## Citric.acid_HMDB0000094	0.274666314
## L.Arginine_HMDB0000517	0.109525088
## Ornithine_HMDB0000214.1	-0.238393077
## Dopamine_HMDB0000073	-0.231202451
## Myristic.acid_HMDB0000806	0.182773411
## X1.5.Anhydrosorbitol_HMDB0002712	0.349566818
## D.Tagatose_HMDB0003418	0.295325106
## Psicose_1	-0.175990207
## Sebacic.acid_HMDB0000792	0.184069281
## D.Fructose_HMDB0000660	0.379291684
## Gluconolactone_HMDB0000150	0.434767931
## L.Sorbose_HMDB0001266	0.359226576
## D.Mannose_HMDB0000169	-0.160722365
## Hydroxyphenyllactic.acid_HMDB0000755	0.696096019
## D.Glucose_HMDB0000122	-0.260278348
## N.Acetylglutamine_HMDB0006029	-0.176712496
## L.Lysine_HMDB0000182.1	-0.291871747
## D.Mannose_HMDB0000169.1	-0.247530580
## Tyramine_HMDB0000306	-0.301685639
## L.Histidine_HMDB0000177	-0.308025336
## D.Glucose_HMDB0000122.1	-0.230211224

## X1.Hexadecanol_HMDB0003424	0.312216168
## L.Tyrosine_HMDB0000158	-0.440788189
## Mannitol_HMDB0000765	-0.050455448
## Sorbitol_HMDB0000247	-0.002277090
## ITSD_Sorbitol	0.288017311
## Galacturonic.acid_HMDB0002545	0.419739905
## Pantothenic.acid_HMDB0000210	0.433055465
## Palmitoleic.acid_HMDB0003229	0.244428646
## Xanthine_HMDB0000292	-0.621092138
## Gluconic.acid_HMDB0000625	0.358745507
## Palmitic.acid_HMDB0000220	0.496859142
## Glucaric.acid_HMDB0000663	-0.064818372
## N.Acetylmannosamine_HMDB0001129	0.138594147
## N.Acetyl.D.glucosamine_HMDB0000215	0.086796071
## D.Ribulose.5.phosphate_HMDB0000618	0.211291359
## Uric.acid_HMDB0000289	-0.565792397
## D.Ribose.5.phosphate_HMDB0001548	0.101813431
## myo.Inositol_HMDB0000211	0.183677217
## D.Ribose.5.phosphate_HMDB0001548.1	0.234976155
## Heptadecanoic.acid_HMDB0002259	0.408286615
## Octadecanol_HMDB0002350	0.717349317
## Glutathione_HMDB0000125	-0.298936223
## Linoleic.acid_HMDB0000673	0.390383988
## Oleic.acid_HMDB0000207	0.225047199
## Elaidic.acid_HMDB0000573	0.287346955
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.221940165
## Stearic.acid_HMDB0000827	0.658530313
## L.Tryptophan_HMDB0000929	0.618955221
## Fructose.1.phosphate_HMDB0001076	0.402408885
## Mannose.6.phosphate_HMDB0001078	-0.384032042
## Arachidonic.acid_HMDB0001043	0.045091469
## Glucose.6.phosphate_HMDB0001401	0.579734847
## X6.Phosphogluconic.acid_HMDB0001316	0.604759285
## Inositol.phosphate_HMDB0002985	0.395249497
## Uridine_HMDB0000296	0.559886311
## Stigmasterol_HMDB0000937	0.687574804
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.371016979
## Sucrose_HMDB0000258	-0.196751931
## MG.18.0e.0.0.0.0._HMDB0011143	0.738985912
## Trehalose_HMDB0000975	-0.598504946
## D.Maltose_HMDB0000163	-0.595107217
## Lactitol_HMDB0040937	0.128487155
## Xanthylic.acid_HMDB0001554	-0.434835598
## Adenosine.monophosphate_HMDB0000045	0.317870248
## Cholesterol_HMDB0000067	0.213951394
## Lathosterol_HMDB0001170	0.245178221
## X7b.Hydroxycholesterol_.HMDB0006119	0.108154272
##	Hydroxypropionic.acid_HMDB0000700
## Dimethylglycine_HMDB0000092	-0.520150985
## Glyoxylic.acid_HMDB0000119	-0.527286524
## Pyruvic.acid_HMDB0000243	0.701207139
## L.Lactic.acid_HMDB0000190	0.821724405
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.732343437
## Glycolic.acid_HMDB0000115	0.305227602

## Caproic.acid_HMDB0000535	-0.329288001
## L.Alanine_HMDB0000161	0.663582737
## Alpha.ketoisovaleric.acid_HMDB0000019	0.394786355
## Glycine_HMDB0000123	0.582498962
## Oxalic.acid_HMDB0002329	0.005386664
## Hydroxylamine_HMDB0003338	0.547087011
## X2.Hydroxybutyric.acid_HMDB0000008	0.562190756
## Acetoacetic.acid_HMDB0000060	0.464548130
## Hydroxypropionic.acid_HMDB0000700	1.000000000
## Pyruvic.acid_HMDB0000243.1	0.603850782
## X3.Hydroxybutyric.acid_HMDB0000357	0.609272701
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.678689817
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.362662883
## D.Alpha.aminobutyric.acid_HMDB0000650	0.781953496
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.397068365
## Beta.Alanine_HMDB0000056	0.547184367
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.402091083
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.602738180
## Malonic.acid_HMDB0000691	0.475009734
## X3.Aminoisobutanoic.acid_HMDB0003911	0.633915196
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.971653943
## Ketoleucine_HMDB0000695	0.330231504
## L.Valine_HMDB0000883	0.819149684
## ITSD_Valine	0.867423017
## Urea_HMDB0000294	0.636474015
## Benzoic.acid_HMDB0001870	0.357612563
## Caprylic.acid_HMDB0000482	-0.157476472
## Glycerol_HMDB0000131	0.817750140
## Ethanolamine_HMDB0000149	0.657171830
## L.Leucine_HMDB0000687	0.867093294
## Acetyl glycine_HMDB0000532	0.486229853
## L.Isoleucine_HMDB0000172	0.804298917
## Nicotinic.acid_HMDB0001488	-0.073111364
## Maleic.acid_HMDB0000176	0.291470282
## L.Proline_HMDB0000162	0.785601923
## Phenylacetic.acid_HMDB0000209	0.007760927
## Succinic.acid_HMDB0000254	0.908229048
## Glycine_HMDB0000123.1	0.834470772
## Methylsuccinic.acid_HMDB0001844	0.421519742
## Glyceric.acid_HMDB0000139	0.151673511
## Fumaric.acid_HMDB0000134	0.765243071
## Uracil_HMDB0000300	0.624124065
## Pelargonic.acid_HMDB0000847	-0.344139656
## L.Serine_HMDB0000187	0.698574667
## L.Threonine_HMDB0000167	0.716105895
## Mesaconic.acid_HMDB0000749	0.145980187
## Glutaric.acid_HMDB0000661	0.040930880
## Thymine_HMDB0000262	0.473071649
## Beta.Alanine_HMDB0000056.1	0.742598100
## L.Homoserine_HMDB0000719	0.293951794
## Capric.acid_HMDB0000511	0.242963168
## Citramalic.acid_HMDB0000426	0.294707229
## Malic.acid_HMDB0000744	0.254381118
## Niacinamide_HMDB0001406	0.673405242

## Adipic.acid_HMDB0000448	0.401942282
## D.Threitol_HMDB0004136	0.379298042
## Dihydrouracil_HMDB0000076	0.566039752
## Erythritol_HMDB0002994	0.747769755
## N.Acetylserine_HMDB0002931	0.631852511
## L.Aspartic.acid_HMDB0000191	0.701219788
## L.Methionine_HMDB0000696	0.583255743
## X4.Hydroxyproline_HMDB0000725	0.729852853
## Pyroglutamic.acid_HMDB0000267	0.659159415
## Cytosine_HMDB0000630	-0.162610581
## Gamma.Aminobutyric.acid_HMDB0000112	0.389353436
## Threonic.acid_HMDB0000943	0.189230231
## L.Cysteine_HMDB0000574	0.262287480
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.011161022
## Creatinine_HMDB0000562	0.599535560
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.419377384
## Oxoglutaric.acid_HMDB0000208	0.559298482
## Phenylpyruvic.acid_HMDB0000205	-0.202486574
## Pimelic.acid_HMDB0000857	0.388584692
## Phenyllactic.acid_HMDB0000779	-0.256758190
## Phosphoenolpyruvic.acid_HMDB0000263	-0.729858450
## Ornithine_HMDB0000214	0.209295758
## Hypotaurine_HMDB0000965	0.541638863
## Triethanolamine_HMDB0032538	0.461781544
## X2.Aminobenzoic.acid_HMDB0001123	0.741433012
## L.Glutamic.acid_HMDB0000148	0.486732176
## X4.Hydroxybenzoic.acid_HMDB0000500	0.799839352
## X5.Aminopentanoic.acid_HMDB0003355	0.096356919
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.020639394
## L.Phenylalanine_HMDB0000159	0.652492803
## Dodecanoic.acid_HMDB0000638	0.799035838
## Lyxose_HMDB0003402_1	-0.265883894
## D.Xylose_HMDB0000098	-0.620725869
## Lyxose_HMDB0003402_2	-0.564260470
## D.Arabinose_HMDB0029942	-0.414513776
## L.Asparagine_HMDB0000168	0.088591422
## D.Ribulose_HMDB0000621	-0.575507217
## D.Ribose_HMDB0000283	-0.441172363
## D.Xylulose_HMDB0001644	-0.597228959
## X3.Sulfinioalanine_HMDB0000996	-0.049324315
## Suberic.acid_HMDB0000893	0.347241582
## L.Lysine_HMDB0000182	0.077680053
## Levoglucosan_HMDB0000640	-0.571720633
## D.Arabitool_HMDB0000568	0.316572670
## Ribitol_HMDB0000508	0.253468672
## cis.Aconitic.acid_HMDB0000072	-0.439016483
## Quinolinic.acid_HMDB0000232	0.076700208
## Putrescine_HMDB0001414	0.321028530
## Glycerol.3.phosphate_HMDB0000126	-0.493933877
## Vanillic.acid_HMDB0000484	0.529683784
## L.Glutamine_HMDB0000641	-0.163712128
## X2.Phosphoglyceric.acid_HMDB0000362	0.147996253
## Azelaic.acid_HMDB0000784	-0.209366104
## L.Dihydroorotic.acid_HMDB0003349	-0.385403076

## O.Phosphoethanolamine_HMDB0000224	0.775983222
## X3.Phosphoglyceric.acid_HMDB0000807	0.172705161
## Isocitric.acid_HMDB0000193	0.394103718
## Hypoxanthine_HMDB0000157	-0.369333851
## Citric.acid_HMDB0000094	-0.113005909
## L.Arginine_HMDB0000517	-0.223702513
## Ornithine_HMDB0000214.1	0.536885585
## Dopamine_HMDB0000073	0.536863832
## Myristic.acid_HMDB0000806	0.871771034
## X1.5.Anhydrosorbitol_HMDB0002712	0.186824242
## D.Tagatose_HMDB0003418	-0.427141378
## Psicose_1	-0.398218260
## Sebacic.acid_HMDB0000792	0.642101662
## D.Fructose_HMDB0000660	-0.342228879
## Gluconolactone_HMDB0000150	-0.399923315
## L.Sorbose_HMDB0001266	-0.354608088
## D.Mannose_HMDB0000169	0.568771600
## Hydroxyphenyllactic.acid_HMDB0000755	0.693832736
## D.Glucose_HMDB0000122	0.433559500
## N.Acetylglutamine_HMDB0006029	0.533830257
## L.Lysine_HMDB0000182.1	0.546244464
## D.Mannose_HMDB0000169.1	0.555836875
## Tyramine_HMDB0000306	0.538652722
## L.Histidine_HMDB0000177	0.538737038
## D.Glucose_HMDB0000122.1	0.457964183
## X1.Hexadecanol_HMDB0003424	0.117935424
## L.Tyrosine_HMDB0000158	0.371993406
## Mannitol_HMDB0000765	0.653363527
## Sorbitol_HMDB0000247	-0.175271000
## ITSD_Sorbitol	0.834781458
## Galacturonic.acid_HMDB0002545	0.403994075
## Pantothenic.acid_HMDB0000210	0.219353732
## Palmitoleic.acid_HMDB0003229	0.755548437
## Xanthine_HMDB0000292	-0.118207824
## Gluconic.acid_HMDB0000625	-0.353961403
## Palmitic.acid_HMDB0000220	0.781040387
## Glucaric.acid_HMDB0000663	0.580381387
## N.Acetylmannosamine_HMDB0001129	0.407643767
## N.Acetyl.D.glucosamine_HMDB0000215	0.706851938
## D.Ribulose.5.phosphate_HMDB0000618	-0.557202991
## Uric.acid_HMDB0000289	0.063781397
## D.Ribose.5.phosphate_HMDB0001548	-0.570186196
## myo.Inositol_HMDB0000211	0.573125837
## D.Ribose.5.phosphate_HMDB0001548.1	-0.615986375
## Heptadecanoic.acid_HMDB0002259	0.151713319
## Octadecanol_HMDB0002350	0.462806812
## Glutathione_HMDB0000125	-0.189929268
## Linoleic.acid_HMDB0000673	0.658594359
## Oleic.acid_HMDB0000207	0.672668517
## Elaidic.acid_HMDB0000573	0.715331560
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.561271187
## Stearic.acid_HMDB0000827	0.555315597
## L.Tryptophan_HMDB0000929	0.498262068
## Fructose.1.phosphate_HMDB0001076	-0.268362819

## Mannose.6.phosphate_HMDB0001078	-0.578153459
## Arachidonic.acid_HMDB0001043	0.409920714
## Glucose.6.phosphate_HMDB0001401	-0.151081186
## X6.Phosphogluconic.acid_HMDB0001316	0.343780746
## Inositol.phosphate_HMDB0002985	0.171398612
## Uridine_HMDB0000296	0.631830971
## Stigmasterol_HMDB0000937	0.727932073
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.221737681
## Sucrose_HMDB0000258	0.360110303
## MG.18.0e.0.0.0.0._HMDB0011143	0.601862207
## Trehalose_HMDB0000975	-0.396628158
## D.Maltose_HMDB0000163	-0.389575883
## Lactitol_HMDB0040937	0.018020441
## Xanthylic.acid_HMDB0001554	-0.886207729
## Adenosine.monophosphate_HMDB0000045	-0.367308853
## Cholesterol_HMDB0000067	0.195371124
## Lathosterol_HMDB0001170	0.410622931
## X7b.Hydroxycholesterol_.HMDB0006119	-0.362361748
## Pyruvic.acid_HMDB0000243.1	
## Dimethylglycine_HMDB0000092	-0.1202684674
## Glyoxylic.acid_HMDB0000119	-0.1255476003
## Pyruvic.acid_HMDB0000243	0.4591700912
## L.Lactic.acid_HMDB0000190	0.6478060861
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.7855607087
## Glycolic.acid_HMDB0000115	0.2533741969
## Caproic.acid_HMDB0000535	-0.0619020927
## L.Alanine_HMDB0000161	0.5600030760
## Alpha.ketoisovaleric.acid_HMDB0000019	0.6082178794
## Glycine_HMDB0000123	0.4997152798
## Oxalic.acid_HMDB0002329	0.1230541377
## Hydroxylamine_HMDB0003338	0.8244732560
## X2.Hydroxybutyric.acid_HMDB0000008	0.5343825765
## Acetoacetic.acid_HMDB0000060	0.6200958379
## Hydroxypropionic.acid_HMDB0000700	0.6038507817
## Pyruvic.acid_HMDB0000243.1	1.0000000000
## X3.Hydroxybutyric.acid_HMDB0000357	0.6049243529
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.6240465570
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.4714541684
## D.Alpha.aminobutyric.acid_HMDB0000650	0.5365990760
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.5518949921
## Beta.Alanine_HMDB0000056	0.2334916371
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.3712224475
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.7306578062
## Malonic.acid_HMDB0000691	0.2333932177
## X3.Aminoisobutanoic.acid_HMDB0003911	0.4369373776
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.6458427223
## Ketoleucine_HMDB0000695	0.5415194002
## L.Valine_HMDB0000883	0.6070148988
## ITSD_Valine	0.5949951547
## Urea_HMDB0000294	0.6836921778
## Benzoic.acid_HMDB0001870	-0.0007643956
## Caprylic.acid_HMDB0000482	0.0313301989
## Glycerol_HMDB0000131	0.4940001945
## Ethanolamine_HMDB0000149	0.5243224855

## L.Leucine_HMDB0000687	0.5696609930
## Acetylglycine_HMDB0000532	0.2984395718
## L.Isoleucine_HMDB0000172	0.6060823382
## Nicotinic.acid_HMDB0001488	0.1228742528
## Maleic.acid_HMDB0000176	0.4463002000
## L.Proline_HMDB0000162	0.6374968535
## Phenylacetic.acid_HMDB0000209	0.2444453591
## Succinic.acid_HMDB0000254	0.6650709236
## Glycine_HMDB0000123.1	0.6027266403
## Methylsuccinic.acid_HMDB0001844	0.1668081542
## Glyceric.acid_HMDB0000139	0.2439873087
## Fumaric.acid_HMDB0000134	0.6944465187
## Uracil_HMDB0000300	0.7984433748
## Pelargonic.acid_HMDB0000847	-0.1158547237
## L.Serine_HMDB0000187	0.5058658431
## L.Threonine_HMDB0000167	0.5695623587
## Mesaconic.acid_HMDB0000749	0.1203085405
## Glutaric.acid_HMDB0000661	0.1449055886
## Thymine_HMDB0000262	0.7386749079
## Beta.Alanine_HMDB0000056.1	0.4748742548
## L.Homoserine_HMDB0000719	-0.0239927190
## Capric.acid_HMDB0000511	0.0292121988
## Citramalic.acid_HMDB0000426	0.2372214615
## Malic.acid_HMDB0000744	0.3737881361
## Niacinamide_HMDB0001406	0.5767363255
## Adipic.acid_HMDB0000448	0.2760711787
## D.Threitol_HMDB0004136	0.5531476966
## Dihydrouracil_HMDB0000076	0.6859542112
## Erythritol_HMDB0002994	0.6400261050
## N.Acetylserine_HMDB0002931	0.5478961471
## L.Aspartic.acid_HMDB0000191	0.4762978809
## L.Methionine_HMDB0000696	0.3092308765
## X4.Hydroxyproline_HMDB0000725	0.5427990035
## Pyroglutamic.acid_HMDB0000267	0.4434912171
## Cytosine_HMDB0000630	-0.0666537873
## Gamma.Aminobutyric.acid_HMDB0000112	0.3429001972
## Threonic.acid_HMDB0000943	0.3739642395
## L.Cysteine_HMDB0000574	0.4236738446
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.1887117462
## Creatinine_HMDB0000562	0.2140152598
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.1859725505
## Oxoglutaric.acid_HMDB0000208	0.5447544922
## Phenylpyruvic.acid_HMDB0000205	-0.2287526793
## Pimelic.acid_HMDB0000857	0.2234275090
## Phenyllactic.acid_HMDB0000779	-0.0050398595
## Phosphoenolpyruvic.acid_HMDB0000263	-0.3988483694
## Ornithine_HMDB0000214	-0.0171309845
## Hypotaurine_HMDB0000965	0.5302546835
## Triethanolamine_HMDB0032538	0.4854767050
## X2.Aminobenzoic.acid_HMDB0001123	0.4745538851
## L.Glutamic.acid_HMDB0000148	0.2672618236
## X4.Hydroxybenzoic.acid_HMDB0000500	0.5395157109
## X5.Aminopentanoic.acid_HMDB0003355	0.4527195187
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.1043234842

## L.Phenylalanine_HMDB0000159	0.3618658481
## Dodecanoic.acid_HMDB0000638	0.4681517395
## Lyxose_HMDB0003402_1	-0.1137840179
## D.Xylose_HMDB0000098	-0.2379398260
## Lyxose_HMDB0003402_2	-0.1850214031
## D.Arabinose_HMDB0029942	-0.1864826827
## L.Asparagine_HMDB0000168	-0.1647905716
## D.Ribulose_HMDB0000621	-0.1456895496
## D.Ribose_HMDB0000283	-0.1622646421
## D.Xylulose_HMDB0001644	-0.1622689567
## X3.Sulfinoalanine_HMDB0000996	-0.2242132419
## Suberic.acid_HMDB0000893	0.1871737677
## L.Lysine_HMDB0000182	-0.2299041197
## Levoglucosan_HMDB0000640	-0.2012574109
## D.Arabitol_HMDB0000568	0.2002697948
## Ribitol_HMDB0000508	0.2223742162
## cis.Aconitic.acid_HMDB0000072	-0.1328772591
## Quinolinic.acid_HMDB0000232	0.0965251452
## Putrescine_HMDB0001414	0.3941034115
## Glycerol.3.phosphate_HMDB0000126	-0.3660690398
## Vanillic.acid_HMDB0000484	0.6104878686
## L.Glutamine_HMDB0000641	-0.2096212407
## X2.Phosphoglyceric.acid_HMDB0000362	0.4303825562
## Azelaic.acid_HMDB0000784	-0.3129633256
## L.Dihydroorotic.acid_HMDB0003349	-0.1327845369
## O.Phosphoethanolamine_HMDB0000224	0.2803795538
## X3.Phosphoglyceric.acid_HMDB0000807	0.4338505463
## Isocitric.acid_HMDB0000193	0.2294556950
## Hypoxanthine_HMDB0000157	-0.5211192268
## Citric.acid_HMDB0000094	0.1471722109
## L.Arginine_HMDB0000517	-0.1197848043
## Ornithine_HMDB0000214.1	0.3454209422
## Dopamine_HMDB0000073	0.3405708328
## Myristic.acid_HMDB0000806	0.4250131993
## X1.5.Anhydrosorbitol_HMDB0002712	0.3275169611
## D.Tagatose_HMDB0003418	-0.2101875041
## Psicose_1	0.0315410928
## Sebacic.acid_HMDB0000792	0.5154355646
## D.Fructose_HMDB0000660	-0.0879755271
## Gluconolactone_HMDB0000150	-0.0902179981
## L.Sorbose_HMDB0001266	-0.1030820706
## D.Mannose_HMDB0000169	0.3988053608
## Hydroxyphenyllactic.acid_HMDB0000755	0.7149326636
## D.Glucose_HMDB0000122	0.3318491605
## N.Acetylglutamine_HMDB0006029	0.3880239998
## L.Lysine_HMDB0000182.1	0.2441502194
## D.Mannose_HMDB0000169.1	0.3192635945
## Tyramine_HMDB0000306	0.2344313876
## L.Histidine_HMDB0000177	0.2116476230
## D.Glucose_HMDB0000122.1	0.2966394917
## X1.Hexadecanol_HMDB0003424	0.0958495288
## L.Tyrosine_HMDB0000158	0.1431903037
## Mannitol_HMDB0000765	0.5518142551
## Sorbitol_HMDB0000247	0.0382655260

## ITSD_Sorbitol	0.5179888174
## Galacturonic.acid_HMDB0002545	0.4952113856
## Pantothenic.acid_HMDB0000210	0.1752878572
## Palmitoleic.acid_HMDB0003229	0.2925322643
## Xanthine_HMDB0000292	-0.1931283396
## Gluconic.acid_HMDB0000625	0.1382352336
## Palmitic.acid_HMDB0000220	0.4966609072
## Glucaric.acid_HMDB0000663	0.2863587323
## N.Acetylmannosamine_HMDB0001129	0.5648701562
## N.Acetyl.D.glucosamine_HMDB0000215	0.6434326374
## D.Ribulose.5.phosphate_HMDB0000618	-0.2475611247
## Uric.acid_HMDB0000289	-0.2101145616
## D.Ribose.5.phosphate_HMDB0001548	-0.3170561020
## myo.Inositol_HMDB0000211	0.3076795355
## D.Ribose.5.phosphate_HMDB0001548.1	-0.3222245882
## Heptadecanoic.acid_HMDB0002259	0.2426659397
## Octadecanol_HMDB0002350	0.3710420495
## Glutathione_HMDB0000125	-0.2404038406
## Linoleic.acid_HMDB0000673	0.2524967914
## Oleic.acid_HMDB0000207	0.1949458833
## Elaidic.acid_HMDB0000573	0.2788849548
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.2238022845
## Stearic.acid_HMDB0000827	0.4056044713
## L.Tryptophan_HMDB0000929	0.4087741813
## Fructose.1.phosphate_HMDB0001076	-0.1276162038
## Mannose.6.phosphate_HMDB0001078	-0.4988945671
## Arachidonic.acid_HMDB0001043	-0.0680216517
## Glucose.6.phosphate_HMDB0001401	-0.0608970562
## X6.Phosphogluconic.acid_HMDB0001316	0.1882205131
## Inositol.phosphate_HMDB0002985	0.1030455102
## Uridine_HMDB0000296	0.6985589702
## Stigmasterol_HMDB0000937	0.7993273995
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.1047612934
## Sucrose_HMDB0000258	0.0354065035
## MG.18.Oe.0.0.0.0._HMDB0011143	0.5164861204
## Trehalose_HMDB0000975	-0.3965137907
## D.Maltose_HMDB0000163	-0.3924431336
## Lactitol_HMDB0040937	0.1904697077
## Xanthylic.acid_HMDB0001554	-0.6328467634
## Adenosine.monophosphate_HMDB0000045	-0.1679234013
## Cholesterol_HMDB0000067	0.1629266992
## Lathosterol_HMDB0001170	0.2733031067
## X7b.Hydroxycholesterol_.HMDB0006119	0.0676515104
##	X3.Hydroxybutyric.acid_HMDB0000357
## Dimethylglycine_HMDB0000092	0.170636930
## Glyoxylic.acid_HMDB0000119	0.164670878
## Pyruvic.acid_HMDB0000243	0.539463109
## L.Lactic.acid_HMDB0000190	0.373917418
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.793369924
## Glycolic.acid_HMDB0000115	0.603830856
## Caproic.acid_HMDB0000535	0.263548316
## L.Alanine_HMDB0000161	0.184582315
## Alpha.ketoisovaleric.acid_HMDB0000019	0.506237595
## Glycine_HMDB0000123	0.372553918

## Oxalic.acid_HMDB0002329	0.441714930
## Hydroxylamine_HMDB0003338	0.378038600
## X2.Hydroxybutyric.acid_HMDB0000008	0.915145976
## Acetoacetic.acid_HMDB0000060	0.745145784
## Hydroxypropionic.acid_HMDB0000700	0.609272701
## Pyruvic.acid_HMDB0000243.1	0.604924353
## X3.Hydroxybutyric.acid_HMDB0000357	1.000000000
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.965077981
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.809738653
## D.Alpha.aminobutyric.acid_HMDB0000650	0.263537425
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.627488496
## Beta.Alanine_HMDB0000056	0.101850962
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.529709335
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.694362999
## Malonic.acid_HMDB0000691	0.249157901
## X3.Aminoisobutanoic.acid_HMDB0003911	0.047533459
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.643335627
## Ketoleucine_HMDB0000695	0.757825851
## L.Valine_HMDB0000883	0.334890423
## ITSD_Valine	0.365740144
## Urea_HMDB0000294	0.547286565
## Benzoic.acid_HMDB0001870	0.392482974
## Caprylic.acid_HMDB0000482	0.488073437
## Glycerol_HMDB0000131	0.240025746
## Ethanolamine_HMDB0000149	0.135899897
## L.Leucine_HMDB0000687	0.354130355
## Acetyl glycine_HMDB0000532	0.672822762
## L.Isoleucine_HMDB0000172	0.313617650
## Nicotinic.acid_HMDB0001488	0.268603576
## Maleic.acid_HMDB0000176	0.849776002
## L.Proline_HMDB0000162	0.512382842
## Phenylacetic.acid_HMDB0000209	0.689595825
## Succinic.acid_HMDB0000254	0.560687087
## Glycine_HMDB0000123.1	0.307022912
## Methylsuccinic.acid_HMDB0001844	0.290300991
## Glyceric.acid_HMDB0000139	0.665986898
## Fumaric.acid_HMDB0000134	0.661566085
## Uracil_HMDB0000300	0.508134104
## Pelargonic.acid_HMDB0000847	0.349392063
## L.Serine_HMDB0000187	0.174486386
## L.Threonine_HMDB0000167	0.277735161
## Mesaconic.acid_HMDB0000749	0.359686914
## Glutaric.acid_HMDB0000661	0.232650674
## Thymine_HMDB0000262	0.276563628
## Beta.Alanine_HMDB0000056.1	0.108658807
## L.Homoserine_HMDB0000719	0.290590143
## Capric.acid_HMDB0000511	0.387448276
## Citramalic.acid_HMDB0000426	-0.007982448
## Malic.acid_HMDB0000744	0.691743698
## Niacinamide_HMDB0001406	0.324488346
## Adipic.acid_HMDB0000448	-0.075764838
## D.Threitol_HMDB0004136	0.531029782
## Dihydrouracil_HMDB0000076	0.430268330
## Erythritol_HMDB0002994	0.816139440

## N.Acetylserine_HMDB0002931	0.249814779
## L.Aspartic.acid_HMDB0000191	0.181132943
## L.Methionine_HMDB0000696	-0.085349446
## X4.Hydroxyproline_HMDB0000725	0.376789089
## Pyroglutamic.acid_HMDB0000267	0.304433028
## Cytosine_HMDB0000630	-0.305484251
## Gamma.Aminobutyric.acid_HMDB0000112	0.416226018
## Threonic.acid_HMDB0000943	0.779452451
## L.Cysteine_HMDB0000574	0.744116620
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.582997577
## Creatinine_HMDB0000562	-0.087253098
## X3.Hydroxyglutaric.acid_HMDB0000428	0.152431171
## Oxoglutaric.acid_HMDB0000208	0.736577621
## Phenylpyruvic.acid_HMDB0000205	0.189684376
## Pimelic.acid_HMDB0000857	0.028410628
## Phenyllactic.acid_HMDB0000779	0.207124432
## Phosphoenolpyruvic.acid_HMDB0000263	-0.104221577
## Ornithine_HMDB0000214	-0.460659836
## Hypotaurine_HMDB0000965	0.171653634
## Triethanolamine_HMDB0032538	0.053143690
## X2.Aminobenzoic.acid_HMDB0001123	0.058648535
## L.Glutamic.acid_HMDB0000148	-0.126747179
## X4.Hydroxybenzoic.acid_HMDB0000500	0.196390289
## X5.Aminopentanoic.acid_HMDB0003355	0.500051567
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.337457582
## L.Phenylalanine_HMDB0000159	-0.029574978
## Dodecanoic.acid_HMDB0000638	0.603367455
## Lyxose_HMDB0003402_1	0.386663391
## D.Xylose_HMDB0000098	-0.371597793
## Lyxose_HMDB0003402_2	-0.456348040
## D.Arabinose_HMDB0029942	0.268575071
## L.Asparagine_HMDB0000168	-0.632996730
## D.Ribulose_HMDB0000621	0.059854087
## D.Ribose_HMDB0000283	0.251999356
## D.Xylulose_HMDB0001644	0.044978151
## X3.Sulfinioalanine_HMDB0000996	-0.569043964
## Suberic.acid_HMDB0000893	0.115469841
## L.Lysine_HMDB0000182	-0.598182531
## Levoglucosan_HMDB0000640	-0.461802112
## D.Arabitol_HMDB0000568	0.381916486
## Ribitol_HMDB0000508	0.251509456
## cis.Aconitic.acid_HMDB0000072	-0.270335708
## Quinolinic.acid_HMDB0000232	0.276796176
## Putrescine_HMDB0001414	0.498839030
## Glycerol.3.phosphate_HMDB0000126	0.039756646
## Vanillic.acid_HMDB0000484	0.387536853
## L.Glutamine_HMDB0000641	-0.750055317
## X2.Phosphoglyceric.acid_HMDB0000362	0.352626451
## Azelaic.acid_HMDB0000784	-0.082115410
## L.Dihydroorotic.acid_HMDB0003349	0.303736047
## O.Phosphoethanolamine_HMDB0000224	0.286161878
## X3.Phosphoglyceric.acid_HMDB0000807	0.382176982
## Isocitric.acid_HMDB0000193	0.268725644
## Hypoxanthine_HMDB0000157	-0.815923345

## Citric.acid_HMDB0000094	0.327186006
## L.Arginine_HMDB0000517	-0.274915972
## Ornithine_HMDB0000214.1	-0.135582249
## Dopamine_HMDB0000073	-0.155029873
## Myristic.acid_HMDB0000806	0.325101215
## X1.5.Anhydrosorbitol_HMDB0002712	0.664115213
## D.Tagatose_HMDB0003418	0.252759468
## Psicose_1	-0.332282901
## Sebacic.acid_HMDB0000792	0.398583000
## D.Fructose_HMDB0000660	0.328857589
## Gluconolactone_HMDB0000150	0.203122574
## L.Sorbose_HMDB0001266	0.310461517
## D.Mannose_HMDB0000169	0.035090826
## Hydroxyphenyllactic.acid_HMDB0000755	0.913200345
## D.Glucose_HMDB0000122	-0.050107480
## N.Acetylglutamine_HMDB0006029	0.039482711
## L.Lysine_HMDB0000182.1	-0.201247830
## D.Mannose_HMDB0000169.1	-0.106056619
## Tyramine_HMDB0000306	-0.214040008
## L.Histidine_HMDB0000177	-0.219283729
## D.Glucose_HMDB0000122.1	-0.033462391
## X1.Hexadecanol_HMDB0003424	0.428614851
## L.Tyrosine_HMDB0000158	-0.353058528
## Mannitol_HMDB0000765	0.245066719
## Sorbitol_HMDB0000247	-0.209235700
## ITSD_Sorbitol	0.454474094
## Galacturonic.acid_HMDB0002545	0.638126691
## Pantothenic.acid_HMDB0000210	0.661883784
## Palmitoleic.acid_HMDB0003229	0.322127560
## Xanthine_HMDB0000292	-0.586497523
## Gluconic.acid_HMDB0000625	0.161580034
## Palmitic.acid_HMDB0000220	0.587947051
## Glucaric.acid_HMDB0000663	0.145461866
## N.Acetylmannosamine_HMDB0001129	0.235011189
## N.Acetyl.D.glucosamine_HMDB0000215	0.243190502
## D.Ribulose.5.phosphate_HMDB0000618	0.224400042
## Uric.acid_HMDB0000289	-0.663779487
## D.Ribose.5.phosphate_HMDB0001548	0.162992222
## myo.Inositol_HMDB0000211	0.343263790
## D.Ribose.5.phosphate_HMDB0001548.1	0.126617240
## Heptadecanoic.acid_HMDB0002259	0.326288898
## Octadecanol_HMDB0002350	0.855849179
## Glutathione_HMDB0000125	-0.329289847
## Linoleic.acid_HMDB0000673	0.458258679
## Oleic.acid_HMDB0000207	0.271037178
## Elaidic.acid_HMDB0000573	0.360225915
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.154636415
## Stearic.acid_HMDB0000827	0.738008058
## L.Tryptophan_HMDB0000929	0.726073823
## Fructose.1.phosphate_HMDB0001076	0.330809869
## Mannose.6.phosphate_HMDB0001078	-0.250742422
## Arachidonic.acid_HMDB0001043	0.017743978
## Glucose.6.phosphate_HMDB0001401	0.480253246
## X6.Phosphogluconic.acid_HMDB0001316	0.737682181

## Inositol.phosphate_HMDB0002985	0.504518638
## Uridine_HMDB0000296	0.541019700
## Stigmasterol_HMDB0000937	0.794854497
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.330079975
## Sucrose_HMDB0000258	-0.005760940
## MG.18.0e.0.0.0.0._HMDB0011143	0.860792277
## Trehalose_HMDB0000975	-0.209523431
## D.Maltose_HMDB0000163	-0.202813340
## Lactitol_HMDB0040937	0.398719981
## Xanthylic.acid_HMDB0001554	-0.627672522
## Adenosine.monophosphate_HMDB0000045	0.373719536
## Cholesterol_HMDB0000067	0.310308329
## Lathosterol_HMDB0001170	0.389458758
## X7b.Hydroxycholesterol_.HMDB0006119	0.052816342
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	
## Dimethylglycine_HMDB0000092	0.148609920
## Glyoxylic.acid_HMDB0000119	0.141375945
## Pyruvic.acid_HMDB0000243	0.564629508
## L.Lactic.acid_HMDB0000190	0.466448876
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.806855709
## Glycolic.acid_HMDB0000115	0.627751382
## Caproic.acid_HMDB0000535	0.263323935
## L.Alanine_HMDB0000161	0.298574685
## Alpha.ketoisovaleric.acid_HMDB0000019	0.576474236
## Glycine_HMDB0000123	0.383432912
## Oxalic.acid_HMDB0002329	0.402700112
## Hydroxylamine_HMDB0003338	0.413485897
## X2.Hydroxybutyric.acid_HMDB0000008	0.966990525
## Acetoacetic.acid_HMDB0000060	0.697783088
## Hydroxypropionic.acid_HMDB0000700	0.678689817
## Pyruvic.acid_HMDB0000243.1	0.624046557
## X3.Hydroxybutyric.acid_HMDB0000357	0.965077981
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	1.000000000
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.824739643
## D.Alpha.aminobutyric.acid_HMDB0000650	0.385031773
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.754205329
## Beta.Alanine_HMDB0000056	0.127922366
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.553925234
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.789286492
## Malonic.acid_HMDB0000691	0.263721513
## X3.Aminoisobutanoic.acid_HMDB0003911	0.096333249
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.724408632
## Ketoleucine_HMDB0000695	0.808801433
## L.Valine_HMDB0000883	0.449951579
## ITSD_Valine	0.458706847
## Urea_HMDB0000294	0.623050649
## Benzoic.acid_HMDB0001870	0.429790829
## Caprylic.acid_HMDB0000482	0.460060534
## Glycerol_HMDB0000131	0.316144258
## Ethanolamine_HMDB0000149	0.247463185
## L.Leucine_HMDB0000687	0.458175781
## Acetyl glycine_HMDB0000532	0.741427352
## L.Isoleucine_HMDB0000172	0.418996149
## Nicotinic.acid_HMDB0001488	0.272981911

## Maleic.acid_HMDB0000176	0.812925225
## L.Proline_HMDB0000162	0.639498114
## Phenylacetic.acid_HMDB0000209	0.644669719
## Succinic.acid_HMDB0000254	0.669713543
## Glycine_HMDB0000123.1	0.394883319
## Methylsuccinic.acid_HMDB0001844	0.309748403
## Glyceric.acid_HMDB0000139	0.608815684
## Fumaric.acid_HMDB0000134	0.714480118
## Uracil_HMDB0000300	0.590561573
## Pelargonic.acid_HMDB0000847	0.335973815
## L.Serine_HMDB0000187	0.278806338
## L.Threonine_HMDB0000167	0.391070473
## Mesaconic.acid_HMDB0000749	0.440380690
## Glutaric.acid_HMDB0000661	0.361550282
## Thymine_HMDB0000262	0.323943247
## Beta.Alanine_HMDB0000056.1	0.198976102
## L.Homoserine_HMDB0000719	0.332724602
## Capric.acid_HMDB0000511	0.404278543
## Citramalic.acid_HMDB0000426	0.038375296
## Malic.acid_HMDB0000744	0.734193358
## Niacinamide_HMDB0001406	0.422714474
## Adipic.acid_HMDB0000448	0.072871614
## D.Threitol_HMDB0004136	0.505258492
## Dihydrouracil_HMDB0000076	0.558444634
## Erythritol_HMDB0002994	0.885448394
## N.Acetylserine_HMDB0002931	0.353052512
## L.Aspartic.acid_HMDB0000191	0.307645718
## L.Methionine_HMDB0000696	-0.011278899
## X4.Hydroxyproline_HMDB0000725	0.491165209
## Pyroglutamic.acid_HMDB0000267	0.382679661
## Cytosine_HMDB0000630	-0.197297660
## Gamma.Aminobutyric.acid_HMDB0000112	0.422461638
## Threonic.acid_HMDB0000943	0.797206323
## L.Cysteine_HMDB0000574	0.787619145
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.629162635
## Creatinine_HMDB0000562	-0.024809474
## X3.Hydroxyglutaric.acid_HMDB0000428	0.160544365
## Oxoglutaric.acid_HMDB0000208	0.707686903
## Phenylpyruvic.acid_HMDB0000205	0.129890704
## Pimelic.acid_HMDB0000857	0.101152759
## Phenyllactic.acid_HMDB0000779	0.209844874
## Phosphoenolpyruvic.acid_HMDB0000263	-0.106297372
## Ornithine_HMDB0000214	-0.363547622
## Hypotaurine_HMDB0000965	0.271709826
## Triethanolamine_HMDB0032538	0.159056380
## X2.Aminobenzoic.acid_HMDB0001123	0.133276639
## L.Glutamic.acid_HMDB0000148	0.004734293
## X4.Hydroxybenzoic.acid_HMDB0000500	0.312388186
## X5.Aminopentanoic.acid_HMDB0003355	0.511062467
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.337926331
## L.Phenylalanine_HMDB0000159	0.073327652
## Dodecanoic.acid_HMDB0000638	0.580803656
## Lyxose_HMDB0003402_1	0.392409766
## D.Xylose_HMDB0000098	-0.474187692

## Lyxose_HMDB0003402_2	-0.551186239
## D.Arabinose_HMDB0029942	0.255482392
## L.Asparagine_HMDB0000168	-0.492867059
## D.Ribulose_HMDB0000621	-0.025042576
## D.Ribose_HMDB0000283	0.236646586
## D.Xylulose_HMDB0001644	-0.040649550
## X3.Sulfinioalanine_HMDB0000996	-0.473813329
## Suberic.acid_HMDB0000893	0.187054139
## L.Lysine_HMDB0000182	-0.508796305
## Levoglucosan_HMDB0000640	-0.552998013
## D.Arabitol_HMDB0000568	0.359434160
## Ribitol_HMDB0000508	0.289157971
## cis.Aconitic.acid_HMDB0000072	-0.363058210
## Quinolinic.acid_HMDB0000232	0.343046697
## Putrescine_HMDB0001414	0.543528924
## Glycerol.3.phosphate_HMDB0000126	0.009860840
## Vanillic.acid_HMDB0000484	0.413007991
## L.Glutamine_HMDB0000641	-0.613141666
## X2.Phosphoglyceric.acid_HMDB0000362	0.479487695
## Azelaic.acid_HMDB0000784	-0.049665640
## L.Dihydroorotic.acid_HMDB0003349	0.286413467
## O.Phosphoethanolamine_HMDB0000224	0.274187041
## X3.Phosphoglyceric.acid_HMDB0000807	0.496318143
## Isocitric.acid_HMDB0000193	0.385823865
## Hypoxanthine_HMDB0000157	-0.770604399
## Citric.acid_HMDB0000094	0.430789412
## L.Arginine_HMDB0000517	-0.149090636
## Ornithine_HMDB0000214.1	-0.029413177
## Dopamine_HMDB0000073	-0.038957418
## Myristic.acid_HMDB0000806	0.371221752
## X1.5.Anhydrosorbitol_HMDB0002712	0.711384648
## D.Tagatose_HMDB0003418	0.247201031
## Psicose_1	-0.376212847
## Sebacic.acid_HMDB0000792	0.512608401
## D.Fructose_HMDB0000660	0.293262779
## Gluconolactone_HMDB0000150	0.162349027
## L.Sorbose_HMDB0001266	0.275169569
## D.Mannose_HMDB0000169	0.065650681
## Hydroxyphenyllactic.acid_HMDB0000755	0.877448840
## D.Glucose_HMDB0000122	-0.037895578
## N.Acetylglutamine_HMDB0006029	0.065930265
## L.Lysine_HMDB0000182.1	-0.097135125
## D.Mannose_HMDB0000169.1	-0.045711950
## Tyramine_HMDB0000306	-0.107879405
## L.Histidine_HMDB0000177	-0.122665756
## D.Glucose_HMDB0000122.1	-0.027979198
## X1.Hexadecanol_HMDB0003424	0.344718409
## L.Tyrosine_HMDB0000158	-0.223824428
## Mannitol_HMDB0000765	0.361128643
## Sorbitol_HMDB0000247	-0.145191011
## ITSD_Sorbitol	0.514917323
## Galacturonic.acid_HMDB0002545	0.688070402
## Pantothenic.acid_HMDB0000210	0.618286781
## Palmitoleic.acid_HMDB0003229	0.285867172

## Xanthine_HMDB0000292	-0.463838662
## Gluconic.acid_HMDB0000625	0.178206559
## Palmitic.acid_HMDB0000220	0.518770926
## Glucaric.acid_HMDB0000663	0.217890861
## N.Acetylmannosamine_HMDB0001129	0.231969767
## N.Acetyl.D.glucosamine_HMDB0000215	0.291352281
## D.Ribulose.5.phosphate_HMDB0000618	0.170743748
## Uric.acid_HMDB0000289	-0.569967511
## D.Ribose.5.phosphate_HMDB0001548	0.113206942
## myo.Inositol_HMDB0000211	0.420471750
## D.Ribose.5.phosphate_HMDB0001548.1	0.052963779
## Heptadecanoic.acid_HMDB0002259	0.461638364
## Octadecanol_HMDB0002350	0.815568729
## Glutathione_HMDB0000125	-0.191125579
## Linoleic.acid_HMDB0000673	0.374739974
## Oleic.acid_HMDB0000207	0.221190588
## Elaidic.acid_HMDB0000573	0.320692944
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.129554671
## Stearic.acid_HMDB0000827	0.632341308
## L.Tryptophan_HMDB0000929	0.609604243
## Fructose.1.phosphate_HMDB0001076	0.341820771
## Mannose.6.phosphate_HMDB0001078	-0.306522257
## Arachidonic.acid_HMDB0001043	-0.047530558
## Glucose.6.phosphate_HMDB0001401	0.446362710
## X6.Phosphogluconic.acid_HMDB0001316	0.631182955
## Inositol.phosphate_HMDB0002985	0.448203593
## Uridine_HMDB0000296	0.622014524
## Stigmasterol_HMDB0000937	0.740708416
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.262452503
## Sucrose_HMDB0000258	-0.056531381
## MG.18.Oe.0.0.0.0._HMDB0011143	0.773631756
## Trehalose_HMDB0000975	-0.232395985
## D.Maltose_HMDB0000163	-0.226069700
## Lactitol_HMDB0040937	0.393279434
## Xanthylic.acid_HMDB0001554	-0.622364898
## Adenosine.monophosphate_HMDB0000045	0.337195364
## Cholesterol_HMDB0000067	0.284146002
## Lathosterol_HMDB0001170	0.292866365
## X7b.Hydroxycholesterol_.HMDB0006119	0.145056334
##	X2.Hydroxy.3.methylbutyric.acid_HMDB0000407
## Dimethylglycine_HMDB0000092	0.485275642
## Glyoxylic.acid_HMDB0000119	0.471874297
## Pyruvic.acid_HMDB0000243	0.169322469
## L.Lactic.acid_HMDB0000190	0.032702301
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.608562033
## Glycolic.acid_HMDB0000115	0.866602681
## Caproic.acid_HMDB0000535	0.512648366
## L.Alanine_HMDB0000161	-0.138556682
## Alpha.ketoisovaleric.acid_HMDB0000019	0.339414764
## Glycine_HMDB0000123	-0.093939403
## Oxalic.acid_HMDB0002329	0.545331761
## Hydroxylamine_HMDB0003338	0.412625654
## X2.Hydroxybutyric.acid_HMDB0000008	0.851383739
## Acetoacetic.acid_HMDB0000060	0.742270265

## Hydroxypropionic.acid_HMDB0000700	0.362662883
## Pyruvic.acid_HMDB0000243.1	0.471454168
## X3.Hydroxybutyric.acid_HMDB0000357	0.809738653
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.824739643
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	1.000000000
## D.Alpha.aminobutyric.acid_HMDB0000650	0.034095572
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.697986662
## Beta.Alanine_HMDB0000056	-0.296999672
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.264019293
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.579454948
## Malonic.acid_HMDB0000691	-0.102181560
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.190748426
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.367205906
## Ketoleucine_HMDB0000695	0.732667981
## L.Valine_HMDB0000883	0.048687944
## ITSD_Valine	0.077870190
## Urea_HMDB0000294	0.232736854
## Benzoic.acid_HMDB0001870	0.557403764
## Caprylic.acid_HMDB0000482	0.700861386
## Glycerol_HMDB0000131	-0.123700324
## Ethanolamine_HMDB0000149	-0.173056336
## L.Leucine_HMDB0000687	0.046584711
## Acetylglycine_HMDB0000532	0.789505690
## L.Isoleucine_HMDB0000172	-0.005227893
## Nicotinic.acid_HMDB0001488	0.188851083
## Maleic.acid_HMDB0000176	0.843584218
## L.Proline_HMDB0000162	0.267271623
## Phenylacetic.acid_HMDB0000209	0.781782262
## Succinic.acid_HMDB0000254	0.278901356
## Glycine_HMDB0000123.1	-0.007928398
## Methylsuccinic.acid_HMDB0001844	0.356228994
## Glyceric.acid_HMDB0000139	0.748221334
## Fumaric.acid_HMDB0000134	0.334402060
## Uracil_HMDB0000300	0.239472751
## Pelargonic.acid_HMDB0000847	0.613755529
## L.Serine_HMDB0000187	-0.158345577
## L.Threonine_HMDB0000167	-0.064698951
## Mesaconic.acid_HMDB0000749	0.375060970
## Glutaric.acid_HMDB0000661	0.147857447
## Thymine_HMDB0000262	-0.021191606
## Beta.Alanine_HMDB0000056.1	-0.165131893
## L.Homoserine_HMDB0000719	0.620938449
## Capric.acid_HMDB0000511	0.732306204
## Citramalic.acid_HMDB0000426	-0.349260463
## Malic.acid_HMDB0000744	0.774717287
## Niacinamide_HMDB0001406	0.018614693
## Adipic.acid_HMDB0000448	-0.294671041
## D.Threitol_HMDB0004136	0.463814635
## Dihydrouracil_HMDB0000076	0.348302182
## Erythritol_HMDB0002994	0.651543983
## N.Acetylserine_HMDB0002931	-0.097424206
## L.Aspartic.acid_HMDB0000191	-0.121440705
## L.Methionine_HMDB0000696	-0.380404051
## X4.Hydroxyproline_HMDB0000725	0.044171924

## Pyroglutamic.acid_HMDB0000267	-0.092570346
## Cytosine_HMDB0000630	-0.184936711
## Gamma.Aminobutyric.acid_HMDB0000112	-0.023148848
## Threonic.acid_HMDB0000943	0.945550057
## L.Cysteine_HMDB0000574	0.922936234
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.740646245
## Creatinine_HMDB0000562	-0.250736643
## X3.Hydroxyglutaric.acid_HMDB0000428	0.427694788
## Oxoglutaric.acid_HMDB0000208	0.548575278
## Phenylpyruvic.acid_HMDB0000205	0.311328567
## Pimelic.acid_HMDB0000857	-0.338232755
## Phenyllactic.acid_HMDB0000779	0.380958288
## Phosphoenolpyruvic.acid_HMDB0000263	0.174939713
## Ornithine_HMDB0000214	-0.638135895
## Hypotaurine_HMDB0000965	-0.121135736
## Triethanolamine_HMDB0032538	-0.284752422
## X2.Aminobenzoic.acid_HMDB0001123	-0.247750004
## L.Glutamic.acid_HMDB0000148	-0.305249188
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.106999354
## X5.Aminopentanoic.acid_HMDB0003355	0.328607322
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.578802270
## L.Phenylalanine_HMDB0000159	-0.302727679
## Dodecanoic.acid_HMDB0000638	0.459324643
## Lyxose_HMDB0003402_1	0.650044612
## D.Xylose_HMDB0000098	-0.143820869
## Lyxose_HMDB0003402_2	-0.310495353
## D.Arabinose_HMDB0029942	0.524100802
## L.Asparagine_HMDB0000168	-0.626149832
## D.Ribulose_HMDB0000621	0.354641319
## D.Ribose_HMDB0000283	0.513407164
## D.Xylulose_HMDB0001644	0.339879517
## X3.Sulfinoalanine_HMDB0000996	-0.408359810
## Suberic.acid_HMDB0000893	-0.227718079
## L.Lysine_HMDB0000182	-0.637505063
## Levoglucosan_HMDB0000640	-0.267398384
## D.Arabitol_HMDB0000568	0.147151046
## Ribitol_HMDB0000508	0.406410514
## cis.Aconitic.acid_HMDB0000072	-0.173703099
## Quinolinic.acid_HMDB0000232	0.155274269
## Putrescine_HMDB0001414	0.254968656
## Glycerol.3.phosphate_HMDB0000126	0.261941623
## Vanillic.acid_HMDB0000484	0.261323049
## L.Glutamine_HMDB0000641	-0.555198544
## X2.Phosphoglyceric.acid_HMDB0000362	0.372932579
## Azelaic.acid_HMDB0000784	-0.265535258
## L.Dihydroorotic.acid_HMDB0003349	0.566975087
## O.Phosphoethanolamine_HMDB0000224	0.104119272
## X3.Phosphoglyceric.acid_HMDB0000807	0.313004922
## Isocitric.acid_HMDB0000193	0.319338692
## Hypoxanthine_HMDB0000157	-0.492554500
## Citric.acid_HMDB0000094	0.530255958
## L.Arginine_HMDB0000517	0.240324645
## Ornithine_HMDB0000214.1	-0.406977593
## Dopamine_HMDB0000073	-0.400916412

## Myristic.acid_HMDB0000806	0.059812947
## X1.5.Anhydrosorbitol_HMDB0002712	0.723585902
## D.Tagatose_HMDB0003418	0.513182600
## Psicose_1	-0.150987532
## Sebacic.acid_HMDB0000792	0.183286697
## D.Fructose_HMDB0000660	0.478942794
## Gluconolactone_HMDB0000150	0.475381239
## L.Sorbose_HMDB0001266	0.472203706
## D.Mannose_HMDB0000169	-0.219309147
## Hydroxyphenyllactic.acid_HMDB0000755	0.621997045
## D.Glucose_HMDB0000122	-0.293941976
## N.Acetylglutamine_HMDB0006029	-0.209212393
## L.Lysine_HMDB0000182.1	-0.395853947
## D.Mannose_HMDB0000169.1	-0.319731316
## Tyramine_HMDB0000306	-0.396910893
## L.Histidine_HMDB0000177	-0.414684631
## D.Glucose_HMDB0000122.1	-0.283055827
## X1.Hexadecanol_HMDB0003424	0.558366595
## L.Tyrosine_HMDB0000158	-0.499053323
## Mannitol_HMDB0000765	0.028219427
## Sorbitol_HMDB0000247	-0.064985583
## ITSD_Sorbitol	0.271400236
## Galacturonic.acid_HMDB0002545	0.667906216
## Pantothenic.acid_HMDB0000210	0.527931402
## Palmitoleic.acid_HMDB0003229	0.148147451
## Xanthine_HMDB0000292	-0.644985014
## Gluconic.acid_HMDB0000625	0.341841488
## Palmitic.acid_HMDB0000220	0.338289664
## Glucaric.acid_HMDB0000663	-0.076758222
## N.Acetylmannosamine_HMDB0001129	0.162490704
## N.Acetyl.D.glucosamine_HMDB0000215	0.021924170
## D.Ribulose.5.phosphate_HMDB0000618	0.474536390
## Uric.acid_HMDB0000289	-0.601826689
## D.Ribose.5.phosphate_HMDB0001548	0.402363599
## myo.Inositol_HMDB0000211	0.166292450
## D.Ribose.5.phosphate_HMDB0001548.1	0.398735400
## Heptadecanoic.acid_HMDB0002259	0.435976883
## Octadecanol_HMDB0002350	0.774134050
## Glutathione_HMDB0000125	-0.060193386
## Linoleic.acid_HMDB0000673	0.312357937
## Oleic.acid_HMDB0000207	0.139933231
## Elaidic.acid_HMDB0000573	0.217342126
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.386436326
## Stearic.acid_HMDB0000827	0.511916541
## L.Tryptophan_HMDB0000929	0.461579269
## Fructose.1.phosphate_HMDB0001076	0.481633997
## Mannose.6.phosphate_HMDB0001078	-0.090089890
## Arachidonic.acid_HMDB0001043	0.007400341
## Glucose.6.phosphate_HMDB0001401	0.624727612
## X6.Phosphogluconic.acid_HMDB0001316	0.729661428
## Inositol.phosphate_HMDB0002985	0.648377742
## Uridine_HMDB0000296	0.606843902
## Stigmasterol_HMDB0000937	0.491947970
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.298058856

## Sucrose_HMDB0000258	-0.352003497
## MG.18.0e.0.0.0.0._HMDB0011143	0.733204416
## Trehalose_HMDB0000975	-0.326229897
## D.Maltose_HMDB0000163	-0.323386170
## Lactitol_HMDB0040937	0.356216287
## Xanthylic.acid_HMDB0001554	-0.289316295
## Adenosine.monophosphate_HMDB0000045	0.579355108
## Cholesterol_HMDB0000067	0.520484398
## Lathosterol_HMDB0001170	0.374816186
## X7b.Hydroxycholesterol_.HMDB0006119	0.171392446
##	D.Alpha.aminobutyric.acid_HMDB0000650
## Dimethylglycine_HMDB0000092	-0.593269077
## Glyoxylic.acid_HMDB0000119	-0.597960317
## Pyruvic.acid_HMDB0000243	0.550816593
## L.Lactic.acid_HMDB0000190	0.830973255
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.516684829
## Glycolic.acid_HMDB0000115	-0.073684547
## Caproic.acid_HMDB0000535	-0.620259341
## L.Alanine_HMDB0000161	0.873090696
## Alpha.ketoisovaleric.acid_HMDB0000019	0.393658029
## Glycine_HMDB0000123	0.576730215
## Oxalic.acid_HMDB0002329	-0.243528796
## Hydroxylamine_HMDB0003338	0.404562832
## X2.Hydroxybutyric.acid_HMDB0000008	0.328527772
## Acetoacetic.acid_HMDB0000060	0.044027697
## Hydroxypropionic.acid_HMDB0000700	0.781953496
## Pyruvic.acid_HMDB0000243.1	0.536599076
## X3.Hydroxybutyric.acid_HMDB0000357	0.263537425
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.385031773
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.034095572
## D.Alpha.aminobutyric.acid_HMDB0000650	1.000000000
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.367409545
## Beta.Alanine_HMDB0000056	0.675833327
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.389124396
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.596263663
## Malonic.acid_HMDB0000691	0.362108824
## X3.Aminoisobutanoic.acid_HMDB0003911	0.785651160
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.841421801
## Ketoleucine_HMDB0000695	0.128906358
## L.Valine_HMDB0000883	0.943756749
## ITSD_Valine	0.936943501
## Urea_HMDB0000294	0.752461723
## Benzoic.acid_HMDB0001870	0.007952025
## Caprylic.acid_HMDB0000482	-0.467482882
## Glycerol_HMDB0000131	0.836651093
## Ethanolamine_HMDB0000149	0.811021964
## L.Leucine_HMDB0000687	0.910622601
## Acetylglutamine_HMDB0000532	0.160831994
## L.Isoleucine_HMDB0000172	0.883665709
## Nicotinic.acid_HMDB0001488	-0.227085951
## Maleic.acid_HMDB0000176	-0.122268427
## L.Proline_HMDB0000162	0.810767363
## Phenylacetic.acid_HMDB0000209	-0.317492168
## Succinic.acid_HMDB0000254	0.768673101

## Glycine_HMDB0000123.1	0.864045004
## Methylsuccinic.acid_HMDB0001844	0.215437658
## Glyceric.acid_HMDB0000139	-0.306008574
## Fumaric.acid_HMDB0000134	0.705681750
## Uracil_HMDB0000300	0.592296059
## Pelargonic.acid_HMDB0000847	-0.539216289
## L.Serine_HMDB0000187	0.743354302
## L.Threonine_HMDB0000167	0.829269246
## Mesaconic.acid_HMDB0000749	0.188114686
## Glutaric.acid_HMDB0000661	0.067927809
## Thymine_HMDB0000262	0.511727697
## Beta.Alanine_HMDB0000056.1	0.915488253
## L.Homoserine_HMDB0000719	-0.027415749
## Capric.acid_HMDB0000511	-0.125434147
## Citramalic.acid_HMDB0000426	0.388849799
## Malic.acid_HMDB0000744	-0.084780440
## Niacinamide_HMDB0001406	0.809537241
## Adipic.acid_HMDB0000448	0.548211793
## D.Threitol_HMDB0004136	0.220986974
## Dihydrouracil_HMDB0000076	0.586562083
## Erythritol_HMDB0002994	0.618562219
## N.Acetylserine_HMDB0002931	0.682607433
## L.Aspartic.acid_HMDB0000191	0.806616389
## L.Methionine_HMDB0000696	0.827177558
## X4.Hydroxyproline_HMDB0000725	0.809518464
## Pyroglutamic.acid_HMDB0000267	0.751915091
## Cytosine_HMDB0000630	0.099689354
## Gamma.Aminobutyric.acid_HMDB0000112	0.347591053
## Threonic.acid_HMDB0000943	-0.087944334
## L.Cysteine_HMDB0000574	0.054525782
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.302600982
## Creatinine_HMDB0000562	0.763185746
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.587555852
## Oxoglutaric.acid_HMDB0000208	0.232339253
## Phenylpyruvic.acid_HMDB0000205	-0.538827611
## Pimelic.acid_HMDB0000857	0.586370096
## Phenyllactic.acid_HMDB0000779	-0.403444659
## Phosphoenolpyruvic.acid_HMDB0000263	-0.763159459
## Ornithine_HMDB0000214	0.529877385
## Hypotaurine_HMDB0000965	0.874604691
## Triethanolamine_HMDB0032538	0.718430979
## X2.Aminobenzoic.acid_HMDB0001123	0.860382554
## L.Glutamic.acid_HMDB0000148	0.776200713
## X4.Hydroxybenzoic.acid_HMDB0000500	0.891870988
## X5.Aminopentanoic.acid_HMDB0003355	0.008728727
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.390324847
## L.Phenylalanine_HMDB0000159	0.854239691
## Dodecanoic.acid_HMDB0000638	0.471074788
## Lyxose_HMDB0003402_1	-0.507412402
## D.Xylose_HMDB0000098	-0.583955980
## Lyxose_HMDB0003402_2	-0.457387114
## D.Arabinose_HMDB0029942	-0.607086462
## L.Asparagine_HMDB0000168	0.426995394
## D.Ribulose_HMDB0000621	-0.773519392

## D.Ribose_HMDB0000283	-0.614341463
## D.Xylulose_HMDB0001644	-0.772695588
## X3.Sulfinioalanine_HMDB0000996	0.189762482
## Suberic.acid_HMDB0000893	0.372194902
## L.Lysine_HMDB0000182	0.355357096
## Levoglucosan_HMDB0000640	-0.453324093
## D.Arabitol_HMDB0000568	0.298728107
## Ribitol_HMDB0000508	0.090124755
## cis.Aconitic.acid_HMDB0000072	-0.396020638
## Quinolinic.acid_HMDB0000232	0.101228616
## Putrescine_HMDB0001414	0.057578486
## Glycerol.3.phosphate_HMDB0000126	-0.701328691
## Vanillic.acid_HMDB0000484	0.610414383
## L.Glutamine_HMDB0000641	0.160052781
## X2.Phosphoglyceric.acid_HMDB0000362	0.146263240
## Azelaic.acid_HMDB0000784	-0.108537400
## L.Dihydroorotic.acid_HMDB0003349	-0.623326722
## O.Phosphoethanolamine_HMDB0000224	0.463209378
## X3.Phosphoglyceric.acid_HMDB0000807	0.215524627
## Isocitric.acid_HMDB0000193	0.285962315
## Hypoxanthine_HMDB0000157	-0.109992846
## Citric.acid_HMDB0000094	-0.198626045
## L.Arginine_HMDB0000517	-0.280807451
## Ornithine_HMDB0000214.1	0.805212949
## Dopamine_HMDB0000073	0.793337090
## Myristic.acid_HMDB0000806	0.749125897
## X1.5.Anhydrosorbitol_HMDB0002712	0.130705865
## D.Tagatose_HMDB0003418	-0.601239047
## Psicose_1	-0.247522461
## Sebacic.acid_HMDB0000792	0.683825269
## D.Fructose_HMDB0000660	-0.603611070
## Gluconolactone_HMDB0000150	-0.647952435
## L.Sorbose_HMDB0001266	-0.605964846
## D.Mannose_HMDB0000169	0.760562643
## Hydroxyphenyllactic.acid_HMDB0000755	0.458434285
## D.Glucose_HMDB0000122	0.678973561
## N.Acetylglutamine_HMDB0006029	0.749713377
## L.Lysine_HMDB0000182.1	0.782899321
## D.Mannose_HMDB0000169.1	0.781056995
## Tyramine_HMDB0000306	0.782959769
## L.Histidine_HMDB0000177	0.762483277
## D.Glucose_HMDB0000122.1	0.702645231
## X1.Hexadecanol_HMDB0003424	-0.243665061
## L.Tyrosine_HMDB0000158	0.689961110
## Mannitol_HMDB0000765	0.788581497
## Sorbitol_HMDB0000247	-0.298040112
## ITSD_Sorbitol	0.782812469
## Galacturonic.acid_HMDB0002545	0.411315486
## Pantothenic.acid_HMDB0000210	0.006468304
## Palmitoleic.acid_HMDB0003229	0.526372030
## Xanthine_HMDB0000292	0.275495372
## Gluconic.acid_HMDB0000625	-0.380771779
## Palmitic.acid_HMDB0000220	0.428290145
## Glucaric.acid_HMDB0000663	0.684721999

## N.Acetylmannosamine_HMDB0001129	0.509231274
## N.Acetyl.D.glucosamine_HMDB0000215	0.790565919
## D.Ribulose.5.phosphate_HMDB0000618	-0.693582967
## Uric.acid_HMDB0000289	0.354999298
## D.Ribose.5.phosphate_HMDB0001548	-0.663992075
## myo.Inositol_HMDB0000211	0.439732637
## D.Ribose.5.phosphate_HMDB0001548.1	-0.767482588
## Heptadecanoic.acid_HMDB0002259	-0.072224678
## Octadecanol_HMDB0002350	-0.021215032
## Glutathione_HMDB0000125	-0.062032963
## Linoleic.acid_HMDB0000673	0.271503090
## Oleic.acid_HMDB0000207	0.404743266
## Elaidic.acid_HMDB0000573	0.459856908
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.744792887
## Stearic.acid_HMDB0000827	0.058195537
## L.Tryptophan_HMDB0000929	0.049237244
## Fructose.1.phosphate_HMDB0001076	-0.522609600
## Mannose.6.phosphate_HMDB0001078	-0.652658488
## Arachidonic.acid_HMDB0001043	0.214475149
## Glucose.6.phosphate_HMDB0001401	-0.462049987
## X6.Phosphogluconic.acid_HMDB0001316	-0.148276640
## Inositol.phosphate_HMDB0002985	-0.113221884
## Uridine_HMDB0000296	0.479915637
## Stigmasterol_HMDB0000937	0.439086900
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.004455178
## Sucrose_HMDB0000258	0.263603389
## MG.18.Oe.0.0.0.0._HMDB0011143	0.149045713
## Trehalose_HMDB0000975	-0.271622424
## D.Maltose_HMDB0000163	-0.268098544
## Lactitol_HMDB00040937	0.249011936
## Xanthylic.acid_HMDB0001554	-0.768541561
## Adenosine.monophosphate_HMDB0000045	-0.613895362
## Cholesterol_HMDB0000067	0.123393422
## Lathosterol_HMDB0001170	0.224744784
## X7b.Hydroxycholesterol_.HMDB0006119	-0.277538183
##	X3.Methyl.2.oxovaleric.acid_HMDB0000491
## Dimethylglycine_HMDB0000092	0.3475188216
## Glyoxylic.acid_HMDB0000119	0.3432825386
## Pyruvic.acid_HMDB0000243	0.1606169595
## L.Lactic.acid_HMDB0000190	0.3398282151
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.6087544948
## Glycolic.acid_HMDB0000115	0.3907000428
## Caproic.acid_HMDB0000535	0.2819777778
## L.Alanine_HMDB0000161	0.3130670504
## Alpha.ketoisovaleric.acid_HMDB0000019	0.5907147054
## Glycine_HMDB0000123	0.1626030183
## Oxalic.acid_HMDB0002329	0.2935516208
## Hydroxylamine_HMDB0003338	0.4177144374
## X2.Hydroxybutyric.acid_HMDB0000008	0.8159056245
## Acetoacetic.acid_HMDB0000060	0.4545515222
## Hydroxypropionic.acid_HMDB0000700	0.3970683650
## Pyruvic.acid_HMDB0000243.1	0.5518949921
## X3.Hydroxybutyric.acid_HMDB0000357	0.6274884956
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.7542053287

## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.6979866615
## D.Alpha.aminobutyric.acid_HMDB0000650	0.3674095451
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	1.0000000000
## Beta.Alanine_HMDB0000056	0.0173177356
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.4578992044
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.7592761763
## Malonic.acid_HMDB0000691	-0.0659634194
## X3.Aminoisobutanoic.acid_HMDB0003911	0.0259113634
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.5160516234
## Ketoleucine_HMDB0000695	0.7595783422
## L.Valine_HMDB0000883	0.4037762124
## ITSD_Valine	0.3131322129
## Urea_HMDB0000294	0.5573435701
## Benzoic.acid_HMDB0001870	0.3036595582
## Caprylic.acid_HMDB0000482	0.4092407112
## Glycerol_HMDB0000131	0.1554434413
## Ethanolamine_HMDB0000149	0.1969884727
## L.Leucine_HMDB0000687	0.3582922105
## Acetyl glycine_HMDB0000532	0.4463636229
## L.Isoleucine_HMDB0000172	0.3493555916
## Nicotinic.acid_HMDB0001488	0.4374412231
## Maleic.acid_HMDB0000176	0.4980262845
## L.Proline_HMDB0000162	0.6125954062
## Phenylacetic.acid_HMDB0000209	0.4447955588
## Succinic.acid_HMDB0000254	0.4492143440
## Glycine_HMDB0000123.1	0.2441166782
## Methylsuccinic.acid_HMDB0001844	0.0645692685
## Glyceric.acid_HMDB0000139	0.2468027194
## Fumaric.acid_HMDB0000134	0.5002001877
## Uracil_HMDB0000300	0.5227679670
## Pelargonic.acid_HMDB0000847	0.4149588991
## L.Serine_HMDB0000187	0.2253573693
## L.Threonine_HMDB0000167	0.3272186284
## Mesaconic.acid_HMDB0000749	0.5143720475
## Glutaric.acid_HMDB0000661	0.4956956534
## Thymine_HMDB0000262	0.3944514981
## Beta.Alanine_HMDB0000056.1	0.1849461496
## L.Homoserine_HMDB0000719	0.1910486391
## Capric.acid_HMDB0000511	0.2565805753
## Citramalic.acid_HMDB0000426	0.0260264839
## Malic.acid_HMDB0000744	0.5449979156
## Niacinamide_HMDB0001406	0.4603514075
## Adipic.acid_HMDB0000448	0.2178132401
## D.Threitol_HMDB0004136	0.3411227414
## Dihydrouracil_HMDB0000076	0.7361960822
## Erythritol_HMDB0002994	0.7187256020
## N.Acetylserine_HMDB0002931	0.2834552049
## L.Aspartic.acid_HMDB0000191	0.3133241650
## L.Methionine_HMDB0000696	-0.0548161150
## X4.Hydroxyproline_HMDB0000725	0.4392058663
## Pyroglutamic.acid_HMDB0000267	0.2940397959
## Cytosine_HMDB0000630	0.0037721066
## Gamma.Aminobutyric.acid_HMDB0000112	0.3007681346
## Threonic.acid_HMDB0000943	0.7190054900

## L.Cysteine_HMDB0000574	0.7244608094
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.6288068118
## Creatinine_HMDB0000562	-0.1393590366
## X3.Hydroxyglutaric.acid_HMDB0000428	0.2261794420
## Oxoglutaric.acid_HMDB0000208	0.5120644136
## Phenylpyruvic.acid_HMDB0000205	0.0356281691
## Pimelic.acid_HMDB0000857	0.1089536251
## Phenyllactic.acid_HMDB0000779	0.2982720757
## Phosphoenolpyruvic.acid_HMDB0000263	0.1111682692
## Ornithine_HMDB0000214	-0.2484875437
## Hypotaurine_HMDB0000965	0.3401341333
## Triethanolamine_HMDB0032538	0.1898795174
## X2.Aminobenzoic.acid_HMDB0001123	0.0108922995
## L.Glutamic.acid_HMDB0000148	0.1682090694
## X4.Hydroxybenzoic.acid_HMDB0000500	0.2144214751
## X5.Aminopentanoic.acid_HMDB0003355	0.3995030993
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.2326994703
## L.Phenylalanine_HMDB0000159	0.0463334761
## Dodecanoic.acid_HMDB0000638	0.2390384740
## Lyxose_HMDB0003402_1	0.3953087144
## D.Xylose_HMDB0000098	-0.3497979295
## Lyxose_HMDB0003402_2	-0.4114560095
## D.Arabinose_HMDB0029942	0.2735368464
## L.Asparagine_HMDB0000168	-0.2253757986
## D.Ribulose_HMDB0000621	-0.0759964491
## D.Ribose_HMDB0000283	0.2701707649
## D.Xylulose_HMDB0001644	-0.0833877115
## X3.Sulfinoalanine_HMDB0000996	-0.1567277825
## Suberic.acid_HMDB0000893	0.1776834392
## L.Lysine_HMDB0000182	-0.3665870020
## Levoglucosan_HMDB0000640	-0.4091184313
## D.Arabitol_HMDB0000568	0.0656400793
## Ribitol_HMDB0000508	0.2150024752
## cis.Aconitic.acid_HMDB0000072	-0.2335349869
## Quinolinic.acid_HMDB0000232	0.3549583420
## Putrescine_HMDB0001414	0.4617856788
## Glycerol.3.phosphate_HMDB0000126	0.1568143764
## Vanillic.acid_HMDB0000484	0.2914102928
## L.Glutamine_HMDB0000641	-0.1891018801
## X2.Phosphoglyceric.acid_HMDB0000362	0.6003015353
## Azelaic.acid_HMDB0000784	0.0519964826
## L.Dihydroorotic.acid_HMDB0003349	0.2928612399
## O.Phosphoethanolamine_HMDB0000224	0.0142229141
## X3.Phosphoglyceric.acid_HMDB0000807	0.5994285705
## Isocitric.acid_HMDB0000193	0.3697591782
## Hypoxanthine_HMDB0000157	-0.4395205324
## Citric.acid_HMDB0000094	0.5931838253
## L.Arginine_HMDB0000517	0.1351315318
## Ornithine_HMDB0000214.1	-0.0053562865
## Dopamine_HMDB0000073	-0.0026126456
## Myristic.acid_HMDB0000806	0.1063119237
## X1.5.Anhydrosorbitol_HMDB0002712	0.6684556248
## D.Tagatose_HMDB0003418	0.3039830638
## Psicose_1	-0.2180583695

## Sebacic.acid_HMDB0000792	0.3834143903
## D.Fructose_HMDB0000660	0.1689727702
## Gluconolactone_HMDB0000150	0.0828296316
## L.Sorbose_HMDB0001266	0.1513400907
## D.Mannose_HMDB0000169	-0.0005012906
## Hydroxyphenyllactic.acid_HMDB0000755	0.5452848874
## D.Glucose_HMDB0000122	-0.0812693421
## N.Acetylglutamine_HMDB0006029	0.0155744905
## L.Lysine_HMDB0000182.1	-0.0727675951
## D.Mannose_HMDB0000169.1	-0.0753637312
## Tyramine_HMDB0000306	-0.0738016403
## L.Histidine_HMDB0000177	-0.1090999702
## D.Glucose_HMDB0000122.1	-0.0444625953
## X1.Hexadecanol_HMDB0003424	-0.0133133962
## L.Tyrosine_HMDB0000158	-0.0751755126
## Mannitol_HMDB0000765	0.3271937282
## Sorbitol_HMDB0000247	0.1966110604
## ITSD_Sorbitol	0.2603777596
## Galacturonic.acid_HMDB0002545	0.6444096655
## Pantothenic.acid_HMDB0000210	0.1665368071
## Palmitoleic.acid_HMDB0003229	-0.0337632123
## Xanthine_HMDB0000292	-0.2150799828
## Gluconic.acid_HMDB0000625	0.3729487845
## Palmitic.acid_HMDB0000220	0.1173452470
## Glucaric.acid_HMDB0000663	0.0021545408
## N.Acetylmannosamine_HMDB0001129	0.3476058080
## N.Acetyl.D.glucosamine_HMDB0000215	0.1939116189
## D.Ribulose.5.phosphate_HMDB0000618	0.2316784318
## Uric.acid_HMDB0000289	-0.3555840013
## D.Ribose.5.phosphate_HMDB0001548	0.1715067423
## myo.Inositol_HMDB0000211	0.3117419070
## D.Ribose.5.phosphate_HMDB0001548.1	0.1036954378
## Heptadecanoic.acid_HMDB0002259	0.5925103329
## Octadecanol_HMDB0002350	0.4449330851
## Glutathione_HMDB0000125	0.3207124929
## Linoleic.acid_HMDB0000673	-0.0042034446
## Oleic.acid_HMDB0000207	-0.0925388811
## Elaidic.acid_HMDB0000573	0.0082634901
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.2534961156
## Stearic.acid_HMDB0000827	0.2018424199
## L.Tryptophan_HMDB0000929	0.1991122866
## Fructose.1.phosphate_HMDB0001076	0.4274445205
## Mannose.6.phosphate_HMDB0001078	-0.0965815866
## Arachidonic.acid_HMDB0001043	-0.2886054172
## Glucose.6.phosphate_HMDB0001401	0.3691602204
## X6.Phosphogluconic.acid_HMDB0001316	0.2623649118
## Inositol.phosphate_HMDB0002985	0.2297498918
## Uridine_HMDB0000296	0.4566703367
## Stigmasterol_HMDB0000937	0.3885791146
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.1500218015
## Sucrose_HMDB0000258	-0.3272367829
## MG.18.Oe.0.0.0.0._HMDB0011143	0.3956488045
## Trehalose_HMDB0000975	-0.1092455789
## D.Maltose_HMDB0000163	-0.1089874873

## Lactitol_HMDB00040937	0.5346324009
## Xanthylic.acid_HMDB00001554	-0.2417700559
## Adenosine.monophosphate_HMDB00000045	0.3410199980
## Cholesterol_HMDB00000067	0.2336984608
## Lathosterol_HMDB00001170	0.0462986619
## X7b.Hydroxycholesterol_.HMDB00006119	0.4219704244
##	
## Dimethylglycine_HMDB00000092	Beta.Alanine_HMDB00000056
## Glyoxylic.acid_HMDB00000119	-0.752642278
## Pyruvic.acid_HMDB00000243	-0.751463955
## L.Lactic.acid_HMDB00000190	0.604255360
## Alpha.Hydroxyisobutyric.acid_HMDB00000729	0.702056235
## Glycolic.acid_HMDB00000115	0.355865176
## Caproic.acid_HMDB00000535	-0.347241241
## L.Alanine_HMDB00000161	-0.718318372
## Alpha.ketoisovaleric.acid_HMDB00000019	0.774104536
## Glycine_HMDB00000123	0.137362024
## Oxalic.acid_HMDB00002329	0.802432586
## Hydroxylamine_HMDB00003338	-0.241343278
## X2.Hydroxybutyric.acid_HMDB00000008	-0.029282303
## Acetoacetic.acid_HMDB00000060	0.062502866
## Hydroxypropionic.acid_HMDB00000700	-0.226014607
## Pyruvic.acid_HMDB00000243.1	0.547184367
## X3.Hydroxybutyric.acid_HMDB00000357	0.233491637
## X.S..3.Hydroxyisobutyric.acid_HMDB00000023	0.101850962
## X2.Hydroxy.3.methylbutyric.acid_HMDB00000407	0.127922366
## D.Alpha.aminobutyric.acid_HMDB00000650	-0.296999672
## X3.Methyl.2.oxovaleric.acid_HMDB00000491	0.675833327
## Beta.Alanine_HMDB00000056	0.017317736
## X2.Methyl.3.hydroxybutyric.acid_HMDB00000354	1.000000000
## X3.Methyl.2.oxovaleric.acid_HMDB00000491.1	0.443771486
## Malonic.acid_HMDB00000691	0.264975516
## X3.Aminoisobutanoic.acid_HMDB00003911	0.496778567
## X3.Hydroxyisovaleric.acid_HMDB00000754	0.800310604
## Ketoleucine_HMDB00000695	0.627288088
## L.Valine_HMDB00000883	-0.183876785
## ITSD_Valine	0.734674930
## Urea_HMDB00000294	0.781987935
## Benzoic.acid_HMDB00001870	0.634680138
## Caprylic.acid_HMDB00000482	-0.075843076
## Glycerol_HMDB00000131	-0.581214278
## Ethanolamine_HMDB00000149	0.785715077
## L.Leucine_HMDB00000687	0.697523499
## Acetylglutamine_HMDB00000532	0.740300285
## L.Isoleucine_HMDB00000172	-0.077010481
## Nicotinic.acid_HMDB00001488	0.736448619
## Maleic.acid_HMDB00000176	0.071015278
## L.Proline_HMDB00000162	-0.294878339
## Phenylacetic.acid_HMDB00000209	0.550251177
## Succinic.acid_HMDB00000254	-0.530791289
## Glycine_HMDB00000123.1	0.550468656
## Methylsuccinic.acid_HMDB00001844	0.660121446
## Glyceric.acid_HMDB00000139	0.156284699
## Fumaric.acid_HMDB00000134	-0.502516664
	0.638477418

## Uracil_HMDB0000300	0.387108101
## Pelargonic.acid_HMDB0000847	-0.624486965
## L.Serine_HMDB0000187	0.649296070
## L.Threonine_HMDB0000167	0.707643653
## Mesaconic.acid_HMDB0000749	0.271734378
## Glutaric.acid_HMDB0000661	0.049618773
## Thymine_HMDB0000262	0.378759057
## Beta.Alanine_HMDB0000056.1	0.785455394
## L.Homoserine_HMDB0000719	-0.191048334
## Capric.acid_HMDB0000511	-0.279307207
## Citramalic.acid_HMDB0000426	0.581641661
## Malic.acid_HMDB0000744	-0.352127735
## Niacinamide_HMDB0001406	0.785800770
## Adipic.acid_HMDB0000448	0.589200402
## D.Threitol_HMDB0004136	0.285866596
## Dihydrouracil_HMDB0000076	0.310336541
## Erythritol_HMDB0002994	0.391540403
## N.Acetylserine_HMDB0002931	0.569355002
## L.Aspartic.acid_HMDB0000191	0.679702784
## L.Methionine_HMDB0000696	0.792903651
## X4.Hydroxyproline_HMDB0000725	0.732175013
## Pyroglutamic.acid_HMDB0000267	0.765904189
## Cytosine_HMDB0000630	0.253683073
## Gamma.Aminobutyric.acid_HMDB0000112	0.635422315
## Threonic.acid_HMDB0000943	-0.392189440
## L.Cysteine_HMDB0000574	-0.320368335
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.481355116
## Creatinine_HMDB0000562	0.685257755
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.430662608
## Oxoglutaric.acid_HMDB0000208	0.205555329
## Phenylpyruvic.acid_HMDB0000205	-0.330372223
## Pimelic.acid_HMDB0000857	0.535527734
## Phenyllactic.acid_HMDB0000779	-0.310685863
## Phosphoenolpyruvic.acid_HMDB0000263	-0.706702522
## Ornithine_HMDB0000214	0.628001216
## Hypotaurine_HMDB0000965	0.640628166
## Triethanolamine_HMDB0032538	0.644130407
## X2.Aminobenzoic.acid_HMDB0001123	0.728678784
## L.Glutamic.acid_HMDB0000148	0.810633858
## X4.Hydroxybenzoic.acid_HMDB0000500	0.725860348
## X5.Aminopentanoic.acid_HMDB0003355	-0.089741053
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.559837403
## L.Phenylalanine_HMDB0000159	0.812213023
## Dodecanoic.acid_HMDB0000638	0.445076875
## Lyxose_HMDB0003402_1	-0.671897473
## D.Xylose_HMDB0000098	-0.478002430
## Lyxose_HMDB0003402_2	-0.310516950
## D.Arabinose_HMDB0029942	-0.730214704
## L.Asparagine_HMDB0000168	0.537174533
## D.Ribulose_HMDB0000621	-0.833833011
## D.Ribose_HMDB0000283	-0.716151727
## D.Xylulose_HMDB0001644	-0.820672310
## X3.Sulfinoalanine_HMDB0000996	0.428286874
## Suberic.acid_HMDB0000893	0.579545280

## L.Lysine_HMDB0000182	0.528709651
## Levoglucosan_HMDB0000640	-0.356674237
## D.Arabitol_HMDB0000568	0.596191670
## Ribitol_HMDB0000508	-0.124082312
## cis.Aconitic.acid_HMDB0000072	-0.273552147
## Quinolinic.acid_HMDB0000232	0.197356341
## Putrescine_HMDB0001414	0.198401825
## Glycerol.3.phosphate_HMDB0000126	-0.386283366
## Vanillic.acid_HMDB0000484	0.411896280
## L.Glutamine_HMDB0000641	0.221714022
## X2.Phosphoglyceric.acid_HMDB0000362	-0.001962564
## Azelaic.acid_HMDB0000784	0.344605866
## L.Dihydroorotic.acid_HMDB0003349	-0.756941602
## O.Phosphoethanolamine_HMDB0000224	0.560106834
## X3.Phosphoglyceric.acid_HMDB0000807	0.047363460
## Isocitric.acid_HMDB0000193	0.241678807
## Hypoxanthine_HMDB0000157	-0.014938818
## Citric.acid_HMDB0000094	-0.463202573
## L.Arginine_HMDB0000517	-0.468251276
## Ornithine_HMDB0000214.1	0.740733356
## Dopamine_HMDB0000073	0.717928731
## Myristic.acid_HMDB0000806	0.700367078
## X1.5.Anhydrosorbitol_HMDB0002712	-0.058431558
## D.Tagatose_HMDB0003418	-0.699906947
## Psicose_1	-0.311847359
## Sebacic.acid_HMDB0000792	0.591056241
## D.Fructose_HMDB0000660	-0.599965045
## Gluconolactone_HMDB0000150	-0.765044123
## L.Sorbose_HMDB0001266	-0.596659783
## D.Mannose_HMDB0000169	0.745361359
## Hydroxyphenyllactic.acid_HMDB0000755	0.237062744
## D.Glucose_HMDB0000122	0.728412113
## N.Acetylglutamine_HMDB0006029	0.735726719
## L.Lysine_HMDB0000182.1	0.755386790
## D.Mannose_HMDB0000169.1	0.749381543
## Tyramine_HMDB0000306	0.740285604
## L.Histidine_HMDB0000177	0.763294856
## D.Glucose_HMDB0000122.1	0.746153431
## X1.Hexadecanol_HMDB0003424	-0.132387649
## L.Tyrosine_HMDB0000158	0.704330466
## Mannitol_HMDB0000765	0.676701568
## Sorbitol_HMDB0000247	-0.230498894
## ITSD_Sorbitol	0.513763238
## Galacturonic.acid_HMDB0002545	-0.025196846
## Pantothenic.acid_HMDB0000210	-0.034355873
## Palmitoleic.acid_HMDB0003229	0.548466331
## Xanthine_HMDB0000292	0.221590612
## Gluconic.acid_HMDB0000625	-0.617170579
## Palmitic.acid_HMDB0000220	0.504213286
## Glucaric.acid_HMDB0000663	0.434439764
## N.Acetylmannosamine_HMDB0001129	0.455338592
## N.Acetyl.D.glucosamine_HMDB0000215	0.645989155
## D.Ribulose.5.phosphate_HMDB0000618	-0.663023033
## Uric.acid_HMDB0000289	0.421123039

## D.Ribose.5.phosphate_HMDB0001548	-0.600629399
## myo.Inositol_HMDB0000211	0.575807151
## D.Ribose.5.phosphate_HMDB0001548.1	-0.755653461
## Heptadecanoic.acid_HMDB0002259	-0.304439316
## Octadecanol_HMDB0002350	-0.082009110
## Glutathione_HMDB0000125	0.054512221
## Linoleic.acid_HMDB0000673	0.338969990
## Oleic.acid_HMDB0000207	0.453858886
## Elaidic.acid_HMDB0000573	0.498131036
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.716905661
## Stearic.acid_HMDB0000827	0.236750732
## L.Tryptophan_HMDB0000929	0.302634735
## Fructose.1.phosphate_HMDB0001076	-0.521363126
## Mannose.6.phosphate_HMDB0001078	-0.218630107
## Arachidonic.acid_HMDB0001043	0.330749392
## Glucose.6.phosphate_HMDB0001401	-0.550874593
## X6.Phosphogluconic.acid_HMDB0001316	-0.175916696
## Inositol.phosphate_HMDB0002985	-0.167413262
## Uridine_HMDB0000296	0.022069178
## Stigmasterol_HMDB0000937	0.407477430
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.116730428
## Sucrose_HMDB0000258	0.596266256
## MG.18.0e.0.0.0.0._HMDB0011143	0.145045529
## Trehalose_HMDB0000975	0.278704385
## D.Maltose_HMDB0000163	0.283573826
## Lactitol_HMDB00040937	0.095191763
## Xanthylic.acid_HMDB0001554	-0.619700504
## Adenosine.monophosphate_HMDB0000045	-0.579620605
## Cholesterol_HMDB0000067	0.015128734
## Lathosterol_HMDB0001170	0.262064820
## X7b.Hydroxycholesterol_.HMDB0006119	-0.443228131
##	
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	
## Dimethylglycine_HMDB0000092	-0.035680878
## Glyoxylic.acid_HMDB0000119	-0.032786935
## Pyruvic.acid_HMDB0000243	0.516725830
## L.Lactic.acid_HMDB0000190	0.601544406
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.461347580
## Glycolic.acid_HMDB0000115	0.172202231
## Caproic.acid_HMDB0000535	0.021517457
## L.Alanine_HMDB0000161	0.581433588
## Alpha.ketoisovaleric.acid_HMDB0000019	0.715541176
## Glycine_HMDB0000123	0.738395244
## Oxalic.acid_HMDB0002329	0.263965366
## Hydroxylamine_HMDB0003338	0.126084244
## X2.Hydroxybutyric.acid_HMDB0000008	0.601686265
## Acetoacetic.acid_HMDB0000060	0.287433831
## Hydroxypropionic.acid_HMDB0000700	0.402091083
## Pyruvic.acid_HMDB0000243.1	0.371222448
## X3.Hydroxybutyric.acid_HMDB0000357	0.529709335
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.553925234
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.264019293
## D.Alpha.aminobutyric.acid_HMDB0000650	0.389124396
## X3.Methyl.2.oxoaleric.acid_HMDB0000491	0.457899204
## Beta.Alanine_HMDB0000056	0.443771486

## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	1.000000000
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.631597634
## Malonic.acid_HMDB0000691	0.436511738
## X3.Aminoisobutanoic.acid_HMDB0003911	0.276091755
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.493358767
## Ketoleucine_HMDB0000695	0.621435591
## L.Valine_HMDB0000883	0.486019795
## ITSD_Valine	0.404434757
## Urea_HMDB0000294	0.780050431
## Benzoic.acid_HMDB0001870	0.067170622
## Caprylic.acid_HMDB0000482	0.146079025
## Glycerol_HMDB0000131	0.487953782
## Ethanolamine_HMDB0000149	0.518346990
## L.Leucine_HMDB0000687	0.460629558
## Acetylglycine_HMDB0000532	0.308835445
## L.Isoleucine_HMDB0000172	0.527115634
## Nicotinic.acid_HMDB0001488	0.102222279
## Maleic.acid_HMDB0000176	0.382850265
## L.Proline_HMDB0000162	0.568368637
## Phenylacetic.acid_HMDB0000209	0.308146526
## Succinic.acid_HMDB0000254	0.489050499
## Glycine_HMDB0000123.1	0.497973550
## Methylsuccinic.acid_HMDB0001844	0.028939864
## Glyceric.acid_HMDB0000139	0.160396221
## Fumaric.acid_HMDB0000134	0.722090730
## Uracil_HMDB0000300	0.572656132
## Pelargonic.acid_HMDB0000847	0.080598201
## L.Serine_HMDB0000187	0.483292116
## L.Threonine_HMDB0000167	0.620562192
## Mesaconic.acid_HMDB0000749	0.197596164
## Glutaric.acid_HMDB0000661	0.521770915
## Thymine_HMDB0000262	0.255385644
## Beta.Alanine_HMDB0000056.1	0.266749888
## L.Homoserine_HMDB0000719	0.135067296
## Capric.acid_HMDB0000511	0.033135236
## Citramalic.acid_HMDB0000426	0.460967859
## Malic.acid_HMDB0000744	0.465384591
## Niacinamide_HMDB0001406	0.588083314
## Adipic.acid_HMDB0000448	0.449919496
## D.Threitol_HMDB0004136	0.332155294
## Dihydrouracil_HMDB0000076	0.651121419
## Erythritol_HMDB0002994	0.677380247
## N.Acetylserine_HMDB0002931	0.630315383
## L.Aspartic.acid_HMDB0000191	0.508614264
## L.Methionine_HMDB0000696	0.255503855
## X4.Hydroxyproline_HMDB0000725	0.687346354
## Pyroglutamic.acid_HMDB0000267	0.615992564
## Cytosine_HMDB0000630	-0.030351696
## Gamma.Aminobutyric.acid_HMDB0000112	0.473264872
## Threonic.acid_HMDB0000943	0.371217532
## L.Cysteine_HMDB0000574	0.381121860
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.224129550
## Creatinine_HMDB0000562	0.054558861
## X3.Hydroxyglutaric.acid_HMDB0000428	0.187166455

## Oxoglutaric.acid_HMDB0000208	0.513098072
## Phenylpyruvic.acid_HMDB0000205	0.266138129
## Pimelic.acid_HMDB0000857	0.293335160
## Phenyllactic.acid_HMDB0000779	0.340359121
## Phosphoenolpyruvic.acid_HMDB0000263	-0.090156938
## Ornithine_HMDB0000214	0.166715629
## Hypotaurine_HMDB0000965	0.498658445
## Triethanolamine_HMDB0032538	0.573802038
## X2.Aminobenzoic.acid_HMDB0001123	0.239164909
## L.Glutamic.acid_HMDB0000148	0.285624745
## X4.Hydroxybenzoic.acid_HMDB0000500	0.414664377
## X5.Aminopentanoic.acid_HMDB0003355	0.501078995
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.117988108
## L.Phenylalanine_HMDB0000159	0.306983577
## Dodecanoic.acid_HMDB0000638	0.227800822
## Lyxose_HMDB0003402_1	0.055930135
## D.Xylose_HMDB0000098	-0.274472620
## Lyxose_HMDB0003402_2	-0.216548990
## D.Arabinose_HMDB0029942	-0.007317234
## L.Asparagine_HMDB0000168	-0.071750659
## D.Ribulose_HMDB0000621	-0.122573758
## D.Ribose_HMDB0000283	-0.041680445
## D.Xylulose_HMDB0001644	-0.103727605
## X3.Sulfinoalanine_HMDB0000996	-0.310043374
## Suberic.acid_HMDB0000893	0.642974518
## L.Lysine_HMDB0000182	-0.017126589
## Levoglucosan_HMDB0000640	-0.288098572
## D.Arabitol_HMDB0000568	0.467379870
## Ribitol_HMDB0000508	0.083765630
## cis.Aconitic.acid_HMDB0000072	-0.154781006
## Quinolinic.acid_HMDB0000232	0.569800284
## Putrescine_HMDB0001414	0.256263666
## Glycerol.3.phosphate_HMDB0000126	-0.237073902
## Vanillic.acid_HMDB0000484	0.555644624
## L.Glutamine_HMDB0000641	-0.273039848
## X2.Phosphoglyceric.acid_HMDB0000362	0.624571218
## Azelaic.acid_HMDB0000784	0.258354621
## L.Dihydroorotic.acid_HMDB0003349	0.015505149
## O.Phosphoethanolamine_HMDB0000224	0.060177615
## X3.Phosphoglyceric.acid_HMDB0000807	0.684334483
## Isocitric.acid_HMDB0000193	0.366172446
## Hypoxanthine_HMDB0000157	-0.444388572
## Citric.acid_HMDB0000094	0.339931265
## L.Arginine_HMDB0000517	-0.299214897
## Ornithine_HMDB0000214.1	0.316424047
## Dopamine_HMDB0000073	0.280384214
## Myristic.acid_HMDB0000806	0.262725758
## X1.5.Anhydrosorbitol_HMDB0002712	0.442076551
## D.Tagatose_HMDB0003418	0.029266587
## Psicose_1	-0.212191855
## Sebacic.acid_HMDB0000792	0.437198872
## D.Fructose_HMDB0000660	0.099612503
## Gluconolactone_HMDB0000150	-0.007864173
## L.Sorbose_HMDB0001266	0.075376612

## D.Mannose_HMDB0000169	0.211882561
## Hydroxyphenyllactic.acid_HMDB0000755	0.523729389
## D.Glucose_HMDB0000122	0.242320746
## N.Acetylglutamine_HMDB0006029	0.230073136
## L.Lysine_HMDB0000182.1	0.160847670
## D.Mannose_HMDB0000169.1	0.158401466
## Tyramine_HMDB0000306	0.148201048
## L.Histidine_HMDB0000177	0.125739331
## D.Glucose_HMDB0000122.1	0.216607096
## X1.Hexadecanol_HMDB0003424	-0.125433710
## L.Tyrosine_HMDB0000158	0.129649546
## Mannitol_HMDB0000765	0.370608071
## Sorbitol_HMDB0000247	-0.391406134
## ITSD_Sorbitol	0.329434691
## Galacturonic.acid_HMDB0002545	0.550114008
## Pantothenic.acid_HMDB0000210	0.362488316
## Palmitoleic.acid_HMDB0003229	-0.012761447
## Xanthine_HMDB0000292	-0.067262086
## Gluconic.acid_HMDB0000625	0.192356687
## Palmitic.acid_HMDB0000220	0.203051956
## Glucaric.acid_HMDB0000663	0.363861045
## N.Acetylmannosamine_HMDB0001129	0.045889792
## N.Acetyl.D.glucosamine_HMDB0000215	0.185758973
## D.Ribulose.5.phosphate_HMDB0000618	-0.072757856
## Uric.acid_HMDB0000289	-0.276667825
## D.Ribose.5.phosphate_HMDB0001548	-0.021449143
## myo.Inositol_HMDB0000211	0.406677182
## D.Ribose.5.phosphate_HMDB0001548.1	-0.056573427
## Heptadecanoic.acid_HMDB0002259	0.329914212
## Octadecanol_HMDB0002350	0.403096516
## Glutathione_HMDB0000125	0.089783418
## Linoleic.acid_HMDB0000673	-0.074059202
## Oleic.acid_HMDB0000207	-0.128601150
## Elaidic.acid_HMDB0000573	-0.060637013
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.033776066
## Stearic.acid_HMDB0000827	0.290309701
## L.Tryptophan_HMDB0000929	0.374757860
## Fructose.1.phosphate_HMDB0001076	0.140402917
## Mannose.6.phosphate_HMDB0001078	-0.096031588
## Arachidonic.acid_HMDB0001043	-0.336769962
## Glucose.6.phosphate_HMDB0001401	0.261521854
## X6.Phosphogluconic.acid_HMDB0001316	0.187491683
## Inositol.phosphate_HMDB0002985	-0.247245714
## Uridine_HMDB0000296	0.064117750
## Stigmasterol_HMDB0000937	0.511957751
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.338063111
## Sucrose_HMDB0000258	-0.147625414
## MG.18.Oe.0.0.0.0._HMDB0011143	0.267342310
## Trehalose_HMDB0000975	0.013207504
## D.Maltose_HMDB0000163	0.019362873
## Lactitol_HMDB0040937	0.299683107
## Xanthylic.acid_HMDB0001554	-0.488361692
## Adenosine.monophosphate_HMDB0000045	0.213542954
## Cholesterol_HMDB0000067	-0.081200273

## Lathosterol_HMDB0001170	-0.170631747
## X7b.Hydroxycholesterol_.HMDB0006119	0.287504098
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	
## Dimethylglycine_HMDB0000092	-0.0575544305
## Glyoxylic.acid_HMDB0000119	-0.0637450524
## Pyruvic.acid_HMDB0000243	0.4982721639
## L.Lactic.acid_HMDB0000190	0.6432567210
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.6365007348
## Glycolic.acid_HMDB0000115	0.3674160571
## Caproic.acid_HMDB0000535	-0.0443236083
## L.Alanine_HMDB0000161	0.5745277728
## Alpha.ketoisovaleric.acid_HMDB0000019	0.8119771912
## Glycine_HMDB0000123	0.5271969962
## Oxalic.acid_HMDB0002329	0.1478805321
## Hydroxylamine_HMDB0003338	0.4136864956
## X2.Hydroxybutyric.acid_HMDB0000008	0.8006629768
## Acetoacetic.acid_HMDB0000060	0.3718313386
## Hydroxypropionic.acid_HMDB0000700	0.6027381800
## Pyruvic.acid_HMDB0000243.1	0.7306578062
## X3.Hydroxybutyric.acid_HMDB0000357	0.6943629987
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.7892864923
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.5794549479
## D.Alpha.aminobutyric.acid_HMDB0000650	0.5962636628
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.7592761763
## Beta.Alanine_HMDB0000056	0.2649755156
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.6315976338
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	1.0000000000
## Malonic.acid_HMDB0000691	0.2034734247
## X3.Aminoisobutanoic.acid_HMDB0003911	0.3609497648
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.6996579042
## Ketoleucine_HMDB0000695	0.7627857259
## L.Valine_HMDB0000883	0.6083841105
## ITSD_Valine	0.5791894975
## Urea_HMDB0000294	0.8636614808
## Benzoic.acid_HMDB0001870	0.0843160806
## Caprylic.acid_HMDB0000482	0.1048870648
## Glycerol_HMDB0000131	0.4850095547
## Ethanolamine_HMDB0000149	0.5131315810
## L.Leucine_HMDB0000687	0.6150970708
## Acetylglutamine_HMDB0000532	0.4569700234
## L.Isoleucine_HMDB0000172	0.6515756904
## Nicotinic.acid_HMDB0001488	0.2247848690
## Maleic.acid_HMDB0000176	0.4676536279
## L.Proline_HMDB0000162	0.7896192616
## Phenylacetic.acid_HMDB0000209	0.3413919117
## Succinic.acid_HMDB0000254	0.6419317398
## Glycine_HMDB0000123.1	0.5813203245
## Methylsuccinic.acid_HMDB0001844	-0.0006339135
## Glyceric.acid_HMDB0000139	0.2827048332
## Fumaric.acid_HMDB0000134	0.7499581868
## Uracil_HMDB0000300	0.7566910902
## Pelargonic.acid_HMDB0000847	0.0309359814
## L.Serine_HMDB0000187	0.4884565906
## L.Threonine_HMDB0000167	0.6313564463

## Mesaconic.acid_HMDB0000749	0.3785079933
## Glutaric.acid_HMDB0000661	0.4013777110
## Thymine_HMDB0000262	0.4675825079
## Beta.Alanine_HMDB0000056.1	0.4667158397
## L.Homoserine_HMDB0000719	0.1458676606
## Capric.acid_HMDB0000511	0.1063721428
## Citramalic.acid_HMDB0000426	0.1685943474
## Malic.acid_HMDB0000744	0.5213109152
## Niacinamide_HMDB0001406	0.6536180041
## Adipic.acid_HMDB0000448	0.3590510119
## D.Threitol_HMDB0004136	0.4302788282
## Dihydrouracil_HMDB0000076	0.6681551299
## Erythritol_HMDB0002994	0.8366519808
## N.Acetylserine_HMDB0002931	0.5679188145
## L.Aspartic.acid_HMDB0000191	0.5490602419
## L.Methionine_HMDB0000696	0.3092839586
## X4.Hydroxyproline_HMDB0000725	0.6811128553
## Pyroglutamic.acid_HMDB0000267	0.5578318905
## Cytosine_HMDB0000630	-0.0511770312
## Gamma.Aminobutyric.acid_HMDB0000112	0.4577566961
## Threonic.acid_HMDB0000943	0.5788594023
## L.Cysteine_HMDB0000574	0.6491557044
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.3526198271
## Creatinine_HMDB0000562	0.1671678374
## X3.Hydroxyglutaric.acid_HMDB0000428	0.0248592846
## Oxoglutaric.acid_HMDB0000208	0.5108936334
## Phenylpyruvic.acid_HMDB0000205	0.0438420953
## Pimelic.acid_HMDB0000857	0.3415676217
## Phenyllactic.acid_HMDB0000779	0.0735379178
## Phosphoenolpyruvic.acid_HMDB0000263	-0.2021019918
## Ornithine_HMDB0000214	-0.0577553752
## Hypotaurine_HMDB0000965	0.5764195639
## Triethanolamine_HMDB0032538	0.5201498391
## X2.Aminobenzoic.acid_HMDB0001123	0.3905857928
## L.Glutamic.acid_HMDB0000148	0.3525822350
## X4.Hydroxybenzoic.acid_HMDB0000500	0.5228291052
## X5.Aminopentanoic.acid_HMDB0003355	0.5219515414
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.2146101362
## L.Phenylalanine_HMDB0000159	0.3685247124
## Dodecanoic.acid_HMDB0000638	0.3780983369
## Lyxose_HMDB0003402_1	0.0788950454
## D.Xylose_HMDB0000098	-0.3922130985
## Lyxose_HMDB0003402_2	-0.4210997354
## D.Arabinose_HMDB0029942	-0.0182959035
## L.Asparagine_HMDB0000168	-0.1386442096
## D.Ribulose_HMDB0000621	-0.2014967830
## D.Ribose_HMDB0000283	-0.0287365289
## D.Xylulose_HMDB0001644	-0.1970236346
## X3.Sulfinioalanine_HMDB0000996	-0.2331400790
## Suberic.acid_HMDB0000893	0.3314657649
## L.Lysine_HMDB0000182	-0.2281560802
## Levoglucosan_HMDB0000640	-0.4090359652
## D.Arabitool_HMDB0000568	0.3796981808
## Ribitol_HMDB0000508	0.1538132048

## cis.Aconitic.acid_HMDB0000072	-0.2068845644
## Quinolinic.acid_HMDB0000232	0.4867004851
## Putrescine_HMDB0001414	0.4768236656
## Glycerol.3.phosphate_HMDB0000126	-0.2276209270
## Vanillic.acid_HMDB0000484	0.5488629083
## L.Glutamine_HMDB0000641	-0.2736777548
## X2.Phosphoglyceric.acid_HMDB0000362	0.6593371230
## Azelaic.acid_HMDB0000784	-0.0314525092
## L.Dihydroorotic.acid_HMDB0003349	0.0072321801
## O.Phosphoethanolamine_HMDB0000224	0.1320883334
## X3.Phosphoglyceric.acid_HMDB0000807	0.6874319204
## Isocitric.acid_HMDB0000193	0.2775215763
## Hypoxanthine_HMDB0000157	-0.5148259168
## Citric.acid_HMDB0000094	0.4411679548
## L.Arginine_HMDB0000517	-0.1694701645
## Ornithine_HMDB0000214.1	0.3326921955
## Dopamine_HMDB0000073	0.3189507556
## Myristic.acid_HMDB0000806	0.4118249257
## X1.5.Anhydrosorbitol_HMDB0002712	0.6455157420
## D.Tagatose_HMDB0003418	-0.0397865064
## Psicose_1	-0.0851414967
## Sebacic.acid_HMDB0000792	0.5659711779
## D.Fructose_HMDB0000660	0.0094673406
## Gluconolactone_HMDB0000150	-0.0960925745
## L.Sorbose_HMDB0001266	-0.0095109650
## D.Mannose_HMDB0000169	0.3727280621
## Hydroxyphenyllactic.acid_HMDB0000755	0.7241124780
## D.Glucose_HMDB0000122	0.3254523630
## N.Acetylglutamine_HMDB0006029	0.3784499580
## L.Lysine_HMDB0000182.1	0.2301787103
## D.Mannose_HMDB0000169.1	0.2879083178
## Tyramine_HMDB0000306	0.2280517286
## L.Histidine_HMDB0000177	0.1939747141
## D.Glucose_HMDB0000122.1	0.2673281171
## X1.Hexadecanol_HMDB0003424	0.0380362268
## L.Tyrosine_HMDB0000158	0.1634248121
## Mannitol_HMDB0000765	0.6521411401
## Sorbitol_HMDB0000247	-0.1265805849
## ITSD_Sorbitol	0.5759950920
## Galacturonic.acid_HMDB0002545	0.7748784344
## Pantothenic.acid_HMDB0000210	0.3509909169
## Palmitoleic.acid_HMDB0003229	0.1459740567
## Xanthine_HMDB0000292	-0.0958493804
## Gluconic.acid_HMDB0000625	0.1626298724
## Palmitic.acid_HMDB0000220	0.3319619513
## Glucaric.acid_HMDB0000663	0.4567690321
## N.Acetylmannosamine_HMDB0001129	0.3864003170
## N.Acetyl.D.glucosamine_HMDB0000215	0.5253286269
## D.Ribulose.5.phosphate_HMDB0000618	-0.0860574089
## Uric.acid_HMDB0000289	-0.2653739243
## D.Ribose.5.phosphate_HMDB0001548	-0.1209529478
## myo.Inositol_HMDB0000211	0.3889813956
## D.Ribose.5.phosphate_HMDB0001548.1	-0.1977095719
## Heptadecanoic.acid_HMDB0002259	0.3748585417

## Octadecanol_HMDB0002350	0.4488887030
## Glutathione_HMDB0000125	0.0186782081
## Linoleic.acid_HMDB0000673	0.1081965912
## Oleic.acid_HMDB0000207	0.0408188905
## Elaidic.acid_HMDB0000573	0.1276127919
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.0306287275
## Stearic.acid_HMDB0000827	0.2898000972
## L.Tryptophan_HMDB0000929	0.3170486131
## Fructose.1.phosphate_HMDB0001076	-0.0015832127
## Mannose.6.phosphate_HMDB0001078	-0.2857020572
## Arachidonic.acid_HMDB0001043	-0.2336544612
## Glucose.6.phosphate_HMDB0001401	0.0392083823
## X6.Phosphogluconic.acid_HMDB0001316	0.2590899640
## Inositol.phosphate_HMDB0002985	0.1325394951
## Uridine_HMDB0000296	0.5563673467
## Stigmasterol_HMDB0000937	0.6052237547
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.1962956464
## Sucrose_HMDB0000258	-0.1337977124
## MG.18.Oe.0.0.0.0._HMDB0011143	0.4204031732
## Trehalose_HMDB0000975	-0.1853780679
## D.Maltose_HMDB0000163	-0.1798262139
## Lactitol_HMDB00040937	0.3702921535
## Xanthylic.acid_HMDB0001554	-0.5935581801
## Adenosine.monophosphate_HMDB0000045	0.0981655463
## Cholesterol_HMDB0000067	0.2029058804
## Lathosterol_HMDB0001170	0.1390603401
## X7b.Hydroxycholesterol_.HMDB0006119	0.2177468168
##	
## Dimethylglycine_HMDB0000092	Malonic.acid_HMDB0000691
## Glyoxylic.acid_HMDB0000119	-0.333212830
## Pyruvic.acid_HMDB0000243	-0.330939747
## L.Lactic.acid_HMDB0000190	0.883542234
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.543721809
## Glycolic.acid_HMDB0000115	0.523847119
## Caproic.acid_HMDB0000535	0.096403551
## L.Alanine_HMDB0000161	-0.076471864
## Alpha.ketoisovaleric.acid_HMDB0000019	0.496001747
## Glycine_HMDB0000123	0.385798211
## Oxalic.acid_HMDB0002329	0.667665211
## Hydroxylamine_HMDB0003338	0.002408588
## X2.Hydroxybutyric.acid_HMDB0000008	0.168802502
## Acetoacetic.acid_HMDB0000060	0.135629420
## Hydroxypropionic.acid_HMDB0000700	0.199686844
## Pyruvic.acid_HMDB0000243.1	0.475009734
## X3.Hydroxybutyric.acid_HMDB0000357	0.233393218
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.249157901
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.263721513
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.102181560
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.362108824
## Beta.Alanine_HMDB0000056	-0.065963419
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.496778567
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.436511738
## Malonic.acid_HMDB0000691	0.203473425
## X3.Aminoisobutanoic.acid_HMDB0003911	1.000000000
	0.209800455

## X3.Hydroxyisovaleric.acid_HMDB0000754	0.462980614
## Ketoleucine_HMDB0000695	0.156198322
## L.Valine_HMDB0000883	0.445434575
## ITSD_Valine	0.457153178
## Urea_HMDB0000294	0.461104623
## Benzoic.acid_HMDB0001870	0.012997159
## Caprylic.acid_HMDB0000482	-0.039801361
## Glycerol_HMDB0000131	0.515607968
## Ethanolamine_HMDB0000149	0.535125640
## L.Leucine_HMDB0000687	0.433074791
## Acetylglycine_HMDB0000532	0.336053945
## L.Isoleucine_HMDB0000172	0.435323946
## Nicotinic.acid_HMDB0001488	0.018701155
## Maleic.acid_HMDB0000176	0.224255054
## L.Proline_HMDB0000162	0.348824608
## Phenylacetic.acid_HMDB0000209	0.060560182
## Succinic.acid_HMDB0000254	0.647783136
## Glycine_HMDB0000123.1	0.572007082
## Methylsuccinic.acid_HMDB0001844	0.521729518
## Glyceric.acid_HMDB0000139	-0.015601029
## Fumaric.acid_HMDB0000134	0.597117921
## Uracil_HMDB0000300	0.530438655
## Pelargonic.acid_HMDB0000847	-0.206206136
## L.Serine_HMDB0000187	0.520165624
## L.Threonine_HMDB0000167	0.556744138
## Mesaconic.acid_HMDB0000749	0.239123080
## Glutaric.acid_HMDB0000661	0.454494633
## Thymine_HMDB0000262	0.391896159
## Beta.Alanine_HMDB0000056.1	0.366238974
## L.Homoserine_HMDB0000719	-0.003512252
## Capric.acid_HMDB0000511	-0.041405948
## Citramalic.acid_HMDB0000426	0.856959818
## Malic.acid_HMDB0000744	0.224133154
## Niacinamide_HMDB0001406	0.526307161
## Adipic.acid_HMDB0000448	0.496110675
## D.Threitol_HMDB0004136	0.344090545
## Dihydrouracil_HMDB0000076	0.363549130
## Erythritol_HMDB0002994	0.410107141
## N.Acetylserine_HMDB0002931	0.563086929
## L.Aspartic.acid_HMDB0000191	0.495259577
## L.Methionine_HMDB0000696	0.405136328
## X4.Hydroxyproline_HMDB0000725	0.551895444
## Pyroglutamic.acid_HMDB0000267	0.517061785
## Cytosine_HMDB0000630	0.217286905
## Gamma.Aminobutyric.acid_HMDB0000112	0.512968429
## Threonic.acid_HMDB0000943	-0.093978837
## L.Cysteine_HMDB0000574	-0.064699973
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.027375586
## Creatinine_HMDB0000562	0.291014717
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.013250589
## Oxoglutaric.acid_HMDB0000208	0.225862248
## Phenylpyruvic.acid_HMDB0000205	-0.125713423
## Pimelic.acid_HMDB0000857	0.416910839
## Phenyllactic.acid_HMDB0000779	-0.143683532

## Phosphoenolpyruvic.acid_HMDB0000263	-0.363812603
## Ornithine_HMDB0000214	0.402701686
## Hypotaurine_HMDB0000965	0.422793795
## Triethanolamine_HMDB0032538	0.557854375
## X2.Aminobenzoic.acid_HMDB0001123	0.458335057
## L.Glutamic.acid_HMDB0000148	0.296242530
## X4.Hydroxybenzoic.acid_HMDB0000500	0.522026749
## X5.Aminopentanoic.acid_HMDB0003355	0.301895232
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.141565330
## L.Phenylalanine_HMDB0000159	0.401659012
## Dodecanoic.acid_HMDB0000638	0.331051367
## Lyxose_HMDB0003402_1	-0.292611251
## D.Xylose_HMDB0000098	-0.222313309
## Lyxose_HMDB0003402_2	-0.023305038
## D.Arabinose_HMDB0029942	-0.287124883
## L.Asparagine_HMDB0000168	0.139056206
## D.Ribulose_HMDB0000621	-0.204138560
## D.Ribose_HMDB0000283	-0.300548297
## D.Xylulose_HMDB0001644	-0.220654054
## X3.Sulfinoalanine_HMDB0000996	-0.130250764
## Suberic.acid_HMDB0000893	0.761525203
## L.Lysine_HMDB0000182	0.243464802
## Levoglucosan_HMDB0000640	-0.187339876
## D.Arabitol_HMDB0000568	0.619236680
## Ribitol_HMDB0000508	0.128447335
## cis.Aconitic.acid_HMDB0000072	-0.122010679
## Quinolinic.acid_HMDB0000232	0.475540320
## Putrescine_HMDB0001414	0.287724787
## Glycerol.3.phosphate_HMDB0000126	-0.356623556
## Vanillic.acid_HMDB0000484	0.364611892
## L.Glutamine_HMDB0000641	-0.200960855
## X2.Phosphoglyceric.acid_HMDB0000362	0.252045759
## Azelaic.acid_HMDB0000784	0.301892091
## L.Dihydroorotic.acid_HMDB0003349	-0.254580043
## O.Phosphoethanolamine_HMDB0000224	0.318815285
## X3.Phosphoglyceric.acid_HMDB0000807	0.338298675
## Isocitric.acid_HMDB0000193	0.541760633
## Hypoxanthine_HMDB0000157	-0.446345095
## Citric.acid_HMDB0000094	-0.032298187
## L.Arginine_HMDB0000517	-0.272863252
## Ornithine_HMDB0000214.1	0.420609539
## Dopamine_HMDB0000073	0.420650445
## Myristic.acid_HMDB0000806	0.497206560
## X1.5.Anhydrosorbitol_HMDB0002712	0.107343567
## D.Tagatose_HMDB0003418	-0.247415568
## Psicose_1	-0.187921974
## Sebacic.acid_HMDB0000792	0.590362995
## D.Fructose_HMDB0000660	-0.010439884
## Gluconolactone_HMDB0000150	-0.074273403
## L.Sorbose_HMDB0001266	-0.025141780
## D.Mannose_HMDB0000169	0.320334143
## Hydroxyphenyllactic.acid_HMDB0000755	0.414522832
## D.Glucose_HMDB0000122	0.328176197
## N.Acetylglutamine_HMDB0006029	0.291362711

## L.Lysine_HMDB0000182.1	0.327838420
## D.Mannose_HMDB0000169.1	0.279609372
## Tyramine_HMDB0000306	0.307414278
## L.Histidine_HMDB0000177	0.323210598
## D.Glucose_HMDB0000122.1	0.274532975
## X1.Hexadecanol_HMDB0003424	0.064474457
## L.Tyrosine_HMDB0000158	0.243292802
## Mannitol_HMDB0000765	0.465273688
## Sorbitol_HMDB0000247	-0.291692754
## ITSD_Sorbitol	0.383422271
## Galacturonic.acid_HMDB0002545	0.048630550
## Pantothenic.acid_HMDB0000210	0.427616218
## Palmitoleic.acid_HMDB0003229	0.218965919
## Xanthine_HMDB0000292	-0.026654021
## Gluconic.acid_HMDB0000625	-0.139377130
## Palmitic.acid_HMDB0000220	0.401227890
## Glucaric.acid_HMDB0000663	0.317093895
## N.Acetylmannosamine_HMDB0001129	-0.032520190
## N.Acetyl.D.glucosamine_HMDB0000215	0.355090767
## D.Ribulose.5.phosphate_HMDB0000618	-0.275343823
## Uric.acid_HMDB0000289	-0.025071004
## D.Ribose.5.phosphate_HMDB0001548	-0.365778182
## myo.Inositol_HMDB0000211	0.734561426
## D.Ribose.5.phosphate_HMDB0001548.1	-0.324361893
## Heptadecanoic.acid_HMDB0002259	0.165544160
## Octadecanol_HMDB0002350	0.361663182
## Glutathione_HMDB0000125	-0.206083291
## Linoleic.acid_HMDB0000673	0.116772694
## Oleic.acid_HMDB0000207	0.122380551
## Elaidic.acid_HMDB0000573	0.210320956
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.260250073
## Stearic.acid_HMDB0000827	0.463983703
## L.Tryptophan_HMDB0000929	0.465714273
## Fructose.1.phosphate_HMDB0001076	0.014510709
## Mannose.6.phosphate_HMDB0001078	-0.312456780
## Arachidonic.acid_HMDB0001043	-0.048521928
## Glucose.6.phosphate_HMDB0001401	0.004135455
## X6.Phosphogluconic.acid_HMDB0001316	0.025382740
## Inositol.phosphate_HMDB0002985	-0.086863524
## Uridine_HMDB0000296	0.344079987
## Stigmasterol_HMDB0000937	0.531966244
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.234736216
## Sucrose_HMDB0000258	0.517283907
## MG.18.0e.0.0.0.0._HMDB0011143	0.218849869
## Trehalose_HMDB0000975	-0.004446797
## D.Maltose_HMDB0000163	0.006206800
## Lactitol_HMDB0040937	0.038847685
## Xanthylic.acid_HMDB0001554	-0.556037767
## Adenosine.monophosphate_HMDB0000045	-0.203959113
## Cholesterol_HMDB0000067	-0.187661477
## Lathosterol_HMDB0001170	-0.111389197
## X7b.Hydroxycholesterol_.HMDB0006119	0.002342090
##	
## Dimethylglycine_HMDB0000092	X3.Aminoisobutanoic.acid_HMDB0003911 -0.784907298

## Glyoxylic.acid_HMDB0000119	-0.789241521
## Pyruvic.acid_HMDB0000243	0.412723291
## L.Lactic.acid_HMDB0000190	0.768166821
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.275866206
## Glycolic.acid_HMDB0000115	-0.247989078
## Caproic.acid_HMDB0000535	-0.792591388
## L.Alanine_HMDB0000161	0.807361845
## Alpha.ketoisovaleric.acid_HMDB0000019	0.200151395
## Glycine_HMDB0000123	0.629190463
## Oxalic.acid_HMDB0002329	-0.444492344
## Hydroxylamine_HMDB0003338	0.297659338
## X2.Hydroxybutyric.acid_HMDB0000008	0.056855858
## Acetoacetic.acid_HMDB0000060	-0.125634178
## Hydroxypropionic.acid_HMDB0000700	0.633915196
## Pyruvic.acid_HMDB0000243.1	0.436937378
## X3.Hydroxybutyric.acid_HMDB0000357	0.047533459
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.096333249
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.190748426
## D.Alpha.aminobutyric.acid_HMDB0000650	0.785651160
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.025911363
## Beta.Alanine_HMDB0000056	0.800310604
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.276091755
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.360949765
## Malonic.acid_HMDB0000691	0.209800455
## X3.Aminoisobutanoic.acid_HMDB0003911	1.000000000
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.646944375
## Ketoleucine_HMDB0000695	-0.152887291
## L.Valine_HMDB0000883	0.828590517
## ITSD_Valine	0.857580049
## Urea_HMDB0000294	0.609420528
## Benzoic.acid_HMDB0001870	-0.061109410
## Caprylic.acid_HMDB0000482	-0.708935296
## Glycerol_HMDB0000131	0.865440811
## Ethanolamine_HMDB0000149	0.804525902
## L.Leucine_HMDB0000687	0.854057356
## Acetyl glycine_HMDB0000532	-0.104186145
## L.Isoleucine_HMDB0000172	0.854000746
## Nicotinic.acid_HMDB0001488	-0.248354898
## Maleic.acid_HMDB0000176	-0.344338101
## L.Proline_HMDB0000162	0.654679282
## Phenylacetic.acid_HMDB0000209	-0.572383868
## Succinic.acid_HMDB0000254	0.560549467
## Glycine_HMDB0000123.1	0.801695403
## Methylsuccinic.acid_HMDB0001844	0.015370950
## Glyceric.acid_HMDB0000139	-0.366838368
## Fumaric.acid_HMDB0000134	0.571974909
## Uracil_HMDB0000300	0.458975645
## Pelargonic.acid_HMDB0000847	-0.780550375
## L.Serine_HMDB0000187	0.735491796
## L.Threonine_HMDB0000167	0.757196199
## Mesaconic.acid_HMDB0000749	-0.012157502
## Glutaric.acid_HMDB0000661	-0.238812572
## Thymine_HMDB0000262	0.399156171
## Beta.Alanine_HMDB0000056.1	0.900374168

## L.Homoserine_HMDB0000719	-0.040113290
## Capric.acid_HMDB0000511	-0.159744957
## Citramalic.acid_HMDB0000426	0.268970893
## Malic.acid_HMDB0000744	-0.342841088
## Niacinamide_HMDB0001406	0.712632962
## Adipic.acid_HMDB0000448	0.582193498
## D.Threitol_HMDB0004136	0.301060605
## Dihydrouracil_HMDB0000076	0.333753355
## Erythritol_HMDB0002994	0.354646775
## N.Acetylserine_HMDB0002931	0.623281628
## L.Aspartic.acid_HMDB0000191	0.756614180
## L.Methionine_HMDB0000696	0.916542037
## X4.Hydroxyproline_HMDB0000725	0.711072937
## Pyroglutamic.acid_HMDB0000267	0.724067824
## Cytosine_HMDB0000630	0.167955144
## Gamma.Aminobutyric.acid_HMDB0000112	0.253018773
## Threonic.acid_HMDB0000943	-0.350562432
## L.Cysteine_HMDB0000574	-0.188425257
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.610871595
## Creatinine_HMDB0000562	0.885081671
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.660113834
## Oxoglutaric.acid_HMDB0000208	0.065321795
## Phenylpyruvic.acid_HMDB0000205	-0.370878937
## Pimelic.acid_HMDB0000857	0.339134944
## Phenyllactic.acid_HMDB0000779	-0.436689102
## Phosphoenolpyruvic.acid_HMDB0000263	-0.877426790
## Ornithine_HMDB0000214	0.674687368
## Hypotaurine_HMDB0000965	0.712969507
## Triethanolamine_HMDB0032538	0.641003303
## X2.Aminobenzoic.acid_HMDB0001123	0.887875458
## L.Glutamic.acid_HMDB0000148	0.853076036
## X4.Hydroxybenzoic.acid_HMDB0000500	0.838405065
## X5.Aminopentanoic.acid_HMDB0003355	-0.183105052
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.468681070
## L.Phenylalanine_HMDB0000159	0.932010317
## Dodecanoic.acid_HMDB0000638	0.528229009
## Lyxose_HMDB0003402_1	-0.748532115
## D.Xylose_HMDB0000098	-0.390857142
## Lyxose_HMDB0003402_2	-0.281153685
## D.Arabinose_HMDB0029942	-0.842174716
## L.Asparagine_HMDB0000168	0.604781164
## D.Ribulose_HMDB0000621	-0.794772088
## D.Ribose_HMDB0000283	-0.831188387
## D.Xylulose_HMDB0001644	-0.783516091
## X3.Sulfinioalanine_HMDB0000996	0.474322482
## Suberic.acid_HMDB0000893	0.305603674
## L.Lysine_HMDB0000182	0.596495132
## Levoglucosan_HMDB0000640	-0.229827748
## D.Arabitool_HMDB0000568	0.254273091
## Ribitol_HMDB0000508	0.126789384
## cis.Aconitic.acid_HMDB0000072	-0.233227477
## Quinolinic.acid_HMDB0000232	-0.106283114
## Putrescine_HMDB0001414	-0.007691133
## Glycerol.3.phosphate_HMDB0000126	-0.655420731

## Vanillic.acid_HMDB0000484	0.626064473
## L.Glutamine_HMDB0000641	0.393857137
## X2.Phosphoglyceric.acid_HMDB0000362	-0.009906952
## Azelaic.acid_HMDB0000784	-0.182900966
## L.Dihydroorotic.acid_HMDB0003349	-0.837225039
## O.Phosphoethanolamine_HMDB0000224	0.605212571
## X3.Phosphoglyceric.acid_HMDB0000807	-0.054156993
## Isocitric.acid_HMDB0000193	0.183802514
## Hypoxanthine_HMDB0000157	0.179287099
## Citric.acid_HMDB0000094	-0.425832359
## L.Arginine_HMDB0000517	-0.232136219
## Ornithine_HMDB0000214.1	0.874481568
## Dopamine_HMDB0000073	0.864130705
## Myristic.acid_HMDB0000806	0.799966197
## X1.5.Anhydrosorbitol_HMDB0002712	-0.182142331
## D.Tagatose_HMDB0003418	-0.848356390
## Psicose_1	-0.128022389
## Sebacic.acid_HMDB0000792	0.549714328
## D.Fructose_HMDB0000660	-0.768738478
## Gluconolactone_HMDB0000150	-0.734681140
## L.Sorbose_HMDB0001266	-0.760923866
## D.Mannose_HMDB0000169	0.871556813
## Hydroxyphenyllactic.acid_HMDB0000755	0.192767263
## D.Glucose_HMDB0000122	0.819762840
## N.Acetylglutamine_HMDB0006029	0.847605433
## L.Lysine_HMDB0000182.1	0.912891734
## D.Mannose_HMDB0000169.1	0.920607169
## Tyramine_HMDB0000306	0.909381496
## L.Histidine_HMDB0000177	0.906513694
## D.Glucose_HMDB0000122.1	0.822864834
## X1.Hexadecanol_HMDB0003424	-0.101404838
## L.Tyrosine_HMDB0000158	0.840404295
## Mannitol_HMDB0000765	0.668193954
## Sorbitol_HMDB0000247	-0.153052207
## ITSD_Sorbitol	0.694627688
## Galacturonic.acid_HMDB0002545	0.150968487
## Pantothenic.acid_HMDB0000210	-0.152474159
## Palmitoleic.acid_HMDB0003229	0.652070913
## Xanthine_HMDB0000292	0.403638072
## Gluconic.acid_HMDB0000625	-0.503677326
## Palmitic.acid_HMDB0000220	0.519975150
## Glucaric.acid_HMDB0000663	0.702602903
## N.Acetylmannosamine_HMDB0001129	0.639865872
## N.Acetyl.D.glucosamine_HMDB0000215	0.820211128
## D.Ribulose.5.phosphate_HMDB0000618	-0.834599606
## Uric.acid_HMDB0000289	0.616276305
## D.Ribose.5.phosphate_HMDB0001548	-0.814619324
## myo.Inositol_HMDB0000211	0.374468306
## D.Ribose.5.phosphate_HMDB0001548.1	-0.899591561
## Heptadecanoic.acid_HMDB0002259	-0.335390470
## Octadecanol_HMDB0002350	-0.210901725
## Glutathione_HMDB0000125	0.014220143
## Linoleic.acid_HMDB0000673	0.408586642
## Oleic.acid_HMDB0000207	0.564947090

## Elaidic.acid_HMDB0000573	0.561376606
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.864914828
## Stearic.acid_HMDB0000827	0.062599050
## L.Tryptophan_HMDB0000929	0.089216301
## Fructose.1.phosphate_HMDB0001076	-0.800682037
## Mannose.6.phosphate_HMDB0001078	-0.424950079
## Arachidonic.acid_HMDB0001043	0.430845018
## Glucose.6.phosphate_HMDB0001401	-0.697873011
## X6.Phosphogluconic.acid_HMDB0001316	-0.149824779
## Inositol.phosphate_HMDB0002985	-0.154383099
## Uridine_HMDB0000296	0.173017955
## Stigmasterol_HMDB0000937	0.352738620
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.175459625
## Sucrose_HMDB0000258	0.419634963
## MG.18.Oe.0.0.0.0._HMDB0011143	0.070197596
## Trehalose_HMDB0000975	-0.173598033
## D.Maltose_HMDB0000163	-0.170438824
## Lactitol_HMDB0040937	-0.071470045
## Xanthylic.acid_HMDB0001554	-0.681160837
## Adenosine.monophosphate_HMDB0000045	-0.714718270
## Cholesterol_HMDB0000067	0.195912341
## Lathosterol_HMDB0001170	0.390719552
## X7b.Hydroxycholesterol_.HMDB0006119	-0.544199343
##	X3.Hydroxyisovaleric.acid_HMDB0000754
## Dimethylglycine_HMDB0000092	-0.495482866
## Glyoxylic.acid_HMDB0000119	-0.501554812
## Pyruvic.acid_HMDB0000243	0.717171118
## L.Lactic.acid_HMDB0000190	0.855552167
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.778853308
## Glycolic.acid_HMDB0000115	0.232682135
## Caproic.acid_HMDB0000535	-0.363509557
## L.Alanine_HMDB0000161	0.739791987
## Alpha.ketoisovaleric.acid_HMDB0000019	0.462729994
## Glycine_HMDB0000123	0.657208536
## Oxalic.acid_HMDB0002329	0.018240127
## Hydroxylamine_HMDB0003338	0.494030430
## X2.Hydroxybutyric.acid_HMDB0000008	0.624488208
## Acetoacetic.acid_HMDB0000060	0.400728902
## Hydroxypropionic.acid_HMDB0000700	0.971653943
## Pyruvic.acid_HMDB0000243.1	0.645842722
## X3.Hydroxybutyric.acid_HMDB0000357	0.643335627
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.724408632
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.367205906
## D.Alpha.aminobutyric.acid_HMDB0000650	0.841421801
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.516051623
## Beta.Alanine_HMDB0000056	0.627288088
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.493358767
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.699657904
## Malonic.acid_HMDB0000691	0.462980614
## X3.Aminoisobutanoic.acid_HMDB0003911	0.646944375
## X3.Hydroxyisovaleric.acid_HMDB0000754	1.000000000
## Ketoleucine_HMDB0000695	0.386858675
## L.Valine_HMDB0000883	0.867662945
## ITSD_Valine	0.903292287

## Urea_HMDB0000294	0.755871029
## Benzoic.acid_HMDB0001870	0.295943348
## Caprylic.acid_HMDB0000482	-0.153274723
## Glycerol_HMDB0000131	0.823552907
## Ethanolamine_HMDB0000149	0.685450248
## L.Leucine_HMDB0000687	0.891898011
## Acetylglycine_HMDB0000532	0.455964404
## L.Isoleucine_HMDB0000172	0.844796414
## Nicotinic.acid_HMDB0001488	0.037332620
## Maleic.acid_HMDB0000176	0.278218894
## L.Proline_HMDB0000162	0.836337250
## Phenylacetic.acid_HMDB0000209	-0.004625536
## Succinic.acid_HMDB0000254	0.910823054
## Glycine_HMDB0000123.1	0.828849147
## Methylsuccinic.acid_HMDB0001844	0.362824580
## Glyceric.acid_HMDB0000139	0.060012669
## Fumaric.acid_HMDB0000134	0.844141720
## Uracil_HMDB0000300	0.675564751
## Pelargonic.acid_HMDB0000847	-0.306498385
## L.Serine_HMDB0000187	0.710920096
## L.Threonine_HMDB0000167	0.767920353
## Mesaconic.acid_HMDB0000749	0.287095518
## Glutaric.acid_HMDB0000661	0.138351858
## Thymine_HMDB0000262	0.533248969
## Beta.Alanine_HMDB0000056.1	0.779037830
## L.Homoserine_HMDB0000719	0.191355638
## Capric.acid_HMDB0000511	0.148839514
## Citramalic.acid_HMDB0000426	0.348315780
## Malic.acid_HMDB0000744	0.230312947
## Niacinamide_HMDB0001406	0.782758337
## Adipic.acid_HMDB0000448	0.445205286
## D.Threitol_HMDB0004136	0.405446807
## Dihydrouracil_HMDB0000076	0.642610876
## Erythritol_HMDB0002994	0.822333178
## N.Acetylserine_HMDB0002931	0.660450039
## L.Aspartic.acid_HMDB0000191	0.737855461
## L.Methionine_HMDB0000696	0.599956976
## X4.Hydroxyproline_HMDB0000725	0.806532007
## Pyroglutamic.acid_HMDB0000267	0.732599884
## Cytosine_HMDB0000630	-0.093559199
## Gamma.Aminobutyric.acid_HMDB0000112	0.517465142
## Threonic.acid_HMDB0000943	0.220278429
## L.Cysteine_HMDB0000574	0.287555003
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.023570758
## Creatinine_HMDB0000562	0.559371533
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.389160257
## Oxoglutaric.acid_HMDB0000208	0.603649036
## Phenylpyruvic.acid_HMDB0000205	-0.247617808
## Pimelic.acid_HMDB0000857	0.490365446
## Phenyllactic.acid_HMDB0000779	-0.206824369
## Phosphoenolpyruvic.acid_HMDB0000263	-0.683529069
## Ornithine_HMDB0000214	0.203814199
## Hypotaurine_HMDB0000965	0.636984359
## Triethanolamine_HMDB0032538	0.541283498

## X2.Aminobenzoic.acid_HMDB0001123	0.732078954
## L.Glutamic.acid_HMDB0000148	0.562175543
## X4.Hydroxybenzoic.acid_HMDB0000500	0.814927858
## X5.Aminopentanoic.acid_HMDB0003355	0.180905976
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.116035204
## L.Phenylalanine_HMDB0000159	0.672755217
## Dodecanoic.acid_HMDB0000638	0.744180127
## Lyxose_HMDB0003402_1	-0.261682727
## D.Xylose_HMDB0000098	-0.646140449
## Lyxose_HMDB0003402_2	-0.582083704
## D.Arabinose_HMDB0029942	-0.409417466
## L.Asparagine_HMDB0000168	0.096835417
## D.Ribulose_HMDB0000621	-0.631347334
## D.Ribose_HMDB0000283	-0.428968980
## D.Xylulose_HMDB0001644	-0.644710715
## X3.Sulfinoalanine_HMDB0000996	-0.032176970
## Suberic.acid_HMDB0000893	0.410114114
## L.Lysine_HMDB0000182	0.040251864
## Levoglucosan_HMDB0000640	-0.595685375
## D.Arabitol_HMDB0000568	0.402142065
## Ribitol_HMDB0000508	0.174912078
## cis.Aconitic.acid_HMDB0000072	-0.430098002
## Quinolinic.acid_HMDB0000232	0.191258933
## Putrescine_HMDB0001414	0.385909004
## Glycerol.3.phosphate_HMDB0000126	-0.452294094
## Vanillic.acid_HMDB0000484	0.549560111
## L.Glutamine_HMDB0000641	-0.166729543
## X2.Phosphoglyceric.acid_HMDB0000362	0.234881287
## Azelaic.acid_HMDB0000784	-0.069039599
## L.Dihydroorotic.acid_HMDB0003349	-0.394988164
## O.Phosphoethanolamine_HMDB0000224	0.692916844
## X3.Phosphoglyceric.acid_HMDB0000807	0.287487764
## Isocitric.acid_HMDB0000193	0.386166291
## Hypoxanthine_HMDB0000157	-0.422644210
## Citric.acid_HMDB0000094	-0.069962236
## L.Arginine_HMDB0000517	-0.304685983
## Ornithine_HMDB0000214.1	0.559095241
## Dopamine_HMDB0000073	0.550780093
## Myristic.acid_HMDB0000806	0.832862978
## X1.5.Anhydrosorbitol_HMDB0002712	0.309010103
## D.Tagatose_HMDB0003418	-0.410706697
## Psicose_1	-0.385641119
## Sebacic.acid_HMDB0000792	0.707738992
## D.Fructose_HMDB0000660	-0.354018395
## Gluconolactone_HMDB0000150	-0.464269667
## L.Sorbose_HMDB0001266	-0.367652398
## D.Mannose_HMDB0000169	0.607153149
## Hydroxyphenyllactic.acid_HMDB0000755	0.740122778
## D.Glucose_HMDB0000122	0.485027742
## N.Acetylglutamine_HMDB0006029	0.586738931
## L.Lysine_HMDB0000182.1	0.546728414
## D.Mannose_HMDB0000169.1	0.572216086
## Tyramine_HMDB0000306	0.537489467
## L.Histidine_HMDB0000177	0.535495233

## D.Glucose_HMDB0000122.1	0.511847318
## X1.Hexadecanol_HMDB0003424	0.054585228
## L.Tyrosine_HMDB0000158	0.396235153
## Mannitol_HMDB0000765	0.746082325
## Sorbitol_HMDB0000247	-0.198772215
## ITSD_Sorbitol	0.824544079
## Galacturonic.acid_HMDB0002545	0.468813041
## Pantothenic.acid_HMDB0000210	0.216154044
## Palmitoleic.acid_HMDB0003229	0.683725099
## Xanthine_HMDB0000292	-0.115469356
## Gluconic.acid_HMDB0000625	-0.342806301
## Palmitic.acid_HMDB0000220	0.732648408
## Glucaric.acid_HMDB0000663	0.551969342
## N.Acetylmannosamine_HMDB0001129	0.467348124
## N.Acetyl.D.glucosamine_HMDB0000215	0.738755276
## D.Ribulose.5.phosphate_HMDB0000618	-0.521296362
## Uric.acid_HMDB0000289	0.026744474
## D.Ribose.5.phosphate_HMDB0001548	-0.517870458
## myo.Inositol_HMDB0000211	0.602786182
## D.Ribose.5.phosphate_HMDB0001548.1	-0.610686866
## Heptadecanoic.acid_HMDB0002259	0.162999461
## Octadecanol_HMDB0002350	0.447107685
## Glutathione_HMDB0000125	-0.125722059
## Linoleic.acid_HMDB0000673	0.571508010
## Oleic.acid_HMDB0000207	0.584015646
## Elaidic.acid_HMDB0000573	0.653392967
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.533317427
## Stearic.acid_HMDB0000827	0.524261538
## L.Tryptophan_HMDB0000929	0.492717437
## Fructose.1.phosphate_HMDB0001076	-0.239273657
## Mannose.6.phosphate_HMDB0001078	-0.538698327
## Arachidonic.acid_HMDB0001043	0.310593195
## Glucose.6.phosphate_HMDB0001401	-0.168624821
## X6.Phosphogluconic.acid_HMDB0001316	0.276821180
## Inositol.phosphate_HMDB0002985	0.148013204
## Uridine_HMDB0000296	0.621468018
## Stigmasterol_HMDB0000937	0.750632883
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.197601891
## Sucrose_HMDB0000258	0.346674447
## MG.18.Oe.0.0.0.0._HMDB0011143	0.590443878
## Trehalose_HMDB0000975	-0.264667479
## D.Maltose_HMDB0000163	-0.258086288
## Lactitol_HMDB0040937	0.172593217
## Xanthylic.acid_HMDB0001554	-0.874576669
## Adenosine.monophosphate_HMDB0000045	-0.351170458
## Cholesterol_HMDB0000067	0.195938904
## Lathosterol_HMDB0001170	0.387811101
## X7b.Hydroxycholesterol_.HMDB0006119	-0.279363380
## Ketoleucine_HMDB0000695	
## Dimethylglycine_HMDB0000092	0.448708324
## Glyoxylic.acid_HMDB0000119	0.446849002
## Pyruvic.acid_HMDB0000243	0.329627524
## L.Lactic.acid_HMDB0000190	0.340313068
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.566684795

## Glycolic.acid_HMDB0000115	0.536071346
## Caproic.acid_HMDB0000535	0.517855996
## L.Alanine_HMDB0000161	0.204266944
## Alpha.ketoisovaleric.acid_HMDB0000019	0.821559122
## Glycine_HMDB0000123	0.282721332
## Oxalic.acid_HMDB0002329	0.282879724
## Hydroxylamine_HMDB0003338	0.393849912
## X2.Hydroxybutyric.acid_HMDB0000008	0.859051437
## Acetoacetic.acid_HMDB0000060	0.604759033
## Hydroxypropionic.acid_HMDB0000700	0.330231504
## Pyruvic.acid_HMDB0000243.1	0.541519400
## X3.Hydroxybutyric.acid_HMDB0000357	0.757825851
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.808801433
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.732667981
## D.Alpha.aminobutyric.acid_HMDB0000650	0.128906358
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.759578342
## Beta.Alanine_HMDB0000056	-0.183876785
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.621435591
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.762785726
## Malonic.acid_HMDB0000691	0.156198322
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.152887291
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.386858675
## Ketoleucine_HMDB0000695	1.000000000
## L.Valine_HMDB0000883	0.221420446
## ITSD_Valine	0.113588881
## Urea_HMDB0000294	0.559448503
## Benzoic.acid_HMDB0001870	0.301997354
## Caprylic.acid_HMDB0000482	0.627587215
## Glycerol_HMDB0000131	0.123674324
## Ethanolamine_HMDB0000149	0.183765614
## L.Leucine_HMDB0000687	0.215076437
## Acetyl glycine_HMDB0000532	0.564840336
## L.Isoleucine_HMDB0000172	0.261788341
## Nicotinic.acid_HMDB0001488	0.306494561
## Maleic.acid_HMDB0000176	0.777668071
## L.Proline_HMDB0000162	0.477547823
## Phenylacetic.acid_HMDB0000209	0.745860922
## Succinic.acid_HMDB0000254	0.419430237
## Glycine_HMDB0000123.1	0.249855364
## Methylsuccinic.acid_HMDB0001844	-0.034686598
## Glyceric.acid_HMDB0000139	0.632267246
## Fumaric.acid_HMDB0000134	0.558983007
## Uracil_HMDB0000300	0.642807820
## Pelargonic.acid_HMDB0000847	0.539973230
## L.Serine_HMDB0000187	0.245878394
## L.Threonine_HMDB0000167	0.325174019
## Mesaconic.acid_HMDB0000749	0.333819753
## Glutaric.acid_HMDB0000661	0.579157246
## Thymine_HMDB0000262	0.283486817
## Beta.Alanine_HMDB0000056.1	-0.055479883
## L.Homoserine_HMDB0000719	0.271017238
## Capric.acid_HMDB0000511	0.302333137
## Citramalic.acid_HMDB0000426	0.062246236
## Malic.acid_HMDB0000744	0.829324996

## Niacinamide_HMDB0001406	0.303077265
## Adipic.acid_HMDB0000448	0.182148727
## D.Threitol_HMDB0004136	0.435873462
## Dihydrouracil_HMDB0000076	0.622855145
## Erythritol_HMDB0002994	0.702604222
## N.Acetylserine_HMDB0002931	0.394599155
## L.Aspartic.acid_HMDB0000191	0.268822171
## L.Methionine_HMDB0000696	-0.188947451
## X4.Hydroxyproline_HMDB0000725	0.414024712
## Pyroglutamic.acid_HMDB0000267	0.307251253
## Cytosine_HMDB0000630	-0.141563060
## Gamma.Aminobutyric.acid_HMDB0000112	0.255375612
## Threonic.acid_HMDB0000943	0.847611160
## L.Cysteine_HMDB0000574	0.840462550
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.731066634
## Creatinine_HMDB0000562	-0.345380927
## X3.Hydroxyglutaric.acid_HMDB0000428	0.378530869
## Oxoglutaric.acid_HMDB0000208	0.568704496
## Phenylpyruvic.acid_HMDB0000205	0.404344001
## Pimelic.acid_HMDB0000857	0.040279637
## Phenyllactic.acid_HMDB0000779	0.491933551
## Phosphoenolpyruvic.acid_HMDB0000263	0.258429691
## Ornithine_HMDB0000214	-0.373242520
## Hypotaurine_HMDB0000965	0.223101328
## Triethanolamine_HMDB0032538	0.216638417
## X2.Aminobenzoic.acid_HMDB0001123	-0.088258442
## L.Glutamic.acid_HMDB0000148	-0.120948788
## X4.Hydroxybenzoic.acid_HMDB0000500	0.129839291
## X5.Aminopentanoic.acid_HMDB0003355	0.757722882
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.569048625
## L.Phenylalanine_HMDB0000159	-0.123908762
## Dodecanoic.acid_HMDB0000638	0.185407458
## Lyxose_HMDB0003402_1	0.517883660
## D.Xylose_HMDB0000098	-0.065187770
## Lyxose_HMDB0003402_2	-0.162625362
## D.Arabinose_HMDB0029942	0.415982995
## L.Asparagine_HMDB0000168	-0.510442702
## D.Ribulose_HMDB0000621	0.320541460
## D.Ribose_HMDB0000283	0.378604750
## D.Xylulose_HMDB0001644	0.318333648
## X3.Sulfinioalanine_HMDB0000996	-0.581543963
## Suberic.acid_HMDB0000893	0.300682480
## L.Lysine_HMDB0000182	-0.544620889
## Levoglucosan_HMDB0000640	-0.170910350
## D.Arabitol_HMDB0000568	0.117214096
## Ribitol_HMDB0000508	0.379846664
## cis.Aconitic.acid_HMDB0000072	0.010946104
## Quinolinic.acid_HMDB0000232	0.553511918
## Putrescine_HMDB0001414	0.503715117
## Glycerol.3.phosphate_HMDB0000126	0.058360668
## Vanillic.acid_HMDB0000484	0.410479206
## L.Glutamine_HMDB0000641	-0.518921045
## X2.Phosphoglyceric.acid_HMDB0000362	0.789758757
## Azelaic.acid_HMDB0000784	0.005353282

## L.Dihydroorotic.acid_HMDB0003349	0.478941163
## O.Phosphoethanolamine_HMDB0000224	-0.130853595
## X3.Phosphoglyceric.acid_HMDB0000807	0.793055576
## Isocitric.acid_HMDB0000193	0.364776382
## Hypoxanthine_HMDB0000157	-0.708739757
## Citric.acid_HMDB0000094	0.813329279
## L.Arginine_HMDB0000517	0.013021982
## Ornithine_HMDB0000214.1	-0.113790294
## Dopamine_HMDB0000073	-0.121652646
## Myristic.acid_HMDB0000806	0.037868739
## X1.5.Anhydrosorbitol_HMDB0002712	0.734486033
## D.Tagatose_HMDB0003418	0.436192873
## Psicose_1	0.007211222
## Sebacic.acid_HMDB0000792	0.347803094
## D.Fructose_HMDB0000660	0.444276798
## Gluconolactone_HMDB0000150	0.455079009
## L.Sorbose_HMDB0001266	0.412233974
## D.Mannose_HMDB0000169	-0.121891277
## Hydroxyphenyllactic.acid_HMDB0000755	0.679172561
## D.Glucose_HMDB0000122	-0.146817880
## N.Acetylglutamine_HMDB0006029	-0.106729646
## L.Lysine_HMDB0000182.1	-0.275247281
## D.Mannose_HMDB0000169.1	-0.235711923
## Tyramine_HMDB0000306	-0.282362513
## L.Histidine_HMDB0000177	-0.321324663
## D.Glucose_HMDB0000122.1	-0.189712503
## X1.Hexadecanol_HMDB0003424	0.187570751
## L.Tyrosine_HMDB0000158	-0.301119623
## Mannitol_HMDB0000765	0.217539316
## Sorbitol_HMDB0000247	-0.033078658
## ITSD_Sorbitol	0.253754536
## Galacturonic.acid_HMDB0002545	0.779044691
## Pantothenic.acid_HMDB0000210	0.506063453
## Palmitoleic.acid_HMDB0003229	-0.194301893
## Xanthine_HMDB0000292	-0.283956891
## Gluconic.acid_HMDB0000625	0.628198322
## Palmitic.acid_HMDB0000220	0.125168379
## Glucaric.acid_HMDB0000663	0.190795197
## N.Acetylmannosamine_HMDB0001129	0.041546721
## N.Acetyl.D.glucosamine_HMDB0000215	0.079694982
## D.Ribulose.5.phosphate_HMDB0000618	0.350656485
## Uric.acid_HMDB0000289	-0.621556544
## D.Ribose.5.phosphate_HMDB0001548	0.247370510
## myo.Inositol_HMDB0000211	0.287372177
## D.Ribose.5.phosphate_HMDB0001548.1	0.283369947
## Heptadecanoic.acid_HMDB0002259	0.740743561
## Octadecanol_HMDB0002350	0.728402129
## Glutathione_HMDB0000125	0.044341077
## Linoleic.acid_HMDB0000673	-0.087588061
## Oleic.acid_HMDB0000207	-0.258430287
## Elaidic.acid_HMDB0000573	-0.170668506
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.475949065
## Stearic.acid_HMDB0000827	0.371227693
## L.Tryptophan_HMDB0000929	0.364455620

## Fructose.1.phosphate_HMDB0001076	0.518754371	
## Mannose.6.phosphate_HMDB0001078	-0.038345377	
## Arachidonic.acid_HMDB0001043	-0.511231459	
## Glucose.6.phosphate_HMDB0001401	0.591100136	
## X6.Phosphogluconic.acid_HMDB0001316	0.494785607	
## Inositol.phosphate_HMDB0002985	0.156824858	
## Uridine_HMDB0000296	0.452857766	
## Stigmasterol_HMDB0000937	0.521080327	
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.405750513	
## Sucrose_HMDB0000258	-0.311171610	
## MG.18.0e.0.0.0.0._HMDB0011143	0.439364036	
## Trehalose_HMDB0000975	-0.236692871	
## D.Maltose_HMDB0000163	-0.231248272	
## Lactitol_HMDB0040937	0.350623533	
## Xanthylic.acid_HMDB0001554	-0.263973198	
## Adenosine.monophosphate_HMDB0000045	0.560697553	
## Cholesterol_HMDB0000067	0.121540860	
## Lathosterol_HMDB0001170	-0.106764775	
## X7b.Hydroxycholesterol._HMDB0006119	0.588917857	
##	L.Valine_HMDB0000883	ITSD_Valine
## Dimethylglycine_HMDB0000092	-0.56094658	-0.678552989
## Glyoxylic.acid_HMDB0000119	-0.56375388	-0.684256588
## Pyruvic.acid_HMDB0000243	0.63611545	0.694405895
## L.Lactic.acid_HMDB0000190	0.91723084	0.886772276
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.59138520	0.609681208
## Glycolic.acid_HMDB0000115	-0.06751799	0.003736177
## Caproic.acid_HMDB0000535	-0.51520266	-0.604004844
## L.Alanine_HMDB0000161	0.94304131	0.874864832
## Alpha.ketoisovaleric.acid_HMDB0000019	0.48881388	0.357163672
## Glycine_HMDB0000123	0.70492397	0.701283688
## Oxalic.acid_HMDB0002329	-0.28004573	-0.202957245
## Hydroxylamine_HMDB0003338	0.47397912	0.438651585
## X2.Hydroxybutyric.acid_HMDB0000008	0.39705680	0.372869970
## Acetoacetic.acid_HMDB0000060	0.13566892	0.153200325
## Hydroxypropionic.acid_HMDB0000700	0.81914968	0.867423017
## Pyruvic.acid_HMDB0000243.1	0.60701490	0.594995155
## X3.Hydroxybutyric.acid_HMDB0000357	0.33489042	0.365740144
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.44995158	0.458706847
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.04868794	0.077870190
## D.Alpha.aminobutyric.acid_HMDB0000650	0.94375675	0.936943501
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.40377621	0.313132213
## Beta.Alanine_HMDB0000056	0.73467493	0.781987935
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.48601980	0.404434757
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.60838411	0.579189497
## Malonic.acid_HMDB0000691	0.44543458	0.457153178
## X3.Aminoisobutanoic.acid_HMDB0003911	0.82859052	0.857580049
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.86766295	0.903292287
## Ketoleucine_HMDB0000695	0.22142045	0.113588881
## L.Valine_HMDB0000883	1.00000000	0.959351763
## ITSD_Valine	0.95935176	1.000000000
## Urea_HMDB0000294	0.81426622	0.767416883
## Benzoic.acid_HMDB0001870	0.06968135	0.042659665
## Caprylic.acid_HMDB0000482	-0.41903847	-0.479384994
## Glycerol_HMDB0000131	0.91354634	0.902311500

## Ethanolamine_HMDB0000149	0.91064911	0.849158126
## L.Leucine_HMDB0000687	0.97586482	0.953428191
## Acetylglycine_HMDB0000532	0.18162765	0.252291033
## L.Isoleucine_HMDB0000172	0.95858228	0.924369444
## Nicotinic.acid_HMDB0001488	-0.10927273	-0.159800807
## Maleic.acid_HMDB0000176	-0.02814907	-0.009808878
## L.Proline_HMDB0000162	0.90247731	0.829197920
## Phenylacetic.acid_HMDB0000209	-0.25666966	-0.293081749
## Succinic.acid_HMDB0000254	0.86123477	0.862758170
## Glycine_HMDB0000123.1	0.93523111	0.895328814
## Methylsuccinic.acid_HMDB0001844	0.19178354	0.307276463
## Glyceric.acid_HMDB0000139	-0.20582077	-0.202296231
## Fumaric.acid_HMDB0000134	0.80191026	0.800884922
## Uracil_HMDB0000300	0.73993664	0.633500517
## Pelargonic.acid_HMDB0000847	-0.51479468	-0.590316879
## L.Serine_HMDB0000187	0.86840835	0.769288641
## L.Threonine_HMDB0000167	0.92662410	0.856700379
## Mesaconic.acid_HMDB0000749	0.21051702	0.213473569
## Glutaric.acid_HMDB0000661	0.18636339	0.031137932
## Thymine_HMDB0000262	0.61878972	0.570246133
## Beta.Alanine_HMDB0000056.1	0.90328473	0.921531748
## L.Homoserine_HMDB0000719	-0.03746708	0.017061948
## Capric.acid_HMDB0000511	-0.11303328	-0.051494846
## Citramalic.acid_HMDB0000426	0.48153294	0.420361537
## Malic.acid_HMDB0000744	0.01562919	-0.030223277
## Niacinamide_HMDB0001406	0.87300508	0.841308500
## Adipic.acid_HMDB0000448	0.70656604	0.582968243
## D.Threitol_HMDB0004136	0.37927222	0.341071217
## Dihydrouracil_HMDB0000076	0.67796556	0.571350123
## Erythritol_HMDB0002994	0.65875543	0.678032988
## N.Acetylserine_HMDB0002931	0.82090503	0.709782954
## L.Aspartic.acid_HMDB0000191	0.90884975	0.810486949
## L.Methionine_HMDB0000696	0.83786297	0.835653246
## X4.Hydroxyproline_HMDB0000725	0.91257195	0.840552359
## Pyroglutamic.acid_HMDB0000267	0.86313465	0.774795158
## Cytosine_HMDB0000630	0.16343890	0.160812428
## Gamma.Aminobutyric.acid_HMDB0000112	0.43032875	0.427336922
## Threonic.acid_HMDB0000943	-0.05030554	-0.071609967
## L.Cysteine_HMDB0000574	0.09387949	0.060462985
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.22971990	-0.284907156
## Creatinine_HMDB0000562	0.74531570	0.802893653
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.52862949	-0.557780581
## Oxoglutaric.acid_HMDB0000208	0.27621265	0.286015698
## Phenylpyruvic.acid_HMDB0000205	-0.44258266	-0.500636497
## Pimelic.acid_HMDB0000857	0.49838406	0.483557323
## Phenyllactic.acid_HMDB0000779	-0.31624195	-0.418052318
## Phosphoenolpyruvic.acid_HMDB0000263	-0.76313750	-0.836229128
## Ornithine_HMDB0000214	0.59676434	0.525208249
## Hypotaurine_HMDB0000965	0.89337634	0.798305977
## Triethanolamine_HMDB0032538	0.78281863	0.701842380
## X2.Aminobenzoic.acid_HMDB0001123	0.86656029	0.893191423
## L.Glutamic.acid_HMDB0000148	0.80817274	0.782699397
## X4.Hydroxybenzoic.acid_HMDB0000500	0.94386113	0.932851886
## X5.Aminopentanoic.acid_HMDB0003355	0.10347652	0.042961873

## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.30439369	-0.342393766
## L.Phenylalanine_HMDB0000159	0.88667349	0.889253354
## Dodecanoic.acid_HMDB0000638	0.53355098	0.662430327
## Lyxose_HMDB0003402_1	-0.49378088	-0.540484660
## D.Xylose_HMDB0000098	-0.59804712	-0.633022346
## Lyxose_HMDB0003402_2	-0.46515593	-0.503938289
## D.Arabinose_HMDB0029942	-0.61448484	-0.647585142
## L.Asparagine_HMDB0000168	0.43064978	0.416380059
## D.Ribulose_HMDB0000621	-0.74749188	-0.782905080
## D.Ribose_HMDB0000283	-0.61781108	-0.641127246
## D.Xylulose_HMDB0001644	-0.75273233	-0.785048895
## X3.Sulfinoalanine_HMDB0000996	0.19759329	0.219343870
## Suberic.acid_HMDB0000893	0.51779192	0.422467491
## L.Lysine_HMDB0000182	0.39989892	0.368111993
## Levoglucosan_HMDB0000640	-0.47191736	-0.503034407
## D.Arabitol_HMDB0000568	0.29420855	0.398121823
## Ribitol_HMDB0000508	0.23591835	0.123629683
## cis.Aconitic.acid_HMDB0000072	-0.41537308	-0.443713341
## Quinolinic.acid_HMDB0000232	0.14168313	0.046980253
## Putrescine_HMDB0001414	0.22872399	0.192506437
## Glycerol.3.phosphate_HMDB0000126	-0.64813697	-0.640482913
## Vanillic.acid_HMDB0000484	0.69699419	0.642828911
## L.Glutamine_HMDB0000641	0.17030093	0.138297086
## X2.Phosphoglyceric.acid_HMDB0000362	0.27181210	0.152944548
## Azelaic.acid_HMDB0000784	-0.07133307	-0.115318697
## L.Dihydroorotic.acid_HMDB0003349	-0.60384607	-0.648990453
## O.Phosphoethanolamine_HMDB0000224	0.51134499	0.629022349
## X3.Phosphoglyceric.acid_HMDB0000807	0.28515226	0.169428187
## Isocitric.acid_HMDB0000193	0.43877670	0.388890199
## Hypoxanthine_HMDB0000157	-0.20820554	-0.189948712
## Citric.acid_HMDB0000094	-0.09954638	-0.258792113
## L.Arginine_HMDB0000517	-0.22209855	-0.263494360
## Ornithine_HMDB0000214.1	0.84410157	0.806202694
## Dopamine_HMDB0000073	0.83796432	0.800044137
## Myristic.acid_HMDB0000806	0.79153728	0.872117558
## X1.5.Anhydrosorbitol_HMDB0002712	0.10271952	0.119685464
## D.Tagatose_HMDB0003418	-0.59295144	-0.654161046
## Psicose_1	-0.32513154	-0.335088366
## Sebacic.acid_HMDB0000792	0.77088668	0.784335998
## D.Fructose_HMDB0000660	-0.54200645	-0.569508297
## Gluconolactone_HMDB0000150	-0.56379892	-0.633268931
## L.Sorbose_HMDB0001266	-0.54751927	-0.569978370
## D.Mannose_HMDB0000169	0.73396496	0.789625898
## Hydroxyphenyllactic.acid_HMDB0000755	0.48423289	0.523827514
## D.Glucose_HMDB0000122	0.64223504	0.683924570
## N.Acetylglutamine_HMDB0006029	0.71033221	0.765749653
## L.Lysine_HMDB0000182.1	0.79441336	0.806032058
## D.Mannose_HMDB0000169.1	0.75308655	0.801318475
## Tyramine_HMDB0000306	0.78712075	0.797495735
## L.Histidine_HMDB0000177	0.76586518	0.793554762
## D.Glucose_HMDB0000122.1	0.66159492	0.700733645
## X1.Hexadecanol_HMDB0003424	-0.17660245	-0.079864913
## L.Tyrosine_HMDB0000158	0.71481728	0.691662860
## Mannitol_HMDB0000765	0.75927782	0.802775851

## Sorbitol_HMDB0000247	-0.14243566	-0.226824077
## ITSD_Sorbitol	0.76286648	0.840832339
## Galacturonic.acid_HMDB0002545	0.37656455	0.329346919
## Pantothenic.acid_HMDB0000210	0.07527439	0.118962158
## Palmitoleic.acid_HMDB0003229	0.51469863	0.667937692
## Xanthine_HMDB0000292	0.32746656	0.188334498
## Gluconic.acid_HMDB0000625	-0.25434253	-0.440846003
## Palmitic.acid_HMDB0000220	0.48274009	0.624191822
## Glucaric.acid_HMDB0000663	0.69712815	0.670444794
## N.Acetylmannosamine_HMDB0001129	0.55303850	0.569764437
## N.Acetyl.D.glucosamine_HMDB0000215	0.79134552	0.845892924
## D.Ribulose.5.phosphate_HMDB0000618	-0.67474055	-0.708708445
## Uric.acid_HMDB0000289	0.33461217	0.347284470
## D.Ribose.5.phosphate_HMDB0001548	-0.70249888	-0.709481611
## myo.Inositol_HMDB0000211	0.56908592	0.569437928
## D.Ribose.5.phosphate_HMDB0001548.1	-0.78274418	-0.813522238
## Heptadecanoic.acid_HMDB0002259	0.05907114	-0.078315424
## Octadecanol_HMDB0002350	0.06561445	0.097972949
## Glutathione_HMDB0000125	-0.01083971	-0.098100567
## Linoleic.acid_HMDB0000673	0.28042181	0.447388174
## Oleic.acid_HMDB0000207	0.38946248	0.554430847
## Elaidic.acid_HMDB0000573	0.44789168	0.618475661
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.69547545	-0.761802380
## Stearic.acid_HMDB0000827	0.15593560	0.270888825
## L.Tryptophan_HMDB0000929	0.15508567	0.274857488
## Fructose.1.phosphate_HMDB0001076	-0.43842000	-0.523080914
## Mannose.6.phosphate_HMDB0001078	-0.60844227	-0.658295104
## Arachidonic.acid_HMDB0001043	0.15036202	0.338854729
## Glucose.6.phosphate_HMDB0001401	-0.37705828	-0.456819936
## X6.Phosphogluconic.acid_HMDB0001316	-0.08194696	-0.043799037
## Inositol.phosphate_HMDB0002985	-0.13264109	0.010544540
## Uridine_HMDB0000296	0.43958084	0.494572669
## Stigmasterol_HMDB0000937	0.52619213	0.585017482
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.06666701	-0.089362746
## Sucrose_HMDB0000258	0.32325575	0.403579655
## MG.18.Oe.0.0.0.0._HMDB0011143	0.18976851	0.310934295
## Trehalose_HMDB0000975	-0.26251779	-0.257241064
## D.Maltose_HMDB0000163	-0.25758154	-0.252228029
## Lactitol_HMDB00040937	0.18454888	0.133810993
## Xanthylic.acid_HMDB0001554	-0.79805421	-0.857581371
## Adenosine.monophosphate_HMDB0000045	-0.53822266	-0.607632979
## Cholesterol_HMDB0000067	0.08582673	0.176411408
## Lathosterol_HMDB0001170	0.18316890	0.353717646
## X7b.Hydroxycholesterol_.HMDB0006119	-0.20213687	-0.381472597
##	Urea_HMDB0000294	
## Dimethylglycine_HMDB0000092	-0.316999210	
## Glyoxylic.acid_HMDB0000119	-0.318009820	
## Pyruvic.acid_HMDB0000243	0.689111360	
## L.Lactic.acid_HMDB0000190	0.846188914	
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.637560339	
## Glycolic.acid_HMDB0000115	0.049285670	
## Caproic.acid_HMDB0000535	-0.307166962	
## L.Alanine_HMDB0000161	0.853706901	
## Alpha.ketoisovaleric.acid_HMDB0000019	0.790491016	

## Glycine_HMDB0000123	0.834788902
## Oxalic.acid_HMDB0002329	-0.060737168
## Hydroxylamine_HMDB0003338	0.337543775
## X2.Hydroxybutyric.acid_HMDB0000008	0.615720917
## Acetoacetic.acid_HMDB0000060	0.195076588
## Hydroxypropionic.acid_HMDB0000700	0.636474015
## Pyruvic.acid_HMDB0000243.1	0.683692178
## X3.Hydroxybutyric.acid_HMDB0000357	0.547286565
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.623050649
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.232736854
## D.Alpha.aminobutyric.acid_HMDB0000650	0.752461723
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.557343570
## Beta.Alanine_HMDB0000056	0.634680138
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.780050431
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.863661481
## Malonic.acid_HMDB0000691	0.461104623
## X3.Aminoisobutanoic.acid_HMDB0003911	0.609420528
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.755871029
## Ketoleucine_HMDB0000695	0.559448503
## L.Valine_HMDB0000883	0.814266222
## ITSD_Valine	0.767416883
## Urea_HMDB0000294	1.000000000
## Benzoic.acid_HMDB0001870	-0.071836913
## Caprylic.acid_HMDB0000482	-0.161916277
## Glycerol_HMDB0000131	0.739098648
## Ethanolamine_HMDB0000149	0.789508939
## L.Leucine_HMDB0000687	0.790681796
## Acetylglycine_HMDB0000532	0.262581143
## L.Isoleucine_HMDB0000172	0.845690830
## Nicotinic.acid_HMDB0001488	0.126466826
## Maleic.acid_HMDB0000176	0.241583054
## L.Proline_HMDB0000162	0.844418847
## Phenylacetic.acid_HMDB0000209	0.060426684
## Succinic.acid_HMDB0000254	0.739302718
## Glycine_HMDB0000123.1	0.778633195
## Methylsuccinic.acid_HMDB0001844	0.013110346
## Glyceric.acid_HMDB0000139	-0.018144014
## Fumaric.acid_HMDB0000134	0.910211392
## Uracil_HMDB0000300	0.833595099
## Pelargonic.acid_HMDB0000847	-0.239442305
## L.Serine_HMDB0000187	0.721179534
## L.Threonine_HMDB0000167	0.871988674
## Mesaconic.acid_HMDB0000749	0.370592578
## Glutaric.acid_HMDB0000661	0.421503281
## Thymine_HMDB0000262	0.596548611
## Beta.Alanine_HMDB0000056.1	0.679268858
## L.Homoserine_HMDB0000719	-0.074885234
## Capric.acid_HMDB0000511	-0.145477772
## Citramalic.acid_HMDB0000426	0.503171379
## Malic.acid_HMDB0000744	0.270696177
## Niacinamide_HMDB0001406	0.883645078
## Adipic.acid_HMDB0000448	0.627952663
## D.Threitol_HMDB0004136	0.469437077
## Dihydrouracil_HMDB0000076	0.725447452

## Erythritol_HMDB0002994	0.810218864
## N.Acetylserine_HMDB0002931	0.792556483
## L.Aspartic.acid_HMDB0000191	0.776858064
## L.Methionine_HMDB0000696	0.611854552
## X4.Hydroxyproline_HMDB0000725	0.905430099
## Pyroglutamic.acid_HMDB0000267	0.829467981
## Cytosine_HMDB0000630	0.144032902
## Gamma.Aminobutyric.acid_HMDB0000112	0.612303640
## Threonic.acid_HMDB0000943	0.250819976
## L.Cysteine_HMDB0000574	0.348585125
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.040053582
## Creatinine_HMDB0000562	0.394801456
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.175150056
## Oxoglutaric.acid_HMDB0000208	0.426457662
## Phenylpyruvic.acid_HMDB0000205	-0.141775667
## Pimelic.acid_HMDB0000857	0.512350243
## Phenyllactic.acid_HMDB0000779	-0.037714350
## Phosphoenolpyruvic.acid_HMDB0000263	-0.431948524
## Ornithine_HMDB0000214	0.324248298
## Hypotaurine_HMDB0000965	0.830235743
## Triethanolamine_HMDB00032538	0.807730781
## X2.Aminobenzoic.acid_HMDB0001123	0.623916970
## L.Glutamic.acid_HMDB0000148	0.629835312
## X4.Hydroxybenzoic.acid_HMDB0000500	0.750257912
## X5.Aminopentanoic.acid_HMDB0003355	0.498762114
## X2.3.Dihydroxybutanedioic.acid_HMDB00059916	-0.084791291
## L.Phenylalanine_HMDB0000159	0.652996329
## Dodecanoic.acid_HMDB0000638	0.397283551
## Lyxose_HMDB0003402_1	-0.261639801
## D.Xylose_HMDB0000098	-0.418635916
## Lyxose_HMDB0003402_2	-0.332407997
## D.Arabinose_HMDB00029942	-0.344071313
## L.Asparagine_HMDB0000168	0.138579017
## D.Ribulose_HMDB0000621	-0.452073319
## D.Ribose_HMDB0000283	-0.348180367
## D.Xylulose_HMDB0001644	-0.437031109
## X3.Sulfinioalanine_HMDB0000996	-0.083956225
## Suberic.acid_HMDB0000893	0.628031529
## L.Lysine_HMDB0000182	0.089392223
## Levoglucosan_HMDB0000640	-0.360930460
## D.Arabitol_HMDB0000568	0.521680701
## Ribitol_HMDB0000508	0.111514797
## cis.Aconitic.acid_HMDB0000072	-0.201056646
## Quinolinic.acid_HMDB0000232	0.506499167
## Putrescine_HMDB0001414	0.405567721
## Glycerol.3.phosphate_HMDB0000126	-0.454173993
## Vanillic.acid_HMDB0000484	0.716270755
## L.Glutamine_HMDB0000641	-0.113975840
## X2.Phosphoglyceric.acid_HMDB0000362	0.605034792
## Azelaic.acid_HMDB0000784	0.138487581
## L.Dihydroorotic.acid_HMDB0003349	-0.327564605
## O.Phosphoethanolamine_HMDB0000224	0.215403628
## X3.Phosphoglyceric.acid_HMDB0000807	0.656750550
## Isocitric.acid_HMDB0000193	0.377091314

## Hypoxanthine_HMDB0000157	-0.472071442
## Citric.acid_HMDB0000094	0.207122726
## L.Arginine_HMDB0000517	-0.368660976
## Ornithine_HMDB0000214.1	0.640719670
## Dopamine_HMDB0000073	0.614640191
## Myristic.acid_HMDB0000806	0.569372293
## X1.5.Anhydrosorbitol_HMDB0002712	0.473763980
## D.Tagatose_HMDB0003418	-0.331180869
## Psicose_1	-0.130530221
## Sebacic.acid_HMDB0000792	0.750082748
## D.Fructose_HMDB0000660	-0.235376869
## Gluconolactone_HMDB0000150	-0.332723760
## L.Sorbose_HMDB0001266	-0.253084902
## D.Mannose_HMDB0000169	0.612405195
## Hydroxyphenyllactic.acid_HMDB0000755	0.668252081
## D.Glucose_HMDB0000122	0.590493173
## N.Acetylglutamine_HMDB0006029	0.618570487
## L.Lysine_HMDB0000182.1	0.509332130
## D.Mannose_HMDB0000169.1	0.543215477
## Tyramine_HMDB0000306	0.497741988
## L.Histidine_HMDB0000177	0.473352304
## D.Glucose_HMDB0000122.1	0.548307614
## X1.Hexadecanol_HMDB0003424	-0.111682048
## L.Tyrosine_HMDB0000158	0.457115417
## Mannitol_HMDB0000765	0.777983131
## Sorbitol_HMDB0000247	-0.268103495
## ITSD_Sorbitol	0.647676803
## Galacturonic.acid_HMDB0002545	0.626676908
## Pantothenic.acid_HMDB0000210	0.312586185
## Palmitoleic.acid_HMDB0003229	0.218048182
## Xanthine_HMDB0000292	0.119308025
## Gluconic.acid_HMDB0000625	0.005026413
## Palmitic.acid_HMDB0000220	0.385359529
## Glucaric.acid_HMDB0000663	0.604245147
## N.Acetylmannosamine_HMDB0001129	0.458318144
## N.Acetyl.D.glucosamine_HMDB0000215	0.669930688
## D.Ribulose.5.phosphate_HMDB0000618	-0.350132338
## Uric.acid_HMDB0000289	-0.033738070
## D.Ribose.5.phosphate_HMDB0001548	-0.377312794
## myo.Inositol_HMDB0000211	0.557307418
## D.Ribose.5.phosphate_HMDB0001548.1	-0.466361457
## Heptadecanoic.acid_HMDB0002259	0.200867503
## Octadecanol_HMDB0002350	0.281351361
## Glutathione_HMDB0000125	0.012753254
## Linoleic.acid_HMDB0000673	0.071426821
## Oleic.acid_HMDB0000207	0.076046118
## Elaidic.acid_HMDB0000573	0.176452540
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.306085419
## Stearic.acid_HMDB0000827	0.266196119
## L.Tryptophan_HMDB0000929	0.333354239
## Fructose.1.phosphate_HMDB0001076	-0.204084180
## Mannose.6.phosphate_HMDB0001078	-0.366995229
## Arachidonic.acid_HMDB0001043	-0.201111777
## Glucose.6.phosphate_HMDB0001401	-0.161236312

## X6.Phosphogluconic.acid_HMDB0001316	0.037593336
## Inositol.phosphate_HMDB0002985	-0.101227847
## Uridine_HMDB0000296	0.389546583
## Stigmasterol_HMDB0000937	0.646845783
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.108372979
## Sucrose_HMDB0000258	0.137352844
## MG.18.0e.0.0.0.0._HMDB0011143	0.282213684
## Trehalose_HMDB0000975	-0.066795865
## D.Maltose_HMDB0000163	-0.060033115
## Lactitol_HMDB0040937	0.381691420
## Xanthylic.acid_HMDB0001554	-0.714311914
## Adenosine.monophosphate_HMDB0000045	-0.173714292
## Cholesterol_HMDB0000067	0.083502777
## Lathosterol_HMDB0001170	0.079557188
## X7b.Hydroxycholesterol_.HMDB0006119	0.107666141
##	Benzoic.acid_HMDB0001870
## Dimethylglycine_HMDB0000092	0.2364884514
## Glyoxylic.acid_HMDB0000119	0.2251289070
## Pyruvic.acid_HMDB0000243	0.0861133190
## L.Lactic.acid_HMDB0000190	0.0057130841
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.3531889079
## Glycolic.acid_HMDB0000115	0.5569404582
## Caproic.acid_HMDB0000535	0.3498822333
## L.Alanine_HMDB0000161	-0.1028049050
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.0503082639
## Glycine_HMDB0000123	-0.1467089111
## Oxalic.acid_HMDB0002329	0.1844273753
## Hydroxylamine_HMDB0003338	0.0932954912
## X2.Hydroxybutyric.acid_HMDB0000008	0.4461279945
## Acetoacetic.acid_HMDB0000060	0.3020795634
## Hydroxypropionic.acid_HMDB0000700	0.3576125627
## Pyruvic.acid_HMDB0000243.1	-0.0007643956
## X3.Hydroxybutyric.acid_HMDB0000357	0.3924829742
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.4297908289
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.5574037643
## D.Alpha.aminobutyric.acid_HMDB0000650	0.0079520253
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.3036595582
## Beta.Alanine_HMDB0000056	-0.0758430760
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.0671706222
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.0843160806
## Malonic.acid_HMDB0000691	0.0129971595
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.0611094103
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.2959433479
## Ketoleucine_HMDB0000695	0.3019973544
## L.Valine_HMDB0000883	0.0696813484
## ITSD_Valine	0.0426596647
## Urea_HMDB0000294	-0.0718369131
## Benzoic.acid_HMDB0001870	1.0000000000
## Caprylic.acid_HMDB0000482	0.5696720314
## Glycerol_HMDB0000131	0.0203642513
## Ethanolamine_HMDB0000149	-0.1519226261
## L.Leucine_HMDB0000687	0.0968013444
## Acetyl glycine_HMDB0000532	0.5823899823
## L.Isoleucine_HMDB0000172	-0.0185747256

## Nicotinic.acid_HMDB0001488	0.1945960657
## Maleic.acid_HMDB0000176	0.3696033598
## L.Proline_HMDB0000162	0.1393172901
## Phenylacetic.acid_HMDB0000209	0.3351952027
## Succinic.acid_HMDB0000254	0.1957093184
## Glycine_HMDB0000123.1	0.0307284909
## Methylsuccinic.acid_HMDB0001844	0.4166482262
## Glyceric.acid_HMDB0000139	0.4501718862
## Fumaric.acid_HMDB0000134	0.1137552428
## Uracil_HMDB0000300	0.0495966987
## Pelargonic.acid_HMDB0000847	0.4769557942
## L.Serine_HMDB0000187	0.0616780901
## L.Threonine_HMDB0000167	-0.0671764067
## Mesaconic.acid_HMDB0000749	0.3606381727
## Glutaric.acid_HMDB0000661	0.1201479856
## Thymine_HMDB0000262	-0.3671490458
## Beta.Alanine_HMDB0000056.1	-0.0981732832
## L.Homoserine_HMDB0000719	0.7235253367
## Capric.acid_HMDB0000511	0.7582119481
## Citramalic.acid_HMDB0000426	-0.2274815752
## Malic.acid_HMDB0000744	0.3888939111
## Niacinamide_HMDB0001406	-0.0620396779
## Adipic.acid_HMDB0000448	-0.1010995471
## D.Threitol_HMDB0004136	0.5045310618
## Dihydrouracil_HMDB0000076	0.0762383848
## Erythritol_HMDB0002994	0.2499823396
## N.Acetylserine_HMDB0002931	-0.0592766672
## L.Aspartic.acid_HMDB0000191	0.0475573476
## L.Methionine_HMDB0000696	-0.2060710124
## X4.Hydroxyproline_HMDB0000725	0.0662170922
## Pyroglutamic.acid_HMDB0000267	0.1053879597
## Cytosine_HMDB0000630	-0.1495119364
## Gamma.Aminobutyric.acid_HMDB0000112	-0.0079164605
## Threonic.acid_HMDB0000943	0.4358858412
## L.Cysteine_HMDB0000574	0.4218661916
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.4236961225
## Creatinine_HMDB0000562	-0.0407850493
## X3.Hydroxyglutaric.acid_HMDB0000428	0.3023984742
## Oxoglutaric.acid_HMDB0000208	0.4643699751
## Phenylpyruvic.acid_HMDB0000205	0.4696450794
## Pimelic.acid_HMDB0000857	-0.2506575757
## Phenyllactic.acid_HMDB0000779	0.4695035735
## Phosphoenolpyruvic.acid_HMDB0000263	0.0197102456
## Ornithine_HMDB0000214	-0.2669268821
## Hypotaurine_HMDB0000965	-0.2037404980
## Triethanolamine_HMDB0032538	-0.3621674445
## X2.Aminobenzoic.acid_HMDB0001123	-0.1650334777
## L.Glutamic.acid_HMDB0000148	-0.1052141963
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.0603076393
## X5.Aminopentanoic.acid_HMDB0003355	-0.1477918247
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.3355321942
## L.Phenylalanine_HMDB0000159	-0.1505902025
## Dodecanoic.acid_HMDB0000638	0.3456636777
## Lyxose_HMDB0003402_1	0.4429568871

## D.Xylose_HMDB0000098	-0.1396289772
## Lyxose_HMDB0003402_2	-0.2804549241
## D.Arabinose_HMDB0029942	0.2345267210
## L.Asparagine_HMDB0000168	-0.2533126195
## D.Ribulose_HMDB0000621	0.0942789037
## D.Ribose_HMDB0000283	0.1865116666
## D.Xylulose_HMDB0001644	0.0620285369
## X3.Sulfinioalanine_HMDB0000996	0.0444592687
## Suberic.acid_HMDB0000893	-0.1056562033
## L.Lysine_HMDB0000182	-0.1777157754
## Levoglucosan_HMDB0000640	-0.2462554615
## D.Arabitol_HMDB0000568	0.1136098735
## Ribitol_HMDB0000508	0.6466530463
## cis.Aconitic.acid_HMDB0000072	-0.2240589952
## Quinolinic.acid_HMDB0000232	0.2103582118
## Putrescine_HMDB0001414	0.1826858159
## Glycerol.3.phosphate_HMDB0000126	0.3224470709
## Vanillic.acid_HMDB0000484	0.0914945961
## L.Glutamine_HMDB0000641	-0.2693378986
## X2.Phosphoglyceric.acid_HMDB0000362	0.0404802449
## Azelaic.acid_HMDB0000784	0.0594433747
## L.Dihydroorotic.acid_HMDB0003349	0.2705482297
## O.Phosphoethanolamine_HMDB0000224	0.3545597683
## X3.Phosphoglyceric.acid_HMDB0000807	-0.0347760604
## Isocitric.acid_HMDB0000193	0.3809023000
## Hypoxanthine_HMDB0000157	-0.0876929086
## Citric.acid_HMDB0000094	0.2861589084
## L.Arginine_HMDB0000517	0.2905061746
## Ornithine_HMDB0000214.1	-0.2627669003
## Dopamine_HMDB0000073	-0.2460392121
## Myristic.acid_HMDB0000806	0.1537558614
## X1.5.Anhydrosorbitol_HMDB0002712	0.2330445309
## D.Tagatose_HMDB0003418	0.3159574544
## Psicose_1	-0.3031427300
## Sebacic.acid_HMDB0000792	0.0432598916
## D.Fructose_HMDB0000660	0.2305343725
## Gluconolactone_HMDB0000150	0.2715232852
## L.Sorbose_HMDB0001266	0.2350857593
## D.Mannose_HMDB0000169	-0.2147220319
## Hydroxyphenyllactic.acid_HMDB0000755	0.1509463819
## D.Glucose_HMDB0000122	-0.2558660293
## N.Acetylglutamine_HMDB0006029	-0.2293243604
## L.Lysine_HMDB0000182.1	-0.1750648190
## D.Mannose_HMDB0000169.1	-0.2099126103
## Tyramine_HMDB0000306	-0.1754636305
## L.Histidine_HMDB0000177	-0.1823746176
## D.Glucose_HMDB0000122.1	-0.2141817851
## X1.Hexadecanol_HMDB0003424	0.6315289169
## L.Tyrosine_HMDB0000158	-0.2425582985
## Mannitol_HMDB0000765	-0.0678554016
## Sorbitol_HMDB0000247	0.0231741689
## ITSD_Sorbitol	0.1108674943
## Galacturonic.acid_HMDB0002545	0.2014131053
## Pantothenic.acid_HMDB0000210	0.1999270741

## Palmitoleic.acid_HMDB0003229	0.3016075011
## Xanthine_HMDB0000292	-0.3333026850
## Gluconic.acid_HMDB0000625	-0.0073137525
## Palmitic.acid_HMDB0000220	0.2825911356
## Glucaric.acid_HMDB0000663	-0.0321642856
## N.Acetylmannosamine_HMDB0001129	-0.0315817469
## N.Acetyl.D.glucosamine_HMDB0000215	-0.0778242711
## D.Ribulose.5.phosphate_HMDB0000618	0.1895072722
## Uric.acid_HMDB0000289	-0.1994236712
## D.Ribose.5.phosphate_HMDB0001548	0.1815570511
## myo.Inositol_HMDB0000211	0.2983323030
## D.Ribose.5.phosphate_HMDB0001548.1	0.1345686143
## Heptadecanoic.acid_HMDB0002259	0.3528302425
## Octadecanol_HMDB0002350	0.5922572721
## Glutathione_HMDB0000125	0.0902993899
## Linoleic.acid_HMDB0000673	0.3835095323
## Oleic.acid_HMDB0000207	0.3182167974
## Elaidic.acid_HMDB0000573	0.3117555564
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.0693277942
## Stearic.acid_HMDB0000827	0.3689467695
## L.Tryptophan_HMDB0000929	0.2272106175
## Fructose.1.phosphate_HMDB0001076	0.3423014371
## Mannose.6.phosphate_HMDB0001078	0.2144254476
## Arachidonic.acid_HMDB0001043	0.2639283258
## Glucose.6.phosphate_HMDB0001401	0.4565113372
## X6.Phosphogluconic.acid_HMDB0001316	0.6755544809
## Inositol.phosphate_HMDB0002985	0.3690839018
## Uridine_HMDB0000296	0.3623743626
## Stigmasterol_HMDB0000937	0.1973899944
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.2915351116
## Sucrose_HMDB0000258	0.0617393160
## MG.18.Oe.0.0.0.0._HMD0011143	0.4760025622
## Trehalose_HMDB0000975	-0.0224481974
## D.Maltose_HMDB0000163	-0.0178495386
## Lactitol_HMDB00040937	-0.0033192065
## Xanthylic.acid_HMDB0001554	-0.1563492252
## Adenosine.monophosphate_HMDB0000045	0.3574126560
## Cholesterol_HMDB0000067	0.3417706069
## Lathosterol_HMDB0001170	0.2758075374
## X7b.Hydroxycholesterol_.HMD0006119	-0.0778190251
## Caprylic.acid_HMDB0000482	
## Dimethylglycine_HMDB0000092	0.831041774
## Glyoxylic.acid_HMDB0000119	0.826809024
## Pyruvic.acid_HMDB0000243	-0.055503948
## L.Lactic.acid_HMDB0000190	-0.368279044
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.298696521
## Glycolic.acid_HMDB0000115	0.646052401
## Caproic.acid_HMDB0000535	0.878215138
## L.Alanine_HMDB0000161	-0.475458615
## Alpha.ketoisovaleric.acid_HMDB0000019	0.167871446
## Glycine_HMDB0000123	-0.305933329
## Oxalic.acid_HMDB0002329	0.542367949
## Hydroxylamine_HMDB0003338	0.063937617
## X2.Hydroxybutyric.acid_HMDB0000008	0.509534517

## Acetoacetic.acid_HMDB0000060	0.521765137
## Hydroxypropionic.acid_HMDB0000700	-0.157476472
## Pyruvic.acid_HMDB0000243.1	0.031330199
## X3.Hydroxybutyric.acid_HMDB0000357	0.488073437
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.460060534
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.700861386
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.467482882
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.409240711
## Beta.Alanine_HMDB0000056	-0.581214278
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.146079025
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.104887065
## Malonic.acid_HMDB0000691	-0.039801361
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.708935296
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.153274723
## Ketoleucine_HMDB0000695	0.627587215
## L.Valine_HMDB0000883	-0.419038471
## ITSD_Valine	-0.479384994
## Urea_HMDB0000294	-0.161916277
## Benzoic.acid_HMDB0001870	0.569672031
## Caprylic.acid_HMDB0000482	1.000000000
## Glycerol_HMDB0000131	-0.530379363
## Ethanolamine_HMDB0000149	-0.519381737
## L.Leucine_HMDB0000687	-0.459217398
## Acetyl glycine_HMDB0000532	0.573190722
## L.Isoleucine_HMDB0000172	-0.481257061
## Nicotinic.acid_HMDB0001488	0.357094750
## Maleic.acid_HMDB0000176	0.754464145
## L.Proline_HMDB0000162	-0.217306183
## Phenylacetic.acid_HMDB0000209	0.855532333
## Succinic.acid_HMDB0000254	-0.128071135
## Glycine_HMDB0000123.1	-0.428837696
## Methylsuccinic.acid_HMDB0001844	0.241813442
## Glyceric.acid_HMDB0000139	0.691479727
## Fumaric.acid_HMDB0000134	-0.033634893
## Uracil_HMDB0000300	-0.002261746
## Pelargonic.acid_HMDB0000847	0.961987069
## L.Serine_HMDB0000187	-0.399393827
## L.Threonine_HMDB0000167	-0.405331701
## Mesaconic.acid_HMDB0000749	0.354806540
## Glutaric.acid_HMDB0000661	0.407645851
## Thymine_HMDB0000262	-0.281133850
## Beta.Alanine_HMDB0000056.1	-0.670245814
## L.Homoserine_HMDB0000719	0.444347511
## Capric.acid_HMDB0000511	0.582252890
## Citramalic.acid_HMDB0000426	-0.218391429
## Malic.acid_HMDB0000744	0.727155816
## Niacinamide_HMDB0001406	-0.341511492
## Adipic.acid_HMDB0000448	-0.395924036
## D.Threitol_HMDB0004136	0.335770689
## Dihydrouracil_HMDB0000076	0.094714870
## Erythritol_HMDB0002994	0.197165831
## N.Acetylserine_HMDB0002931	-0.304399123
## L.Aspartic.acid_HMDB0000191	-0.413238122
## L.Methionine_HMDB0000696	-0.775551886

## X4.Hydroxyproline_HMDB0000725	-0.276354150
## Pyroglutamic.acid_HMDB0000267	-0.314648636
## Cytosine_HMDB0000630	-0.145206421
## Gamma.Aminobutyric.acid_HMDB0000112	-0.058786529
## Threonic.acid_HMDB0000943	0.786889729
## L.Cysteine_HMDB0000574	0.672124760
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.864079763
## Creatinine_HMDB0000562	-0.737280231
## X3.Hydroxyglutaric.acid_HMDB0000428	0.761798234
## Oxoglutaric.acid_HMDB0000208	0.420372085
## Phenylpyruvic.acid_HMDB0000205	0.569033294
## Pimelic.acid_HMDB0000857	-0.385563948
## Phenyllactic.acid_HMDB0000779	0.742563806
## Phosphoenolpyruvic.acid_HMDB0000263	0.666309189
## Ornithine_HMDB0000214	-0.718083344
## Hypotaurine_HMDB0000965	-0.441327456
## Triethanolamine_HMDB0032538	-0.484831358
## X2.Aminobenzoic.acid_HMDB0001123	-0.710150776
## L.Glutamic.acid_HMDB0000148	-0.655747953
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.545723034
## X5.Aminopentanoic.acid_HMDB0003355	0.400477939
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.656109565
## L.Phenylalanine_HMDB0000159	-0.740077008
## Dodecanoic.acid_HMDB0000638	-0.074802205
## Lyxose_HMDB0003402_1	0.871627309
## D.Xylose_HMDB0000098	0.242538637
## Lyxose_HMDB0003402_2	0.089335812
## D.Arabinose_HMDB0029942	0.805814007
## L.Asparagine_HMDB0000168	-0.749877179
## D.Ribulose_HMDB0000621	0.743128803
## D.Ribose_HMDB0000283	0.778540141
## D.Xylulose_HMDB0001644	0.725006348
## X3.Sulfinioalanine_HMDB0000996	-0.522853102
## Suberic.acid_HMDB0000893	-0.141322859
## L.Lysine_HMDB0000182	-0.709538569
## Levoglucosan_HMDB0000640	0.058438970
## D.Arabitol_HMDB0000568	0.036754096
## Ribitol_HMDB0000508	0.383740339
## cis.Aconitic.acid_HMDB0000072	0.103908219
## Quinolinic.acid_HMDB0000232	0.372670620
## Putrescine_HMDB0001414	0.235591091
## Glycerol.3.phosphate_HMDB0000126	0.584324374
## Vanillic.acid_HMDB0000484	-0.090977734
## L.Glutamine_HMDB0000641	-0.617758801
## X2.Phosphoglyceric.acid_HMDB0000362	0.351228233
## Azelaic.acid_HMDB0000784	0.138362409
## L.Dihydroorotic.acid_HMDB0003349	0.846904404
## O.Phosphoethanolamine_HMDB0000224	-0.312683281
## X3.Phosphoglyceric.acid_HMDB0000807	0.340727965
## Isocitric.acid_HMDB0000193	0.236267398
## Hypoxanthine_HMDB0000157	-0.475577477
## Citric.acid_HMDB0000094	0.689562096
## L.Arginine_HMDB0000517	0.270546649
## Ornithine_HMDB0000214.1	-0.748082250

## Dopamine_HMDB0000073	-0.742809414
## Myristic.acid_HMDB0000806	-0.458037636
## X1.5.Anhydrosorbitol_HMDB0002712	0.574920522
## D.Tagatose_HMDB0003418	0.862385078
## Psicose_1	0.010344997
## Sebacic.acid_HMDB0000792	-0.152352090
## D.Fructose_HMDB0000660	0.801618563
## Gluconolactone_HMDB0000150	0.817866180
## L.Sorbose_HMDB0001266	0.789478305
## D.Mannose_HMDB0000169	-0.679578930
## Hydroxyphenyllactic.acid_HMDB0000755	0.262979144
## D.Glucose_HMDB0000122	-0.653886990
## N.Acetylglutamine_HMDB0006029	-0.655573664
## L.Lysine_HMDB0000182.1	-0.804010333
## D.Mannose_HMDB0000169.1	-0.778114206
## Tyramine_HMDB0000306	-0.809159921
## L.Histidine_HMDB0000177	-0.823130132
## D.Glucose_HMDB0000122.1	-0.655599469
## X1.Hexadecanol_HMDB0003424	0.512234929
## L.Tyrosine_HMDB0000158	-0.803760348
## Mannitol_HMDB0000765	-0.369167227
## Sorbitol_HMDB0000247	0.012524089
## ITSD_Sorbitol	-0.300982113
## Galacturonic.acid_HMDB0002545	0.328022766
## Pantothenic.acid_HMDB0000210	0.455693264
## Palmitoleic.acid_HMDB0003229	-0.360266543
## Xanthine_HMDB0000292	-0.614794223
## Gluconic.acid_HMDB0000625	0.593345045
## Palmitic.acid_HMDB0000220	-0.113816971
## Glucaric.acid_HMDB0000663	-0.448994160
## N.Acetylmannosamine_HMDB0001129	-0.322408928
## N.Acetyl.D.glucosamine_HMDB0000215	-0.495778279
## D.Ribulose.5.phosphate_HMDB0000618	0.805666490
## Uric.acid_HMDB0000289	-0.775575044
## D.Ribose.5.phosphate_HMDB0001548	0.740845004
## myo.Inositol_HMDB0000211	0.028332742
## D.Ribose.5.phosphate_HMDB0001548.1	0.786200900
## Heptadecanoic.acid_HMDB0002259	0.593676147
## Octadecanol_HMDB0002350	0.716842146
## Glutathione_HMDB0000125	-0.003792186
## Linoleic.acid_HMDB0000673	-0.128814465
## Oleic.acid_HMDB0000207	-0.334865628
## Elaidic.acid_HMDB0000573	-0.274268888
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.770923866
## Stearic.acid_HMDB0000827	0.334996527
## L.Tryptophan_HMDB0000929	0.272264171
## Fructose.1.phosphate_HMDB0001076	0.868424532
## Mannose.6.phosphate_HMDB0001078	0.336099298
## Arachidonic.acid_HMDB0001043	-0.363060623
## Glucose.6.phosphate_HMDB0001401	0.910979340
## X6.Phosphogluconic.acid_HMDB0001316	0.605291217
## Inositol.phosphate_HMDB0002985	0.377071172
## Uridine_HMDB0000296	0.271332976
## Stigmasterol_HMDB0000937	0.168919233

## D.Sedoheptulose.7.phosphate_HMDB0001068	0.389921707
## Sucrose_HMDB0000258	-0.358911341
## MG.18.0e.0.0.0.0._HMDB0011143	0.412735768
## Trehalose_HMDB0000975	0.022105977
## D.Maltose_HMDB0000163	0.024475088
## Lactitol_HMDB00040937	0.277853000
## Xanthylic.acid_HMDB0001554	0.226946151
## Adenosine.monophosphate_HMDB0000045	0.853144304
## Cholesterol_HMDB0000067	0.160471782
## Lathosterol_HMDB0001170	-0.091091184
## X7b.Hydroxycholesterol_.HMDB0006119	0.539242996
##	Glycerol_HMDB0000131
## Dimethylglycine_HMDB0000092	-0.75700631
## Glyoxylic.acid_HMDB0000119	-0.75673891
## Pyruvic.acid_HMDB0000243	0.65841507
## L.Lactic.acid_HMDB0000190	0.96083167
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.45474533
## Glycolic.acid_HMDB0000115	-0.17253801
## Caproic.acid_HMDB0000535	-0.61422496
## L.Alanine_HMDB0000161	0.91398296
## Alpha.ketoisovaleric.acid_HMDB0000019	0.45352760
## Glycine_HMDB0000123	0.81180450
## Oxalic.acid_HMDB0002329	-0.36698866
## Hydroxylamine_HMDB0003338	0.38565790
## X2.Hydroxybutyric.acid_HMDB0000008	0.23544745
## Acetoacetic.acid_HMDB0000060	0.06664825
## Hydroxypropionic.acid_HMDB0000700	0.81775014
## Pyruvic.acid_HMDB0000243.1	0.49400019
## X3.Hydroxybutyric.acid_HMDB0000357	0.24002575
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.31614426
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.12370032
## D.Alpha.aminobutyric.acid_HMDB0000650	0.83665109
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.15544344
## Beta.Alanine_HMDB0000056	0.78571508
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.48795378
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.48500955
## Malonic.acid_HMDB0000691	0.51560797
## X3.Aminoisobutanoic.acid_HMDB0003911	0.86544081
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.82355291
## Ketoleucine_HMDB0000695	0.12367432
## L.Valine_HMDB0000883	0.91354634
## ITSD_Valine	0.90231150
## Urea_HMDB0000294	0.73909865
## Benzoic.acid_HMDB0001870	0.02036425
## Caprylic.acid_HMDB0000482	-0.53037936
## Glycerol_HMDB0000131	1.00000000
## Ethanolamine_HMDB0000149	0.92382953
## L.Leucine_HMDB0000687	0.95089689
## Acetyl glycine_HMDB0000532	0.06539745
## L.Isoleucine_HMDB0000172	0.96495708
## Nicotinic.acid_HMDB0001488	-0.15570043
## Maleic.acid_HMDB0000176	-0.12011612
## L.Proline_HMDB0000162	0.78186506
## Phenylacetic.acid_HMDB0000209	-0.38530404

## Succinic.acid_HMDB0000254	0.81393161
## Glycine_HMDB0000123.1	0.95523469
## Methylsuccinic.acid_HMDB0001844	0.07715279
## Glyceric.acid_HMDB0000139	-0.23170241
## Fumaric.acid_HMDB0000134	0.76865402
## Uracil_HMDB0000300	0.68836737
## Pelargonic.acid_HMDB0000847	-0.66632752
## L.Serine_HMDB0000187	0.92851357
## L.Threonine_HMDB0000167	0.93274389
## Mesaconic.acid_HMDB0000749	0.01310737
## Glutaric.acid_HMDB0000661	0.06955105
## Thymine_HMDB0000262	0.56767823
## Beta.Alanine_HMDB0000056.1	0.90128926
## L.Homoserine_HMDB0000719	-0.03854354
## Capric.acid_HMDB0000511	-0.17580146
## Citramalic.acid_HMDB0000426	0.52438338
## Malic.acid_HMDB0000744	-0.08417213
## Niacinamide_HMDB0001406	0.83415271
## Adipic.acid_HMDB0000448	0.74566625
## D.Threitol_HMDB0004136	0.27581743
## Dihydrouracil_HMDB0000076	0.55911750
## Erythritol_HMDB0002994	0.53846667
## N.Acetylserine_HMDB0002931	0.86980078
## L.Aspartic.acid_HMDB0000191	0.92759196
## L.Methionine_HMDB0000696	0.88098055
## X4.Hydroxyproline_HMDB0000725	0.90082507
## Pyroglutamic.acid_HMDB0000267	0.88944165
## Cytosine_HMDB0000630	0.05170267
## Gamma.Aminobutyric.acid_HMDB0000112	0.44732299
## Threonic.acid_HMDB0000943	-0.22172595
## L.Cysteine_HMDB0000574	-0.10090269
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.39074064
## Creatinine_HMDB0000562	0.74459110
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.60823397
## Oxoglutaric.acid_HMDB0000208	0.30171364
## Phenylpyruvic.acid_HMDB0000205	-0.27990374
## Pimelic.acid_HMDB0000857	0.57465914
## Phenyllactic.acid_HMDB0000779	-0.32665589
## Phosphoenolpyruvic.acid_HMDB0000263	-0.81194192
## Ornithine_HMDB0000214	0.63172550
## Hypotaurine_HMDB0000965	0.77615134
## Triethanolamine_HMDB0032538	0.80474526
## X2.Aminobenzoic.acid_HMDB0001123	0.93341603
## L.Glutamic.acid_HMDB0000148	0.79211803
## X4.Hydroxybenzoic.acid_HMDB0000500	0.96659334
## X5.Aminopentanoic.acid_HMDB0003355	0.11458166
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.31046666
## L.Phenylalanine_HMDB0000159	0.92232738
## Dodecanoic.acid_HMDB0000638	0.55390276
## Lyxose_HMDB0003402_1	-0.64011923
## D.Xylose_HMDB0000098	-0.47696134
## Lyxose_HMDB0003402_2	-0.33877808
## D.Arabinose_HMDB0029942	-0.74554988
## L.Asparagine_HMDB0000168	0.47796562

## D.Ribulose_HMDB0000621	-0.75566525
## D.Ribose_HMDB0000283	-0.76744224
## D.Xylulose_HMDB0001644	-0.75366849
## X3.Sulfinioalanine_HMDB0000996	0.17786972
## Suberic.acid_HMDB0000893	0.61087798
## L.Lysine_HMDB0000182	0.45300634
## Levoglucosan_HMDB0000640	-0.34929075
## D.Arabitol_HMDB0000568	0.27682076
## Ribitol_HMDB0000508	0.14051557
## cis.Aconitic.acid_HMDB0000072	-0.25672850
## Quinolinic.acid_HMDB0000232	0.13513535
## Putrescine_HMDB0001414	0.23625174
## Glycerol.3.phosphate_HMDB0000126	-0.70751695
## Vanillic.acid_HMDB0000484	0.62431015
## L.Glutamine_HMDB0000641	0.19129216
## X2.Phosphoglyceric.acid_HMDB0000362	0.21300092
## Azelaic.acid_HMDB0000784	-0.04559467
## L.Dihydroorotic.acid_HMDB0003349	-0.72338981
## O.Phosphoethanolamine_HMDB0000224	0.64133287
## X3.Phosphoglyceric.acid_HMDB0000807	0.23731113
## Isocitric.acid_HMDB0000193	0.32352448
## Hypoxanthine_HMDB0000157	-0.14629841
## Citric.acid_HMDB0000094	-0.22237357
## L.Arginine_HMDB0000517	-0.34332076
## Ornithine_HMDB0000214.1	0.88525831
## Dopamine_HMDB0000073	0.87471457
## Myristic.acid_HMDB0000806	0.86961728
## X1.5.Anhydrosorbitol_HMDB0002712	-0.06141863
## D.Tagatose_HMDB0003418	-0.73816818
## Psicose_1	-0.20276283
## Sebacic.acid_HMDB0000792	0.68843940
## D.Fructose_HMDB0000660	-0.62917520
## Gluconolactone_HMDB0000150	-0.63512444
## L.Sorbose_HMDB0001266	-0.64272318
## D.Mannose_HMDB0000169	0.79633444
## Hydroxyphenyllactic.acid_HMDB0000755	0.42310167
## D.Glucose_HMDB0000122	0.72346263
## N.Acetylglutamine_HMDB0006029	0.76681936
## L.Lysine_HMDB0000182.1	0.84093879
## D.Mannose_HMDB0000169.1	0.82356648
## Tyramine_HMDB0000306	0.83091541
## L.Histidine_HMDB0000177	0.82698304
## D.Glucose_HMDB0000122.1	0.71707356
## X1.Hexadecanol_HMDB0003424	-0.19461068
## L.Tyrosine_HMDB0000158	0.75337381
## Mannitol_HMDB0000765	0.76403947
## Sorbitol_HMDB0000247	-0.17454006
## ITSD_Sorbitol	0.77206841
## Galacturonic.acid_HMDB0002545	0.24895911
## Pantothenic.acid_HMDB0000210	-0.01851687
## Palmitoleic.acid_HMDB0003229	0.59094590
## Xanthine_HMDB0000292	0.33016423
## Gluconic.acid_HMDB0000625	-0.38199705
## Palmitic.acid_HMDB0000220	0.57669293

## Glucaric.acid_HMDB0000663	0.77748199
## N.Acetylmannosamine_HMDB0001129	0.43033349
## N.Acetyl.D.glucosamine_HMDB0000215	0.80011585
## D.Ribulose.5.phosphate_HMDB0000618	-0.83227308
## Uric.acid_HMDB0000289	0.40476678
## D.Ribose.5.phosphate_HMDB0001548	-0.82448249
## myo.Inositol_HMDB0000211	0.55572584
## D.Ribose.5.phosphate_HMDB0001548.1	-0.87300746
## Heptadecanoic.acid_HMDB0002259	0.02003542
## Octadecanol_HMDB0002350	0.07074882
## Glutathione_HMDB0000125	-0.03159394
## Linoleic.acid_HMDB0000673	0.37474412
## Oleic.acid_HMDB0000207	0.48148446
## Elaidic.acid_HMDB0000573	0.50242421
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.73626541
## Stearic.acid_HMDB0000827	0.24992596
## L.Tryptophan_HMDB0000929	0.25394525
## Fructose.1.phosphate_HMDB0001076	-0.56126953
## Mannose.6.phosphate_HMDB0001078	-0.49497991
## Arachidonic.acid_HMDB0001043	0.24110658
## Glucose.6.phosphate_HMDB0001401	-0.49186903
## X6.Phosphogluconic.acid_HMDB0001316	-0.06493086
## Inositol.phosphate_HMDB0002985	-0.26625554
## Uridine_HMDB0000296	0.30087212
## Stigmasterol_HMDB0000937	0.53945338
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.06487391
## Sucrose_HMDB0000258	0.47917725
## MG.18.0e.0.0.0.0._HMDB0011143	0.17405121
## Trehalose_HMDB0000975	-0.23124078
## D.Maltose_HMDB0000163	-0.22497393
## Lactitol_HMDB00040937	-0.10263782
## Xanthylic.acid_HMDB0001554	-0.77096712
## Adenosine.monophosphate_HMDB0000045	-0.63027343
## Cholesterol_HMDB0000067	-0.02812524
## Lathosterol_HMDB0001170	0.16633637
## X7b.Hydroxycholesterol_.HMDB0006119	-0.31663256
##	Ethanolamine_HMDB0000149
## Dimethylglycine_HMDB0000092	-0.608718644
## Glyoxylic.acid_HMDB0000119	-0.607481183
## Pyruvic.acid_HMDB0000243	0.643026126
## L.Lactic.acid_HMDB0000190	0.933026771
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.396323832
## Glycolic.acid_HMDB0000115	-0.190972337
## Caproic.acid_HMDB0000535	-0.495617720
## L.Alanine_HMDB0000161	0.961278698
## Alpha.ketoisovaleric.acid_HMDB0000019	0.573264782
## Glycine_HMDB0000123	0.792954068
## Oxalic.acid_HMDB0002329	-0.413645949
## Hydroxylamine_HMDB0003338	0.421217607
## X2.Hydroxybutyric.acid_HMDB0000008	0.208349017
## Acetoacetic.acid_HMDB0000060	0.025282682
## Hydroxypropionic.acid_HMDB0000700	0.657171830
## Pyruvic.acid_HMDB0000243.1	0.524322486
## X3.Hydroxybutyric.acid_HMDB0000357	0.135899897

## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.247463185
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.173056336
## D.Alpha.aminobutyric.acid_HMDB0000650	0.811021964
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.196988473
## Beta.Alanine_HMDB0000056	0.697523499
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.518346990
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.513131581
## Malonic.acid_HMDB0000691	0.535125640
## X3.Aminoisobutanoic.acid_HMDB0003911	0.804525902
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.685450248
## Ketoleucine_HMDB0000695	0.183765614
## L.Valine_HMDB0000883	0.910649111
## ITSD_Valine	0.849158126
## Urea_HMDB0000294	0.789508939
## Benzoic.acid_HMDB0001870	-0.151922626
## Caprylic.acid_HMDB0000482	-0.519381737
## Glycerol_HMDB0000131	0.923829533
## Ethanolamine_HMDB0000149	1.000000000
## L.Leucine_HMDB0000687	0.896771556
## Acetylglycine_HMDB0000532	0.051077692
## L.Isoleucine_HMDB0000172	0.945333991
## Nicotinic.acid_HMDB0001488	-0.204474932
## Maleic.acid_HMDB0000176	-0.115287622
## L.Proline_HMDB0000162	0.797954458
## Phenylacetic.acid_HMDB0000209	-0.329542576
## Succinic.acid_HMDB0000254	0.789754079
## Glycine_HMDB0000123.1	0.937680542
## Methylsuccinic.acid_HMDB0001844	0.029378997
## Glyceric.acid_HMDB0000139	-0.249903968
## Fumaric.acid_HMDB0000134	0.759627206
## Uracil_HMDB0000300	0.771147398
## Pelargonic.acid_HMDB0000847	-0.617816717
## L.Serine_HMDB0000187	0.922774909
## L.Threonine_HMDB0000167	0.976783355
## Mesaconic.acid_HMDB0000749	0.047936155
## Glutaric.acid_HMDB0000661	0.250495949
## Thymine_HMDB0000262	0.644966965
## Beta.Alanine_HMDB0000056.1	0.835621643
## L.Homoserine_HMDB0000719	-0.139190118
## Capric.acid_HMDB0000511	-0.265257236
## Citramalic.acid_HMDB0000426	0.608674087
## Malic.acid_HMDB0000744	-0.005309865
## Niacinamide_HMDB0001406	0.842759611
## Adipic.acid_HMDB0000448	0.866378087
## D.Threitol_HMDB0004136	0.275594943
## Dihydrouracil_HMDB0000076	0.649945631
## Erythritol_HMDB0002994	0.515061702
## N.Acetylserine_HMDB0002931	0.930918296
## L.Aspartic.acid_HMDB0000191	0.940376486
## L.Methionine_HMDB0000696	0.871094008
## X4.Hydroxyproline_HMDB0000725	0.916969955
## Pyroglutamic.acid_HMDB0000267	0.864263182
## Cytosine_HMDB0000630	0.286908454
## Gamma.Aminobutyric.acid_HMDB0000112	0.363751377

## Threonic.acid_HMDB0000943	-0.196274879
## L.Cysteine_HMDB0000574	-0.039074459
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.332184015
## Creatinine_HMDB0000562	0.698926665
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.497101969
## Oxoglutaric.acid_HMDB0000208	0.094285036
## Phenylpyruvic.acid_HMDB0000205	-0.371279823
## Pimelic.acid_HMDB0000857	0.499402092
## Phenyllactic.acid_HMDB0000779	-0.301142682
## Phosphoenolpyruvic.acid_HMDB0000263	-0.681751933
## Ornithine_HMDB0000214	0.750632429
## Hypotaurine_HMDB0000965	0.881235764
## Triethanolamine_HMDB0032538	0.929067364
## X2.Aminobenzoic.acid_HMDB0001123	0.881109590
## L.Glutamic.acid_HMDB0000148	0.815848405
## X4.Hydroxybenzoic.acid_HMDB0000500	0.958409577
## X5.Aminopentanoic.acid_HMDB0003355	0.242276397
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.241098723
## L.Phenylalanine_HMDB0000159	0.913907243
## Dodecanoic.acid_HMDB0000638	0.373206747
## Lyxose_HMDB0003402_1	-0.602132161
## D.Xylose_HMDB0000098	-0.406593712
## Lyxose_HMDB0003402_2	-0.238267134
## D.Arabinose_HMDB0029942	-0.669781333
## L.Asparagine_HMDB0000168	0.563457246
## D.Ribulose_HMDB0000621	-0.631898542
## D.Ribose_HMDB0000283	-0.674750350
## D.Xylulose_HMDB0001644	-0.625002680
## X3.Sulfinioalanine_HMDB0000996	0.184229049
## Suberic.acid_HMDB0000893	0.679500042
## L.Lysine_HMDB0000182	0.538211525
## Levoglucosan_HMDB0000640	-0.259322184
## D.Arabitol_HMDB0000568	0.230683007
## Ribitol_HMDB0000508	0.197680491
## cis.Aconitic.acid_HMDB0000072	-0.237280205
## Quinolinic.acid_HMDB0000232	0.187982159
## Putrescine_HMDB0001414	0.196917506
## Glycerol.3.phosphate_HMDB0000126	-0.743756747
## Vanillic.acid_HMDB0000484	0.712777909
## L.Glutamine_HMDB0000641	0.315011983
## X2.Phosphoglyceric.acid_HMDB0000362	0.410582962
## Azelaic.acid_HMDB0000784	-0.049955040
## L.Dihydroorotic.acid_HMDB0003349	-0.642808763
## O.Phosphoethanolamine_HMDB0000224	0.368952104
## X3.Phosphoglyceric.acid_HMDB0000807	0.400339094
## Isocitric.acid_HMDB0000193	0.450586229
## Hypoxanthine_HMDB0000157	-0.146398579
## Citric.acid_HMDB0000094	-0.037549993
## L.Arginine_HMDB0000517	-0.175700923
## Ornithine_HMDB0000214.1	0.937787175
## Dopamine_HMDB0000073	0.934843177
## Myristic.acid_HMDB0000806	0.725842220
## X1.5.Anhydrosorbitol_HMDB0002712	-0.010111062
## D.Tagatose_HMDB0003418	-0.655369264

## Psicose_1	-0.130568322
## Sebacic.acid_HMDB0000792	0.770884842
## D.Fructose_HMDB0000660	-0.531937066
## Gluconolactone_HMDB0000150	-0.485714298
## L.Sorbose_HMDB0001266	-0.542914109
## D.Mannose_HMDB0000169	0.735699395
## Hydroxyphenyllactic.acid_HMDB0000755	0.329862243
## D.Glucose_HMDB0000122	0.682530226
## N.Acetylglutamine_HMDB0006029	0.708515720
## L.Lysine_HMDB0000182.1	0.839943236
## D.Mannose_HMDB0000169.1	0.776258916
## Tyramine_HMDB0000306	0.829578279
## L.Histidine_HMDB0000177	0.808053486
## D.Glucose_HMDB0000122.1	0.648843620
## X1.Hexadecanol_HMDB0003424	-0.294149607
## L.Tyrosine_HMDB0000158	0.810213458
## Mannitol_HMDB0000765	0.740955523
## Sorbitol_HMDB0000247	-0.124910520
## ITSD_Sorbitol	0.687493252
## Galacturonic.acid_HMDB0002545	0.290325303
## Pantothenic.acid_HMDB0000210	0.050455252
## Palmitoleic.acid_HMDB0003229	0.322614102
## Xanthine_HMDB0000292	0.517396758
## Gluconic.acid_HMDB0000625	-0.132320103
## Palmitic.acid_HMDB0000220	0.337261618
## Glucaric.acid_HMDB0000663	0.786517943
## N.Acetylmannosamine_HMDB0001129	0.403972292
## N.Acetyl.D.glucosamine_HMDB0000215	0.743950473
## D.Ribulose.5.phosphate_HMDB0000618	-0.729612889
## Uric.acid_HMDB0000289	0.435686593
## D.Ribose.5.phosphate_HMDB0001548	-0.776600422
## myo.Inositol_HMDB0000211	0.549208886
## D.Ribose.5.phosphate_HMDB0001548.1	-0.797207230
## Heptadecanoic.acid_HMDB0002259	0.117841500
## Octadecanol_HMDB0002350	-0.056550102
## Glutathione_HMDB0000125	0.047811072
## Linoleic.acid_HMDB0000673	0.066249854
## Oleic.acid_HMDB0000207	0.194111903
## Elaidic.acid_HMDB0000573	0.241347428
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.626284610
## Stearic.acid_HMDB0000827	0.038846816
## L.Tryptophan_HMDB0000929	0.070311225
## Fructose.1.phosphate_HMDB0001076	-0.490725006
## Mannose.6.phosphate_HMDB0001078	-0.558838854
## Arachidonic.acid_HMDB0001043	-0.033442693
## Glucose.6.phosphate_HMDB0001401	-0.446222253
## X6.Phosphogluconic.acid_HMDB0001316	-0.271360502
## Inositol.phosphate_HMDB0002985	-0.360729069
## Uridine_HMDB0000296	0.285799020
## Stigmasterol_HMDB0000937	0.421664879
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.105151915
## Sucrose_HMDB0000258	0.319386628
## MG.18.0e.0.0.0.0._HMDB0011143	-0.049638861
## Trehalose_HMDB0000975	-0.274489522

## D.Maltose_HMDB0000163	-0.269099362
## Lactitol_HMDB0040937	-0.018996278
## Xanthylic.acid_HMDB0001554	-0.661696833
## Adenosine.monophosphate_HMDB0000045	-0.568307381
## Cholesterol_HMDB0000067	-0.089587192
## Lathosterol_HMDB0001170	-0.053787346
## X7b.Hydroxycholesterol_.HMDB0006119	-0.063074578
## L.Leucine_HMDB0000687	
## Dimethylglycine_HMDB0000092	-0.634418052
## Glyoxylic.acid_HMDB0000119	-0.637023476
## Pyruvic.acid_HMDB0000243	0.640651016
## L.Lactic.acid_HMDB0000190	0.928573119
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.550862751
## Glycolic.acid_HMDB0000115	-0.057722884
## Caproic.acid_HMDB0000535	-0.555370399
## L.Alanine_HMDB0000161	0.907140238
## Alpha.ketoisovaleric.acid_HMDB0000019	0.492217473
## Glycine_HMDB0000123	0.714454056
## Oxalic.acid_HMDB0002329	-0.321247037
## Hydroxylamine_HMDB0003338	0.439920568
## X2.Hydroxybutyric.acid_HMDB0000008	0.397743229
## Acetoacetic.acid_HMDB0000060	0.128285007
## Hydroxypropionic.acid_HMDB0000700	0.867093294
## Pyruvic.acid_HMDB0000243.1	0.569660993
## X3.Hydroxybutyric.acid_HMDB0000357	0.354130355
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.458175781
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.046584711
## D.Alpha.aminobutyric.acid_HMDB0000650	0.910622601
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.358292210
## Beta.Alanine_HMDB0000056	0.740300285
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.460629558
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.615097071
## Malonic.acid_HMDB0000691	0.433074791
## X3.Aminoisobutanoic.acid_HMDB0003911	0.854057356
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.891898011
## Ketoleucine_HMDB0000695	0.215076437
## L.Valine_HMDB0000883	0.975864817
## ITSD_Valine	0.953428191
## Urea_HMDB0000294	0.790681796
## Benzoic.acid_HMDB0001870	0.096801344
## Caprylic.acid_HMDB0000482	-0.459217398
## Glycerol_HMDB0000131	0.950896892
## Ethanolamine_HMDB0000149	0.896771556
## L.Leucine_HMDB0000687	1.000000000
## Acetylglucose_HMDB0000532	0.163086342
## L.Isoleucine_HMDB0000172	0.978197314
## Nicotinic.acid_HMDB0001488	-0.080696126
## Maleic.acid_HMDB0000176	-0.037624665
## L.Proline_HMDB0000162	0.910131776
## Phenylacetic.acid_HMDB0000209	-0.279653282
## Succinic.acid_HMDB0000254	0.859548168
## Glycine_HMDB0000123.1	0.954277105
## Methylsuccinic.acid_HMDB0001844	0.130365306
## Glyceric.acid_HMDB0000139	-0.161691061

## Fumaric.acid_HMDB0000134	0.782709814
## Uracil_HMDB0000300	0.724784377
## Pelargonic.acid_HMDB0000847	-0.571615531
## L.Serine_HMDB0000187	0.888915566
## L.Threonine_HMDB0000167	0.919533379
## Mesaconic.acid_HMDB0000749	0.155119751
## Glutaric.acid_HMDB0000661	0.116810115
## Thymine_HMDB0000262	0.592372158
## Beta.Alanine_HMDB0000056.1	0.925140994
## L.Homoserine_HMDB0000719	0.005178857
## Capric.acid_HMDB0000511	-0.089552520
## Citramalic.acid_HMDB0000426	0.436599101
## Malic.acid_HMDB0000744	0.000637668
## Niacinamide_HMDB0001406	0.856923208
## Adipic.acid_HMDB0000448	0.704835726
## D.Threitol_HMDB0004136	0.356002785
## Dihydrouracil_HMDB0000076	0.611300972
## Erythritol_HMDB0002994	0.647535165
## N.Acetylserine_HMDB0002931	0.820025888
## L.Aspartic.acid_HMDB0000191	0.922786137
## L.Methionine_HMDB0000696	0.857374790
## X4.Hydroxyproline_HMDB0000725	0.906965937
## Pyroglutamic.acid_HMDB0000267	0.871010460
## Cytosine_HMDB0000630	0.068654286
## Gamma.Aminobutyric.acid_HMDB0000112	0.445434427
## Threonic.acid_HMDB0000943	-0.065416494
## L.Cysteine_HMDB0000574	0.076947553
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.263996186
## Creatinine_HMDB0000562	0.768903754
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.570743859
## Oxoglutaric.acid_HMDB0000208	0.293881902
## Phenylpyruvic.acid_HMDB0000205	-0.342097224
## Pimelic.acid_HMDB0000857	0.498854336
## Phenyllactic.acid_HMDB0000779	-0.371979658
## Phosphoenolpyruvic.acid_HMDB0000263	-0.804137897
## Ornithine_HMDB0000214	0.569106525
## Hypotaurine_HMDB0000965	0.831876830
## Triethanolamine_HMDB0032538	0.745401673
## X2.Aminobenzoic.acid_HMDB0001123	0.899428485
## L.Glutamic.acid_HMDB0000148	0.802032801
## X4.Hydroxybenzoic.acid_HMDB0000500	0.951833526
## X5.Aminopentanoic.acid_HMDB0003355	0.069437874
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.253887194
## L.Phenylalanine_HMDB0000159	0.902166713
## Dodecanoic.acid_HMDB0000638	0.603031989
## Lyxose_HMDB0003402_1	-0.528071880
## D.Xylose_HMDB0000098	-0.600060950
## Lyxose_HMDB0003402_2	-0.490914247
## D.Arabinose_HMDB0029942	-0.655146885
## L.Asparagine_HMDB0000168	0.420585780
## D.Ribulose_HMDB0000621	-0.776034282
## D.Ribose_HMDB0000283	-0.667645340
## D.Xylulose_HMDB0001644	-0.782178383
## X3.Sulfinioalanine_HMDB0000996	0.201767219

## Suberic.acid_HMDB0000893	0.521260998
## L.Lysine_HMDB0000182	0.399790413
## Levoglucosan_HMDB0000640	-0.485058308
## D.Arabitol_HMDB0000568	0.277861791
## Ribitol_HMDB0000508	0.224559182
## cis.Aconitic.acid_HMDB0000072	-0.381490707
## Quinolinic.acid_HMDB0000232	0.131275885
## Putrescine_HMDB0001414	0.281535985
## Glycerol.3.phosphate_HMDB0000126	-0.632213907
## Vanillic.acid_HMDB0000484	0.651282303
## L.Glutamine_HMDB0000641	0.148910932
## X2.Phosphoglyceric.acid_HMDB0000362	0.229251634
## Azelaic.acid_HMDB0000784	-0.097917064
## L.Dihydroorotic.acid_HMDB0003349	-0.636183868
## O.Phosphoethanolamine_HMDB0000224	0.618377331
## X3.Phosphoglyceric.acid_HMDB0000807	0.233989342
## Isocitric.acid_HMDB0000193	0.387860562
## Hypoxanthine_HMDB0000157	-0.191311417
## Citric.acid_HMDB0000094	-0.129581183
## L.Arginine_HMDB0000517	-0.262137702
## Ornithine_HMDB0000214.1	0.843489184
## Dopamine_HMDB0000073	0.838470195
## Myristic.acid_HMDB0000806	0.867732296
## X1.5.Anhydrosorbitol_HMDB0002712	0.056136459
## D.Tagatose_HMDB0003418	-0.648076640
## Psicose_1	-0.324059641
## Sebacic.acid_HMDB0000792	0.727746821
## D.Fructose_HMDB0000660	-0.579367494
## Gluconolactone_HMDB0000150	-0.602132668
## L.Sorbose_HMDB0001266	-0.587899008
## D.Mannose_HMDB0000169	0.767559662
## Hydroxyphenyllactic.acid_HMDB0000755	0.495595931
## D.Glucose_HMDB0000122	0.666983318
## N.Acetylglutamine_HMDB0006029	0.736085753
## L.Lysine_HMDB0000182.1	0.813977489
## D.Mannose_HMDB0000169.1	0.783368987
## Tyramine_HMDB0000306	0.807794904
## L.Histidine_HMDB0000177	0.793091515
## D.Glucose_HMDB0000122.1	0.680325141
## X1.Hexadecanol_HMDB0003424	-0.140833647
## L.Tyrosine_HMDB0000158	0.717323124
## Mannitol_HMDB0000765	0.759155487
## Sorbitol_HMDB0000247	-0.098285240
## ITSD_Sorbitol	0.800829547
## Galacturonic.acid_HMDB0002545	0.361046286
## Pantothenic.acid_HMDB0000210	0.058249947
## Palmitoleic.acid_HMDB0003229	0.602668980
## Xanthine_HMDB0000292	0.314829384
## Gluconic.acid_HMDB0000625	-0.312382828
## Palmitic.acid_HMDB0000220	0.570250694
## Glucaric.acid_HMDB0000663	0.744862048
## N.Acetylmannosamine_HMDB0001129	0.555840002
## N.Acetyl.D.glucosamine_HMDB0000215	0.814252993
## D.Ribulose.5.phosphate_HMDB0000618	-0.717003199

## Uric.acid_HMDB0000289	0.352789520
## D.Ribose.5.phosphate_HMDB0001548	-0.754130957
## myo.Inositol_HMDB0000211	0.580038265
## D.Ribose.5.phosphate_HMDB0001548.1	-0.820183869
## Heptadecanoic.acid_HMDB0002259	0.042796612
## Octadecanol_HMDB0002350	0.103875888
## Glutathione_HMDB0000125	-0.004999320
## Linoleic.acid_HMDB0000673	0.397163464
## Oleic.acid_HMDB0000207	0.492601912
## Elaidic.acid_HMDB0000573	0.528514663
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.703724147
## Stearic.acid_HMDB0000827	0.230865136
## L.Tryptophan_HMDB0000929	0.224451558
## Fructose.1.phosphate_HMDB0001076	-0.484327199
## Mannose.6.phosphate_HMDB0001078	-0.546014872
## Arachidonic.acid_HMDB0001043	0.238936351
## Glucose.6.phosphate_HMDB0001401	-0.418216571
## X6.Phosphogluconic.acid_HMDB0001316	0.008382053
## Inositol.phosphate_HMDB0002985	-0.095279871
## Uridine_HMDB0000296	0.399172254
## Stigmasterol_HMDB0000937	0.535543405
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.007354056
## Sucrose_HMDB0000258	0.387925581
## MG.18.0e.0.0.0.0._HMDB0011143	0.236898568
## Trehalose_HMDB0000975	-0.267820240
## D.Maltose_HMDB0000163	-0.262047517
## Lactitol_HMDB00040937	0.084864331
## Xanthylic.acid_HMDB0001554	-0.821368041
## Adenosine.monophosphate_HMDB0000045	-0.541768595
## Cholesterol_HMDB0000067	0.100755163
## Lathosterol_HMDB0001170	0.246927890
## X7b.Hydroxycholesterol._HMDB0006119	-0.292951939
##	Acetyl glycine_HMDB0000532
## Dimethylglycine_HMDB0000092	0.224481515
## Glyoxylic.acid_HMDB0000119	0.209371647
## Pyruvic.acid_HMDB0000243	0.524867830
## L.Lactic.acid_HMDB0000190	0.186587399
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.600296500
## Glycolic.acid_HMDB0000115	0.900783584
## Caproic.acid_HMDB0000535	0.441926910
## L.Alanine_HMDB0000161	0.029178372
## Alpha.ketoisovaleric.acid_HMDB0000019	0.256443164
## Glycine_HMDB0000123	0.096033447
## Oxalic.acid_HMDB0002329	0.488872548
## Hydroxylamine_HMDB0003338	0.273523618
## X2.Hydroxybutyric.acid_HMDB0000008	0.724643686
## Acetoacetic.acid_HMDB0000060	0.598444515
## Hydroxypropionic.acid_HMDB0000700	0.486229853
## Pyruvic.acid_HMDB0000243.1	0.298439572
## X3.Hydroxybutyric.acid_HMDB0000357	0.672822762
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.741427352
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.789505690
## D.Alpha.aminobutyric.acid_HMDB0000650	0.160831994
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.446363623

## Beta.Alanine_HMDB0000056	-0.077010481
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.308835445
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.456970023
## Malonic.acid_HMDB0000691	0.336053945
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.104186145
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.455964404
## Ketoleucine_HMDB0000695	0.564840336
## L.Valine_HMDB0000883	0.181627654
## ITSD_Valine	0.252291033
## Urea_HMDB0000294	0.262581143
## Benzoic.acid_HMDB0001870	0.582389982
## Caprylic.acid_HMDB0000482	0.573190722
## Glycerol_HMDB0000131	0.065397447
## Ethanolamine_HMDB0000149	0.051077692
## L.Leucine_HMDB0000687	0.163086342
## Acetylglycine_HMDB0000532	1.000000000
## L.Isoleucine_HMDB0000172	0.106092084
## Nicotinic.acid_HMDB0001488	-0.020327655
## Maleic.acid_HMDB0000176	0.781292873
## L.Proline_HMDB0000162	0.284540686
## Phenylacetic.acid_HMDB0000209	0.642811198
## Succinic.acid_HMDB0000254	0.506974253
## Glycine_HMDB0000123.1	0.161457399
## Methylsuccinic.acid_HMDB0001844	0.677680353
## Glyceric.acid_HMDB0000139	0.647436489
## Fumaric.acid_HMDB0000134	0.461643696
## Uracil_HMDB0000300	0.264260315
## Pelargonic.acid_HMDB0000847	0.444611070
## L.Serine_HMDB0000187	0.003852384
## L.Threonine_HMDB0000167	0.121576269
## Mesaconic.acid_HMDB0000749	0.457562803
## Glutaric.acid_HMDB0000661	0.316839209
## Thymine_HMDB0000262	-0.089304020
## Beta.Alanine_HMDB0000056.1	-0.058624522
## L.Homoserine_HMDB0000719	0.706607196
## Capric.acid_HMDB0000511	0.755548947
## Citramalic.acid_HMDB0000426	-0.037257716
## Malic.acid_HMDB0000744	0.786783718
## Niacinamide_HMDB0001406	0.115349156
## Adipic.acid_HMDB0000448	-0.065775678
## D.Threitol_HMDB0004136	0.425999754
## Dihydrouracil_HMDB0000076	0.327289471
## Erythritol_HMDB0002994	0.672154056
## N.Acetylserine_HMDB0002931	0.077679336
## L.Aspartic.acid_HMDB0000191	0.033212443
## L.Methionine_HMDB0000696	-0.184754404
## X4.Hydroxyproline_HMDB0000725	0.205819885
## Pyroglutamic.acid_HMDB0000267	0.047786929
## Cytosine_HMDB0000630	0.113577698
## Gamma.Aminobutyric.acid_HMDB0000112	0.037599000
## Threonic.acid_HMDB0000943	0.733477631
## L.Cysteine_HMDB0000574	0.741260872
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.634273517
## Creatinine_HMDB0000562	-0.030107307

## X3.Hydroxyglutaric.acid_HMDB0000428	0.447416703
## Oxoglutaric.acid_HMDB0000208	0.410892511
## Phenylpyruvic.acid_HMDB0000205	0.175440790
## Pimelic.acid_HMDB0000857	-0.195422230
## Phenyllactic.acid_HMDB0000779	0.296714749
## Phosphoenolpyruvic.acid_HMDB0000263	0.049536004
## Ornithine_HMDB0000214	-0.319415764
## Hypotaurine_HMDB0000965	-0.036337242
## Triethanolamine_HMDB0032538	-0.078386986
## X2.Aminobenzoic.acid_HMDB0001123	-0.057426107
## L.Glutamic.acid_HMDB0000148	-0.138619845
## X4.Hydroxybenzoic.acid_HMDB0000500	0.120344855
## X5.Aminopentanoic.acid_HMDB0003355	0.321592151
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.532891887
## L.Phenylalanine_HMDB0000159	-0.084285078
## Dodecanoic.acid_HMDB0000638	0.499322157
## Lyxose_HMDB0003402_1	0.507834421
## D.Xylose_HMDB0000098	-0.294292739
## Lyxose_HMDB0003402_2	-0.371179457
## D.Arabinose_HMDB0029942	0.394286730
## L.Asparagine_HMDB0000168	-0.336553860
## D.Ribulose_HMDB0000621	0.237013558
## D.Ribose_HMDB0000283	0.378265483
## D.Xylulose_HMDB0001644	0.221992935
## X3.Sulfinioalanine_HMDB0000996	-0.296280954
## Suberic.acid_HMDB0000893	0.035799179
## L.Lysine_HMDB0000182	-0.324907252
## Levoglucosan_HMDB0000640	-0.376779530
## D.Arabitol_HMDB0000568	0.408279179
## Ribitol_HMDB0000508	0.429484945
## cis.Aconitic.acid_HMDB0000072	-0.362825195
## Quinolinic.acid_HMDB0000232	0.281343297
## Putrescine_HMDB0001414	0.219526529
## Glycerol.3.phosphate_HMDB0000126	0.089637478
## Vanillic.acid_HMDB0000484	0.306161119
## L.Glutamine_HMDB0000641	-0.420673045
## X2.Phosphoglyceric.acid_HMDB0000362	0.416757670
## Azelaic.acid_HMDB0000784	-0.084536342
## L.Dihydroorotic.acid_HMDB0003349	0.421776794
## O.Phosphoethanolamine_HMDB0000224	0.183799187
## X3.Phosphoglyceric.acid_HMDB0000807	0.358790675
## Isocitric.acid_HMDB0000193	0.609885389
## Hypoxanthine_HMDB0000157	-0.464407238
## Citric.acid_HMDB0000094	0.443272022
## L.Arginine_HMDB0000517	0.302221555
## Ornithine_HMDB0000214.1	-0.182914176
## Dopamine_HMDB0000073	-0.164481025
## Myristic.acid_HMDB0000806	0.247242855
## X1.5.Anhydrosorbitol_HMDB0002712	0.668179432
## D.Tagatose_HMDB0003418	0.396699082
## Psicose_1	-0.294259159
## Sebacic.acid_HMDB0000792	0.467812226
## D.Fructose_HMDB0000660	0.466998577
## Gluconolactone_HMDB0000150	0.431865762

## L.Sorbose_HMDB0001266	0.467733558
## D.Mannose_HMDB0000169	-0.135581390
## Hydroxyphenyllactic.acid_HMDB0000755	0.524749295
## D.Glucose_HMDB0000122	-0.210203172
## N.Acetylglutamine_HMDB0006029	-0.142704807
## L.Lysine_HMDB0000182.1	-0.166267118
## D.Mannose_HMDB0000169.1	-0.173337900
## Tyramine_HMDB0000306	-0.174979153
## L.Histidine_HMDB0000177	-0.180915044
## D.Glucose_HMDB0000122.1	-0.238696652
## X1.Hexadecanol_HMDB0003424	0.580628207
## L.Tyrosine_HMDB0000158	-0.268578555
## Mannitol_HMDB0000765	0.205798801
## Sorbitol_HMDB0000247	-0.279168811
## ITSD_Sorbitol	0.409811635
## Galacturonic.acid_HMDB0002545	0.510959490
## Pantothenic.acid_HMDB0000210	0.706159309
## Palmitoleic.acid_HMDB0003229	0.202448164
## Xanthine_HMDB0000292	-0.485140202
## Gluconic.acid_HMDB0000625	0.127536470
## Palmitic.acid_HMDB0000220	0.353552446
## Glucaric.acid_HMDB0000663	0.114618048
## N.Acetylmannosamine_HMDB0001129	-0.091290485
## N.Acetyl.D.glucosamine_HMDB0000215	0.069753292
## D.Ribulose.5.phosphate_HMDB0000618	0.288133956
## Uric.acid_HMDB0000289	-0.400961372
## D.Ribose.5.phosphate_HMDB0001548	0.245537230
## myo.Inositol_HMDB0000211	0.435804441
## D.Ribose.5.phosphate_HMDB0001548.1	0.211412433
## Heptadecanoic.acid_HMDB0002259	0.464355237
## Octadecanol_HMDB0002350	0.765067941
## Glutathione_HMDB0000125	-0.112616019
## Linoleic.acid_HMDB0000673	0.260345670
## Oleic.acid_HMDB0000207	0.164823725
## Elaidic.acid_HMDB0000573	0.266498771
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.195239840
## Stearic.acid_HMDB0000827	0.501367218
## L.Tryptophan_HMDB0000929	0.437544963
## Fructose.1.phosphate_HMDB0001076	0.408377437
## Mannose.6.phosphate_HMDB0001078	-0.277595604
## Arachidonic.acid_HMDB0001043	0.046401616
## Glucose.6.phosphate_HMDB0001401	0.533166324
## X6.Phosphogluconic.acid_HMDB0001316	0.533838620
## Inositol.phosphate_HMDB0002985	0.535918487
## Uridine_HMDB0000296	0.695464066
## Stigmasterol_HMDB0000937	0.466339335
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.164544387
## Sucrose_HMDB0000258	-0.126530836
## MG.18.0e.0.0.0.0._HMDB0011143	0.603699801
## Trehalose_HMDB0000975	-0.285295105
## D.Maltose_HMDB0000163	-0.279070431
## Lactitol_HMDB00040937	0.162949357
## Xanthylic.acid_HMDB0001554	-0.396328823
## Adenosine.monophosphate_HMDB0000045	0.394903718

## Cholesterol_HMDB0000067	0.368933506
## Lathosterol_HMDB0001170	0.206582130
## X7b.Hydroxycholesterol_HMDB0006119	0.130876555
## L.Isoleucine_HMDB0000172	
## Dimethylglycine_HMDB0000092	-0.6426182239
## Glyoxylic.acid_HMDB0000119	-0.6434444412
## Pyruvic.acid_HMDB0000243	0.6350005092
## L.Lactic.acid_HMDB0000190	0.9699838703
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.5102787916
## Glycolic.acid_HMDB0000115	-0.1200660528
## Caproic.acid_HMDB0000535	-0.5545998776
## L.Alanine_HMDB0000161	0.9504114151
## Alpha.ketoisovaleric.acid_HMDB0000019	0.5812688309
## Glycine_HMDB0000123	0.7904922732
## Oxalic.acid_HMDB0002329	-0.3461525272
## Hydroxylamine_HMDB0003338	0.4442773187
## X2.Hydroxybutyric.acid_HMDB0000008	0.3682053351
## Acetoacetic.acid_HMDB0000060	0.0970632819
## Hydroxypropionic.acid_HMDB0000700	0.8042989171
## Pyruvic.acid_HMDB0000243.1	0.6060823382
## X3.Hydroxybutyric.acid_HMDB0000357	0.3136176500
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.4189961494
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.0052278931
## D.Alpha.aminobutyric.acid_HMDB0000650	0.8836657088
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.3493555916
## Beta.Alanine_HMDB0000056	0.7364486186
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.5271156340
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.6515756904
## Malonic.acid_HMDB0000691	0.4353239464
## X3.Aminoisobutanoic.acid_HMDB0003911	0.8540007459
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.8447964137
## Ketoleucine_HMDB0000695	0.2617883413
## L.Valine_HMDB0000883	0.9585822840
## ITSD_Valine	0.9243694445
## Urea_HMDB0000294	0.8456908304
## Benzoic.acid_HMDB0001870	-0.0185747256
## Caprylic.acid_HMDB0000482	-0.4812570615
## Glycerol_HMDB0000131	0.9649570833
## Ethanolamine_HMDB0000149	0.9453339913
## L.Leucine_HMDB0000687	0.9781973137
## Acetyl glycine_HMDB0000532	0.1060920840
## L.Isoleucine_HMDB0000172	1.0000000000
## Nicotinic.acid_HMDB0001488	-0.0762045745
## Maleic.acid_HMDB0000176	-0.0516555149
## L.Proline_HMDB0000162	0.8892386639
## Phenylacetic.acid_HMDB0000209	-0.2970567197
## Succinic.acid_HMDB0000254	0.8377997634
## Glycine_HMDB0000123.1	0.9581633358
## Methylsuccinic.acid_HMDB0001844	0.0187875412
## Glyceric.acid_HMDB0000139	-0.1930471600
## Fumaric.acid_HMDB0000134	0.8159385779
## Uracil_HMDB0000300	0.7814816942
## Pelargonic.acid_HMDB0000847	-0.5891427138
## L.Serine_HMDB0000187	0.9222527651

## L.Threonine_HMDB0000167	0.9669439004
## Mesaconic.acid_HMDB0000749	0.1205576554
## Glutaric.acid_HMDB0000661	0.1675193799
## Thymine_HMDB0000262	0.6470745334
## Beta.Alanine_HMDB0000056.1	0.9107806642
## L.Homoserine_HMDB0000719	-0.0661074127
## Capric.acid_HMDB0000511	-0.1815788950
## Citramalic.acid_HMDB0000426	0.4841171253
## Malic.acid_HMDB0000744	0.0060647358
## Niacinamide_HMDB0001406	0.8924796941
## Adipic.acid_HMDB0000448	0.7736608442
## D.Threitol_HMDB0004136	0.3265592539
## Dihydrouracil_HMDB0000076	0.6617539154
## Erythritol_HMDB0002994	0.6378194725
## N.Acetylserine_HMDB0002931	0.8887416794
## L.Aspartic.acid_HMDB0000191	0.9498371021
## L.Methionine_HMDB0000696	0.8618050617
## X4.Hydroxyproline_HMDB0000725	0.9438632940
## Pyroglutamic.acid_HMDB0000267	0.8990735927
## Cytosine_HMDB0000630	0.1114711764
## Gamma.Aminobutyric.acid_HMDB0000112	0.4649736523
## Threonic.acid_HMDB0000943	-0.0804990505
## L.Cysteine_HMDB0000574	0.0584695569
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.2732792344
## Creatinine_HMDB0000562	0.7075853112
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.5474358494
## Oxoglutaric.acid_HMDB0000208	0.2904496971
## Phenylpyruvic.acid_HMDB0000205	-0.3125952436
## Pimelic.acid_HMDB0000857	0.5531822593
## Phenyllactic.acid_HMDB0000779	-0.3074381351
## Phosphoenolpyruvic.acid_HMDB0000263	-0.7443845884
## Ornithine_HMDB0000214	0.5886030129
## Hypotaurine_HMDB0000965	0.8583956550
## Triethanolamine_HMDB0032538	0.8436962613
## X2.Aminobenzoic.acid_HMDB0001123	0.9044861879
## L.Glutamic.acid_HMDB0000148	0.8204790316
## X4.Hydroxybenzoic.acid_HMDB0000500	0.9688122737
## X5.Aminopentanoic.acid_HMDB0003355	0.2013696465
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.2594585755
## L.Phenylalanine_HMDB0000159	0.9122377255
## Dodecanoic.acid_HMDB0000638	0.5220298373
## Lyxose_HMDB0003402_1	-0.5577035805
## D.Xylose_HMDB0000098	-0.5123153991
## Lyxose_HMDB0003402_2	-0.3935554905
## D.Arabinose_HMDB0029942	-0.6667408395
## L.Asparagine_HMDB0000168	0.4476869763
## D.Ribulose_HMDB0000621	-0.7306618151
## D.Ribose_HMDB0000283	-0.6784419168
## D.Xylulose_HMDB0001644	-0.7270748840
## X3.Sulfinioalanine_HMDB0000996	0.1689771451
## Suberic.acid_HMDB0000893	0.5930554670
## L.Lysine_HMDB0000182	0.3914241616
## Levoglucosan_HMDB0000640	-0.3907396534
## D.Arabitool_HMDB0000568	0.2670319663

## Ribitol_HMDB0000508	0.1677119674
## cis.Aconitic.acid_HMDB0000072	-0.2823365226
## Quinolinic.acid_HMDB0000232	0.1918106133
## Putrescine_HMDB0001414	0.3047698484
## Glycerol.3.phosphate_HMDB0000126	-0.6663734634
## Vanillic.acid_HMDB0000484	0.6790727099
## L.Glutamine_HMDB0000641	0.1929623163
## X2.Phosphoglyceric.acid_HMDB0000362	0.3519185559
## Azelaic.acid_HMDB0000784	-0.0630866884
## L.Dihydroorotic.acid_HMDB0003349	-0.6443358436
## O.Phosphoethanolamine_HMDB0000224	0.5291620200
## X3.Phosphoglyceric.acid_HMDB0000807	0.3615219956
## Isocitric.acid_HMDB0000193	0.3613298870
## Hypoxanthine_HMDB0000157	-0.2039444979
## Citric.acid_HMDB0000094	-0.0706335631
## L.Arginine_HMDB0000517	-0.2798538686
## Ornithine_HMDB0000214.1	0.8816114384
## Dopamine_HMDB0000073	0.8730163245
## Myristic.acid_HMDB0000806	0.8212632561
## X1.5.Anhydrosorbitol_HMDB0002712	0.0813239208
## D.Tagatose_HMDB0003418	-0.6628436572
## Psicose_1	-0.1959369316
## Sebacic.acid_HMDB0000792	0.7477761304
## D.Fructose_HMDB0000660	-0.5775635390
## Gluconolactone_HMDB0000150	-0.5909643894
## L.Sorbose_HMDB0001266	-0.5910100656
## D.Mannose_HMDB0000169	0.7872543406
## Hydroxyphenyllactic.acid_HMDB0000755	0.4819353652
## D.Glucose_HMDB0000122	0.7072095224
## N.Acetylglutamine_HMDB0006029	0.7628610367
## L.Lysine_HMDB0000182.1	0.8177251447
## D.Mannose_HMDB0000169.1	0.7993071350
## Tyramine_HMDB0000306	0.8096779930
## L.Histidine_HMDB0000177	0.7929814852
## D.Glucose_HMDB0000122.1	0.6948622660
## X1.Hexadecanol_HMDB0003424	-0.2159490413
## L.Tyrosine_HMDB0000158	0.7485930997
## Mannitol_HMDB0000765	0.8095122211
## Sorbitol_HMDB0000247	-0.1043352082
## ITSD_Sorbitol	0.7803550197
## Galacturonic.acid_HMDB0002545	0.3864281336
## Pantothenic.acid_HMDB0000210	0.0255933487
## Palmitoleic.acid_HMDB0003229	0.4963949348
## Xanthine_HMDB0000292	0.3584178355
## Gluconic.acid_HMDB0000625	-0.2458262116
## Palmitic.acid_HMDB0000220	0.5062328792
## Glucaric.acid_HMDB0000663	0.7735724942
## N.Acetylmannosamine_HMDB0001129	0.5244874527
## N.Acetyl.D.glucosamine_HMDB0000215	0.8257489414
## D.Ribulose.5.phosphate_HMDB0000618	-0.7357043709
## Uric.acid_HMDB0000289	0.3513129169
## D.Ribose.5.phosphate_HMDB0001548	-0.7595937201
## myo.Inositol_HMDB0000211	0.5561240686
## D.Ribose.5.phosphate_HMDB0001548.1	-0.8213109933

## Heptadecanoic.acid_HMDB0002259	0.0991010578
## Octadecanol_HMDB0002350	0.0721721655
## Glutathione_HMDB0000125	0.0360153952
## Linoleic.acid_HMDB0000673	0.2818039955
## Oleic.acid_HMDB0000207	0.3765396976
## Elaidic.acid_HMDB0000573	0.4187019801
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.6519580242
## Stearic.acid_HMDB0000827	0.1869302769
## L.Tryptophan_HMDB0000929	0.2035790070
## Fructose.1.phosphate_HMDB0001076	-0.4997345909
## Mannose.6.phosphate_HMDB0001078	-0.5154554133
## Arachidonic.acid_HMDB0001043	0.1135475507
## Glucose.6.phosphate_HMDB0001401	-0.4532743588
## X6.Phosphogluconic.acid_HMDB0001316	-0.0822628483
## Inositol.phosphate_HMDB0002985	-0.2110135493
## Uridine_HMDB0000296	0.3659913066
## Stigmasterol_HMDB0000937	0.5406366621
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.0009118531
## Sucrose_HMDB0000258	0.3521831054
## MG.18.Oe.0.0.0.0._HMD0011143	0.1647068389
## Trehalose_HMDB0000975	-0.2473586187
## D.Maltose_HMDB0000163	-0.2417895045
## Lactitol_HMDB00040937	0.0430298334
## Xanthylic.acid_HMDB0001554	-0.7635742850
## Adenosine.monophosphate_HMDB0000045	-0.5465938550
## Cholesterol_HMDB0000067	0.0311001629
## Lathosterol_HMDB0001170	0.1497790693
## X7b.Hydroxycholesterol_.HMD0006119	-0.1868022330
## Nicotinic.acid_HMDB0001488	
## Dimethylglycine_HMDB0000092	0.264811939
## Glyoxylic.acid_HMDB0000119	0.269885994
## Pyruvic.acid_HMDB0000243	0.023568734
## L.Lactic.acid_HMDB0000190	-0.067648267
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.264128875
## Glycolic.acid_HMDB0000115	-0.050638104
## Caproic.acid_HMDB0000535	0.303258933
## L.Alanine_HMDB0000161	-0.067084412
## Alpha.ketoisovaleric.acid_HMDB0000019	0.178635111
## Glycine_HMDB0000123	0.123568305
## Oxalic.acid_HMDB0002329	0.216748322
## Hydroxylamine_HMDB0003338	-0.145354098
## X2.Hydroxybutyric.acid_HMDB0000008	0.261381371
## Acetoacetic.acid_HMDB0000060	0.010770780
## Hydroxypropionic.acid_HMDB0000700	-0.073111364
## Pyruvic.acid_HMDB0000243.1	0.122874253
## X3.Hydroxybutyric.acid_HMDB0000357	0.268603576
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.272981911
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.188851083
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.227085951
## X3.Methyl.2.oxoaleric.acid_HMDB0000491	0.437441223
## Beta.Alanine_HMDB0000056	0.071015278
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.102222279
## X3.Methyl.2.oxoaleric.acid_HMDB0000491.1	0.224784869
## Malonic.acid_HMDB0000691	0.018701155

## X3.Aminoisobutanoic.acid_HMDB0003911	-0.248354898
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.037332620
## Ketoleucine_HMDB0000695	0.306494561
## L.Valine_HMDB0000883	-0.109272725
## ITSD_Valine	-0.159800807
## Urea_HMDB0000294	0.126466826
## Benzoic.acid_HMDB0001870	0.194596066
## Caprylic.acid_HMDB0000482	0.357094750
## Glycerol_HMDB0000131	-0.155700428
## Ethanolamine_HMDB0000149	-0.204474932
## L.Leucine_HMDB0000687	-0.080696126
## Acetylglycine_HMDB0000532	-0.020327655
## L.Isoleucine_HMDB0000172	-0.076204575
## Nicotinic.acid_HMDB0001488	1.000000000
## Maleic.acid_HMDB0000176	0.199442743
## L.Proline_HMDB0000162	0.108946974
## Phenylacetic.acid_HMDB0000209	0.206352474
## Succinic.acid_HMDB0000254	0.003058612
## Glycine_HMDB0000123.1	-0.191461461
## Methylsuccinic.acid_HMDB0001844	-0.144057523
## Glyceric.acid_HMDB0000139	0.054057815
## Fumaric.acid_HMDB0000134	0.072712861
## Uracil_HMDB0000300	0.230983789
## Pelargonic.acid_HMDB0000847	0.397134612
## L.Serine_HMDB0000187	0.003677504
## L.Threonine_HMDB0000167	-0.066099129
## Mesaconic.acid_HMDB0000749	0.513601002
## Glutaric.acid_HMDB0000661	0.504616623
## Thymine_HMDB0000262	0.211209713
## Beta.Alanine_HMDB0000056.1	-0.155701328
## L.Homoserine_HMDB0000719	-0.211711107
## Capric.acid_HMDB0000511	-0.100685641
## Citramalic.acid_HMDB0000426	0.174605466
## Malic.acid_HMDB0000744	0.155515590
## Niacinamide_HMDB0001406	0.140930256
## Adipic.acid_HMDB0000448	0.073816533
## D.Threitol_HMDB0004136	0.317767222
## Dihydrouracil_HMDB0000076	0.115411204
## Erythritol_HMDB0002994	0.089100313
## N.Acetylserine_HMDB0002931	-0.017836634
## L.Aspartic.acid_HMDB0000191	-0.010714777
## L.Methionine_HMDB0000696	-0.296382233
## X4.Hydroxyproline_HMDB0000725	0.058988728
## Pyroglutamic.acid_HMDB0000267	0.108909090
## Cytosine_HMDB0000630	-0.057143711
## Gamma.Aminobutyric.acid_HMDB0000112	0.669784788
## Threonic.acid_HMDB0000943	0.232657232
## L.Cysteine_HMDB0000574	0.109844008
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.493216154
## Creatinine_HMDB0000562	-0.456998070
## X3.Hydroxyglutaric.acid_HMDB0000428	0.417175849
## Oxoglutaric.acid_HMDB0000208	0.433971885
## Phenylpyruvic.acid_HMDB0000205	0.330295252
## Pimelic.acid_HMDB0000857	0.168553627

## Phenyllactic.acid_HMDB0000779	0.372882763
## Phosphoenolpyruvic.acid_HMDB0000263	0.355670706
## Ornithine_HMDB0000214	-0.330436437
## Hypotaurine_HMDB0000965	-0.147096878
## Triethanolamine_HMDB0032538	-0.086133500
## X2.Aminobenzoic.acid_HMDB0001123	-0.292099557
## L.Glutamic.acid_HMDB0000148	-0.057807781
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.210860982
## X5.Aminopentanoic.acid_HMDB0003355	0.219615710
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.130219100
## L.Phenylalanine_HMDB0000159	-0.260735223
## Dodecanoic.acid_HMDB0000638	-0.120264107
## Lyxose_HMDB0003402_1	0.296850084
## D.Xylose_HMDB0000098	-0.095393302
## Lyxose_HMDB0003402_2	-0.143373107
## D.Arabinose_HMDB0029942	0.264392030
## L.Asparagine_HMDB0000168	-0.272335082
## D.Ribulose_HMDB0000621	0.023930623
## D.Ribose_HMDB0000283	0.282041509
## D.Xylulose_HMDB0001644	0.001972343
## X3.Sulfinoalanine_HMDB0000996	0.040014564
## Suberic.acid_HMDB0000893	0.227264742
## L.Lysine_HMDB0000182	-0.347838667
## Levoglucosan_HMDB0000640	-0.216385158
## D.Arabit01_HMDB0000568	0.253316258
## Ribitol_HMDB0000508	-0.101614160
## cis.Aconitic.acid_HMDB0000072	0.018939897
## Quinolinic.acid_HMDB0000232	0.519510424
## Putrescine_HMDB0001414	0.797907144
## Glycerol.3.phosphate_HMDB0000126	0.708992049
## Vanillic.acid_HMDB0000484	-0.327763182
## L.Glutamine_HMDB0000641	-0.237176370
## X2.Phosphoglyceric.acid_HMDB0000362	0.253969684
## Azelaic.acid_HMDB0000784	0.640067924
## L.Dihydroorotic.acid_HMDB0003349	0.270530705
## O.Phosphoethanolamine_HMDB0000224	-0.038015979
## X3.Phosphoglyceric.acid_HMDB0000807	0.289500449
## Isocitric.acid_HMDB0000193	-0.012170736
## Hypoxanthine_HMDB0000157	-0.348947173
## Citric.acid_HMDB0000094	0.304696619
## L.Arginine_HMDB0000517	-0.120211753
## Ornithine_HMDB0000214.1	-0.289769487
## Dopamine_HMDB0000073	-0.288248265
## Myristic.acid_HMDB0000806	-0.201386844
## X1.5.Anhydrosorbitol_HMDB0002712	0.242998216
## D.Tagatose_HMDB0003418	0.310376661
## Psicose_1	-0.142595969
## Sebacic.acid_HMDB0000792	-0.051092865
## D.Fructose_HMDB0000660	0.310529203
## Gluconolactone_HMDB0000150	0.042391169
## L.Sorbose_HMDB0001266	0.297822689
## D.Mannose_HMDB0000169	-0.243135899
## Hydroxyphenyllactic.acid_HMDB0000755	0.142676925
## D.Glucose_HMDB0000122	-0.224702779

## N.Acetylglutamine_HMDB0006029	-0.241257322
## L.Lysine_HMDB0000182.1	-0.330443152
## D.Mannose_HMDB0000169.1	-0.340957270
## Tyramine_HMDB0000306	-0.340636089
## L.Histidine_HMDB0000177	-0.328596491
## D.Glucose_HMDB0000122.1	-0.238631001
## X1.Hexadecanol_HMDB0003424	0.129532468
## L.Tyrosine_HMDB0000158	-0.269390508
## Mannitol_HMDB0000765	0.058437267
## Sorbitol_HMDB0000247	0.556401937
## ITSD_Sorbitol	-0.360448612
## Galacturonic.acid_HMDB0002545	-0.118598369
## Pantothenic.acid_HMDB0000210	-0.052727314
## Palmitoleic.acid_HMDB0003229	-0.194279035
## Xanthine_HMDB0000292	-0.257256120
## Gluconic.acid_HMDB0000625	0.127977005
## Palmitic.acid_HMDB0000220	0.002788435
## Glucaric.acid_HMDB0000663	-0.492850376
## N.Acetylmannosamine_HMDB0001129	0.095405686
## N.Acetyl.D.glucosamine_HMDB0000215	-0.126273739
## D.Ribulose.5.phosphate_HMDB0000618	0.375298964
## Uric.acid_HMDB0000289	-0.412799792
## D.Ribose.5.phosphate_HMDB0001548	0.340565291
## myo.Inositol_HMDB0000211	0.251695711
## D.Ribose.5.phosphate_HMDB0001548.1	0.228874724
## Heptadecanoic.acid_HMDB0002259	0.359090198
## Octadecanol_HMDB0002350	0.301523037
## Glutathione_HMDB0000125	0.256962432
## Linoleic.acid_HMDB0000673	-0.034636280
## Oleic.acid_HMDB0000207	-0.181549387
## Elaidic.acid_HMDB0000573	-0.143896147
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.409231327
## Stearic.acid_HMDB0000827	0.284656964
## L.Tryptophan_HMDB0000929	0.300157294
## Fructose.1.phosphate_HMDB0001076	0.501196287
## Mannose.6.phosphate_HMDB0001078	0.572281796
## Arachidonic.acid_HMDB0001043	-0.281009308
## Glucose.6.phosphate_HMDB0001401	0.214779845
## X6.Phosphogluconic.acid_HMDB0001316	0.204719125
## Inositol.phosphate_HMDB0002985	0.118364335
## Uridine_HMDB0000296	-0.022551962
## Stigmasterol_HMDB0000937	0.188598277
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.044025009
## Sucrose_HMDB0000258	0.134076172
## MG.18.0e.0.0.0.0._HMDB0011143	0.257963205
## Trehalose_HMDB0000975	0.657484797
## D.Maltose_HMDB0000163	0.659424797
## Lactitol_HMDB00040937	0.176935183
## Xanthylic.acid_HMDB0001554	0.175105450
## Adenosine.monophosphate_HMDB0000045	0.397837307
## Cholesterol_HMDB0000067	-0.142670023
## Lathosterol_HMDB0001170	-0.058404332
## X7b.Hydroxycholesterol_.HMDB0006119	0.329315919
##	Maleic.acid_HMDB0000176

## Dimethylglycine_HMDB0000092	0.4968871097
## Glyoxylic.acid_HMDB0000119	0.4906250586
## Pyruvic.acid_HMDB0000243	0.3896727583
## L.Lactic.acid_HMDB0000190	0.0651199295
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.6218377237
## Glycolic.acid_HMDB0000115	0.7906179937
## Caproic.acid_HMDB0000535	0.6724224817
## L.Alanine_HMDB0000161	-0.1375298900
## Alpha.ketoisovaleric.acid_HMDB0000019	0.4220279925
## Glycine_HMDB0000123	0.1041210987
## Oxalic.acid_HMDB0002329	0.6009743414
## Hydroxylamine_HMDB0003338	0.3669221054
## X2.Hydroxybutyric.acid_HMDB0000008	0.7865539182
## Acetoacetic.acid_HMDB0000060	0.8351850644
## Hydroxypropionic.acid_HMDB0000700	0.2914702821
## Pyruvic.acid_HMDB0000243.1	0.4463002000
## X3.Hydroxybutyric.acid_HMDB0000357	0.8497760024
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.8129252245
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.8435842182
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.1222684271
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.4980262845
## Beta.Alanine_HMDB0000056	-0.2948783385
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.3828502654
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.4676536279
## Malonic.acid_HMDB0000691	0.2242550544
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.3443381010
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.2782188944
## Ketoleucine_HMDB0000695	0.7776680712
## L.Valine_HMDB0000883	-0.0281490728
## ITSD_Valine	-0.0098088782
## Urea_HMDB0000294	0.2415830535
## Benzoic.acid_HMDB0001870	0.3696033598
## Caprylic.acid_HMDB0000482	0.7544641447
## Glycerol_HMDB0000131	-0.1201161249
## Ethanolamine_HMDB0000149	-0.1152876218
## L.Leucine_HMDB0000687	-0.0376246649
## Acetyl glycine_HMDB0000532	0.7812928726
## L.Isoleucine_HMDB0000172	-0.0516555149
## Nicotinic.acid_HMDB0001488	0.1994427430
## Maleic.acid_HMDB0000176	1.0000000000
## L.Proline_HMDB0000162	0.1888895921
## Phenylacetic.acid_HMDB0000209	0.9214517816
## Succinic.acid_HMDB0000254	0.3470926486
## Glycine_HMDB0000123.1	-0.0002560515
## Methylsuccinic.acid_HMDB0001844	0.3698112700
## Glyceric.acid_HMDB0000139	0.8631359527
## Fumaric.acid_HMDB0000134	0.4024850628
## Uracil_HMDB0000300	0.3438848326
## Pelargonic.acid_HMDB0000847	0.6232927245
## L.Serine_HMDB0000187	-0.1110445935
## L.Threonine_HMDB0000167	-0.0117028287
## Mesaconic.acid_HMDB0000749	0.2628930219
## Glutaric.acid_HMDB0000661	0.3461939428
## Thymine_HMDB0000262	0.1098973635

## Beta.Alanine_HMDB0000056.1	-0.3126768961
## L.Homoserine_HMDB0000719	0.3996824390
## Capric.acid_HMDB0000511	0.5299799694
## Citramalic.acid_HMDB0000426	-0.0766589146
## Malic.acid_HMDB0000744	0.9065726106
## Niacinamide_HMDB0001406	-0.0223848597
## Adipic.acid_HMDB0000448	-0.2233834079
## D.Threitol_HMDB0004136	0.4268245855
## Dihydrouracil_HMDB0000076	0.3246679230
## Erythritol_HMDB0002994	0.6020412215
## N.Acetylserine_HMDB0002931	0.0434349985
## L.Aspartic.acid_HMDB0000191	-0.1326444928
## L.Methionine_HMDB0000696	-0.4501057600
## X4.Hydroxyproline_HMDB0000725	0.0608721089
## Pyroglutamic.acid_HMDB0000267	-0.0594302187
## Cytosine_HMDB0000630	-0.1853262266
## Gamma.Aminobutyric.acid_HMDB0000112	0.1285703316
## Threonic.acid_HMDB0000943	0.8833068233
## L.Cysteine_HMDB0000574	0.8138540359
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.8070485575
## Creatinine_HMDB0000562	-0.4054236816
## X3.Hydroxyglutaric.acid_HMDB0000428	0.5000497124
## Oxoglutaric.acid_HMDB0000208	0.5527096431
## Phenylpyruvic.acid_HMDB0000205	0.3261783815
## Pimelic.acid_HMDB0000857	-0.2688650330
## Phenyllactic.acid_HMDB0000779	0.4136561077
## Phosphoenolpyruvic.acid_HMDB0000263	0.2684113362
## Ornithine_HMDB0000214	-0.6036052242
## Hypotaurine_HMDB0000965	-0.1488353362
## Triethanolamine_HMDB0032538	-0.1552064992
## X2.Aminobenzoic.acid_HMDB0001123	-0.2892136921
## L.Glutamic.acid_HMDB0000148	-0.4715662102
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.1159290358
## X5.Aminopentanoic.acid_HMDB0003355	0.6001548178
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.6499565870
## L.Phenylalanine_HMDB0000159	-0.3808981493
## Dodecanoic.acid_HMDB0000638	0.3636684250
## Lyxose_HMDB0003402_1	0.6654696380
## D.Xylose_HMDB0000098	-0.1128729416
## Lyxose_HMDB0003402_2	-0.2147595552
## D.Arabinose_HMDB0029942	0.6048706979
## L.Asparagine_HMDB0000168	-0.7506368357
## D.Ribulose_HMDB0000621	0.5150788261
## D.Ribose_HMDB0000283	0.5942059183
## D.Xylulose_HMDB0001644	0.4959203150
## X3.Sulfinioalanine_HMDB0000996	-0.7015324298
## Suberic.acid_HMDB0000893	0.0086926289
## L.Lysine_HMDB0000182	-0.6928419508
## Levoglucosan_HMDB0000640	-0.2436829226
## D.Arabitool_HMDB0000568	0.2255801899
## Ribitol_HMDB0000508	0.3205680484
## cis.Aconitic.acid_HMDB0000072	-0.1590629349
## Quinolinic.acid_HMDB0000232	0.2467077300
## Putrescine_HMDB0001414	0.4002324655

## Glycerol.3.phosphate_HMDB0000126	0.2204847959
## Vanillic.acid_HMDB0000484	0.2271518412
## L.Glutamine_HMDB0000641	-0.7400533171
## X2.Phosphoglyceric.acid_HMDB0000362	0.4617692072
## Azelaic.acid_HMDB0000784	-0.1358643447
## L.Dihydroorotic.acid_HMDB0003349	0.6583426784
## O.Phosphoethanolamine_HMDB0000224	-0.0165616343
## X3.Phosphoglyceric.acid_HMDB0000807	0.4379757626
## Isocitric.acid_HMDB0000193	0.3521674084
## Hypoxanthine_HMDB0000157	-0.7881496041
## Citric.acid_HMDB0000094	0.5585708076
## L.Arginine_HMDB0000517	0.0737982040
## Ornithine_HMDB0000214.1	-0.4297996676
## Dopamine_HMDB0000073	-0.4293440695
## Myristic.acid_HMDB0000806	-0.0170724501
## X1.5.Anhydrosorbitol_HMDB0002712	0.6619095905
## D.Tagatose_HMDB0003418	0.5873594481
## Psicose_1	-0.1949842208
## Sebacic.acid_HMDB0000792	0.2344738257
## D.Fructose_HMDB0000660	0.6937542702
## Gluconolactone_HMDB0000150	0.6478754212
## L.Sorbose_HMDB0001266	0.6771053153
## D.Mannose_HMDB0000169	-0.3496017788
## Hydroxyphenyllactic.acid_HMDB0000755	0.6997595133
## D.Glucose_HMDB0000122	-0.4068825877
## N.Acetylglutamine_HMDB0006029	-0.3473376077
## L.Lysine_HMDB0000182.1	-0.5155959430
## D.Mannose_HMDB0000169.1	-0.4680833286
## Tyramine_HMDB0000306	-0.5288835418
## L.Histidine_HMDB0000177	-0.5377858332
## D.Glucose_HMDB0000122.1	-0.4281492851
## X1.Hexadecanol_HMDB0003424	0.5049390956
## L.Tyrosine_HMDB0000158	-0.6154653207
## Mannitol_HMDB0000765	-0.0599211899
## Sorbitol_HMDB0000247	-0.1171093941
## ITSD_Sorbitol	0.1621176245
## Galacturonic.acid_HMDB0002545	0.5210306513
## Pantothenic.acid_HMDB0000210	0.7521215113
## Palmitoleic.acid_HMDB0003229	-0.0208339383
## Xanthine_HMDB0000292	-0.6457786037
## Gluconic.acid_HMDB0000625	0.4725234858
## Palmitic.acid_HMDB0000220	0.3046812858
## Glucaric.acid_HMDB0000663	-0.0949687466
## N.Acetylmannosamine_HMDB0001129	-0.0934066163
## N.Acetyl.D.glucosamine_HMDB0000215	-0.1076057944
## D.Ribulose.5.phosphate_HMDB0000618	0.5352428542
## Uric.acid_HMDB0000289	-0.7951813812
## D.Ribose.5.phosphate_HMDB0001548	0.4383373397
## myo.Inositol_HMDB0000211	0.2102565196
## D.Ribose.5.phosphate_HMDB0001548.1	0.4859409912
## Heptadecanoic.acid_HMDB0002259	0.5308185626
## Octadecanol_HMDB0002350	0.8751139629
## Glutathione_HMDB0000125	-0.2985394453
## Linoleic.acid_HMDB0000673	0.1791395860

## Oleic.acid_HMDB0000207	-0.0406779790
## Elaidic.acid_HMDB0000573	0.0514631253
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.5125335440
## Stearic.acid_HMDB0000827	0.6288729586
## L.Tryptophan_HMDB0000929	0.6074506204
## Fructose.1.phosphate_HMDB0001076	0.6282305182
## Mannose.6.phosphate_HMDB0001078	-0.1626682397
## Arachidonic.acid_HMDB0001043	-0.2139763262
## Glucose.6.phosphate_HMDB0001401	0.7632070617
## X6.Phosphogluconic.acid_HMDB0001316	0.6811808193
## Inositol.phosphate_HMDB0002985	0.4971803137
## Uridine_HMDB0000296	0.5125781534
## Stigmasterol_HMDB0000937	0.5974793175
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.2831414427
## Sucrose_HMDB0000258	-0.2478899122
## MG.18.0e.0.0.0.0._HMDB0011143	0.7072982047
## Trehalose_HMDB0000975	-0.2878964593
## D.Maltose_HMDB0000163	-0.2824515319
## Lactitol_HMDB00040937	0.2493150882
## Xanthylic.acid_HMDB0001554	-0.2956635843
## Adenosine.monophosphate_HMDB0000045	0.6416325440
## Cholesterol_HMDB0000067	0.2085540396
## Lathosterol_HMDB0001170	0.1214034427
## X7b.Hydroxycholesterol_.HMDB0006119	0.3466944419
##	L.Proline_HMDB0000162
## Dimethylglycine_HMDB0000092	-3.306601e-01
## Glyoxylic.acid_HMDB0000119	-3.332654e-01
## Pyruvic.acid_HMDB0000243	5.716183e-01
## L.Lactic.acid_HMDB0000190	8.313390e-01
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	5.962872e-01
## Glycolic.acid_HMDB0000115	1.111452e-01
## Caproic.acid_HMDB0000535	-2.581117e-01
## L.Alanine_HMDB0000161	8.243166e-01
## Alpha.ketoisovaleric.acid_HMDB0000019	6.564255e-01
## Glycine_HMDB0000123	6.274179e-01
## Oxalic.acid_HMDB0002329	-1.115439e-01
## Hydroxylamine_HMDB0003338	4.504780e-01
## X2.Hydroxybutyric.acid_HMDB0000008	6.207295e-01
## Acetoacetic.acid_HMDB0000060	2.539717e-01
## Hydroxypropionic.acid_HMDB0000700	7.856019e-01
## Pyruvic.acid_HMDB0000243.1	6.374969e-01
## X3.Hydroxybutyric.acid_HMDB0000357	5.123828e-01
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	6.394981e-01
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	2.672716e-01
## D.Alpha.aminobutyric.acid_HMDB0000650	8.107674e-01
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	6.125954e-01
## Beta.Alanine_HMDB0000056	5.502512e-01
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	5.683686e-01
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	7.896193e-01
## Malonic.acid_HMDB0000691	3.488246e-01
## X3.Aminoisobutanoic.acid_HMDB0003911	6.546793e-01
## X3.Hydroxyisovaleric.acid_HMDB0000754	8.363372e-01
## Ketoleucine_HMDB0000695	4.775478e-01
## L.Valine_HMDB0000883	9.024773e-01

## ITSD_Valine	8.291979e-01
## Urea_HMDB0000294	8.444188e-01
## Benzoic.acid_HMDB0001870	1.393173e-01
## Caprylic.acid_HMDB0000482	-2.173062e-01
## Glycerol_HMDB0000131	7.818651e-01
## Ethanolamine_HMDB0000149	7.979545e-01
## L.Leucine_HMDB0000687	9.101318e-01
## Acetylglycine_HMDB0000532	2.845407e-01
## L.Isoleucine_HMDB0000172	8.892387e-01
## Nicotinic.acid_HMDB0001488	1.089470e-01
## Maleic.acid_HMDB0000176	1.888896e-01
## L.Proline_HMDB0000162	1.000000e+00
## Phenylacetic.acid_HMDB0000209	2.694677e-02
## Succinic.acid_HMDB0000254	8.433131e-01
## Glycine_HMDB0000123.1	8.505436e-01
## Methylsuccinic.acid_HMDB0001844	7.799289e-02
## Glyceric.acid_HMDB0000139	6.658448e-02
## Fumaric.acid_HMDB0000134	7.568259e-01
## Uracil_HMDB0000300	8.066374e-01
## Pelargonic.acid_HMDB0000847	-2.976442e-01
## L.Serine_HMDB0000187	8.003602e-01
## L.Threonine_HMDB0000167	8.592667e-01
## Mesaconic.acid_HMDB0000749	2.393246e-01
## Glutaric.acid_HMDB0000661	3.708395e-01
## Thymine_HMDB0000262	5.952445e-01
## Beta.Alanine_HMDB0000056.1	7.399865e-01
## L.Homoserine_HMDB0000719	2.514255e-02
## Capric.acid_HMDB0000511	-3.369041e-02
## Citramalic.acid_HMDB0000426	3.654087e-01
## Malic.acid_HMDB0000744	2.909729e-01
## Niacinamide_HMDB0001406	7.773434e-01
## Adipic.acid_HMDB0000448	6.519834e-01
## D.Threitol_HMDB0004136	4.032531e-01
## Dihydrouracil_HMDB0000076	6.940322e-01
## Erythritol_HMDB0002994	7.246418e-01
## N.Acetylserine_HMDB0002931	7.971033e-01
## L.Aspartic.acid_HMDB0000191	8.407738e-01
## L.Methionine_HMDB0000696	6.440263e-01
## X4.Hydroxyproline_HMDB0000725	8.641849e-01
## Pyroglutamic.acid_HMDB0000267	7.936102e-01
## Cytosine_HMDB0000630	8.329992e-03
## Gamma.Aminobutyric.acid_HMDB0000112	4.861922e-01
## Threonic.acid_HMDB0000943	2.191836e-01
## L.Cysteine_HMDB0000574	3.397362e-01
## L.2.Hydroxyglutaric.acid_HMDB0000694	7.217379e-02
## Creatinine_HMDB0000562	5.465324e-01
## X3.Hydroxyglutaric.acid_HMDB0000428	-3.020486e-01
## Oxoglutaric.acid_HMDB0000208	3.527301e-01
## Phenylpyruvic.acid_HMDB0000205	-2.039989e-01
## Pimelic.acid_HMDB0000857	3.914298e-01
## Phenyllactic.acid_HMDB0000779	-1.972103e-01
## Phosphoenolpyruvic.acid_HMDB0000263	-5.484150e-01
## Ornithine_HMDB0000214	3.956223e-01
## Hypotaurine_HMDB0000965	7.846002e-01

## Triethanolamine_HMDB0032538	6.821571e-01
## X2.Aminobenzoic.acid_HMDB0001123	6.848762e-01
## L.Glutamic.acid_HMDB0000148	6.356803e-01
## X4.Hydroxybenzoic.acid_HMDB0000500	8.054690e-01
## X5.Aminopentanoic.acid_HMDB0003355	2.014261e-01
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-3.248216e-02
## L.Phenylalanine_HMDB0000159	7.063670e-01
## Dodecanoic.acid_HMDB0000638	4.711234e-01
## Lyxose_HMDB0003402_1	-2.074220e-01
## D.Xylose_HMDB0000098	-6.833204e-01
## Lyxose_HMDB0003402_2	-6.231887e-01
## D.Arabinose_HMDB0029942	-3.316124e-01
## L.Asparagine_HMDB0000168	2.110023e-01
## D.Ribulose_HMDB0000621	-5.792738e-01
## D.Ribose_HMDB0000283	-3.406242e-01
## D.Xylulose_HMDB0001644	-5.953039e-01
## X3.Sulfinoalanine_HMDB0000996	3.655477e-02
## Suberic.acid_HMDB0000893	4.831607e-01
## L.Lysine_HMDB0000182	2.125562e-01
## Levoglucosan_HMDB0000640	-6.260584e-01
## D.Arabitol_HMDB0000568	2.580938e-01
## Ribitol_HMDB0000508	2.680512e-01
## cis.Aconitic.acid_HMDB0000072	-5.003045e-01
## Quinolinic.acid_HMDB0000232	2.670065e-01
## Putrescine_HMDB0001414	4.467974e-01
## Glycerol.3.phosphate_HMDB0000126	-4.258559e-01
## Vanillic.acid_HMDB0000484	5.974738e-01
## L.Glutamine_HMDB0000641	-2.229304e-03
## X2.Phosphoglyceric.acid_HMDB0000362	4.320228e-01
## Azelaic.acid_HMDB0000784	-6.070213e-02
## L.Dihydroorotic.acid_HMDB0003349	-3.078721e-01
## O.Phosphoethanolamine_HMDB0000224	3.907100e-01
## X3.Phosphoglyceric.acid_HMDB0000807	4.215505e-01
## Isocitric.acid_HMDB0000193	4.179817e-01
## Hypoxanthine_HMDB0000157	-3.554146e-01
## Citric.acid_HMDB0000094	1.774763e-01
## L.Arginine_HMDB0000517	-1.480582e-01
## Ornithine_HMDB0000214.1	6.660677e-01
## Dopamine_HMDB0000073	6.641985e-01
## Myristic.acid_HMDB0000806	6.561317e-01
## X1.5.Anhydrosorbitol_HMDB0002712	2.229317e-01
## D.Tagatose_HMDB0003418	-3.290778e-01
## Psicose_1	-4.452630e-01
## Sebacic.acid_HMDB0000792	6.620132e-01
## D.Fructose_HMDB0000660	-2.683701e-01
## Gluconolactone_HMDB0000150	-3.548722e-01
## L.Sorbose_HMDB0001266	-2.789529e-01
## D.Mannose_HMDB0000169	5.135979e-01
## Hydroxyphenyllactic.acid_HMDB0000755	5.556267e-01
## D.Glucose_HMDB0000122	4.117019e-01
## N.Acetylglutamine_HMDB0006029	4.825518e-01
## L.Lysine_HMDB0000182.1	5.865943e-01
## D.Mannose_HMDB0000169.1	5.157383e-01
## Tyramine_HMDB0000306	5.830410e-01

## L.Histidine_HMDB0000177	5.480709e-01
## D.Glucose_HMDB0000122.1	4.112137e-01
## X1.Hexadecanol_HMDB0003424	-1.366577e-01
## L.Tyrosine_HMDB0000158	5.135935e-01
## Mannitol_HMDB0000765	6.298861e-01
## Sorbitol_HMDB0000247	3.805824e-02
## ITSD_Sorbitol	6.383564e-01
## Galacturonic.acid_HMDB0002545	4.790055e-01
## Pantothenic.acid_HMDB0000210	1.975044e-01
## Palmitoleic.acid_HMDB0003229	3.595821e-01
## Xanthine_HMDB0000292	2.703758e-01
## Gluconic.acid_HMDB0000625	-2.155489e-02
## Palmitic.acid_HMDB0000220	3.934425e-01
## Glucaric.acid_HMDB0000663	6.109116e-01
## N.Acetylmannosamine_HMDB0001129	4.732655e-01
## N.Acetyl.D.glucosamine_HMDB0000215	6.163250e-01
## D.Ribulose.5.phosphate_HMDB0000618	-4.207402e-01
## Uric.acid_HMDB0000289	8.647441e-02
## D.Ribose.5.phosphate_HMDB0001548	-4.793738e-01
## myo.Inositol_HMDB0000211	5.148770e-01
## D.Ribose.5.phosphate_HMDB0001548.1	-5.498135e-01
## Heptadecanoic.acid_HMDB0002259	2.589383e-01
## Octadecanol_HMDB0002350	2.077024e-01
## Glutathione_HMDB0000125	2.395541e-02
## Linoleic.acid_HMDB0000673	2.191312e-01
## Oleic.acid_HMDB0000207	2.489331e-01
## Elaidic.acid_HMDB0000573	2.930679e-01
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-4.135054e-01
## Stearic.acid_HMDB0000827	1.782346e-01
## L.Tryptophan_HMDB0000929	1.804506e-01
## Fructose.1.phosphate_HMDB0001076	-1.953549e-01
## Mannose.6.phosphate_HMDB0001078	-4.850196e-01
## Arachidonic.acid_HMDB0001043	-3.429126e-02
## Glucose.6.phosphate_HMDB0001401	-1.462257e-01
## X6.Phosphogluconic.acid_HMDB0001316	9.686645e-02
## Inositol.phosphate_HMDB0002985	-5.026983e-02
## Uridine_HMDB0000296	4.096118e-01
## Stigmasterol_HMDB0000937	5.080129e-01
## D.Sedoheptulose.7.phosphate_HMDB0001068	-5.031766e-02
## Sucrose_HMDB0000258	9.638681e-02
## MG.18.0e.0.0.0.0._HMDB0011143	2.551941e-01
## Trehalose_HMDB0000975	-2.428335e-01
## D.Maltose_HMDB0000163	-2.374014e-01
## Lactitol_HMDB0040937	2.174823e-01
## Xanthylic.acid_HMDB0001554	-7.451326e-01
## Adenosine.monophosphate_HMDB0000045	-2.148650e-01
## Cholesterol_HMDB0000067	3.911089e-02
## Lathosterol_HMDB0001170	8.781961e-02
## X7b.Hydroxycholesterol_.HMDB0006119	-7.672031e-05
##	Phenylacetic.acid_HMDB0000209
## Dimethylglycine_HMDB0000092	0.738863740
## Glyoxylic.acid_HMDB0000119	0.734705215
## Pyruvic.acid_HMDB0000243	0.125577725
## L.Lactic.acid_HMDB0000190	-0.205315995

## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.389023965
## Glycolic.acid_HMDB0000115	0.746905030
## Caproic.acid_HMDB0000535	0.821005739
## L.Alanine_HMDB0000161	-0.343380978
## Alpha.ketoisovaleric.acid_HMDB0000019	0.370680539
## Glycine_HMDB0000123	-0.144542196
## Oxalic.acid_HMDB0002329	0.632346159
## Hydroxylamine_HMDB0003338	0.206132390
## X2.Hydroxybutyric.acid_HMDB0000008	0.672215538
## Acetoacetic.acid_HMDB0000060	0.710059890
## Hydroxypropionic.acid_HMDB0000700	0.007760927
## Pyruvic.acid_HMDB0000243.1	0.244445359
## X3.Hydroxybutyric.acid_HMDB0000357	0.689595825
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.644669719
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.781782262
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.317492168
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.444795559
## Beta.Alanine_HMDB0000056	-0.530791289
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.308146526
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.341391912
## Malonic.acid_HMDB0000691	0.060560182
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.572383868
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.004625536
## Ketoleucine_HMDB0000695	0.745860922
## L.Valine_HMDB0000883	-0.256669658
## ITSD_Valine	-0.293081749
## Urea_HMDB0000294	0.060426684
## Benzoic.acid_HMDB0001870	0.335195203
## Caprylic.acid_HMDB0000482	0.855532333
## Glycerol_HMDB0000131	-0.385304039
## Ethanolamine_HMDB0000149	-0.329542576
## L.Leucine_HMDB0000687	-0.279653282
## Acetyl glycine_HMDB0000532	0.642811198
## L.Isoleucine_HMDB0000172	-0.297056720
## Nicotinic.acid_HMDB0001488	0.206352474
## Maleic.acid_HMDB0000176	0.921451782
## L.Proline_HMDB0000162	0.026946775
## Phenylacetic.acid_HMDB0000209	1.000000000
## Succinic.acid_HMDB0000254	0.068147580
## Glycine_HMDB0000123.1	-0.222887290
## Methylsuccinic.acid_HMDB0001844	0.233588579
## Glyceric.acid_HMDB0000139	0.874355451
## Fumaric.acid_HMDB0000134	0.122044952
## Uracil_HMDB0000300	0.169700482
## Pelargonic.acid_HMDB0000847	0.785861234
## L.Serine_HMDB0000187	-0.305778692
## L.Threonine_HMDB0000167	-0.228922215
## Mesaconic.acid_HMDB0000749	0.178090888
## Glutaric.acid_HMDB0000661	0.390578282
## Thymine_HMDB0000262	-0.090561642
## Beta.Alanine_HMDB0000056.1	-0.543952490
## L.Homoserine_HMDB0000719	0.369386689
## Capric.acid_HMDB0000511	0.495589205
## Citramalic.acid_HMDB0000426	-0.187525553

## Malic.acid_HMDB0000744	0.896770147
## Niacinamide_HMDB0001406	-0.262043687
## Adipic.acid_HMDB0000448	-0.366795662
## D.Threitol_HMDB0004136	0.306626909
## Dihydrouracil_HMDB0000076	0.168276298
## Erythritol_HMDB0002994	0.379495991
## N.Acetylserine_HMDB0002931	-0.136127272
## L.Aspartic.acid_HMDB0000191	-0.322849275
## L.Methionine_HMDB0000696	-0.633399151
## X4.Hydroxyproline_HMDB0000725	-0.161208974
## Pyroglutamic.acid_HMDB0000267	-0.252219572
## Cytosine_HMDB0000630	-0.265137026
## Gamma.Aminobutyric.acid_HMDB0000112	-0.022016206
## Threonic.acid_HMDB0000943	0.882600089
## L.Cysteine_HMDB0000574	0.802313046
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.856982162
## Creatinine_HMDB0000562	-0.580099245
## X3.Hydroxyglutaric.acid_HMDB0000428	0.649214808
## Oxoglutaric.acid_HMDB0000208	0.390758219
## Phenylpyruvic.acid_HMDB0000205	0.453571551
## Pimelic.acid_HMDB0000857	-0.390289365
## Phenyllactic.acid_HMDB0000779	0.493545860
## Phosphoenolpyruvic.acid_HMDB0000263	0.503607389
## Ornithine_HMDB0000214	-0.666013047
## Hypotaurine_HMDB0000965	-0.273105945
## Triethanolamine_HMDB0032538	-0.315590455
## X2.Aminobenzoic.acid_HMDB0001123	-0.534145402
## L.Glutamic.acid_HMDB0000148	-0.655556108
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.379862788
## X5.Aminopentanoic.acid_HMDB0003355	0.496684044
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.741521763
## L.Phenylalanine_HMDB0000159	-0.604410927
## Dodecanoic.acid_HMDB0000638	0.068943896
## Lyxose_HMDB0003402_1	0.825432123
## D.Xylose_HMDB0000098	0.018155521
## Lyxose_HMDB0003402_2	-0.113916453
## D.Arabinose_HMDB0029942	0.800252041
## L.Asparagine_HMDB0000168	-0.830261511
## D.Ribulose_HMDB0000621	0.707880144
## D.Ribose_HMDB0000283	0.783102469
## D.Xylulose_HMDB0001644	0.686156028
## X3.Sulfinioalanine_HMDB0000996	-0.741549255
## Suberic.acid_HMDB0000893	-0.117683287
## L.Lysine_HMDB0000182	-0.714379618
## Levoglucosan_HMDB0000640	-0.145368822
## D.Arabitool_HMDB0000568	0.093271122
## Ribitol_HMDB0000508	0.310178270
## cis.Aconitic.acid_HMDB0000072	-0.092362657
## Quinolinic.acid_HMDB0000232	0.271833619
## Putrescine_HMDB0001414	0.263027510
## Glycerol.3.phosphate_HMDB0000126	0.354100413
## Vanillic.acid_HMDB0000484	0.070066530
## L.Glutamine_HMDB0000641	-0.757347338
## X2.Phosphoglyceric.acid_HMDB0000362	0.403465067

## Azelaic.acid_HMDB0000784	-0.109731981
## L.Dihydroorotic.acid_HMDB0003349	0.847547820
## O.Phosphoethanolamine_HMDB0000224	-0.292061575
## X3.Phosphoglyceric.acid_HMDB0000807	0.388288289
## Isocitric.acid_HMDB0000193	0.215046371
## Hypoxanthine_HMDB0000157	-0.665431101
## Citric.acid_HMDB0000094	0.664607382
## L.Arginine_HMDB0000517	0.150004323
## Ornithine_HMDB0000214.1	-0.606123494
## Dopamine_HMDB0000073	-0.607018306
## Myristic.acid_HMDB0000806	-0.316951567
## X1.5.Anhydrosorbitol_HMDB0002712	0.585523773
## D.Tagatose_HMDB0003418	0.791997892
## Psicose_1	-0.152121924
## Sebacic.acid_HMDB0000792	-0.050166659
## D.Fructose_HMDB0000660	0.843532098
## Gluconolactone_HMDB0000150	0.816412869
## L.Sorbose_HMDB0001266	0.829802778
## D.Mannose_HMDB0000169	-0.581670685
## Hydroxyphenyllactic.acid_HMDB0000755	0.492997549
## D.Glucose_HMDB0000122	-0.592516056
## N.Acetylglutamine_HMDB0006029	-0.573270837
## L.Lysine_HMDB0000182.1	-0.707306536
## D.Mannose_HMDB0000169.1	-0.687409467
## Tyramine_HMDB0000306	-0.711607959
## L.Histidine_HMDB0000177	-0.735530993
## D.Glucose_HMDB0000122.1	-0.614808285
## X1.Hexadecanol_HMDB0003424	0.425721421
## L.Tyrosine_HMDB0000158	-0.767094106
## Mannitol_HMDB0000765	-0.328296223
## Sorbitol_HMDB0000247	-0.076373517
## ITSD_Sorbitol	-0.122125597
## Galacturonic.acid_HMDB0002545	0.467645069
## Pantothenic.acid_HMDB0000210	0.690834562
## Palmitoleic.acid_HMDB0003229	-0.288856784
## Xanthine_HMDB0000292	-0.571249904
## Gluconic.acid_HMDB0000625	0.650315091
## Palmitic.acid_HMDB0000220	-0.001366595
## Glucaric.acid_HMDB0000663	-0.243382531
## N.Acetylmannosamine_HMDB0001129	-0.256099069
## N.Acetyl.D.glucosamine_HMDB0000215	-0.389559355
## D.Ribulose.5.phosphate_HMDB0000618	0.746281249
## Uric.acid_HMDB0000289	-0.864035029
## D.Ribose.5.phosphate_HMDB0001548	0.650702953
## myo.Inositol_HMDB0000211	-0.008000109
## D.Ribose.5.phosphate_HMDB0001548.1	0.730965105
## Heptadecanoic.acid_HMDB0002259	0.508692803
## Octadecanol_HMDB0002350	0.732901163
## Glutathione_HMDB0000125	-0.255085462
## Linoleic.acid_HMDB0000673	-0.059290707
## Oleic.acid_HMDB0000207	-0.287354501
## Elaidic.acid_HMDB0000573	-0.229456377
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.702033520
## Stearic.acid_HMDB0000827	0.389703622

## L.Tryptophan_HMDB0000929	0.367729589
## Fructose.1.phosphate_HMDB0001076	0.754579290
## Mannose.6.phosphate_HMDB0001078	0.012274373
## Arachidonic.acid_HMDB0001043	-0.389613317
## Glucose.6.phosphate_HMDB0001401	0.891632613
## X6.Phosphogluconic.acid_HMDB0001316	0.640982142
## Inositol.phosphate_HMDB0002985	0.412690852
## Uridine_HMDB0000296	0.310493871
## Stigmasterol_HMDB0000937	0.321398387
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.300040247
## Sucrose_HMDB0000258	-0.475859172
## MG.18.0e.0.0.0.0._HMDB0011143	0.493679531
## Trehalose_HMDB0000975	-0.220353439
## D.Maltose_HMDB0000163	-0.216655070
## Lactitol_HMDB00040937	0.308139426
## Xanthylic.acid_HMDB0001554	-0.058293261
## Adenosine.monophosphate_HMDB0000045	0.832370136
## Cholesterol_HMDB0000067	0.119082620
## Lathosterol_HMDB0001170	-0.066540775
## X7b.Hydroxycholesterol._HMDB0006119	0.496316647
##	
## Succinic.acid_HMDB0000254	
## Dimethylglycine_HMDB0000092	-0.434429328
## Glyoxylic.acid_HMDB0000119	-0.438403509
## Pyruvic.acid_HMDB0000243	0.817255585
## L.Lactic.acid_HMDB0000190	0.881243704
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.761775658
## Glycolic.acid_HMDB0000115	0.250079687
## Caproic.acid_HMDB0000535	-0.182519374
## L.Alanine_HMDB0000161	0.777923098
## Alpha.ketoisovaleric.acid_HMDB0000019	0.539308851
## Glycine_HMDB0000123	0.696216752
## Oxalic.acid_HMDB0002329	0.005312574
## Hydroxylamine_HMDB0003338	0.573996674
## X2.Hydroxybutyric.acid_HMDB0000008	0.556403873
## Acetoacetic.acid_HMDB0000060	0.450221051
## Hydroxypropionic.acid_HMDB0000700	0.908229048
## Pyruvic.acid_HMDB0000243.1	0.665070924
## X3.Hydroxybutyric.acid_HMDB0000357	0.560687087
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.669713543
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.278901356
## D.Alpha.aminobutyric.acid_HMDB0000650	0.768673101
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.449214344
## Beta.Alanine_HMDB0000056	0.550468656
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.489050499
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.641931740
## Malonic.acid_HMDB0000691	0.647783136
## X3.Aminoisobutanoic.acid_HMDB0003911	0.560549467
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.910823054
## Ketoleucine_HMDB0000695	0.419430237
## L.Valine_HMDB0000883	0.861234773
## ITSD_Valine	0.862758170
## Urea_HMDB0000294	0.739302718
## Benzoic.acid_HMDB0001870	0.195709318
## Caprylic.acid_HMDB0000482	-0.128071135

## Glycerol_HMDB0000131	0.813931613
## Ethanolamine_HMDB0000149	0.789754079
## L.Leucine_HMDB0000687	0.859548168
## Acetylglycine_HMDB0000532	0.506974253
## L.Isoleucine_HMDB0000172	0.837799763
## Nicotinic.acid_HMDB0001488	0.003058612
## Maleic.acid_HMDB0000176	0.347092649
## L.Proline_HMDB0000162	0.843313135
## Phenylacetic.acid_HMDB0000209	0.068147580
## Succinic.acid_HMDB0000254	1.000000000
## Glycine_HMDB0000123.1	0.865431823
## Methylsuccinic.acid_HMDB0001844	0.422459027
## Glyceric.acid_HMDB0000139	0.127127513
## Fumaric.acid_HMDB0000134	0.846651778
## Uracil_HMDB0000300	0.798475058
## Pelargonic.acid_HMDB0000847	-0.298236738
## L.Serine_HMDB0000187	0.782759059
## L.Threonine_HMDB0000167	0.837301669
## Mesaconic.acid_HMDB0000749	0.233447731
## Glutaric.acid_HMDB0000661	0.354594892
## Thymine_HMDB0000262	0.652831826
## Beta.Alanine_HMDB0000056.1	0.696113909
## L.Homoserine_HMDB0000719	0.114420878
## Capric.acid_HMDB0000511	0.081813359
## Citramalic.acid_HMDB0000426	0.528648462
## Malic.acid_HMDB0000744	0.373801132
## Niacinamide_HMDB0001406	0.754688368
## Adipic.acid_HMDB0000448	0.604634859
## D.Threitol_HMDB0004136	0.396414935
## Dihydrouracil_HMDB0000076	0.711331795
## Erythritol_HMDB0002994	0.762920791
## N.Acetylserine_HMDB0002931	0.792722648
## L.Aspartic.acid_HMDB0000191	0.780401281
## L.Methionine_HMDB0000696	0.577278990
## X4.Hydroxyproline_HMDB0000725	0.828970779
## Pyroglutamic.acid_HMDB0000267	0.722861106
## Cytosine_HMDB0000630	0.072999066
## Gamma.Aminobutyric.acid_HMDB0000112	0.491739658
## Threonic.acid_HMDB0000943	0.187574411
## L.Cysteine_HMDB0000574	0.264110450
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.111059755
## Creatinine_HMDB0000562	0.511970587
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.287487842
## Oxoglutaric.acid_HMDB0000208	0.469630004
## Phenylpyruvic.acid_HMDB0000205	-0.304981694
## Pimelic.acid_HMDB0000857	0.448040117
## Phenyllactic.acid_HMDB0000779	-0.188247055
## Phosphoenolpyruvic.acid_HMDB0000263	-0.597054823
## Ornithine_HMDB0000214	0.336480650
## Hypotaurine_HMDB0000965	0.655980581
## Triethanolamine_HMDB0032538	0.666436810
## X2.Aminobenzoic.acid_HMDB0001123	0.724623652
## L.Glutamic.acid_HMDB0000148	0.524524252
## X4.Hydroxybenzoic.acid_HMDB0000500	0.855673564

## X5.Aminopentanoic.acid_HMDB0003355	0.320424596
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.017823266
## L.Phenylalanine_HMDB0000159	0.667872569
## Dodecanoic.acid_HMDB0000638	0.627553307
## Lyxose_HMDB0003402_1	-0.229622393
## D.Xylose_HMDB0000098	-0.640343836
## Lyxose_HMDB0003402_2	-0.525613625
## D.Arabinose_HMDB0029942	-0.339765926
## L.Asparagine_HMDB0000168	0.162249895
## D.Ribulose_HMDB0000621	-0.499698475
## D.Ribose_HMDB0000283	-0.349496801
## D.Xylulose_HMDB0001644	-0.522469533
## X3.Sulfinioalanine_HMDB0000996	-0.087786006
## Suberic.acid_HMDB0000893	0.552534784
## L.Lysine_HMDB0000182	0.132103583
## Levoglucosan_HMDB0000640	-0.578879994
## D.Arabitol_HMDB0000568	0.357756247
## Ribitol_HMDB0000508	0.246815397
## cis.Aconitic.acid_HMDB0000072	-0.484072814
## Quinolinic.acid_HMDB0000232	0.223976567
## Putrescine_HMDB0001414	0.462564565
## Glycerol.3.phosphate_HMDB0000126	-0.491513295
## Vanillic.acid_HMDB0000484	0.564023119
## L.Glutamine_HMDB0000641	-0.090856175
## X2.Phosphoglyceric.acid_HMDB0000362	0.399585053
## Azelaic.acid_HMDB0000784	-0.063320669
## L.Dihydroorotic.acid_HMDB0003349	-0.308673295
## O.Phosphoethanolamine_HMDB0000224	0.552704625
## X3.Phosphoglyceric.acid_HMDB0000807	0.417128940
## Isocitric.acid_HMDB0000193	0.556709523
## Hypoxanthine_HMDB0000157	-0.503868749
## Citric.acid_HMDB0000094	0.067925977
## L.Arginine_HMDB0000517	-0.136819756
## Ornithine_HMDB0000214.1	0.610686699
## Dopamine_HMDB0000073	0.618364297
## Myristic.acid_HMDB0000806	0.763358177
## X1.5.Anhydrosorbitol_HMDB0002712	0.241241630
## D.Tagatose_HMDB0003418	-0.340398156
## Psicose_1	-0.408429221
## Sebacic.acid_HMDB0000792	0.802498488
## D.Fructose_HMDB0000660	-0.199273574
## Gluconolactone_HMDB0000150	-0.281212376
## L.Sorbose_HMDB0001266	-0.213838081
## D.Mannose_HMDB0000169	0.491094364
## Hydroxyphenyllactic.acid_HMDB0000755	0.664753412
## D.Glucose_HMDB0000122	0.366687128
## N.Acetylglutamine_HMDB0006029	0.453457694
## L.Lysine_HMDB0000182.1	0.541335172
## D.Mannose_HMDB0000169.1	0.486905229
## Tyramine_HMDB0000306	0.527115399
## L.Histidine_HMDB0000177	0.517609553
## D.Glucose_HMDB0000122.1	0.356080154
## X1.Hexadecanol_HMDB0003424	-0.002235548
## L.Tyrosine_HMDB0000158	0.425946012

## Mannitol_HMDB0000765	0.703178566
## Sorbitol_HMDB0000247	-0.081878354
## ITSD_Sorbitol	0.740514674
## Galacturonic.acid_HMDB0002545	0.362483766
## Pantothenic.acid_HMDB0000210	0.313600617
## Palmitoleic.acid_HMDB0003229	0.490595168
## Xanthine_HMDB0000292	0.034857658
## Gluconic.acid_HMDB0000625	-0.151801350
## Palmitic.acid_HMDB0000220	0.591039904
## Glucaric.acid_HMDB0000663	0.556191839
## N.Acetylmannosamine_HMDB0001129	0.313881909
## N.Acetyl.D.glucosamine_HMDB0000215	0.659952254
## D.Ribulose.5.phosphate_HMDB0000618	-0.484995507
## Uric.acid_HMDB0000289	0.027750314
## D.Ribose.5.phosphate_HMDB0001548	-0.533739752
## myo.Inositol_HMDB0000211	0.665193607
## D.Ribose.5.phosphate_HMDB0001548.1	-0.578526827
## Heptadecanoic.acid_HMDB0002259	0.345912056
## Octadecanol_HMDB0002350	0.418119672
## Glutathione_HMDB0000125	-0.150738741
## Linoleic.acid_HMDB0000673	0.361060917
## Oleic.acid_HMDB0000207	0.379894102
## Elaidic.acid_HMDB0000573	0.462008582
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.446882016
## Stearic.acid_HMDB0000827	0.444312397
## L.Tryptophan_HMDB0000929	0.414815044
## Fructose.1.phosphate_HMDB0001076	-0.127659635
## Mannose.6.phosphate_HMDB0001078	-0.649112179
## Arachidonic.acid_HMDB0001043	0.091712826
## Glucose.6.phosphate_HMDB0001401	-0.091834662
## X6.Phosphogluconic.acid_HMDB0001316	0.119983255
## Inositol.phosphate_HMDB0002985	0.021206057
## Uridine_HMDB0000296	0.649997295
## Stigmasterol_HMDB0000937	0.711470484
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.043411137
## Sucrose_HMDB0000258	0.312346630
## MG.18.0e.0.0.0.0._HMDB0011143	0.434833081
## Trehalose_HMDB0000975	-0.339000647
## D.Maltose_HMDB0000163	-0.331621518
## Lactitol_HMDB0040937	0.043084970
## Xanthylic.acid_HMDB0001554	-0.811074256
## Adenosine.monophosphate_HMDB0000045	-0.323601568
## Cholesterol_HMDB0000067	-0.005405126
## Lathosterol_HMDB0001170	0.119668703
## X7b.Hydroxycholesterol_.HMDB0006119	-0.056957145
##	Glycine_HMDB0000123.1
## Dimethylglycine_HMDB0000092	-0.6149502200
## Glyoxylic.acid_HMDB0000119	-0.6162913391
## Pyruvic.acid_HMDB0000243	0.6970971259
## L.Lactic.acid_HMDB0000190	0.9498865956
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.5457743307
## Glycolic.acid_HMDB0000115	-0.0334115238
## Caproic.acid_HMDB0000535	-0.4918426285
## L.Alanine_HMDB0000161	0.9087403339

## Alpha.ketoisovaleric.acid_HMDB0000019	0.5874802965
## Glycine_HMDB0000123	0.7481670460
## Oxalic.acid_HMDB0002329	-0.3316529933
## Hydroxylamine_HMDB0003338	0.5309663428
## X2.Hydroxybutyric.acid_HMDB0000008	0.3185539602
## Acetoacetic.acid_HMDB0000060	0.1961578180
## Hydroxypropionic.acid_HMDB0000700	0.8344707724
## Pyruvic.acid_HMDB0000243.1	0.6027266403
## X3.Hydroxybutyric.acid_HMDB0000357	0.3070229121
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.3948833186
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.0079283976
## D.Alpha.aminobutyric.acid_HMDB0000650	0.8640450041
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.2441166782
## Beta.Alanine_HMDB0000056	0.6601214464
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.4979735498
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.5813203245
## Malonic.acid_HMDB0000691	0.5720070819
## X3.Aminoisobutanoic.acid_HMDB0003911	0.8016954028
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.8288491465
## Ketoleucine_HMDB0000695	0.2498553640
## L.Valine_HMDB0000883	0.9352311127
## ITSD_Valine	0.8953288144
## Urea_HMDB0000294	0.7786331946
## Benzoic.acid_HMDB0001870	0.0307284909
## Caprylic.acid_HMDB0000482	-0.4288376960
## Glycerol_HMDB0000131	0.9552346868
## Ethanolamine_HMDB0000149	0.9376805416
## L.Leucine_HMDB0000687	0.9542771052
## Acetyl glycine_HMDB0000532	0.1614573992
## L.Isoleucine_HMDB0000172	0.9581633358
## Nicotinic.acid_HMDB0001488	-0.1914614607
## Maleic.acid_HMDB0000176	-0.0002560515
## L.Proline_HMDB0000162	0.8505435623
## Phenylacetic.acid_HMDB0000209	-0.2228872905
## Succinic.acid_HMDB0000254	0.8654318229
## Glycine_HMDB0000123.1	1.0000000000
## Methylsuccinic.acid_HMDB0001844	0.1584991689
## Glyceric.acid_HMDB0000139	-0.1108229885
## Fumaric.acid_HMDB0000134	0.7819138124
## Uracil_HMDB0000300	0.7893233485
## Pelargonic.acid_HMDB0000847	-0.5830956624
## L.Serine_HMDB0000187	0.9264998086
## L.Threonine_HMDB0000167	0.9432512511
## Mesaconic.acid_HMDB0000749	0.0265530434
## Glutaric.acid_HMDB0000661	0.1546202880
## Thymine_HMDB0000262	0.6228089207
## Beta.Alanine_HMDB0000056.1	0.8798796637
## L.Homoserine_HMDB0000719	0.0164582671
## Capric.acid_HMDB0000511	-0.1011360897
## Citramalic.acid_HMDB0000426	0.5539853216
## Malic.acid_HMDB0000744	0.0672710261
## Niacinamide_HMDB0001406	0.8248778549
## Adipic.acid_HMDB0000448	0.7386349375
## D.Threitol_HMDB0004136	0.3625627038

## Dihydrouracil_HMDB0000076	0.6394101602
## Erythritol_HMDB0002994	0.6019921273
## N.Acetylserine_HMDB0002931	0.8897898183
## L.Aspartic.acid_HMDB0000191	0.9330170519
## L.Methionine_HMDB0000696	0.8555347123
## X4.Hydroxyproline_HMDB0000725	0.8971607873
## Pyroglutamic.acid_HMDB0000267	0.8550100440
## Cytosine_HMDB0000630	0.0525046219
## Gamma.Aminobutyric.acid_HMDB0000112	0.3778964335
## Threonic.acid_HMDB0000943	-0.0953925656
## L.Cysteine_HMDB0000574	0.0528288710
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.2899970628
## Creatinine_HMDB0000562	0.7372866004
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.5446625897
## Oxoglutaric.acid_HMDB0000208	0.2678442862
## Phenylpyruvic.acid_HMDB0000205	-0.2943773107
## Pimelic.acid_HMDB0000857	0.5015141262
## Phenyllactic.acid_HMDB0000779	-0.3520106306
## Phosphoenolpyruvic.acid_HMDB0000263	-0.7921257705
## Ornithine_HMDB0000214	0.6169046537
## Hypotaurine_HMDB0000965	0.8402269933
## Triethanolamine_HMDB0032538	0.8166767616
## X2.Aminobenzoic.acid_HMDB0001123	0.9178459078
## L.Glutamic.acid_HMDB0000148	0.7340713565
## X4.Hydroxybenzoic.acid_HMDB0000500	0.9602335758
## X5.Aminopentanoic.acid_HMDB0003355	0.1588570245
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.1229711440
## L.Phenylalanine_HMDB0000159	0.8807477080
## Dodecanoic.acid_HMDB0000638	0.5514392552
## Lyxose_HMDB0003402_1	-0.5606797102
## D.Xylose_HMDB0000098	-0.4571628100
## Lyxose_HMDB0003402_2	-0.3142171863
## D.Arabinose_HMDB0029942	-0.6600020499
## L.Asparagine_HMDB0000168	0.3990984077
## D.Ribulose_HMDB0000621	-0.6383811087
## D.Ribose_HMDB0000283	-0.6812233666
## D.Xylulose_HMDB0001644	-0.6465132037
## X3.Sulfinoalanine_HMDB0000996	0.0863000863
## Suberic.acid_HMDB0000893	0.6045770715
## L.Lysine_HMDB0000182	0.4190993219
## Levoglucosan_HMDB0000640	-0.3387207691
## D.Arabitol_HMDB0000568	0.2654813202
## Ribitol_HMDB0000508	0.2781836094
## cis.Aconitic.acid_HMDB0000072	-0.2631261945
## Quinolinic.acid_HMDB0000232	0.1750806551
## Putrescine_HMDB0001414	0.2146589561
## Glycerol.3.phosphate_HMDB0000126	-0.7565492534
## Vanillic.acid_HMDB0000484	0.7200897943
## L.Glutamine_HMDB0000641	0.1150842986
## X2.Phosphoglyceric.acid_HMDB0000362	0.2889606154
## Azelaic.acid_HMDB0000784	-0.1627630742
## L.Dihydroorotic.acid_HMDB0003349	-0.6194790229
## O.Phosphoethanolamine_HMDB0000224	0.5645506983
## X3.Phosphoglyceric.acid_HMDB0000807	0.3056479994

## Isocitric.acid_HMDB0000193	0.4197329200
## Hypoxanthine_HMDB0000157	-0.2226220976
## Citric.acid_HMDB0000094	-0.0870606083
## L.Arginine_HMDB0000517	-0.2500547316
## Ornithine_HMDB0000214.1	0.8681258775
## Dopamine_HMDB0000073	0.8639971551
## Myristic.acid_HMDB0000806	0.8450687001
## X1.5.Anhydrosorbitol_HMDB0002712	0.0042369667
## D.Tagatose_HMDB0003418	-0.6520102918
## Psicose_1	-0.1882468498
## Sebacic.acid_HMDB0000792	0.7104877884
## D.Fructose_HMDB0000660	-0.5292446515
## Gluconolactone_HMDB0000150	-0.4838180015
## L.Sorbose_HMDB0001266	-0.5435745771
## D.Mannose_HMDB0000169	0.7533149109
## Hydroxyphenyllactic.acid_HMDB0000755	0.4990113002
## D.Glucose_HMDB0000122	0.6809830571
## N.Acetylglutamine_HMDB0006029	0.7174198087
## L.Lysine_HMDB0000182.1	0.7984009719
## D.Mannose_HMDB0000169.1	0.7681789829
## Tyramine_HMDB0000306	0.7914694018
## L.Histidine_HMDB0000177	0.7726085029
## D.Glucose_HMDB0000122.1	0.6631061647
## X1.Hexadecanol_HMDB0003424	-0.1577334515
## L.Tyrosine_HMDB0000158	0.6946918678
## Mannitol_HMDB0000765	0.7366387232
## Sorbitol_HMDB0000247	-0.1673104454
## ITSD_Sorbitol	0.7898646512
## Galacturonic.acid_HMDB0002545	0.3710913564
## Pantothenic.acid_HMDB0000210	0.0943368270
## Palmitoleic.acid_HMDB0003229	0.5257634837
## Xanthine_HMDB0000292	0.3266965304
## Gluconic.acid_HMDB0000625	-0.2087794074
## Palmitic.acid_HMDB0000220	0.5427574622
## Glucaric.acid_HMDB0000663	0.7977687519
## N.Acetylmannosamine_HMDB0001129	0.4585136647
## N.Acetyl.D.glucosamine_HMDB0000215	0.8019339886
## D.Ribulose.5.phosphate_HMDB0000618	-0.7390496467
## Uric.acid_HMDB0000289	0.3289253220
## D.Ribose.5.phosphate_HMDB0001548	-0.8000862428
## myo.Inositol_HMDB0000211	0.5863167888
## D.Ribose.5.phosphate_HMDB0001548.1	-0.7952047323
## Heptadecanoic.acid_HMDB0002259	0.0930606436
## Octadecanol_HMDB0002350	0.1257378055
## Glutathione_HMDB0000125	-0.0807286226
## Linoleic.acid_HMDB0000673	0.3124558167
## Oleic.acid_HMDB0000207	0.4044487892
## Elaidic.acid_HMDB0000573	0.4378683631
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.6753422014
## Stearic.acid_HMDB0000827	0.2388272525
## L.Tryptophan_HMDB0000929	0.2283563255
## Fructose.1.phosphate_HMDB0001076	-0.4832523825
## Mannose.6.phosphate_HMDB0001078	-0.5874999466
## Arachidonic.acid_HMDB0001043	0.1412792147

## Glucose.6.phosphate_HMDB0001401	-0.3812931640
## X6.Phosphogluconic.acid_HMDB0001316	-0.0126933109
## Inositol.phosphate_HMDB0002985	-0.2034004327
## Uridine_HMDB0000296	0.4344756515
## Stigmasterol_HMDB0000937	0.5713871992
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.1140727009
## Sucrose_HMDB0000258	0.3761752079
## MG.18.0e.0.0.0.0._HMDB0011143	0.1829908428
## Trehalose_HMDB0000975	-0.3837038770
## D.Maltose_HMDB0000163	-0.3764022846
## Lactitol_HMDB00040937	0.0036252974
## Xanthylic.acid_HMDB0001554	-0.8266245229
## Adenosine.monophosphate_HMDB0000045	-0.5466026203
## Cholesterol_HMDB0000067	0.0143753164
## Lathosterol_HMDB0001170	0.1297882623
## X7b.Hydroxycholesterol._HMDB0006119	-0.2162110322
##	Methylsuccinic.acid_HMDB0001844
## Dimethylglycine_HMDB0000092	-0.0306601075
## Glyoxylic.acid_HMDB0000119	-0.0432472702
## Pyruvic.acid_HMDB0000243	0.4995221046
## L.Lactic.acid_HMDB0000190	0.0896690097
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.5655882188
## Glycolic.acid_HMDB0000115	0.5907485480
## Caproic.acid_HMDB0000535	0.1322895865
## L.Alanine_HMDB0000161	0.0338334399
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.1656883673
## Glycine_HMDB0000123	0.0389584364
## Oxalic.acid_HMDB0002329	0.4375917107
## Hydroxylamine_HMDB0003338	0.2951050649
## X2.Hydroxybutyric.acid_HMDB0000008	0.2037717695
## Acetoacetic.acid_HMDB0000060	0.4498213028
## Hydroxypropionic.acid_HMDB0000700	0.4215197416
## Pyruvic.acid_HMDB0000243.1	0.1668081542
## X3.Hydroxybutyric.acid_HMDB0000357	0.2903009910
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.3097484032
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.3562289942
## D.Alpha.aminobutyric.acid_HMDB0000650	0.2154376583
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.0645692685
## Beta.Alanine_HMDB0000056	0.1562846985
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.0289398644
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.0006339135
## Malonic.acid_HMDB0000691	0.5217295179
## X3.Aminoisobutanoic.acid_HMDB0003911	0.0153709499
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.3628245804
## Ketoleucine_HMDB0000695	-0.0346865978
## L.Valine_HMDB0000883	0.1917835440
## ITSD_Valine	0.3072764634
## Urea_HMDB0000294	0.0131103463
## Benzoic.acid_HMDB0001870	0.4166482262
## Caprylic.acid_HMDB0000482	0.2418134416
## Glycerol_HMDB0000131	0.0771527894
## Ethanolamine_HMDB0000149	0.0293789968
## L.Leucine_HMDB0000687	0.1303653056
## Acetyl glycine_HMDB0000532	0.6776803526

## L.Isoleucine_HMDB0000172	0.0187875412
## Nicotinic.acid_HMDB0001488	-0.1440575232
## Maleic.acid_HMDB0000176	0.3698112700
## L.Proline_HMDB0000162	0.0779928892
## Phenylacetic.acid_HMDB0000209	0.2335885788
## Succinic.acid_HMDB0000254	0.4224590272
## Glycine_HMDB0000123.1	0.1584991689
## Methylsuccinic.acid_HMDB0001844	1.0000000000
## Glyceric.acid_HMDB0000139	0.1709601604
## Fumaric.acid_HMDB0000134	0.2517561716
## Uracil_HMDB0000300	0.0236658914
## Pelargonic.acid_HMDB0000847	0.1126847209
## L.Serine_HMDB0000187	-0.0450758772
## L.Threonine_HMDB0000167	0.0162209562
## Mesaconic.acid_HMDB0000749	0.3008961310
## Glutaric.acid_HMDB0000661	0.0590648924
## Thymine_HMDB0000262	-0.0172702452
## Beta.Alanine_HMDB0000056.1	0.0954589899
## L.Homoserine_HMDB0000719	0.5100153341
## Capric.acid_HMDB0000511	0.5820832308
## Citramalic.acid_HMDB0000426	0.2614003484
## Malic.acid_HMDB0000744	0.3001255048
## Niacinamide_HMDB0001406	0.1008697925
## Adipic.acid_HMDB0000448	-0.1135616390
## D.Threitol_HMDB0004136	0.3328431595
## Dihydrouracil_HMDB0000076	0.1854132938
## Erythritol_HMDB0002994	0.3497612334
## N.Acetylserine_HMDB0002931	-0.0750079940
## L.Aspartic.acid_HMDB0000191	-0.0405597258
## L.Methionine_HMDB0000696	0.0039465701
## X4.Hydroxyproline_HMDB0000725	0.0451908931
## Pyroglutamic.acid_HMDB0000267	-0.0701159545
## Cytosine_HMDB0000630	0.1929134061
## Gamma.Aminobutyric.acid_HMDB0000112	0.0101030847
## Threonic.acid_HMDB0000943	0.1900137707
## L.Cysteine_HMDB0000574	0.1913229089
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.1809868788
## Creatinine_HMDB0000562	0.2453656918
## X3.Hydroxyglutaric.acid_HMDB0000428	0.1958769617
## Oxoglutaric.acid_HMDB0000208	0.2174815481
## Phenylpyruvic.acid_HMDB0000205	-0.2257362223
## Pimelic.acid_HMDB0000857	-0.1388188783
## Phenyllactic.acid_HMDB0000779	-0.0604774648
## Phosphoenolpyruvic.acid_HMDB0000263	-0.2633022556
## Ornithine_HMDB0000214	0.0055712743
## Hypotaurine_HMDB0000965	-0.0189280000
## Triethanolamine_HMDB0032538	-0.1081424711
## X2.Aminobenzoic.acid_HMDB0001123	0.0984538521
## L.Glutamic.acid_HMDB0000148	-0.0134073956
## X4.Hydroxybenzoic.acid_HMDB0000500	0.1356659351
## X5.Aminopentanoic.acid_HMDB0003355	-0.1766541183
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.2225844772
## L.Phenylalanine_HMDB0000159	0.0476607608
## Dodecanoic.acid_HMDB0000638	0.5097635824

## Lyxose_HMDB0003402_1	0.0937414460
## D.Xylose_HMDB0000098	-0.2856203443
## Lyxose_HMDB0003402_2	-0.1935527749
## D.Arabinose_HMDB0029942	0.0524672028
## L.Asparagine_HMDB0000168	-0.0449236650
## D.Ribulose_HMDB0000621	-0.0177086585
## D.Ribose_HMDB0000283	0.0677647795
## D.Xylulose_HMDB0001644	-0.0511749802
## X3.Sulfinioalanine_HMDB0000996	0.0353335330
## Suberic.acid_HMDB0000893	0.0294192444
## L.Lysine_HMDB0000182	0.0461716916
## Levoglucosan_HMDB0000640	-0.2888284581
## D.Arabitol_HMDB0000568	0.4664388524
## Ribitol_HMDB0000508	0.2489302434
## cis.Aconitic.acid_HMDB0000072	-0.3842959888
## Quinolinic.acid_HMDB0000232	-0.0161297950
## Putrescine_HMDB0001414	-0.0922883807
## Glycerol.3.phosphate_HMDB0000126	-0.0394090930
## Vanillic.acid_HMDB0000484	0.1783930042
## L.Glutamine_HMDB0000641	-0.1840538110
## X2.Phosphoglyceric.acid_HMDB0000362	-0.1128746251
## Azelaic.acid_HMDB0000784	-0.0746370551
## L.Dihydroorotic.acid_HMDB0003349	0.0604708237
## O.Phosphoethanolamine_HMDB0000224	0.4104011446
## X3.Phosphoglyceric.acid_HMDB0000807	-0.1181305009
## Isocitric.acid_HMDB0000193	0.5532919762
## Hypoxanthine_HMDB0000157	-0.1458041259
## Citric.acid_HMDB0000094	-0.1538194913
## L.Arginine_HMDB0000517	0.2375109122
## Ornithine_HMDB0000214.1	-0.0477961398
## Dopamine_HMDB0000073	-0.0243483091
## Myristic.acid_HMDB0000806	0.3196427782
## X1.5.Anhydrosorbitol_HMDB0002712	0.1824452568
## D.Tagatose_HMDB0003418	0.0761709261
## Psicose_1	-0.3695473516
## Sebacic.acid_HMDB0000792	0.3304932131
## D.Fructose_HMDB0000660	0.1637910933
## Gluconolactone_HMDB0000150	0.1234868905
## L.Sorbose_HMDB0001266	0.1791519822
## D.Mannose_HMDB0000169	0.0040608443
## Hydroxyphenyllactic.acid_HMDB0000755	0.2715088064
## D.Glucose_HMDB0000122	-0.0514289216
## N.Acetylglutamine_HMDB0006029	-0.0202017130
## L.Lysine_HMDB0000182.1	0.0451431463
## D.Mannose_HMDB0000169.1	0.0045345975
## Tyramine_HMDB0000306	0.0363692169
## L.Histidine_HMDB0000177	0.0569100010
## D.Glucose_HMDB0000122.1	-0.0218014024
## X1.Hexadecanol_HMDB0003424	0.4264308492
## L.Tyrosine_HMDB0000158	-0.0896542304
## Mannitol_HMDB0000765	0.1254564287
## Sorbitol_HMDB0000247	-0.2642797027
## ITSD_Sorbitol	0.2852965704
## Galacturonic.acid_HMDB0002545	0.0090542531

## Pantothenic.acid_HMDB0000210	0.3813312484
## Palmitoleic.acid_HMDB0003229	0.4261067549
## Xanthine_HMDB0000292	-0.4597425941
## Gluconic.acid_HMDB0000625	-0.2563344690
## Palmitic.acid_HMDB0000220	0.4370795267
## Glucaric.acid_HMDB0000663	-0.1233058996
## N.Acetylmannosamine_HMDB0001129	0.0336804937
## N.Acetyl.D.glucosamine_HMDB0000215	0.1256450530
## D.Ribulose.5.phosphate_HMDB0000618	0.0228268064
## Uric.acid_HMDB0000289	-0.0731681672
## D.Ribose.5.phosphate_HMDB0001548	-0.0075508878
## myo.Inositol_HMDB0000211	0.4743578465
## D.Ribose.5.phosphate_HMDB0001548.1	-0.0089699204
## Heptadecanoic.acid_HMDB0002259	0.0096791637
## Octadecanol_HMDB0002350	0.4009402044
## Glutathione_HMDB0000125	-0.1919771649
## Linoleic.acid_HMDB0000673	0.3898229428
## Oleic.acid_HMDB0000207	0.3954654213
## Elaidic.acid_HMDB0000573	0.4800127681
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.2024112718
## Stearic.acid_HMDB0000827	0.4597605076
## L.Tryptophan_HMDB0000929	0.3925560923
## Fructose.1.phosphate_HMDB0001076	0.1693416740
## Mannose.6.phosphate_HMDB0001078	-0.3782292522
## Arachidonic.acid_HMDB0001043	0.3940687164
## Glucose.6.phosphate_HMDB0001401	0.2428829039
## X6.Phosphogluconic.acid_HMDB0001316	0.2523845682
## Inositol.phosphate_HMDB0002985	0.4364953598
## Uridine_HMDB0000296	0.5774208715
## Stigmasterol_HMDB0000937	0.3850186262
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.0993538267
## Sucrose_HMDB0000258	0.1682841611
## MG.18.0e.0.0.0.0._HMDB0011143	0.4871164962
## Trehalose_HMDB0000975	-0.2028553299
## D.Maltose_HMDB0000163	-0.1982255097
## Lactitol_HMDB00040937	0.1259056601
## Xanthylic.acid_HMDB0001554	-0.4251487647
## Adenosine.monophosphate_HMDB0000045	-0.0293901917
## Cholesterol_HMDB0000067	0.2757645226
## Lathosterol_HMDB0001170	0.3015256142
## X7b.Hydroxycholesterol_.HMDB0006119	-0.2517859026
##	Glyceric.acid_HMDB0000139
## Dimethylglycine_HMDB0000092	0.504960140
## Glyoxylic.acid_HMDB0000119	0.497627350
## Pyruvic.acid_HMDB0000243	0.125018802
## L.Lactic.acid_HMDB0000190	-0.124052449
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.290956934
## Glycolic.acid_HMDB0000115	0.770184164
## Caproic.acid_HMDB0000535	0.696608232
## L.Alanine_HMDB0000161	-0.336419668
## Alpha.ketoisovaleric.acid_HMDB0000019	0.255806356
## Glycine_HMDB0000123	-0.141754348
## Oxalic.acid_HMDB0002329	0.460434468
## Hydroxylamine_HMDB0003338	0.242590742

## X2.Hydroxybutyric.acid_HMDB0000008	0.610564461
## Acetoacetic.acid_HMDB0000060	0.693583676
## Hydroxypropionic.acid_HMDB0000700	0.151673511
## Pyruvic.acid_HMDB0000243.1	0.243987309
## X3.Hydroxybutyric.acid_HMDB0000357	0.665986898
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.608815684
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.748221334
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.306008574
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.246802719
## Beta.Alanine_HMDB0000056	-0.502516664
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.160396221
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.282704833
## Malonic.acid_HMDB0000691	-0.015601029
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.366838368
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.060012669
## Ketoleucine_HMDB0000695	0.632267246
## L.Valine_HMDB0000883	-0.205820775
## ITSD_Valine	-0.202296231
## Urea_HMDB0000294	-0.018144014
## Benzoic.acid_HMDB0001870	0.450171886
## Caprylic.acid_HMDB0000482	0.691479727
## Glycerol_HMDB0000131	-0.231702412
## Ethanolamine_HMDB0000149	-0.249903968
## L.Leucine_HMDB0000687	-0.161691061
## Acetyl glycine_HMDB0000532	0.647436489
## L.Isoleucine_HMDB0000172	-0.193047160
## Nicotinic.acid_HMDB0001488	0.054057815
## Maleic.acid_HMDB0000176	0.863135953
## L.Proline_HMDB0000162	0.066584477
## Phenylacetic.acid_HMDB0000209	0.874355451
## Succinic.acid_HMDB0000254	0.127127513
## Glycine_HMDB0000123.1	-0.110822988
## Methylsuccinic.acid_HMDB0001844	0.170960160
## Glyceric.acid_HMDB0000139	1.000000000
## Fumaric.acid_HMDB0000134	0.094172363
## Uracil_HMDB0000300	0.163585548
## Pelargonic.acid_HMDB0000847	0.571260926
## L.Serine_HMDB0000187	-0.187071117
## L.Threonine_HMDB0000167	-0.183259802
## Mesaconic.acid_HMDB0000749	-0.021375065
## Glutaric.acid_HMDB0000661	0.143890293
## Thymine_HMDB0000262	-0.170868925
## Beta.Alanine_HMDB0000056.1	-0.454185200
## L.Homoserine_HMDB0000719	0.483350803
## Capric.acid_HMDB0000511	0.573779991
## Citramalic.acid_HMDB0000426	-0.380948990
## Malic.acid_HMDB0000744	0.840029688
## Niacinamide_HMDB0001406	-0.340135103
## Adipic.acid_HMDB0000448	-0.351605623
## D.Threitol_HMDB0004136	0.328052544
## Dihydrouracil_HMDB0000076	-0.003769361
## Erythritol_HMDB0002994	0.294558506
## N.Acetylserine_HMDB0002931	-0.076688016
## L.Aspartic.acid_HMDB0000191	-0.249315868

## L.Methionine_HMDB0000696	-0.506941299
## X4.Hydroxyproline_HMDB0000725	-0.154753650
## Pyroglutamic.acid_HMDB0000267	-0.201879259
## Cytosine_HMDB0000630	-0.364247707
## Gamma.Aminobutyric.acid_HMDB0000112	-0.129933930
## Threonic.acid_HMDB0000943	0.774788175
## L.Cysteine_HMDB0000574	0.728128851
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.701573972
## Creatinine_HMDB0000562	-0.380689479
## X3.Hydroxyglutaric.acid_HMDB0000428	0.456666034
## Oxoglutaric.acid_HMDB0000208	0.352901251
## Phenylpyruvic.acid_HMDB0000205	0.522660598
## Pimelic.acid_HMDB0000857	-0.480625016
## Phenyllactic.acid_HMDB0000779	0.388004028
## Phosphoenolpyruvic.acid_HMDB0000263	0.301477615
## Ornithine_HMDB0000214	-0.607492041
## Hypotaurine_HMDB0000965	-0.348247011
## Triethanolamine_HMDB0032538	-0.358758498
## X2.Aminobenzoic.acid_HMDB0001123	-0.373417952
## L.Glutamic.acid_HMDB0000148	-0.616032434
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.264270869
## X5.Aminopentanoic.acid_HMDB0003355	0.369286038
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.725573023
## L.Phenylalanine_HMDB0000159	-0.468378142
## Dodecanoic.acid_HMDB0000638	0.230369474
## Lyxose_HMDB0003402_1	0.708823757
## D.Xylose_HMDB0000098	-0.035209060
## Lyxose_HMDB0003402_2	-0.216724731
## D.Arabinose_HMDB0029942	0.642800479
## L.Asparagine_HMDB0000168	-0.755345917
## D.Ribulose_HMDB0000621	0.628936486
## D.Ribose_HMDB0000283	0.617780513
## D.Xylulose_HMDB0001644	0.601975925
## X3.Sulfinioalanine_HMDB0000996	-0.656089651
## Suberic.acid_HMDB0000893	-0.249233385
## L.Lysine_HMDB0000182	-0.609167172
## Levoglucosan_HMDB0000640	-0.180219080
## D.Arabitol_HMDB0000568	-0.011919256
## Ribitol_HMDB0000508	0.437922917
## cis.Aconitic.acid_HMDB0000072	-0.164355273
## Quinolinic.acid_HMDB0000232	0.067559342
## Putrescine_HMDB0001414	0.271996178
## Glycerol.3.phosphate_HMDB0000126	0.247051350
## Vanillic.acid_HMDB0000484	0.100522152
## L.Glutamine_HMDB0000641	-0.680369110
## X2.Phosphoglyceric.acid_HMDB0000362	0.277297189
## Azelaic.acid_HMDB0000784	-0.326498499
## L.Dihydroorotic.acid_HMDB0003349	0.704429486
## O.Phosphoethanolamine_HMDB0000224	-0.066229372
## X3.Phosphoglyceric.acid_HMDB0000807	0.187060858
## Isocitric.acid_HMDB0000193	0.149670754
## Hypoxanthine_HMDB0000157	-0.556670909
## Citric.acid_HMDB0000094	0.532199902
## L.Arginine_HMDB0000517	0.193339886

## Ornithine_HMDB0000214.1	-0.501424546
## Dopamine_HMDB0000073	-0.493964059
## Myristic.acid_HMDB0000806	-0.120910235
## X1.5.Anhydrosorbitol_HMDB0002712	0.378438763
## D.Tagatose_HMDB0003418	0.602143926
## Psicose_1	-0.181280108
## Sebacic.acid_HMDB0000792	-0.059645436
## D.Fructose_HMDB0000660	0.717633651
## Gluconolactone_HMDB0000150	0.745758673
## L.Sorbose_HMDB0001266	0.710022917
## D.Mannose_HMDB0000169	-0.479717359
## Hydroxyphenyllactic.acid_HMDB0000755	0.432680479
## D.Glucose_HMDB0000122	-0.527834304
## N.Acetylglutamine_HMDB0006029	-0.495803004
## L.Lysine_HMDB0000182.1	-0.552774229
## D.Mannose_HMDB0000169.1	-0.538504329
## Tyramine_HMDB0000306	-0.555834490
## L.Histidine_HMDB0000177	-0.575160598
## D.Glucose_HMDB0000122.1	-0.568999611
## X1.Hexadecanol_HMDB0003424	0.582687037
## L.Tyrosine_HMDB0000158	-0.646391403
## Mannitol_HMDB0000765	-0.324671931
## Sorbitol_HMDB0000247	-0.019473612
## ITSD_Sorbitol	0.016689701
## Galacturonic.acid_HMDB0002545	0.380612088
## Pantothenic.acid_HMDB0000210	0.665590080
## Palmitoleic.acid_HMDB0003229	-0.050505286
## Xanthine_HMDB0000292	-0.461430404
## Gluconic.acid_HMDB0000625	0.490222019
## Palmitic.acid_HMDB0000220	0.164388695
## Glucaric.acid_HMDB0000663	-0.024414912
## N.Acetylmannosamine_HMDB0001129	-0.237625295
## N.Acetyl.D.glucosamine_HMDB0000215	-0.277363232
## D.Ribulose.5.phosphate_HMDB0000618	0.532173688
## Uric.acid_HMDB0000289	-0.699213454
## D.Ribose.5.phosphate_HMDB0001548	0.447246401
## myo.Inositol_HMDB0000211	-0.065549426
## D.Ribose.5.phosphate_HMDB0001548.1	0.527513206
## Heptadecanoic.acid_HMDB0002259	0.420782964
## Octadecanol_HMDB0002350	0.720675079
## Glutathione_HMDB0000125	-0.380935794
## Linoleic.acid_HMDB0000673	0.181897360
## Oleic.acid_HMDB0000207	-0.025886185
## Elaidic.acid_HMDB0000573	-0.025747961
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.508077558
## Stearic.acid_HMDB0000827	0.428044965
## L.Tryptophan_HMDB0000929	0.370385427
## Fructose.1.phosphate_HMDB0001076	0.500826180
## Mannose.6.phosphate_HMDB0001078	-0.053765555
## Arachidonic.acid_HMDB0001043	-0.143050096
## Glucose.6.phosphate_HMDB0001401	0.718258870
## X6.Phosphogluconic.acid_HMDB0001316	0.747771600
## Inositol.phosphate_HMDB0002985	0.442557034
## Uridine_HMDB0000296	0.324193320

## Stigmasterol_HMDB0000937	0.325293529
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.187930003
## Sucrose_HMDB0000258	-0.340212743
## MG.18.0e.0.0.0.0._HMDB0011143	0.529014815
## Trehalose_HMDB0000975	-0.364206672
## D.Maltose_HMDB0000163	-0.359542397
## Lactitol_HMDB0040937	-0.041267521
## Xanthylic.acid_HMDB0001554	-0.155110880
## Adenosine.monophosphate_HMDB0000045	0.684723743
## Cholesterol_HMDB0000067	0.163220405
## Lathosterol_HMDB0001170	0.093716653
## X7b.Hydroxycholesterol_.HMDB0006119	0.243081879
## Fumaric.acid_HMDB0000134	
## Dimethylglycine_HMDB0000092	-0.337916978
## Glyoxylic.acid_HMDB0000119	-0.341039235
## Pyruvic.acid_HMDB0000243	0.841241867
## L.Lactic.acid_HMDB0000190	0.872313921
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.794761295
## Glycolic.acid_HMDB0000115	0.197161425
## Caproic.acid_HMDB0000535	-0.229113873
## L.Alanine_HMDB0000161	0.794240355
## Alpha.ketoisovaleric.acid_HMDB0000019	0.687046835
## Glycine_HMDB0000123	0.853813553
## Oxalic.acid_HMDB0002329	-0.029098200
## Hydroxylamine_HMDB0003338	0.439792109
## X2.Hydroxybutyric.acid_HMDB0000008	0.661525707
## Acetoacetic.acid_HMDB0000060	0.386455249
## Hydroxypropionic.acid_HMDB0000700	0.765243071
## Pyruvic.acid_HMDB0000243.1	0.694446519
## X3.Hydroxybutyric.acid_HMDB0000357	0.661566085
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.714480118
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.334402060
## D.Alpha.aminobutyric.acid_HMDB0000650	0.705681750
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.500200188
## Beta.Alanine_HMDB0000056	0.638477418
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.722090730
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.749958187
## Malonic.acid_HMDB0000691	0.597117921
## X3.Aminoisobutanoic.acid_HMDB0003911	0.571974909
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.844141720
## Ketoleucine_HMDB0000695	0.558983007
## L.Valine_HMDB0000883	0.801910261
## ITSD_Valine	0.800884922
## Urea_HMDB0000294	0.910211392
## Benzoic.acid_HMDB0001870	0.113755243
## Caprylic.acid_HMDB0000482	-0.033634893
## Glycerol_HMDB0000131	0.768654020
## Ethanolamine_HMDB0000149	0.759627206
## L.Leucine_HMDB0000687	0.782709814
## Acetyl glycine_HMDB0000532	0.461643696
## L.Isoleucine_HMDB0000172	0.815938578
## Nicotinic.acid_HMDB0001488	0.072712861
## Maleic.acid_HMDB0000176	0.402485063
## L.Proline_HMDB0000162	0.756825945

## Phenylacetic.acid_HMDB0000209	0.122044952
## Succinic.acid_HMDB0000254	0.846651778
## Glycine_HMDB0000123.1	0.781913812
## Methylsuccinic.acid_HMDB0001844	0.251756172
## Glyceric.acid_HMDB0000139	0.094172363
## Fumaric.acid_HMDB0000134	1.000000000
## Uracil_HMDB0000300	0.812501034
## Pelargonic.acid_HMDB0000847	-0.178001104
## L.Serine_HMDB0000187	0.703881547
## L.Threonine_HMDB0000167	0.837251235
## Mesaconic.acid_HMDB0000749	0.429670528
## Glutaric.acid_HMDB0000661	0.347341753
## Thymine_HMDB0000262	0.592312760
## Beta.Alanine_HMDB0000056.1	0.643432936
## L.Homoserine_HMDB0000719	0.080733419
## Capric.acid_HMDB0000511	0.054692973
## Citramalic.acid_HMDB0000426	0.517902298
## Malic.acid_HMDB0000744	0.341379880
## Niacinamide_HMDB0001406	0.869872406
## Adipic.acid_HMDB0000448	0.580887933
## D.Threitol_HMDB0004136	0.566175316
## Dihydrouracil_HMDB0000076	0.739249732
## Erythritol_HMDB0002994	0.889789384
## N.Acetylserine_HMDB0002931	0.757956769
## L.Aspartic.acid_HMDB0000191	0.741995934
## L.Methionine_HMDB0000696	0.547451369
## X4.Hydroxyproline_HMDB0000725	0.892433582
## Pyroglutamic.acid_HMDB0000267	0.805611503
## Cytosine_HMDB0000630	0.193793376
## Gamma.Aminobutyric.acid_HMDB0000112	0.573581351
## Threonic.acid_HMDB0000943	0.308788230
## L.Cysteine_HMDB0000574	0.385527489
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.093852435
## Creatinine_HMDB0000562	0.384459306
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.177220431
## Oxoglutaric.acid_HMDB0000208	0.538970028
## Phenylpyruvic.acid_HMDB0000205	-0.148358413
## Pimelic.acid_HMDB0000857	0.430843428
## Phenyllactic.acid_HMDB0000779	0.006434378
## Phosphoenolpyruvic.acid_HMDB0000263	-0.490609035
## Ornithine_HMDB0000214	0.241226490
## Hypotaurine_HMDB0000965	0.717407941
## Triethanolamine_HMDB0032538	0.709934547
## X2.Aminobenzoic.acid_HMDB0001123	0.619755332
## L.Glutamic.acid_HMDB0000148	0.557978046
## X4.Hydroxybenzoic.acid_HMDB0000500	0.768308951
## X5.Aminopentanoic.acid_HMDB0003355	0.554658576
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.032033858
## L.Phenylalanine_HMDB0000159	0.614258155
## Dodecanoic.acid_HMDB0000638	0.622259242
## Lyxose_HMDB0003402_1	-0.238444679
## D.Xylose_HMDB0000098	-0.373320619
## Lyxose_HMDB0003402_2	-0.285790361
## D.Arabinose_HMDB0029942	-0.353890160

## L.Asparagine_HMDB0000168	0.067215084
## D.Ribulose_HMDB0000621	-0.403235078
## D.Ribose_HMDB0000283	-0.362597946
## D.Xylulose_HMDB0001644	-0.392090494
## X3.Sulfinioalanine_HMDB0000996	-0.137382173
## Suberic.acid_HMDB0000893	0.639134407
## L.Lysine_HMDB0000182	0.011177631
## Levoglucosan_HMDB0000640	-0.320131091
## D.Arabitol_HMDB0000568	0.545401094
## Ribitol_HMDB0000508	0.239508593
## cis.Aconitic.acid_HMDB0000072	-0.174507342
## Quinolinic.acid_HMDB0000232	0.429642432
## Putrescine_HMDB0001414	0.421560961
## Glycerol.3.phosphate_HMDB0000126	-0.447259818
## Vanillic.acid_HMDB0000484	0.755868805
## L.Glutamine_HMDB0000641	-0.196548865
## X2.Phosphoglyceric.acid_HMDB0000362	0.560705905
## Azelaic.acid_HMDB0000784	0.094520279
## L.Dihydroorotic.acid_HMDB0003349	-0.321522344
## O.Phosphoethanolamine_HMDB0000224	0.411189595
## X3.Phosphoglyceric.acid_HMDB0000807	0.593059419
## Isocitric.acid_HMDB0000193	0.544479524
## Hypoxanthine_HMDB0000157	-0.581699637
## Citric.acid_HMDB0000094	0.159861551
## L.Arginine_HMDB0000517	-0.324250637
## Ornithine_HMDB0000214.1	0.561564401
## Dopamine_HMDB0000073	0.542960800
## Myristic.acid_HMDB0000806	0.695951869
## X1.5.Anhydrosorbitol_HMDB0002712	0.529315791
## D.Tagatose_HMDB0003418	-0.328155401
## Psicose_1	-0.142856120
## Sebacic.acid_HMDB0000792	0.872608209
## D.Fructose_HMDB0000660	-0.210226743
## Gluconolactone_HMDB0000150	-0.254093469
## L.Sorbose_HMDB0001266	-0.229789398
## D.Mannose_HMDB0000169	0.602792342
## Hydroxyphenyllactic.acid_HMDB0000755	0.779259184
## D.Glucose_HMDB0000122	0.547361806
## N.Acetylglutamine_HMDB0006029	0.605310703
## L.Lysine_HMDB0000182.1	0.462345799
## D.Mannose_HMDB0000169.1	0.517508127
## Tyramine_HMDB0000306	0.441898229
## L.Histidine_HMDB0000177	0.436580232
## D.Glucose_HMDB0000122.1	0.527181234
## X1.Hexadecanol_HMDB0003424	0.105536942
## L.Tyrosine_HMDB0000158	0.372267818
## Mannitol_HMDB0000765	0.782073959
## Sorbitol_HMDB0000247	-0.323262178
## ITSD_Sorbitol	0.767820462
## Galacturonic.acid_HMDB0002545	0.605813386
## Pantothenic.acid_HMDB0000210	0.434915184
## Palmitoleic.acid_HMDB0003229	0.398730431
## Xanthine_HMDB0000292	-0.080444094
## Gluconic.acid_HMDB0000625	-0.058365195

## Palmitic.acid_HMDB0000220	0.610081828
## Glucaric.acid_HMDB0000663	0.580963160
## N.Acetylmannosamine_HMDB0001129	0.443760701
## N.Acetyl.D.glucosamine_HMDB0000215	0.715043308
## D.Ribulose.5.phosphate_HMDB0000618	-0.356026093
## Uric.acid_HMDB0000289	-0.069762133
## D.Ribose.5.phosphate_HMDB0001548	-0.414305377
## myo.Inositol_HMDB0000211	0.708895474
## D.Ribose.5.phosphate_HMDB0001548.1	-0.479078554
## Heptadecanoic.acid_HMDB0002259	0.270925908
## Octadecanol_HMDB0002350	0.513213507
## Glutathione_HMDB0000125	-0.056489145
## Linoleic.acid_HMDB0000673	0.283244757
## Oleic.acid_HMDB0000207	0.267909248
## Elaidic.acid_HMDB0000573	0.395675979
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.322136941
## Stearic.acid_HMDB0000827	0.533070841
## L.Tryptophan_HMDB0000929	0.566231295
## Fructose.1.phosphate_HMDB0001076	-0.126142622
## Mannose.6.phosphate_HMDB0001078	-0.432785344
## Arachidonic.acid_HMDB0001043	-0.019647422
## Glucose.6.phosphate_HMDB0001401	-0.054105615
## X6.Phosphogluconic.acid_HMDB0001316	0.198619489
## Inositol.phosphate_HMDB0002985	0.072957846
## Uridine_HMDB0000296	0.549662078
## Stigmasterol_HMDB0000937	0.815642502
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.189521961
## Sucrose_HMDB0000258	0.328234680
## MG.18.Oe.0.0.0.0._HMDB0011143	0.501021077
## Trehalose_HMDB0000975	-0.164687763
## D.Maltose_HMDB0000163	-0.156480973
## Lactitol_HMDB00040937	0.311769455
## Xanthylic.acid_HMDB0001554	-0.783626494
## Adenosine.monophosphate_HMDB0000045	-0.192424151
## Cholesterol_HMDB0000067	0.203394253
## Lathosterol_HMDB0001170	0.232208805
## X7b.Hydroxycholesterol_.HMDB0006119	0.004773762
##	Uracil_HMDB0000300
## Dimethylglycine_HMDB0000092	-0.182117240
## Glyoxylic.acid_HMDB0000119	-0.181361030
## Pyruvic.acid_HMDB0000243	0.660338712
## L.Lactic.acid_HMDB0000190	0.823674381
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.689268215
## Glycolic.acid_HMDB0000115	0.087230988
## Caproic.acid_HMDB0000535	-0.035799356
## L.Alanine_HMDB0000161	0.774142171
## Alpha.ketoisovaleric.acid_HMDB0000019	0.838531259
## Glycine_HMDB0000123	0.721299931
## Oxalic.acid_HMDB0002329	-0.151294845
## Hydroxylamine_HMDB0003338	0.600008089
## X2.Hydroxybutyric.acid_HMDB0000008	0.534797832
## Acetoacetic.acid_HMDB0000060	0.372088650
## Hydroxypropionic.acid_HMDB0000700	0.624124065
## Pyruvic.acid_HMDB0000243.1	0.798443375

## X3.Hydroxybutyric.acid_HMDB0000357	0.508134104
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.590561573
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.239472751
## D.Alpha.aminobutyric.acid_HMDB0000650	0.592296059
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.522767967
## Beta.Alanine_HMDB0000056	0.387108101
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.572656132
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.756691090
## Malonic.acid_HMDB0000691	0.530438655
## X3.Aminoisobutanoic.acid_HMDB0003911	0.458975645
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.675564751
## Ketoleucine_HMDB0000695	0.642807820
## L.Valine_HMDB0000883	0.739936639
## ITSD_Valine	0.633500517
## Urea_HMDB0000294	0.833595099
## Benzoic.acid_HMDB0001870	0.049596699
## Caprylic.acid_HMDB0000482	-0.002261746
## Glycerol_HMDB0000131	0.688367372
## Ethanolamine_HMDB0000149	0.771147398
## L.Leucine_HMDB0000687	0.724784377
## Acetyl glycine_HMDB0000532	0.264260315
## L.Isoleucine_HMDB0000172	0.781481694
## Nicotinic.acid_HMDB0001488	0.230983789
## Maleic.acid_HMDB0000176	0.343884833
## L.Proline_HMDB0000162	0.806637441
## Phenylacetic.acid_HMDB0000209	0.169700482
## Succinic.acid_HMDB0000254	0.798475058
## Glycine_HMDB0000123.1	0.789323348
## Methylsuccinic.acid_HMDB0001844	0.023665891
## Glyceric.acid_HMDB0000139	0.163585548
## Fumaric.acid_HMDB0000134	0.812501034
## Uracil_HMDB0000300	1.000000000
## Pelargonic.acid_HMDB0000847	-0.143964423
## L.Serine_HMDB0000187	0.817893719
## L.Threonine_HMDB0000167	0.838361954
## Mesaconic.acid_HMDB0000749	0.252979587
## Glutaric.acid_HMDB0000661	0.535987752
## Thymine_HMDB0000262	0.751577137
## Beta.Alanine_HMDB0000056.1	0.554049599
## L.Homoserine_HMDB0000719	-0.101416234
## Capric.acid_HMDB0000511	-0.122299767
## Citramalic.acid_HMDB0000426	0.556823807
## Malic.acid_HMDB0000744	0.408933165
## Niacinamide_HMDB0001406	0.755919773
## Adipic.acid_HMDB0000448	0.696773626
## D.Threitol_HMDB0004136	0.576531787
## Dihydrouracil_HMDB0000076	0.759454087
## Erythritol_HMDB0002994	0.653378036
## N.Acetylserine_HMDB0002931	0.871284619
## L.Aspartic.acid_HMDB0000191	0.799637553
## L.Methionine_HMDB0000696	0.485500477
## X4.Hydroxyproline_HMDB0000725	0.831809429
## Pyroglutamic.acid_HMDB0000267	0.778090026
## Cytosine_HMDB0000630	0.090209187

## Gamma.Aminobutyric.acid_HMDB0000112	0.549950672
## Threonic.acid_HMDB0000943	0.253411225
## L.Cysteine_HMDB0000574	0.338593297
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.188330378
## Creatinine_HMDB0000562	0.252551156
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.142250213
## Oxoglutaric.acid_HMDB0000208	0.449659296
## Phenylpyruvic.acid_HMDB0000205	-0.073512924
## Pimelic.acid_HMDB0000857	0.432844686
## Phenyllactic.acid_HMDB0000779	0.050006434
## Phosphoenolpyruvic.acid_HMDB0000263	-0.355025478
## Ornithine_HMDB0000214	0.286219680
## Hypotaurine_HMDB0000965	0.722457515
## Triethanolamine_HMDB0032538	0.765785391
## X2.Aminobenzoic.acid_HMDB0001123	0.576863265
## L.Glutamic.acid_HMDB0000148	0.472030639
## X4.Hydroxybenzoic.acid_HMDB0000500	0.717335550
## X5.Aminopentanoic.acid_HMDB0003355	0.590204095
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.152161377
## L.Phenylalanine_HMDB0000159	0.532831817
## Dodecanoic.acid_HMDB0000638	0.320975772
## Lyxose_HMDB0003402_1	-0.178830357
## D.Xylose_HMDB0000098	-0.288023907
## Lyxose_HMDB0003402_2	-0.201032098
## D.Arabinose_HMDB0029942	-0.271018841
## L.Asparagine_HMDB0000168	0.050050225
## D.Ribulose_HMDB0000621	-0.247904039
## D.Ribose_HMDB0000283	-0.278450253
## D.Xylulose_HMDB0001644	-0.262374662
## X3.Sulfinoalanine_HMDB0000996	-0.166714465
## Suberic.acid_HMDB0000893	0.639281520
## L.Lysine_HMDB0000182	0.021390618
## Levoglucosan_HMDB0000640	-0.251955755
## D.Arabitol_HMDB0000568	0.278872297
## Ribitol_HMDB0000508	0.355241483
## cis.Aconitic.acid_HMDB0000072	-0.126139349
## Quinolinic.acid_HMDB0000232	0.478610197
## Putrescine_HMDB0001414	0.598188898
## Glycerol.3.phosphate_HMDB0000126	-0.403114384
## Vanillic.acid_HMDB0000484	0.654853571
## L.Glutamine_HMDB0000641	-0.121700988
## X2.Phosphoglyceric.acid_HMDB0000362	0.671330393
## Azelaic.acid_HMDB0000784	0.033498248
## L.Dihydroorotic.acid_HMDB0003349	-0.207264025
## O.Phosphoethanolamine_HMDB0000224	0.207497994
## X3.Phosphoglyceric.acid_HMDB0000807	0.680881853
## Isocitric.acid_HMDB0000193	0.451757156
## Hypoxanthine_HMDB0000157	-0.577722105
## Citric.acid_HMDB0000094	0.371160819
## L.Arginine_HMDB0000517	-0.167117559
## Ornithine_HMDB0000214.1	0.568205182
## Dopamine_HMDB0000073	0.566541088
## Myristic.acid_HMDB0000806	0.498063998
## X1.5.Anhydrosorbitol_HMDB0002712	0.306511990

## D.Tagatose_HMDB0003418	-0.244978967
## Psicose_1	-0.046285808
## Sebacic.acid_HMDB0000792	0.692170985
## D.Fructose_HMDB0000660	-0.096570969
## Gluconolactone_HMDB0000150	-0.094914112
## L.Sorbose_HMDB0001266	-0.121426381
## D.Mannose_HMDB0000169	0.434303808
## Hydroxyphenyllactic.acid_HMDB0000755	0.625008947
## D.Glucose_HMDB0000122	0.393930433
## N.Acetylglutamine_HMDB0006029	0.412066640
## L.Lysine_HMDB0000182.1	0.396895396
## D.Mannose_HMDB0000169.1	0.378352296
## Tyramine_HMDB0000306	0.382968795
## L.Histidine_HMDB0000177	0.350479679
## D.Glucose_HMDB0000122.1	0.326474700
## X1.Hexadecanol_HMDB0003424	-0.026534765
## L.Tyrosine_HMDB0000158	0.356681889
## Mannitol_HMDB0000765	0.661331375
## Sorbitol_HMDB0000247	0.076847248
## ITSD_Sorbitol	0.515687584
## Galacturonic.acid_HMDB0002545	0.483184348
## Pantothenic.acid_HMDB0000210	0.254960931
## Palmitoleic.acid_HMDB0003229	0.118166930
## Xanthine_HMDB0000292	0.164620548
## Gluconic.acid_HMDB0000625	0.238692310
## Palmitic.acid_HMDB0000220	0.345823656
## Glucaric.acid_HMDB0000663	0.526216553
## N.Acetylmannosamine_HMDB0001129	0.381314578
## N.Acetyl.D.glucosamine_HMDB0000215	0.617260218
## D.Ribulose.5.phosphate_HMDB0000618	-0.313779146
## Uric.acid_HMDB0000289	-0.100097328
## D.Ribose.5.phosphate_HMDB0001548	-0.434547603
## myo.Inositol_HMDB0000211	0.576393904
## D.Ribose.5.phosphate_HMDB0001548.1	-0.433435057
## Heptadecanoic.acid_HMDB0002259	0.481349472
## Octadecanol_HMDB0002350	0.373027430
## Glutathione_HMDB0000125	-0.055204412
## Linoleic.acid_HMDB0000673	0.023178539
## Oleic.acid_HMDB0000207	-0.005899176
## Elaidic.acid_HMDB0000573	0.075619047
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.196346235
## Stearic.acid_HMDB0000827	0.304023480
## L.Tryptophan_HMDB0000929	0.305180905
## Fructose.1.phosphate_HMDB0001076	-0.049389266
## Mannose.6.phosphate_HMDB0001078	-0.363135324
## Arachidonic.acid_HMDB0001043	-0.329161623
## Glucose.6.phosphate_HMDB0001401	-0.048072245
## X6.Phosphogluconic.acid_HMDB0001316	0.085728923
## Inositol.phosphate_HMDB0002985	-0.156110283
## Uridine_HMDB0000296	0.543444336
## Stigmasterol_HMDB0000937	0.680998005
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.118616771
## Sucrose_HMDB0000258	0.202415558
## MG.18.0e.0.0.0.0._HMDB0011143	0.258680312

## Trehalose_HMDB0000975	-0.217900122
## D.Maltose_HMDB0000163	-0.209982097
## Lactitol_HMDB0040937	0.137717714
## Xanthylic.acid_HMDB0001554	-0.607906309
## Adenosine.monophosphate_HMDB0000045	-0.135269221
## Cholesterol_HMDB0000067	-0.076240610
## Lathosterol_HMDB0001170	-0.073203074
## X7b.Hydroxycholesterol_.HMDB0006119	0.285370538
## Pelargonic.acid_HMDB0000847	
## Dimethylglycine_HMDB0000092	0.907928006
## Glyoxylic.acid_HMDB0000119	0.905160960
## Pyruvic.acid_HMDB0000243	-0.232899643
## L.Lactic.acid_HMDB0000190	-0.511784264
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.125477690
## Glycolic.acid_HMDB0000115	0.528404908
## Caproic.acid_HMDB0000535	0.873308504
## L.Alanine_HMDB0000161	-0.550345803
## Alpha.ketoisovaleric.acid_HMDB0000019	0.074412365
## Glycine_HMDB0000123	-0.424752580
## Oxalic.acid_HMDB0002329	0.522422674
## Hydroxylamine_HMDB0003338	-0.104247724
## X2.Hydroxybutyric.acid_HMDB0000008	0.428979225
## Acetoacetic.acid_HMDB0000060	0.343195560
## Hydroxypropionic.acid_HMDB0000700	-0.344139656
## Pyruvic.acid_HMDB0000243.1	-0.115854724
## X3.Hydroxybutyric.acid_HMDB0000357	0.349392063
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.335973815
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.613755529
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.539216289
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.414958899
## Beta.Alanine_HMDB0000056	-0.624486965
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.080598201
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.030935981
## Malonic.acid_HMDB0000691	-0.206206136
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.780550375
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.306498385
## Ketoleucine_HMDB0000695	0.539973230
## L.Valine_HMDB0000883	-0.514794680
## ITSD_Valine	-0.590316879
## Urea_HMDB0000294	-0.239442305
## Benzoic.acid_HMDB0001870	0.476955794
## Caprylic.acid_HMDB0000482	0.961987069
## Glycerol_HMDB0000131	-0.666327525
## Ethanolamine_HMDB0000149	-0.617816717
## L.Leucine_HMDB0000687	-0.571615531
## Acetyl glycine_HMDB0000532	0.444611070
## L.Isoleucine_HMDB0000172	-0.589142714
## Nicotinic.acid_HMDB0001488	0.397134612
## Maleic.acid_HMDB0000176	0.623292724
## L.Proline_HMDB0000162	-0.297644159
## Phenylacetic.acid_HMDB0000209	0.785861234
## Succinic.acid_HMDB0000254	-0.298236738
## Glycine_HMDB0000123.1	-0.583095662
## Methylsuccinic.acid_HMDB0001844	0.112684721

## Glyceric.acid_HMDB0000139	0.571260926
## Fumaric.acid_HMDB0000134	-0.178001104
## Uracil_HMDB0000300	-0.143964423
## Pelargonic.acid_HMDB0000847	1.000000000
## L.Serine_HMDB0000187	-0.522836707
## L.Threonine_HMDB0000167	-0.509904087
## Mesaconic.acid_HMDB0000749	0.385129143
## Glutaric.acid_HMDB0000661	0.417991280
## Thymine_HMDB0000262	-0.368703742
## Beta.Alanine_HMDB0000056.1	-0.750218777
## L.Homoserine_HMDB0000719	0.343194541
## Capric.acid_HMDB0000511	0.484736627
## Citramalic.acid_HMDB0000426	-0.302999484
## Malic.acid_HMDB0000744	0.620936050
## Niacinamide_HMDB0001406	-0.418047973
## Adipic.acid_HMDB0000448	-0.438143136
## D.Threitol_HMDB0004136	0.204929435
## Dihydrouracil_HMDB0000076	0.008627611
## Erythritol_HMDB0002994	0.079687872
## N.Acetylserine_HMDB0002931	-0.422381625
## L.Aspartic.acid_HMDB0000191	-0.510326429
## L.Methionine_HMDB0000696	-0.838333018
## X4.Hydroxyproline_HMDB0000725	-0.373744835
## Pyroglutamic.acid_HMDB0000267	-0.404693012
## Cytosine_HMDB0000630	-0.076914608
## Gamma.Aminobutyric.acid_HMDB0000112	-0.102807388
## Threonic.acid_HMDB0000943	0.736454269
## L.Cysteine_HMDB0000574	0.616785463
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.851567687
## Creatinine_HMDB0000562	-0.804507257
## X3.Hydroxyglutaric.acid_HMDB0000428	0.805865304
## Oxoglutaric.acid_HMDB0000208	0.277142614
## Phenylpyruvic.acid_HMDB0000205	0.534567033
## Pimelic.acid_HMDB0000857	-0.414859874
## Phenyllactic.acid_HMDB0000779	0.751296558
## Phosphoenolpyruvic.acid_HMDB0000263	0.797430455
## Ornithine_HMDB0000214	-0.715808980
## Hypotaurine_HMDB0000965	-0.480863685
## Triethanolamine_HMDB0032538	-0.545260431
## X2.Aminobenzoic.acid_HMDB0001123	-0.829809401
## L.Glutamic.acid_HMDB0000148	-0.659112072
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.665877445
## X5.Aminopentanoic.acid_HMDB0003355	0.328915279
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.554083492
## L.Phenylalanine_HMDB0000159	-0.806902348
## Dodecanoic.acid_HMDB0000638	-0.253153518
## Lyxose_HMDB0003402_1	0.912760945
## D.Xylose_HMDB0000098	0.256276102
## Lyxose_HMDB0003402_2	0.088918722
## D.Arabinose_HMDB0029942	0.869481615
## L.Asparagine_HMDB0000168	-0.690652703
## D.Ribulose_HMDB0000621	0.739077100
## D.Ribose_HMDB0000283	0.851486896
## D.Xylulose_HMDB0001644	0.728971509

## X3.Sulfinioalanine_HMDB0000996	-0.431361823
## Suberic.acid_HMDB0000893	-0.218073961
## L.Lysine_HMDB0000182	-0.678200927
## Levoglucosan_HMDB0000640	0.072945337
## D.Arabit01_HMDB0000568	-0.033111810
## Ribitol_HMDB0000508	0.273392371
## cis.Aconitic.acid_HMDB0000072	0.102944217
## Quinolinic.acid_HMDB0000232	0.349827246
## Putrescine_HMDB0001414	0.175731033
## Glycerol.3.phosphate_HMDB0000126	0.696254520
## Vanillic.acid_HMDB0000484	-0.216436454
## L.Glutamine_HMDB0000641	-0.511374364
## X2.Phosphoglyceric.acid_HMDB0000362	0.318674631
## Azelaic.acid_HMDB0000784	0.224443490
## L.Dihydroorotic.acid_HMDB0003349	0.887035348
## O.Phosphoethanolamine_HMDB0000224	-0.481322308
## X3.Phosphoglyceric.acid_HMDB0000807	0.306017754
## Isocitric.acid_HMDB0000193	0.145336803
## Hypoxanthine_HMDB0000157	-0.353627281
## Citric.acid_HMDB0000094	0.700571097
## L.Arginine_HMDB0000517	0.309419952
## Ornithine_HMDB0000214.1	-0.803985509
## Dopamine_HMDB0000073	-0.800039752
## Myristic.acid_HMDB0000806	-0.622224905
## X1.5.Anhydrosorbitol_HMDB0002712	0.558857396
## D.Tagatose_HMDB0003418	0.928513211
## Psicose_1	0.007219486
## Sebacic.acid_HMDB0000792	-0.251141731
## D.Fructose_HMDB0000660	0.807601538
## Gluconolactone_HMDB0000150	0.794689296
## L.Sorbose_HMDB0001266	0.800841867
## D.Mannose_HMDB0000169	-0.758345143
## Hydroxyphenyllactic.acid_HMDB0000755	0.097650236
## D.Glucose_HMDB0000122	-0.718777698
## N.Acetylglutamine_HMDB0006029	-0.723632781
## L.Lysine_HMDB0000182.1	-0.851615048
## D.Mannose_HMDB0000169.1	-0.842415697
## Tyramine_HMDB0000306	-0.853058889
## L.Histidine_HMDB0000177	-0.870351240
## D.Glucose_HMDB0000122.1	-0.708674699
## X1.Hexadecanol_HMDB0003424	0.399991137
## L.Tyrosine_HMDB0000158	-0.801182970
## Mannitol_HMDB0000765	-0.457410798
## Sorbitol_HMDB0000247	0.069029814
## ITSD_Sorbitol	-0.452565540
## Galacturonic.acid_HMDB0002545	0.261462737
## Pantothenic.acid_HMDB0000210	0.363546952
## Palmitoleic.acid_HMDB0003229	-0.511190325
## Xanthine_HMDB0000292	-0.517440405
## Gluconic.acid_HMDB0000625	0.618781359
## Palmitic.acid_HMDB0000220	-0.316048134
## Glucaric.acid_HMDB0000663	-0.552283994
## N.Acetylmannosamine_HMDB0001129	-0.356476431
## N.Acetyl.D.glucosamine_HMDB0000215	-0.621685078

## D.Ribulose.5.phosphate_HMDB0000618	0.895343392
## Uric.acid_HMDB0000289	-0.730455708
## D.Ribose.5.phosphate_HMDB0001548	0.854124841
## myo.Inositol_HMDB0000211	-0.097491441
## D.Ribose.5.phosphate_HMDB0001548.1	0.866927775
## Heptadecanoic.acid_HMDB0002259	0.538483595
## Octadecanol_HMDB0002350	0.542256384
## Glutathione_HMDB0000125	0.111817912
## Linoleic.acid_HMDB0000673	-0.285543465
## Oleic.acid_HMDB0000207	-0.472506009
## Elaidic.acid_HMDB0000573	-0.418521213
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.843765069
## Stearic.acid_HMDB0000827	0.135050375
## L.Tryptophan_HMDB0000929	0.093997511
## Fructose.1.phosphate_HMDB0001076	0.896163061
## Mannose.6.phosphate_HMDB0001078	0.437101599
## Arachidonic.acid_HMDB0001043	-0.442059467
## Glucose.6.phosphate_HMDB0001401	0.887826671
## X6.Phosphogluconic.acid_HMDB0001316	0.464450250
## Inositol.phosphate_HMDB0002985	0.332046022
## Uridine_HMDB0000296	0.102312417
## Stigmasterol_HMDB0000937	-0.042307417
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.256639362
## Sucrose_HMDB0000258	-0.468502914
## MG.18.0e.0.0.0.0._HMDB0011143	0.242162134
## Trehalose_HMDB0000975	0.155996262
## D.Maltose_HMDB0000163	0.155666578
## Lactitol_HMDB00040937	0.346955853
## Xanthylic.acid_HMDB0001554	0.407882977
## Adenosine.monophosphate_HMDB0000045	0.896876142
## Cholesterol_HMDB0000067	0.128358503
## Lathosterol_HMDB0001170	-0.176314324
## X7b.Hydroxycholesterol_.HMDB0006119	0.606479347
##	L.Serine_HMDB0000187
## Dimethylglycine_HMDB0000092	-0.579024893
## Glyoxylic.acid_HMDB0000119	-0.575773375
## Pyruvic.acid_HMDB0000243	0.582369008
## L.Lactic.acid_HMDB0000190	0.926374167
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.418309314
## Glycolic.acid_HMDB0000115	-0.229939354
## Caproic.acid_HMDB0000535	-0.415884678
## L.Alanine_HMDB0000161	0.914021282
## Alpha.ketoisovaleric.acid_HMDB0000019	0.577357794
## Glycine_HMDB0000123	0.764362304
## Oxalic.acid_HMDB0002329	-0.428341881
## Hydroxylamine_HMDB0003338	0.411135631
## X2.Hydroxybutyric.acid_HMDB0000008	0.217497246
## Acetoacetic.acid_HMDB0000060	0.034512419
## Hydroxypropionic.acid_HMDB0000700	0.698574667
## Pyruvic.acid_HMDB0000243.1	0.505865843
## X3.Hydroxybutyric.acid_HMDB0000357	0.174486386
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.278806338
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.158345577
## D.Alpha.aminobutyric.acid_HMDB0000650	0.743354302

## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.225357369
## Beta.Alanine_HMDB0000056	0.649296070
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.483292116
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.488456591
## Malonic.acid_HMDB0000691	0.520165624
## X3.Aminoisobutanoic.acid_HMDB0003911	0.735491796
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.710920096
## Ketoleucine_HMDB0000695	0.245878394
## L.Valine_HMDB0000883	0.868408353
## ITSD_Valine	0.769288641
## Urea_HMDB0000294	0.721179534
## Benzoic.acid_HMDB0001870	0.061678090
## Caprylic.acid_HMDB0000482	-0.399393827
## Glycerol_HMDB0000131	0.928513571
## Ethanolamine_HMDB0000149	0.922774909
## L.Leucine_HMDB0000687	0.888915566
## Acetylglycine_HMDB0000532	0.003852384
## L.Isoleucine_HMDB0000172	0.922252765
## Nicotinic.acid_HMDB0001488	0.003677504
## Maleic.acid_HMDB0000176	-0.111044594
## L.Proline_HMDB0000162	0.800360204
## Phenylacetic.acid_HMDB0000209	-0.305778692
## Succinic.acid_HMDB0000254	0.782759059
## Glycine_HMDB0000123.1	0.926499809
## Methylsuccinic.acid_HMDB0001844	-0.045075877
## Glyceric.acid_HMDB0000139	-0.187071117
## Fumaric.acid_HMDB0000134	0.703881547
## Uracil_HMDB0000300	0.817893719
## Pelargonic.acid_HMDB0000847	-0.522836707
## L.Serine_HMDB0000187	1.000000000
## L.Threonine_HMDB0000167	0.944205030
## Mesaconic.acid_HMDB0000749	0.036656005
## Glutaric.acid_HMDB0000661	0.313169628
## Thymine_HMDB0000262	0.618926672
## Beta.Alanine_HMDB0000056.1	0.790582616
## L.Homoserine_HMDB0000719	-0.126144175
## Capric.acid_HMDB0000511	-0.253575540
## Citramalic.acid_HMDB0000426	0.597161039
## Malic.acid_HMDB0000744	0.009059572
## Niacinamide_HMDB0001406	0.794073274
## Adipic.acid_HMDB0000448	0.857795870
## D.Threitol_HMDB0004136	0.338460189
## Dihydrouracil_HMDB0000076	0.616687953
## Erythritol_HMDB0002994	0.437970349
## N.Acetylserine_HMDB0002931	0.955282257
## L.Aspartic.acid_HMDB0000191	0.975646969
## L.Methionine_HMDB0000696	0.792612072
## X4.Hydroxyproline_HMDB0000725	0.908416047
## Pyroglutamic.acid_HMDB0000267	0.922893400
## Cytosine_HMDB0000630	0.070100184
## Gamma.Aminobutyric.acid_HMDB0000112	0.484426196
## Threonic.acid_HMDB0000943	-0.197969629
## L.Cysteine_HMDB0000574	-0.081856403
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.246349438

## Creatinine_HMDB0000562	0.584149987
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.481239682
## Oxoglutaric.acid_HMDB0000208	0.288561929
## Phenylpyruvic.acid_HMDB0000205	-0.173117728
## Pimelic.acid_HMDB0000857	0.586727438
## Phenyllactic.acid_HMDB0000779	-0.159044422
## Phosphoenolpyruvic.acid_HMDB0000263	-0.635264672
## Ornithine_HMDB0000214	0.648985419
## Hypotaurine_HMDB0000965	0.788002044
## Triethanolamine_HMDB0032538	0.849370100
## X2.Aminobenzoic.acid_HMDB0001123	0.832544665
## L.Glutamic.acid_HMDB0000148	0.742057396
## X4.Hydroxybenzoic.acid_HMDB0000500	0.907902930
## X5.Aminopentanoic.acid_HMDB0003355	0.218512158
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.194636823
## L.Phenylalanine_HMDB0000159	0.831534725
## Dodecanoic.acid_HMDB0000638	0.326933292
## Lyxose_HMDB0003402_1	-0.523873516
## D.Xylose_HMDB0000098	-0.400466917
## Lyxose_HMDB0003402_2	-0.266863942
## D.Arabinose_HMDB0029942	-0.632593436
## L.Asparagine_HMDB0000168	0.451773381
## D.Ribulose_HMDB0000621	-0.623711127
## D.Ribose_HMDB0000283	-0.659628830
## D.Xylulose_HMDB0001644	-0.632877049
## X3.Sulfinoalanine_HMDB0000996	0.148241676
## Suberic.acid_HMDB0000893	0.694126177
## L.Lysine_HMDB0000182	0.434816335
## Levoglucosan_HMDB0000640	-0.296954367
## D.Arabitol_HMDB0000568	0.171324829
## Ribitol_HMDB0000508	0.264247465
## cis.Aconitic.acid_HMDB0000072	-0.210862445
## Quinolinic.acid_HMDB0000232	0.295298443
## Putrescine_HMDB0001414	0.383474068
## Glycerol.3.phosphate_HMDB0000126	-0.608748223
## Vanillic.acid_HMDB0000484	0.581936564
## L.Glutamine_HMDB0000641	0.209419166
## X2.Phosphoglyceric.acid_HMDB0000362	0.375224900
## Azelaic.acid_HMDB0000784	0.062085119
## L.Dihydroorotic.acid_HMDB0003349	-0.593789196
## O.Phosphoethanolamine_HMDB0000224	0.449806101
## X3.Phosphoglyceric.acid_HMDB0000807	0.390810917
## Isocitric.acid_HMDB0000193	0.359404690
## Hypoxanthine_HMDB0000157	-0.197313952
## Citric.acid_HMDB0000094	0.011214729
## L.Arginine_HMDB0000517	-0.239702083
## Ornithine_HMDB0000214.1	0.851439899
## Dopamine_HMDB0000073	0.848665308
## Myristic.acid_HMDB0000806	0.697812809
## X1.5.Anhydrosorbitol_HMDB0002712	-0.092871309
## D.Tagatose_HMDB0003418	-0.596620020
## Psicose_1	-0.154511967
## Sebacic.acid_HMDB0000792	0.633686675
## D.Fructose_HMDB0000660	-0.492487535

## Gluconolactone_HMDB0000150	-0.475813682
## L.Sorbose_HMDB0001266	-0.510844738
## D.Mannose_HMDB0000169	0.639559482
## Hydroxyphenyllactic.acid_HMDB0000755	0.332209018
## D.Glucose_HMDB0000122	0.590083693
## N.Acetylglutamine_HMDB0006029	0.604375988
## L.Lysine_HMDB0000182.1	0.745844056
## D.Mannose_HMDB0000169.1	0.675690552
## Tyramine_HMDB0000306	0.736404553
## L.Histidine_HMDB0000177	0.714645805
## D.Glucose_HMDB0000122.1	0.558722894
## X1.Hexadecanol_HMDB0003424	-0.242635973
## L.Tyrosine_HMDB0000158	0.712101655
## Mannitol_HMDB0000765	0.694527157
## Sorbitol_HMDB0000247	0.027435007
## ITSD_Sorbitol	0.583906515
## Galacturonic.acid_HMDB0002545	0.214761357
## Pantothenic.acid_HMDB0000210	-0.066465491
## Palmitoleic.acid_HMDB0003229	0.338178512
## Xanthine_HMDB0000292	0.467612920
## Gluconic.acid_HMDB0000625	-0.140664809
## Palmitic.acid_HMDB0000220	0.362201942
## Glucaric.acid_HMDB0000663	0.718539149
## N.Acetylmannosamine_HMDB0001129	0.335765027
## N.Acetyl.D.glucosamine_HMDB0000215	0.683499174
## D.Ribulose.5.phosphate_HMDB0000618	-0.724803542
## Uric.acid_HMDB0000289	0.334684702
## D.Ribose.5.phosphate_HMDB0001548	-0.753379326
## myo.Inositol_HMDB0000211	0.546190424
## D.Ribose.5.phosphate_HMDB0001548.1	-0.780993556
## Heptadecanoic.acid_HMDB0002259	0.244307611
## Octadecanol_HMDB0002350	0.056046508
## Glutathione_HMDB0000125	0.039968122
## Linoleic.acid_HMDB0000673	0.134212342
## Oleic.acid_HMDB0000207	0.224867875
## Elaidic.acid_HMDB0000573	0.238200325
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.579764622
## Stearic.acid_HMDB0000827	0.118269867
## L.Tryptophan_HMDB0000929	0.103992656
## Fructose.1.phosphate_HMDB0001076	-0.397000672
## Mannose.6.phosphate_HMDB0001078	-0.375005051
## Arachidonic.acid_HMDB0001043	-0.038783322
## Glucose.6.phosphate_HMDB0001401	-0.385274924
## X6.Phosphogluconic.acid_HMDB0001316	-0.120393100
## Inositol.phosphate_HMDB0002985	-0.420033697
## Uridine_HMDB0000296	0.284795681
## Stigmasterol_HMDB0000937	0.454232516
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.046597874
## Sucrose_HMDB0000258	0.406441874
## MG.18.Oe.0.0.0.0._HMDB0011143	0.020327820
## Trehalose_HMDB0000975	-0.168886449
## D.Maltose_HMDB0000163	-0.162289986
## Lactitol_HMDB00040937	-0.131040714
## Xanthylic.acid_HMDB0001554	-0.617590766

## Adenosine.monophosphate_HMDB0000045	-0.504165612
## Cholesterol_HMDB0000067	-0.200101246
## Lathosterol_HMDB0001170	-0.085898093
## X7b.Hydroxycholesterol_.HMDB0006119	-0.038309315
##	L.Threonine_HMDB0000167
## Dimethylglycine_HMDB0000092	-0.559536171
## Glyoxylic.acid_HMDB0000119	-0.557941842
## Pyruvic.acid_HMDB0000243	0.689329619
## L.Lactic.acid_HMDB0000190	0.968535968
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.491999743
## Glycolic.acid_HMDB0000115	-0.142088972
## Caproic.acid_HMDB0000535	-0.439544671
## L.Alanine_HMDB0000161	0.974383539
## Alpha.ketoisovaleric.acid_HMDB0000019	0.663350804
## Glycine_HMDB0000123	0.845906134
## Oxalic.acid_HMDB0002329	-0.329033551
## Hydroxylamine_HMDB0003338	0.400624222
## X2.Hydroxybutyric.acid_HMDB0000008	0.349855490
## Acetoacetic.acid_HMDB0000060	0.076592484
## Hydroxypropionic.acid_HMDB0000700	0.716105895
## Pyruvic.acid_HMDB0000243.1	0.569562359
## X3.Hydroxybutyric.acid_HMDB0000357	0.277735161
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.391070473
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.064698951
## D.Alpha.aminobutyric.acid_HMDB0000650	0.829269246
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.327218628
## Beta.Alanine_HMDB0000056	0.707643653
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.620562192
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.631356446
## Malonic.acid_HMDB0000691	0.556744138
## X3.Aminoisobutanoic.acid_HMDB0003911	0.757196199
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.767920353
## Ketoleucine_HMDB0000695	0.325174019
## L.Valine_HMDB0000883	0.926624097
## ITSD_Valine	0.856700379
## Urea_HMDB0000294	0.871988674
## Benzoic.acid_HMDB0001870	-0.067176407
## Caprylic.acid_HMDB0000482	-0.405331701
## Glycerol_HMDB0000131	0.932743890
## Ethanolamine_HMDB0000149	0.976783355
## L.Leucine_HMDB0000687	0.919533379
## Acetylglucose_HMDB0000532	0.121576269
## L.Isoleucine_HMDB0000172	0.966943900
## Nicotinic.acid_HMDB0001488	-0.066099129
## Maleic.acid_HMDB0000176	-0.011702829
## L.Proline_HMDB0000162	0.859266686
## Phenylacetic.acid_HMDB0000209	-0.228922215
## Succinic.acid_HMDB0000254	0.837301669
## Glycine_HMDB0000123.1	0.943251251
## Methylsuccinic.acid_HMDB0001844	0.016220956
## Glyceric.acid_HMDB0000139	-0.183259802
## Fumaric.acid_HMDB0000134	0.837251235
## Uracil_HMDB0000300	0.838361954
## Pelargonic.acid_HMDB0000847	-0.509904087

## L.Serine_HMDB0000187	0.944205030
## L.Threonine_HMDB0000167	1.000000000
## Mesaconic.acid_HMDB0000749	0.145610164
## Glutaric.acid_HMDB0000661	0.352968775
## Thymine_HMDB0000262	0.656461583
## Beta.Alanine_HMDB0000056.1	0.823894858
## L.Homoserine_HMDB0000719	-0.122004568
## Capric.acid_HMDB0000511	-0.243860537
## Citramalic.acid_HMDB0000426	0.619423996
## Malic.acid_HMDB0000744	0.088714639
## Niacinamide_HMDB0001406	0.891173759
## Adipic.acid_HMDB0000448	0.851920146
## D.Threitol_HMDB0004136	0.327938517
## Dihydrouracil_HMDB0000076	0.707682828
## Erythritol_HMDB0002994	0.619044100
## N.Acetylserine_HMDB0002931	0.959665004
## L.Aspartic.acid_HMDB0000191	0.963410561
## L.Methionine_HMDB0000696	0.817159497
## X4.Hydroxyproline_HMDB0000725	0.973272089
## Pyroglutamic.acid_HMDB0000267	0.925585459
## Cytosine_HMDB0000630	0.196447859
## Gamma.Aminobutyric.acid_HMDB0000112	0.500106913
## Threonic.acid_HMDB0000943	-0.077035454
## L.Cysteine_HMDB0000574	0.054006036
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.202655726
## Creatinine_HMDB0000562	0.608801568
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.429670823
## Oxoglutaric.acid_HMDB0000208	0.261838423
## Phenylpyruvic.acid_HMDB0000205	-0.277893865
## Pimelic.acid_HMDB0000857	0.585743343
## Phenyllactic.acid_HMDB0000779	-0.198281036
## Phosphoenolpyruvic.acid_HMDB0000263	-0.624666525
## Ornithine_HMDB0000214	0.637690065
## Hypotaurine_HMDB0000965	0.885168322
## Triethanolamine_HMDB0032538	0.929237672
## X2.Aminobenzoic.acid_HMDB0001123	0.843780391
## L.Glutamic.acid_HMDB0000148	0.784598966
## X4.Hydroxybenzoic.acid_HMDB0000500	0.948848576
## X5.Aminopentanoic.acid_HMDB0003355	0.335844877
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.207161309
## L.Phenylalanine_HMDB0000159	0.867443114
## Dodecanoic.acid_HMDB0000638	0.386140210
## Lyxose_HMDB0003402_1	-0.501937829
## D.Xylose_HMDB0000098	-0.458847003
## Lyxose_HMDB0003402_2	-0.313394380
## D.Arabinose_HMDB0029942	-0.590478700
## L.Asparagine_HMDB0000168	0.444363989
## D.Ribulose_HMDB0000621	-0.626800328
## D.Ribose_HMDB0000283	-0.605291064
## D.Xylulose_HMDB0001644	-0.621453992
## X3.Sulfinioalanine_HMDB0000996	0.089972875
## Suberic.acid_HMDB0000893	0.724260968
## L.Lysine_HMDB0000182	0.402127918
## Levoglucosan_HMDB0000640	-0.343090262

## D.Arabitol_HMDB0000568	0.305442147
## Ribitol_HMDB0000508	0.181832864
## cis.Aconitic.acid_HMDB0000072	-0.255219141
## Quinolinic.acid_HMDB0000232	0.328810740
## Putrescine_HMDB0001414	0.331777631
## Glycerol.3.phosphate_HMDB0000126	-0.663891923
## Vanillic.acid_HMDB0000484	0.693089852
## L.Glutamine_HMDB0000641	0.175366132
## X2.Phosphoglyceric.acid_HMDB0000362	0.485927404
## Azelaic.acid_HMDB0000784	0.055484092
## L.Dihydroorotic.acid_HMDB0003349	-0.565569100
## O.Phosphoethanolamine_HMDB0000224	0.372846208
## X3.Phosphoglyceric.acid_HMDB0000807	0.508634232
## Isocitric.acid_HMDB0000193	0.436640412
## Hypoxanthine_HMDB0000157	-0.277757009
## Citric.acid_HMDB0000094	0.050327657
## L.Arginine_HMDB0000517	-0.265948628
## Ornithine_HMDB0000214.1	0.878387686
## Dopamine_HMDB0000073	0.868945135
## Myristic.acid_HMDB0000806	0.718784438
## X1.5.Anhydrosorbitol_HMDB0002712	0.115436768
## D.Tagatose_HMDB0003418	-0.569514731
## Psicose_1	-0.169860453
## Sebacic.acid_HMDB0000792	0.782786483
## D.Fructose_HMDB0000660	-0.459210323
## Gluconolactone_HMDB0000150	-0.472692881
## L.Sorbose_HMDB0001266	-0.476036814
## D.Mannose_HMDB0000169	0.701347794
## Hydroxyphenyllactic.acid_HMDB0000755	0.451956597
## D.Glucose_HMDB0000122	0.648832442
## N.Acetylglutamine_HMDB0006029	0.680391137
## L.Lysine_HMDB0000182.1	0.761743053
## D.Mannose_HMDB0000169.1	0.715080157
## Tyramine_HMDB0000306	0.750338899
## L.Histidine_HMDB0000177	0.727900406
## D.Glucose_HMDB0000122.1	0.614865682
## X1.Hexadecanol_HMDB0003424	-0.266412921
## L.Tyrosine_HMDB0000158	0.723872453
## Mannitol_HMDB0000765	0.788080625
## Sorbitol_HMDB0000247	-0.140702548
## ITSD_Sorbitol	0.693708492
## Galacturonic.acid_HMDB0002545	0.378496243
## Pantothenic.acid_HMDB0000210	0.100062094
## Palmitoleic.acid_HMDB0003229	0.313080329
## Xanthine_HMDB0000292	0.415421524
## Gluconic.acid_HMDB0000625	-0.115632621
## Palmitic.acid_HMDB0000220	0.372359229
## Glucaric.acid_HMDB0000663	0.762810522
## N.Acetylmannosamine_HMDB0001129	0.383968112
## N.Acetyl.D.glucosamine_HMDB0000215	0.733727736
## D.Ribulose.5.phosphate_HMDB0000618	-0.664787029
## Uric.acid_HMDB0000289	0.289713191
## D.Ribose.5.phosphate_HMDB0001548	-0.693374796
## myo.Inositol_HMDB0000211	0.588424675

## D.Ribose.5.phosphate_HMDB0001548.1	-0.742425531
## Heptadecanoic.acid_HMDB0002259	0.212719752
## Octadecanol_HMDB0002350	0.083020965
## Glutathione_HMDB0000125	0.042127687
## Linoleic.acid_HMDB0000673	0.087960123
## Oleic.acid_HMDB0000207	0.178053199
## Elaidic.acid_HMDB0000573	0.235519684
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.549772537
## Stearic.acid_HMDB0000827	0.131243125
## L.Tryptophan_HMDB0000929	0.158992075
## Fructose.1.phosphate_HMDB0001076	-0.387740426
## Mannose.6.phosphate_HMDB0001078	-0.496114749
## Arachidonic.acid_HMDB0001043	-0.088742899
## Glucose.6.phosphate_HMDB0001401	-0.358985481
## X6.Phosphogluconic.acid_HMDB0001316	-0.163989057
## Inositol.phosphate_HMDB0002985	-0.333998169
## Uridine_HMDB0000296	0.333427971
## Stigmasterol_HMDB0000937	0.513545599
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.001597020
## Sucrose_HMDB0000258	0.312743720
## MG.18.0e.0.0.0.0._HMDB0011143	0.061838810
## Trehalose_HMDB0000975	-0.196884255
## D.Maltose_HMDB0000163	-0.190518801
## Lactitol_HMDB00040937	0.054474583
## Xanthylic.acid_HMDB0001554	-0.697300374
## Adenosine.monophosphate_HMDB0000045	-0.470199414
## Cholesterol_HMDB0000067	-0.101796940
## Lathosterol_HMDB0001170	-0.052405777
## X7b.Hydroxycholesterol_.HMDB0006119	0.002237732
## Mesoconic.acid_HMDB0000749	
## Dimethylglycine_HMDB0000092	0.201938140
## Glyoxylic.acid_HMDB0000119	0.194452218
## Pyruvic.acid_HMDB0000243	0.404937537
## L.Lactic.acid_HMDB0000190	0.097798625
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.480169733
## Glycolic.acid_HMDB0000115	0.249052142
## Caproic.acid_HMDB0000535	0.116064124
## L.Alanine_HMDB0000161	0.166940287
## Alpha.ketoisovaleric.acid_HMDB0000019	0.214289541
## Glycine_HMDB0000123	0.183785605
## Oxalic.acid_HMDB0002329	0.015588243
## Hydroxylamine_HMDB0003338	-0.140365668
## X2.Hydroxybutyric.acid_HMDB0000008	0.485687982
## Acetoacetic.acid_HMDB0000060	-0.049895439
## Hydroxypropionic.acid_HMDB0000700	0.145980187
## Pyruvic.acid_HMDB0000243.1	0.120308540
## X3.Hydroxybutyric.acid_HMDB0000357	0.359686914
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.440380690
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.375060970
## D.Alpha.aminobutyric.acid_HMDB0000650	0.188114686
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.514372047
## Beta.Alanine_HMDB0000056	0.271734378
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.197596164
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.378507993

## Malonic.acid_HMDB0000691	0.239123080
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.012157502
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.287095518
## Ketoleucine_HMDB0000695	0.333819753
## L.Valine_HMDB0000883	0.210517019
## ITSD_Valine	0.213473569
## Urea_HMDB0000294	0.370592578
## Benzoic.acid_HMDB0001870	0.360638173
## Caprylic.acid_HMDB0000482	0.354806540
## Glycerol_HMDB0000131	0.013107366
## Ethanolamine_HMDB0000149	0.047936155
## L.Leucine_HMDB0000687	0.155119751
## Acetylglycine_HMDB0000532	0.457562803
## L.Isoleucine_HMDB0000172	0.120557655
## Nicotinic.acid_HMDB0001488	0.513601002
## Maleic.acid_HMDB0000176	0.262893022
## L.Proline_HMDB0000162	0.239324620
## Phenylacetic.acid_HMDB0000209	0.178090888
## Succinic.acid_HMDB0000254	0.233447731
## Glycine_HMDB0000123.1	0.026553043
## Methylsuccinic.acid_HMDB0001844	0.300896131
## Glyceric.acid_HMDB0000139	-0.021375065
## Fumaric.acid_HMDB0000134	0.429670528
## Uracil_HMDB0000300	0.252979587
## Pelargonic.acid_HMDB0000847	0.385129143
## L.Serine_HMDB0000187	0.036656005
## L.Threonine_HMDB0000167	0.145610164
## Mesaconic.acid_HMDB0000749	1.000000000
## Glutaric.acid_HMDB0000661	0.463714551
## Thymine_HMDB0000262	0.038935539
## Beta.Alanine_HMDB0000056.1	0.110018642
## L.Homoserine_HMDB0000719	0.156802254
## Capric.acid_HMDB0000511	0.261861772
## Citramalic.acid_HMDB0000426	0.199538436
## Malic.acid_HMDB0000744	0.189800148
## Niacinamide_HMDB0001406	0.425402771
## Adipic.acid_HMDB0000448	0.182978082
## D.Threitol_HMDB0004136	0.563643034
## Dihydrouracil_HMDB0000076	0.253130696
## Erythritol_HMDB0002994	0.509863243
## N.Acetylserine_HMDB0002931	0.011529466
## L.Aspartic.acid_HMDB0000191	0.157916494
## L.Methionine_HMDB0000696	0.001881382
## X4.Hydroxyproline_HMDB0000725	0.323332324
## Pyroglutamic.acid_HMDB0000267	0.287109643
## Cytosine_HMDB0000630	0.534904383
## Gamma.Aminobutyric.acid_HMDB0000112	0.443374395
## Threonic.acid_HMDB0000943	0.385279510
## L.Cysteine_HMDB0000574	0.414893476
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.380230619
## Creatinine_HMDB0000562	-0.043134342
## X3.Hydroxyglutaric.acid_HMDB0000428	0.366102844
## Oxoglutaric.acid_HMDB0000208	0.201802635
## Phenylpyruvic.acid_HMDB0000205	0.008682910

## Pimelic.acid_HMDB0000857	0.086322012
## Phenyllactic.acid_HMDB0000779	0.234413420
## Phosphoenolpyruvic.acid_HMDB0000263	0.111261376
## Ornithine_HMDB0000214	-0.098761403
## Hypotaurine_HMDB0000965	0.219497236
## Triethanolamine_HMDB0032538	0.063989753
## X2.Aminobenzoic.acid_HMDB0001123	-0.077698853
## L.Glutamic.acid_HMDB0000148	0.283123049
## X4.Hydroxybenzoic.acid_HMDB0000500	0.067991552
## X5.Aminopentanoic.acid_HMDB0003355	0.258808579
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.061829350
## L.Phenylalanine_HMDB0000159	0.037041175
## Dodecanoic.acid_HMDB0000638	0.203361527
## Lyxose_HMDB0003402_1	0.187544064
## D.Xylose_HMDB0000098	-0.100549890
## Lyxose_HMDB0003402_2	-0.129691638
## D.Arabinose_HMDB0029942	0.084958544
## L.Asparagine_HMDB0000168	-0.010888254
## D.Ribulose_HMDB0000621	-0.103879041
## D.Ribose_HMDB0000283	0.103345813
## D.Xylulose_HMDB0001644	-0.094444918
## X3.Sulfinoalanine_HMDB0000996	0.231619009
## Suberic.acid_HMDB0000893	0.283029706
## L.Lysine_HMDB0000182	-0.114792014
## Levoglucosan_HMDB0000640	-0.146067436
## D.Arabitol_HMDB0000568	0.585157935
## Ribitol_HMDB0000508	0.268675866
## cis.Aconitic.acid_HMDB0000072	-0.019988440
## Quinolinic.acid_HMDB0000232	0.611564347
## Putrescine_HMDB0001414	0.400388130
## Glycerol.3.phosphate_HMDB0000126	0.364910825
## Vanillic.acid_HMDB0000484	0.207862112
## L.Glutamine_HMDB0000641	-0.129201281
## X2.Phosphoglyceric.acid_HMDB0000362	0.379527288
## Azelaic.acid_HMDB0000784	0.553777243
## L.Dihydroorotic.acid_HMDB0003349	0.073833229
## O.Phosphoethanolamine_HMDB0000224	-0.006433138
## X3.Phosphoglyceric.acid_HMDB0000807	0.371439469
## Isocitric.acid_HMDB0000193	0.529640004
## Hypoxanthine_HMDB0000157	-0.297107040
## Citric.acid_HMDB0000094	0.361347658
## L.Arginine_HMDB0000517	0.041363321
## Ornithine_HMDB0000214.1	-0.040532371
## Dopamine_HMDB0000073	-0.036428346
## Myristic.acid_HMDB0000806	0.130233285
## X1.5.Anhydrosorbitol_HMDB0002712	0.718393915
## D.Tagatose_HMDB0003418	0.175463355
## Psicose_1	-0.077946736
## Sebacic.acid_HMDB0000792	0.542637383
## D.Fructose_HMDB0000660	0.115504093
## Gluconolactone_HMDB0000150	0.024618461
## L.Sorbose_HMDB0001266	0.120858315
## D.Mannose_HMDB0000169	0.123472719
## Hydroxyphenyllactic.acid_HMDB0000755	0.296496278

## D.Glucose_HMDB0000122	0.131518159
## N.Acetylglutamine_HMDB0006029	0.151138031
## L.Lysine_HMDB0000182.1	-0.017951040
## D.Mannose_HMDB0000169.1	0.014484362
## Tyramine_HMDB0000306	-0.030756894
## L.Histidine_HMDB0000177	-0.024908139
## D.Glucose_HMDB0000122.1	0.133321899
## X1.Hexadecanol_HMDB0003424	0.429141942
## L.Tyrosine_HMDB0000158	0.013303954
## Mannitol_HMDB0000765	0.419777136
## Sorbitol_HMDB0000247	-0.048481380
## ITSD_Sorbitol	0.190674057
## Galacturonic.acid_HMDB0002545	0.354270070
## Pantothenic.acid_HMDB0000210	0.396056731
## Palmitoleic.acid_HMDB0003229	0.014863608
## Xanthine_HMDB0000292	-0.195564248
## Gluconic.acid_HMDB0000625	0.021927583
## Palmitic.acid_HMDB0000220	0.142773926
## Glucaric.acid_HMDB0000663	-0.066440903
## N.Acetylmannosamine_HMDB0001129	0.302391891
## N.Acetyl.D.glucosamine_HMDB0000215	0.220004331
## D.Ribulose.5.phosphate_HMDB0000618	0.315673718
## Uric.acid_HMDB0000289	-0.131462778
## D.Ribose.5.phosphate_HMDB0001548	0.198102717
## myo.Inositol_HMDB0000211	0.634807080
## D.Ribose.5.phosphate_HMDB0001548.1	0.047858620
## Heptadecanoic.acid_HMDB0002259	0.240076769
## Octadecanol_HMDB0002350	0.406989713
## Glutathione_HMDB0000125	0.323178547
## Linoleic.acid_HMDB0000673	0.004333889
## Oleic.acid_HMDB0000207	-0.032250876
## Elaidic.acid_HMDB0000573	0.118961723
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.140691833
## Stearic.acid_HMDB0000827	0.275366243
## L.Tryptophan_HMDB0000929	0.274908867
## Fructose.1.phosphate_HMDB0001076	0.324986271
## Mannose.6.phosphate_HMDB0001078	0.214584950
## Arachidonic.acid_HMDB0001043	-0.099832126
## Glucose.6.phosphate_HMDB0001401	0.174143572
## X6.Phosphogluconic.acid_HMDB0001316	0.188886866
## Inositol.phosphate_HMDB0002985	0.474455740
## Uridine_HMDB0000296	0.376101185
## Stigmasterol_HMDB0000937	0.243151940
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.012034952
## Sucrose_HMDB0000258	0.264505347
## MG.18.Oe.0.0.0.0._HMD0011143	0.291276400
## Trehalose_HMDB0000975	0.430786146
## D.Maltose_HMDB0000163	0.435346422
## Lactitol_HMDB00040937	0.613570900
## Xanthylic.acid_HMDB0001554	-0.117543554
## Adenosine.monophosphate_HMDB0000045	0.245287969
## Cholesterol_HMDB0000067	0.443933534
## Lathosterol_HMDB0001170	0.231208508
## X7b.Hydroxycholesterol_.HMD0006119	0.175251304

##	Glutaric.acid_HMDB0000661	
## Dimethylglycine_HMDB0000092		0.3276625907
## Glyoxylic.acid_HMDB0000119		0.3328341775
## Pyruvic.acid_HMDB0000243		0.3531622883
## L.Lactic.acid_HMDB0000190		0.2396393684
## Alpha.Hydroxyisobutyric.acid_HMDB0000729		0.2944586567
## Glycolic.acid_HMDB0000115		0.1262717026
## Caproic.acid_HMDB0000535		0.4901026913
## L.Alanine_HMDB0000161		0.3043699856
## Alpha.ketoisovaleric.acid_HMDB0000019		0.5675136803
## Glycine_HMDB0000123		0.3339950904
## Oxalic.acid_HMDB0002329		0.2169128595
## Hydroxylamine_HMDB0003338		-0.0202297249
## X2.Hydroxybutyric.acid_HMDB0000008		0.3973907568
## Acetoacetic.acid_HMDB0000060		0.0752350801
## Hydroxypropionic.acid_HMDB0000700		0.0409308804
## Pyruvic.acid_HMDB0000243.1		0.1449055886
## X3.Hydroxybutyric.acid_HMDB0000357		0.2326506744
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023		0.3615502818
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407		0.1478574468
## D.Alpha.aminobutyric.acid_HMDB0000650		0.0679278087
## X3.Methyl.2.oxovaleric.acid_HMDB0000491		0.4956956534
## Beta.Alanine_HMDB0000056		0.0496187732
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354		0.5217709153
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1		0.4013777110
## Malonic.acid_HMDB0000691		0.4544946334
## X3.Aminoisobutanoic.acid_HMDB0003911		-0.2388125721
## X3.Hydroxyisovaleric.acid_HMDB0000754		0.1383518579
## Ketoleucine_HMDB0000695		0.5791572456
## L.Valine_HMDB0000883		0.1863633950
## ITSD_Valine		0.0311379318
## Urea_HMDB0000294		0.4215032814
## Benzoic.acid_HMDB0001870		0.1201479856
## Caprylic.acid_HMDB0000482		0.4076458515
## Glycerol_HMDB0000131		0.0695510483
## Ethanolamine_HMDB0000149		0.2504959492
## L.Leucine_HMDB0000687		0.1168101148
## Acetyl glycine_HMDB0000532		0.3168392089
## L.Isoleucine_HMDB0000172		0.1675193799
## Nicotinic.acid_HMDB0001488		0.5046166230
## Maleic.acid_HMDB0000176		0.3461939428
## L.Proline_HMDB0000162		0.3708395170
## Phenylacetic.acid_HMDB0000209		0.3905782824
## Succinic.acid_HMDB0000254		0.3545948918
## Glycine_HMDB0000123.1		0.1546202880
## Methylsuccinic.acid_HMDB0001844		0.0590648924
## Glyceric.acid_HMDB0000139		0.1438902929
## Fumaric.acid_HMDB0000134		0.3473417534
## Uracil_HMDB0000300		0.5359877518
## Pelargonic.acid_HMDB0000847		0.4179912796
## L.Serine_HMDB0000187		0.3131696281
## L.Threonine_HMDB0000167		0.3529687749
## Mesaconic.acid_HMDB0000749		0.4637145510
## Glutaric.acid_HMDB0000661		1.0000000000

## Thymine_HMDB0000262	0.2589265576
## Beta.Alanine_HMDB0000056.1	-0.0910790144
## L.Homoserine_HMDB0000719	-0.0817529506
## Capric.acid_HMDB0000511	-0.0834695438
## Citramalic.acid_HMDB0000426	0.5395695748
## Malic.acid_HMDB0000744	0.5569560330
## Niacinamide_HMDB0001406	0.3083808731
## Adipic.acid_HMDB0000448	0.4792984808
## D.Threitol_HMDB0004136	0.2353956647
## Dihydrouracil_HMDB0000076	0.5010425095
## Erythritol_HMDB0002994	0.3209099110
## N.Acetylserine_HMDB0002931	0.4533111147
## L.Aspartic.acid_HMDB0000191	0.3196437842
## L.Methionine_HMDB0000696	-0.1036647460
## X4.Hydroxyproline_HMDB0000725	0.4141058239
## Pyroglutamic.acid_HMDB0000267	0.3521505180
## Cytosine_HMDB0000630	0.2438602681
## Gamma.Aminobutyric.acid_HMDB0000112	0.5089314324
## Threonic.acid_HMDB0000943	0.3291382718
## L.Cysteine_HMDB0000574	0.2966942196
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.6090023633
## Creatinine_HMDB0000562	-0.3238745643
## X3.Hydroxyglutaric.acid_HMDB0000428	0.5353062746
## Oxoglutaric.acid_HMDB0000208	0.2495761115
## Phenylpyruvic.acid_HMDB0000205	0.1931679081
## Pimelic.acid_HMDB0000857	0.2883840517
## Phenyllactic.acid_HMDB0000779	0.4705129802
## Phosphoenolpyruvic.acid_HMDB0000263	0.3966191864
## Ornithine_HMDB0000214	0.0812639988
## Hypotaurine_HMDB0000965	0.2578749306
## Triethanolamine_HMDB0032538	0.4044415347
## X2.Aminobenzoic.acid_HMDB0001123	-0.1151128467
## L.Glutamic.acid_HMDB0000148	0.0738020845
## X4.Hydroxybenzoic.acid_HMDB0000500	0.1254907440
## X5.Aminopentanoic.acid_HMDB0003355	0.5427487890
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.3031027461
## L.Phenylalanine_HMDB0000159	-0.0352879301
## Dodecanoic.acid_HMDB0000638	-0.2891788899
## Lyxose_HMDB0003402_1	0.3789681243
## D.Xylose_HMDB0000098	-0.2352313591
## Lyxose_HMDB0003402_2	-0.1834518054
## D.Arabinose_HMDB0029942	0.3606226923
## L.Asparagine_HMDB0000168	-0.0543801359
## D.Ribulose_HMDB0000621	0.1346721175
## D.Ribose_HMDB0000283	0.3486016118
## D.Xylulose_HMDB0001644	0.1197108765
## X3.Sulfinioalanine_HMDB0000996	-0.1973864336
## Suberic.acid_HMDB0000893	0.6120585916
## L.Lysine_HMDB0000182	-0.0782006760
## Levoglucosan_HMDB0000640	-0.3065243396
## D.Arabitol_HMDB0000568	0.2948981686
## Ribitol_HMDB0000508	0.1298484567
## cis.Aconitic.acid_HMDB0000072	-0.2179320438
## Quinolinic.acid_HMDB0000232	0.7703038310

## Putrescine_HMDB0001414	0.5956178488
## Glycerol.3.phosphate_HMDB0000126	0.2311155314
## Vanillic.acid_HMDB0000484	0.0599203352
## L.Glutamine_HMDB0000641	-0.1391705850
## X2.Phosphoglyceric.acid_HMDB0000362	0.7410215211
## Azelaic.acid_HMDB0000784	0.5994305054
## L.Dihydroorotic.acid_HMDB0003349	0.3725041936
## O.Phosphoethanolamine_HMDB0000224	-0.3617652983
## X3.Phosphoglyceric.acid_HMDB0000807	0.7825783905
## Isocitric.acid_HMDB0000193	0.4578759347
## Hypoxanthine_HMDB0000157	-0.4755750108
## Citric.acid_HMDB0000094	0.6894792791
## L.Arginine_HMDB0000517	0.1027777969
## Ornithine_HMDB0000214.1	0.0446719059
## Dopamine_HMDB0000073	0.0527760413
## Myristic.acid_HMDB0000806	-0.1777581105
## X1.5.Anhydrosorbitol_HMDB0002712	0.3948253442
## D.Tagatose_HMDB0003418	0.4310090153
## Psicose_1	-0.2343380894
## Sebacic.acid_HMDB0000792	0.3379659849
## D.Fructose_HMDB0000660	0.4812753874
## Gluconolactone_HMDB0000150	0.3095015990
## L.Sorbose_HMDB0001266	0.4635194468
## D.Mannose_HMDB0000169	-0.2726829485
## Hydroxyphenyllactic.acid_HMDB0000755	0.1637146345
## D.Glucose_HMDB0000122	-0.2429036570
## N.Acetylglutamine_HMDB0006029	-0.2747513145
## L.Lysine_HMDB0000182.1	-0.1393965892
## D.Mannose_HMDB0000169.1	-0.2871357090
## Tyramine_HMDB0000306	-0.1505994229
## L.Histidine_HMDB0000177	-0.1827919495
## D.Glucose_HMDB0000122.1	-0.3119778538
## X1.Hexadecanol_HMDB0003424	-0.1392173397
## L.Tyrosine_HMDB0000158	-0.0420334370
## Mannitol_HMDB0000765	0.1978523056
## Sorbitol_HMDB0000247	0.1720992246
## ITSD_Sorbitol	-0.1666865777
## Galacturonic.acid_HMDB0002545	0.1745286474
## Pantothenic.acid_HMDB0000210	0.2920876786
## Palmitoleic.acid_HMDB0003229	-0.5313760899
## Xanthine_HMDB0000292	0.1252659984
## Gluconic.acid_HMDB0000625	0.4657325781
## Palmitic.acid_HMDB0000220	-0.3177637137
## Glucaric.acid_HMDB0000663	-0.0502892993
## N.Acetylmannosamine_HMDB0001129	-0.2880582320
## N.Acetyl.D.glucosamine_HMDB0000215	-0.1712785835
## D.Ribulose.5.phosphate_HMDB0000618	0.2984123211
## Uric.acid_HMDB0000289	-0.3597129609
## D.Ribose.5.phosphate_HMDB0001548	0.2661095452
## myo.Inositol_HMDB0000211	0.4057978799
## D.Ribose.5.phosphate_HMDB0001548.1	0.2104108576
## Heptadecanoic.acid_HMDB0002259	0.7327253983
## Octadecanol_HMDB0002350	0.2933135893
## Glutathione_HMDB0000125	0.2328527684

## Linoleic.acid_HMDB0000673	-0.5434771148
## Oleic.acid_HMDB0000207	-0.6079705048
## Elaidic.acid_HMDB0000573	-0.5239006943
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.4083471329
## Stearic.acid_HMDB0000827	-0.0271437153
## L.Tryptophan_HMDB0000929	-0.0108925462
## Fructose.1.phosphate_HMDB0001076	0.5990943380
## Mannose.6.phosphate_HMDB0001078	0.1037806679
## Arachidonic.acid_HMDB0001043	-0.7590083887
## Glucose.6.phosphate_HMDB0001401	0.4218611540
## X6.Phosphogluconic.acid_HMDB0001316	-0.0991807800
## Inositol.phosphate_HMDB0002985	-0.2724610509
## Uridine_HMDB0000296	0.1497022836
## Stigmasterol_HMDB0000937	0.1213787537
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.0009628181
## Sucrose_HMDB0000258	-0.1692590633
## MG.18.0e.0.0.0.0._HMDB0011143	-0.0933875082
## Trehalose_HMDB0000975	0.2993724904
## D.Maltose_HMDB0000163	0.3039282384
## Lactitol_HMDB00040937	0.2057258434
## Xanthylic.acid_HMDB0001554	0.0349326328
## Adenosine.monophosphate_HMDB0000045	0.4154282443
## Cholesterol_HMDB0000067	-0.4157027940
## Lathosterol_HMDB0001170	-0.6458526204
## X7b.Hydroxycholesterol_.HMDB0006119	0.7884596430
##	Thymine_HMDB0000262
## Dimethylglycine_HMDB0000092	-0.287639083
## Glyoxylic.acid_HMDB0000119	-0.280568211
## Pyruvic.acid_HMDB0000243	0.464664711
## L.Lactic.acid_HMDB0000190	0.675933994
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.565994978
## Glycolic.acid_HMDB0000115	-0.220324934
## Caproic.acid_HMDB0000535	-0.211784840
## L.Alanine_HMDB0000161	0.645438169
## Alpha.ketoisovaleric.acid_HMDB0000019	0.546290134
## Glycine_HMDB0000123	0.579333114
## Oxalic.acid_HMDB0002329	-0.159346689
## Hydroxylamine_HMDB0003338	0.659523204
## X2.Hydroxybutyric.acid_HMDB0000008	0.212579701
## Acetoacetic.acid_HMDB0000060	0.349456165
## Hydroxypropionic.acid_HMDB0000700	0.473071649
## Pyruvic.acid_HMDB0000243.1	0.738674908
## X3.Hydroxybutyric.acid_HMDB0000357	0.276563628
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.323943247
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.021191606
## D.Alpha.aminobutyric.acid_HMDB0000650	0.511727697
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.394451498
## Beta.Alanine_HMDB0000056	0.378759057
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.255385644
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.467582508
## Malonic.acid_HMDB0000691	0.391896159
## X3.Aminoisobutanoic.acid_HMDB0003911	0.399156171
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.533248969
## Ketoleucine_HMDB0000695	0.283486817

## L.Valine_HMDB0000883	0.618789720
## ITSD_Valine	0.570246133
## Urea_HMDB0000294	0.596548611
## Benzoic.acid_HMDB0001870	-0.367149046
## Caprylic.acid_HMDB0000482	-0.281133850
## Glycerol_HMDB0000131	0.567678235
## Ethanolamine_HMDB0000149	0.644966965
## L.Leucine_HMDB0000687	0.592372158
## Acetylglycine_HMDB0000532	-0.089304020
## L.Isoleucine_HMDB0000172	0.647074533
## Nicotinic.acid_HMDB0001488	0.211209713
## Maleic.acid_HMDB0000176	0.109897363
## L.Proline_HMDB0000162	0.595244462
## Phenylacetic.acid_HMDB0000209	-0.090561642
## Succinic.acid_HMDB0000254	0.652831826
## Glycine_HMDB0000123.1	0.622808921
## Methylsuccinic.acid_HMDB0001844	-0.017270245
## Glyceric.acid_HMDB0000139	-0.170868925
## Fumaric.acid_HMDB0000134	0.592312760
## Uracil_HMDB0000300	0.751577137
## Pelargonic.acid_HMDB0000847	-0.368703742
## L.Serine_HMDB0000187	0.618926672
## L.Threonine_HMDB0000167	0.656461583
## Mesaconic.acid_HMDB0000749	0.038935539
## Glutaric.acid_HMDB0000661	0.258926558
## Thymine_HMDB0000262	1.000000000
## Beta.Alanine_HMDB0000056.1	0.575752662
## L.Homoserine_HMDB0000719	-0.472112569
## Capric.acid_HMDB0000511	-0.425466375
## Citramalic.acid_HMDB0000426	0.582750330
## Malic.acid_HMDB0000744	0.054318235
## Niacinamide_HMDB0001406	0.686664185
## Adipic.acid_HMDB0000448	0.570524640
## D.Threitol_HMDB00004136	0.195192205
## Dihydrouracil_HMDB0000076	0.690988834
## Erythritol_HMDB0002994	0.435418673
## N.Acetylserine_HMDB0002931	0.659744466
## L.Aspartic.acid_HMDB0000191	0.607442703
## L.Methionine_HMDB0000696	0.459772558
## X4.Hydroxyproline_HMDB0000725	0.597238704
## Pyroglutamic.acid_HMDB0000267	0.510476290
## Cytosine_HMDB0000630	0.089396892
## Gamma.Aminobutyric.acid_HMDB0000112	0.472827874
## Threonic.acid_HMDB0000943	-0.029890288
## L.Cysteine_HMDB0000574	0.007102134
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.034049554
## Creatinine_HMDB0000562	0.241537487
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.413178962
## Oxoglutaric.acid_HMDB0000208	0.260644002
## Phenylpyruvic.acid_HMDB0000205	-0.495524210
## Pimelic.acid_HMDB0000857	0.467550545
## Phenyllactic.acid_HMDB0000779	-0.312349394
## Phosphoenolpyruvic.acid_HMDB0000263	-0.417191916
## Ornithine_HMDB0000214	0.293774598

## Hypotaurine_HMDB0000965	0.626785109
## Triethanolamine_HMDB0032538	0.683379970
## X2.Aminobenzoic.acid_HMDB0001123	0.585836618
## L.Glutamic.acid_HMDB0000148	0.438342023
## X4.Hydroxybenzoic.acid_HMDB0000500	0.637900884
## X5.Aminopentanoic.acid_HMDB0003355	0.424888405
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.127065576
## L.Phenylalanine_HMDB0000159	0.501258975
## Dodecanoic.acid_HMDB0000638	0.289504821
## Lyxose_HMDB0003402_1	-0.407073770
## D.Xylose_HMDB0000098	-0.267428153
## Lyxose_HMDB0003402_2	-0.097188844
## D.Arabinose_HMDB0029942	-0.397150128
## L.Asparagine_HMDB0000168	0.153330117
## D.Ribulose_HMDB0000621	-0.394019061
## D.Ribose_HMDB0000283	-0.365760771
## D.Xylulose_HMDB0001644	-0.407525015
## X3.Sulfinoalanine_HMDB0000996	-0.085925047
## Suberic.acid_HMDB0000893	0.514746714
## L.Lysine_HMDB0000182	0.040387665
## Levoglucosan_HMDB0000640	-0.175882317
## D.Arabitol_HMDB0000568	0.016960401
## Ribitol_HMDB0000508	-0.069536350
## cis.Aconitic.acid_HMDB0000072	-0.056083010
## Quinolinic.acid_HMDB0000232	0.042481546
## Putrescine_HMDB0001414	0.469718430
## Glycerol.3.phosphate_HMDB0000126	-0.413033346
## Vanillic.acid_HMDB0000484	0.375380603
## L.Glutamine_HMDB0000641	0.073116014
## X2.Phosphoglyceric.acid_HMDB0000362	0.339923482
## Azelaic.acid_HMDB0000784	-0.087104689
## L.Dihydroorotic.acid_HMDB0003349	-0.358860027
## O.Phosphoethanolamine_HMDB0000224	0.260053448
## X3.Phosphoglyceric.acid_HMDB0000807	0.388601674
## Isocitric.acid_HMDB0000193	0.217564467
## Hypoxanthine_HMDB0000157	-0.453834211
## Citric.acid_HMDB0000094	-0.007453446
## L.Arginine_HMDB0000517	-0.237566995
## Ornithine_HMDB0000214.1	0.533761695
## Dopamine_HMDB0000073	0.536576068
## Myristic.acid_HMDB0000806	0.434640586
## X1.5.Anhydrosorbitol_HMDB0002712	0.045577708
## D.Tagatose_HMDB0003418	-0.411716889
## Psicose_1	-0.020493927
## Sebacic.acid_HMDB0000792	0.548005503
## D.Fructose_HMDB0000660	-0.305894527
## Gluconolactone_HMDB0000150	-0.335129254
## L.Sorbose_HMDB0001266	-0.331012229
## D.Mannose_HMDB0000169	0.460447705
## Hydroxyphenyllactic.acid_HMDB0000755	0.511299238
## D.Glucose_HMDB0000122	0.374667953
## N.Acetylglutamine_HMDB0006029	0.439153272
## L.Lysine_HMDB0000182.1	0.403912199
## D.Mannose_HMDB0000169.1	0.402757423

## Tyramine_HMDB0000306	0.389641999
## L.Histidine_HMDB0000177	0.384236441
## D.Glucose_HMDB0000122.1	0.375667303
## X1.Hexadecanol_HMDB0003424	-0.364473956
## L.Tyrosine_HMDB0000158	0.373191108
## Mannitol_HMDB0000765	0.547484055
## Sorbitol_HMDB0000247	0.292966397
## ITSD_Sorbitol	0.395205246
## Galacturonic.acid_HMDB0002545	0.150680481
## Pantothenic.acid_HMDB0000210	-0.064566085
## Palmitoleic.acid_HMDB0003229	0.170067233
## Xanthine_HMDB0000292	0.126677643
## Gluconic.acid_HMDB0000625	0.091363198
## Palmitic.acid_HMDB0000220	0.346489733
## Glucaric.acid_HMDB0000663	0.232868030
## N.Acetylmannosamine_HMDB0001129	0.508787835
## N.Acetyl.D.glucosamine_HMDB0000215	0.610942154
## D.Ribulose.5.phosphate_HMDB0000618	-0.406444496
## Uric.acid_HMDB0000289	0.039869527
## D.Ribose.5.phosphate_HMDB0001548	-0.534353201
## myo.Inositol_HMDB0000211	0.395710327
## D.Ribose.5.phosphate_HMDB0001548.1	-0.493568642
## Heptadecanoic.acid_HMDB0002259	0.238172759
## Octadecanol_HMDB0002350	0.059372336
## Glutathione_HMDB0000125	-0.044427435
## Linoleic.acid_HMDB0000673	0.083652171
## Oleic.acid_HMDB0000207	0.085470533
## Elaidic.acid_HMDB0000573	0.168207688
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.269819988
## Stearic.acid_HMDB0000827	0.249148434
## L.Tryptophan_HMDB0000929	0.290957631
## Fructose.1.phosphate_HMDB0001076	-0.132155937
## Mannose.6.phosphate_HMDB0001078	-0.487861167
## Arachidonic.acid_HMDB0001043	-0.159254763
## Glucose.6.phosphate_HMDB0001401	-0.256515526
## X6.Phosphogluconic.acid_HMDB0001316	-0.219025211
## Inositol.phosphate_HMDB0002985	-0.158015822
## Uridine_HMDB0000296	0.364585300
## Stigmasterol_HMDB0000937	0.571660266
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.038203700
## Sucrose_HMDB0000258	0.269213769
## MG.18.Oe.0.0.0.0._HMDB0011143	0.173198759
## Trehalose_HMDB0000975	-0.243091053
## D.Maltose_HMDB0000163	-0.241121369
## Lactitol_HMDB00040937	0.133803732
## Xanthylic.acid_HMDB0001554	-0.448794534
## Adenosine.monophosphate_HMDB0000045	-0.408844074
## Cholesterol_HMDB0000067	-0.171573122
## Lathosterol_HMDB0001170	-0.018255999
## X7b.Hydroxycholesterol_.HMDB0006119	0.128143558
##	Beta.Alanine_HMDB0000056.1
## Dimethylglycine_HMDB0000092	-0.771866781
## Glyoxylic.acid_HMDB0000119	-0.774082477
## Pyruvic.acid_HMDB0000243	0.531131625

## L.Lactic.acid_HMDB0000190	0.837746203
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.411898942
## Glycolic.acid_HMDB0000115	-0.250131115
## Caproic.acid_HMDB0000535	-0.788554188
## L.Alanine_HMDB0000161	0.861064527
## Alpha.ketoisovaleric.acid_HMDB0000019	0.327708308
## Glycine_HMDB0000123	0.632912347
## Oxalic.acid_HMDB0002329	-0.446289962
## Hydroxylamine_HMDB0003338	0.367576554
## X2.Hydroxybutyric.acid_HMDB0000008	0.126590295
## Acetoacetic.acid_HMDB0000060	-0.077181576
## Hydroxypropionic.acid_HMDB0000700	0.742598100
## Pyruvic.acid_HMDB0000243.1	0.474874255
## X3.Hydroxybutyric.acid_HMDB0000357	0.108658807
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.198976102
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.165131893
## D.Alpha.aminobutyric.acid_HMDB0000650	0.915488253
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.184946150
## Beta.Alanine_HMDB0000056	0.785455394
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.266749888
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.466715840
## Malonic.acid_HMDB0000691	0.366238974
## X3.Aminoisobutanoic.acid_HMDB0003911	0.900374168
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.779037830
## Ketoleucine_HMDB0000695	-0.055479883
## L.Valine_HMDB0000883	0.903284734
## ITSD_Valine	0.921531748
## Urea_HMDB0000294	0.679268858
## Benzoic.acid_HMDB0001870	-0.098173283
## Caprylic.acid_HMDB0000482	-0.670245814
## Glycerol_HMDB0000131	0.901289260
## Ethanolamine_HMDB0000149	0.835621643
## L.Leucine_HMDB0000687	0.925140994
## Acetyl glycine_HMDB0000532	-0.058624522
## L.Isoleucine_HMDB0000172	0.910780664
## Nicotinic.acid_HMDB0001488	-0.155701328
## Maleic.acid_HMDB0000176	-0.312676896
## L.Proline_HMDB0000162	0.739986481
## Phenylacetic.acid_HMDB0000209	-0.543952490
## Succinic.acid_HMDB0000254	0.696113909
## Glycine_HMDB0000123.1	0.879879664
## Methylsuccinic.acid_HMDB0001844	0.095458990
## Glyceric.acid_HMDB0000139	-0.454185200
## Fumaric.acid_HMDB0000134	0.643432936
## Uracil_HMDB0000300	0.554049599
## Pelargonic.acid_HMDB0000847	-0.750218777
## L.Serine_HMDB0000187	0.790582616
## L.Threonine_HMDB0000167	0.823894858
## Mesaconic.acid_HMDB0000749	0.110018642
## Glutaric.acid_HMDB0000661	-0.091079014
## Thymine_HMDB0000262	0.575752662
## Beta.Alanine_HMDB0000056.1	1.000000000
## L.Homoserine_HMDB0000719	-0.113063130
## Capric.acid_HMDB0000511	-0.221922296

## Citramalic.acid_HMDB0000426	0.448595330
## Malic.acid_HMDB0000744	-0.313222989
## Niacinamide_HMDB0001406	0.846929446
## Adipic.acid_HMDB0000448	0.644513891
## D.Threitol_HMDB0004136	0.217114118
## Dihydrouracil_HMDB0000076	0.482977992
## Erythritol_HMDB0002994	0.480942149
## N.Acetylserine_HMDB0002931	0.676205339
## L.Aspartic.acid_HMDB0000191	0.844378608
## L.Methionine_HMDB0000696	0.942442253
## X4.Hydroxyproline_HMDB0000725	0.792288831
## Pyroglutamic.acid_HMDB0000267	0.768107951
## Cytosine_HMDB0000630	0.142089375
## Gamma.Aminobutyric.acid_HMDB0000112	0.373884378
## Threonic.acid_HMDB0000943	-0.310839476
## L.Cysteine_HMDB0000574	-0.157669624
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.530456061
## Creatinine_HMDB0000562	0.855847013
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.715986393
## Oxoglutaric.acid_HMDB0000208	0.126869220
## Phenylpyruvic.acid_HMDB0000205	-0.505581253
## Pimelic.acid_HMDB0000857	0.572407184
## Phenyllactic.acid_HMDB0000779	-0.561328636
## Phosphoenolpyruvic.acid_HMDB0000263	-0.883260203
## Ornithine_HMDB0000214	0.646804117
## Hypotaurine_HMDB0000965	0.823766054
## Triethanolamine_HMDB0032538	0.725915668
## X2.Aminobenzoic.acid_HMDB0001123	0.957183419
## L.Glutamic.acid_HMDB0000148	0.887867545
## X4.Hydroxybenzoic.acid_HMDB0000500	0.919582812
## X5.Aminopentanoic.acid_HMDB0003355	-0.097771061
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.430109032
## L.Phenylalanine_HMDB0000159	0.950841090
## Dodecanoic.acid_HMDB0000638	0.540662575
## Lyxose_HMDB0003402_1	-0.759490556
## D.Xylose_HMDB0000098	-0.454584929
## Lyxose_HMDB0003402_2	-0.305937074
## D.Arabinose_HMDB0029942	-0.840636750
## L.Asparagine_HMDB0000168	0.587199760
## D.Ribulose_HMDB0000621	-0.877807810
## D.Ribose_HMDB0000283	-0.839862168
## D.Xylulose_HMDB0001644	-0.873405262
## X3.Sulfinioalanine_HMDB0000996	0.389483999
## Suberic.acid_HMDB0000893	0.450903348
## L.Lysine_HMDB0000182	0.518747270
## Levoglucosan_HMDB0000640	-0.300231257
## D.Arabitol_HMDB0000568	0.266256633
## Ribitol_HMDB0000508	0.043267067
## cis.Aconitic.acid_HMDB0000072	-0.207723161
## Quinolinic.acid_HMDB0000232	0.024538033
## Putrescine_HMDB0001414	0.089921137
## Glycerol.3.phosphate_HMDB0000126	-0.694510656
## Vanillic.acid_HMDB0000484	0.564265392
## L.Glutamine_HMDB0000641	0.322393506

## X2.Phosphoglyceric.acid_HMDB0000362	0.031183827
## Azelaic.acid_HMDB0000784	-0.102074444
## L.Dihydroorotic.acid_HMDB0003349	-0.839468825
## O.Phosphoethanolamine_HMDB0000224	0.632458010
## X3.Phosphoglyceric.acid_HMDB0000807	0.067700929
## Isocitric.acid_HMDB0000193	0.237175160
## Hypoxanthine_HMDB0000157	0.039489457
## Citric.acid_HMDB0000094	-0.368931017
## L.Arginine_HMDB0000517	-0.317549623
## Ornithine_HMDB0000214.1	0.897623310
## Dopamine_HMDB0000073	0.890918182
## Myristic.acid_HMDB0000806	0.864856008
## X1.5.Anhydrosorbitol_HMDB0002712	-0.066308584
## D.Tagatose_HMDB0003418	-0.840055060
## Psicose_1	-0.127244984
## Sebacic.acid_HMDB0000792	0.643301794
## D.Fructose_HMDB0000660	-0.802906769
## Gluconolactone_HMDB0000150	-0.801536067
## L.Sorbose_HMDB0001266	-0.806644531
## D.Mannose_HMDB0000169	0.913463148
## Hydroxyphenyllactic.acid_HMDB0000755	0.345515703
## D.Glucose_HMDB0000122	0.839500006
## N.Acetylglutamine_HMDB0006029	0.890698943
## L.Lysine_HMDB0000182.1	0.915596793
## D.Mannose_HMDB0000169.1	0.929068009
## Tyramine_HMDB0000306	0.913421970
## L.Histidine_HMDB0000177	0.911948152
## D.Glucose_HMDB0000122.1	0.857826127
## X1.Hexadecanol_HMDB0003424	-0.242972677
## L.Tyrosine_HMDB0000158	0.829126932
## Mannitol_HMDB0000765	0.809804662
## Sorbitol_HMDB0000247	-0.131619512
## ITSD_Sorbitol	0.779858634
## Galacturonic.acid_HMDB0002545	0.233556832
## Pantothenic.acid_HMDB0000210	-0.160252975
## Palmitoleic.acid_HMDB0003229	0.648924796
## Xanthine_HMDB0000292	0.350311691
## Gluconic.acid_HMDB0000625	-0.500155094
## Palmitic.acid_HMDB0000220	0.547422160
## Glucaric.acid_HMDB0000663	0.689436640
## N.Acetylmannosamine_HMDB0001129	0.648355074
## N.Acetyl.D.glucosamine_HMDB0000215	0.897705948
## D.Ribulose.5.phosphate_HMDB0000618	-0.838047086
## Uric.acid_HMDB0000289	0.559267586
## D.Ribose.5.phosphate_HMDB0001548	-0.860949986
## myo.Inositol_HMDB0000211	0.514238792
## D.Ribose.5.phosphate_HMDB0001548.1	-0.924993628
## Heptadecanoic.acid_HMDB0002259	-0.205688501
## Octadecanol_HMDB0002350	-0.132817142
## Glutathione_HMDB0000125	0.050702005
## Linoleic.acid_HMDB0000673	0.399642699
## Oleic.acid_HMDB0000207	0.549733080
## Elaidic.acid_HMDB0000573	0.580956153
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.839299175

## Stearic.acid_HMDB0000827	0.124556344
## L.Tryptophan_HMDB0000929	0.132134012
## Fructose.1.phosphate_HMDB0001076	-0.689455119
## Mannose.6.phosphate_HMDB0001078	-0.504734693
## Arachidonic.acid_HMDB0001043	0.371500674
## Glucose.6.phosphate_HMDB0001401	-0.677660527
## X6.Phosphogluconic.acid_HMDB0001316	-0.185666042
## Inositol.phosphate_HMDB0002985	-0.120343364
## Uridine_HMDB0000296	0.328212863
## Stigmasterol_HMDB0000937	0.414467981
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.009169636
## Sucrose_HMDB0000258	0.493669519
## MG.18.0e.0.0.0.0._HMDB0011143	0.105826816
## Trehalose_HMDB0000975	-0.199481904
## D.Maltose_HMDB0000163	-0.195602903
## Lactitol_HMDB00040937	0.089602451
## Xanthylic.acid_HMDB0001554	-0.727914156
## Adenosine.monophosphate_HMDB0000045	-0.762956795
## Cholesterol_HMDB0000067	0.149721410
## Lathosterol_HMDB0001170	0.331123908
## X7b.Hydroxycholesterol_.HMDB0006119	-0.459609457
##	L.Homoserine_HMDB0000719
## Dimethylglycine_HMDB0000092	0.195384872
## Glyoxylic.acid_HMDB0000119	0.178844788
## Pyruvic.acid_HMDB0000243	0.086273249
## L.Lactic.acid_HMDB0000190	-0.037484619
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.213412921
## Glycolic.acid_HMDB0000115	0.817571747
## Caproic.acid_HMDB0000535	0.292089963
## L.Alanine_HMDB0000161	-0.186006075
## Alpha.ketoisovaleric.acid_HMDB0000019	0.026202958
## Glycine_HMDB0000123	-0.195738447
## Oxalic.acid_HMDB0002329	0.303480892
## Hydroxylamine_HMDB0003338	0.169860367
## X2.Hydroxybutyric.acid_HMDB0000008	0.394184827
## Acetoacetic.acid_HMDB0000060	0.382631696
## Hydroxypropionic.acid_HMDB0000700	0.293951794
## Pyruvic.acid_HMDB0000243.1	-0.023992719
## X3.Hydroxybutyric.acid_HMDB0000357	0.290590143
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.332724602
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.620938449
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.027415749
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.191048639
## Beta.Alanine_HMDB0000056	-0.191048334
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.135067296
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.145867661
## Malonic.acid_HMDB0000691	-0.003512252
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.040113290
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.191355638
## Ketoleucine_HMDB0000695	0.271017238
## L.Valine_HMDB0000883	-0.037467076
## ITSD_Valine	0.017061948
## Urea_HMDB0000294	-0.074885234
## Benzoic.acid_HMDB0001870	0.723525337

## Caprylic.acid_HMDB0000482	0.444347511
## Glycerol_HMDB0000131	-0.038543543
## Ethanolamine_HMDB0000149	-0.139190118
## L.Leucine_HMDB0000687	0.005178857
## Acetylglycine_HMDB0000532	0.706607196
## L.Isoleucine_HMDB0000172	-0.066107413
## Nicotinic.acid_HMDB0001488	-0.211711107
## Maleic.acid_HMDB0000176	0.399682439
## L.Proline_HMDB0000162	0.025142546
## Phenylacetic.acid_HMDB0000209	0.369386689
## Succinic.acid_HMDB0000254	0.114420878
## Glycine_HMDB0000123.1	0.016458267
## Methylsuccinic.acid_HMDB0001844	0.510015334
## Glyceric.acid_HMDB0000139	0.483350803
## Fumaric.acid_HMDB0000134	0.080733419
## Uracil_HMDB0000300	-0.101416234
## Pelargonic.acid_HMDB0000847	0.343194541
## L.Serine_HMDB0000187	-0.126144175
## L.Threonine_HMDB0000167	-0.122004568
## Mesaconic.acid_HMDB0000749	0.156802254
## Glutaric.acid_HMDB0000661	-0.081752951
## Thymine_HMDB0000262	-0.472112569
## Beta.Alanine_HMDB0000056.1	-0.113063130
## L.Homoserine_HMDB0000719	1.000000000
## Capric.acid_HMDB0000511	0.956048870
## Citramalic.acid_HMDB0000426	-0.293019499
## Malic.acid_HMDB0000744	0.476049753
## Niacinamide_HMDB0001406	-0.113437463
## Adipic.acid_HMDB0000448	-0.161323927
## D.Threitol_HMDB0004136	0.307075736
## Dihydrouracil_HMDB0000076	0.104162738
## Erythritol_HMDB0002994	0.324948909
## N.Acetylserine_HMDB0002931	-0.162858054
## L.Aspartic.acid_HMDB0000191	-0.089989736
## L.Methionine_HMDB0000696	-0.174615043
## X4.Hydroxyproline_HMDB0000725	-0.038559470
## Pyroglutamic.acid_HMDB0000267	-0.144279567
## Cytosine_HMDB0000630	-0.010221598
## Gamma.Aminobutyric.acid_HMDB0000112	-0.382808334
## Threonic.acid_HMDB0000943	0.508330213
## L.Cysteine_HMDB0000574	0.549688339
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.293535410
## Creatinine_HMDB0000562	0.069119893
## X3.Hydroxyglutaric.acid_HMDB0000428	0.386290882
## Oxoglutaric.acid_HMDB0000208	0.204793922
## Phenylpyruvic.acid_HMDB0000205	0.476082011
## Pimelic.acid_HMDB0000857	-0.471916138
## Phenyllactic.acid_HMDB0000779	0.296664974
## Phosphoenolpyruvic.acid_HMDB0000263	0.005817372
## Ornithine_HMDB0000214	-0.216180319
## Hypotaurine_HMDB0000965	-0.265619351
## Triethanolamine_HMDB0032538	-0.346589592
## X2.Aminobenzoic.acid_HMDB0001123	-0.129939711
## L.Glutamic.acid_HMDB0000148	-0.118589095

## X4.Hydroxybenzoic.acid_HMDB0000500	-0.067459353
## X5.Aminopentanoic.acid_HMDB0003355	-0.154738454
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.581031931
## L.Phenylalanine_HMDB0000159	-0.116579069
## Dodecanoic.acid_HMDB0000638	0.458405293
## Lyxose_HMDB0003402_1	0.358131310
## D.Xylose_HMDB0000098	0.039003859
## Lyxose_HMDB0003402_2	-0.084392282
## D.Arabinose_HMDB0029942	0.224774130
## L.Asparagine_HMDB0000168	-0.124103664
## D.Ribulose_HMDB0000621	0.255437427
## D.Ribose_HMDB0000283	0.182965620
## D.Xylulose_HMDB0001644	0.249194087
## X3.Sulfinioalanine_HMDB0000996	0.040363701
## Suberic.acid_HMDB0000893	-0.156263580
## L.Lysine_HMDB0000182	-0.044988968
## Levoglucosan_HMDB0000640	-0.037033863
## D.Arabitol_HMDB0000568	0.126376360
## Ribitol_HMDB0000508	0.548767188
## cis.Aconitic.acid_HMDB0000072	-0.068420377
## Quinolinic.acid_HMDB0000232	0.066142672
## Putrescine_HMDB0001414	-0.210380730
## Glycerol.3.phosphate_HMDB0000126	0.102362676
## Vanillic.acid_HMDB0000484	0.239092591
## L.Glutamine_HMDB0000641	-0.110796003
## X2.Phosphoglyceric.acid_HMDB0000362	0.129992626
## Azelaic.acid_HMDB0000784	-0.280271531
## L.Dihydroorotic.acid_HMDB0003349	0.275429458
## O.Phosphoethanolamine_HMDB0000224	0.324584670
## X3.Phosphoglyceric.acid_HMDB0000807	0.003064694
## Isocitric.acid_HMDB0000193	0.468225951
## Hypoxanthine_HMDB0000157	0.143713410
## Citric.acid_HMDB0000094	0.280646590
## L.Arginine_HMDB0000517	0.516296170
## Ornithine_HMDB0000214.1	-0.216465198
## Dopamine_HMDB0000073	-0.192904989
## Myristic.acid_HMDB0000806	0.212665725
## X1.5.Anhydrosorbitol_HMDB0002712	0.317907211
## D.Tagatose_HMDB0003418	0.246956388
## Psicose_1	-0.066918949
## Sebacic.acid_HMDB0000792	0.057103464
## D.Fructose_HMDB0000660	0.206297969
## Gluconolactone_HMDB0000150	0.365850133
## L.Sorbose_HMDB0001266	0.212667409
## D.Mannose_HMDB0000169	-0.105328199
## Hydroxyphenyllactic.acid_HMDB0000755	0.101532646
## D.Glucose_HMDB0000122	-0.129276080
## N.Acetylglutamine_HMDB0006029	-0.115449341
## L.Lysine_HMDB0000182.1	-0.086937736
## D.Mannose_HMDB0000169.1	-0.086323687
## Tyramine_HMDB0000306	-0.080981897
## L.Histidine_HMDB0000177	-0.085346999
## D.Glucose_HMDB0000122.1	-0.131094293
## X1.Hexadecanol_HMDB0003424	0.580529129

## L.Tyrosine_HMDB0000158	-0.175356440
## Mannitol_HMDB0000765	-0.054321599
## Sorbitol_HMDB0000247	-0.218365072
## ITSD_Sorbitol	0.282035029
## Galacturonic.acid_HMDB0002545	0.388047029
## Pantothenic.acid_HMDB0000210	0.281088272
## Palmitoleic.acid_HMDB0003229	0.307765959
## Xanthine_HMDB0000292	-0.384022376
## Gluconic.acid_HMDB0000625	0.038041868
## Palmitic.acid_HMDB0000220	0.295911564
## Glucaric.acid_HMDB0000663	0.095110333
## N.Acetylmannosamine_HMDB0001129	-0.049068854
## N.Acetyl.D.glucosamine_HMDB0000215	-0.042553922
## D.Ribulose.5.phosphate_HMDB0000618	0.170406601
## Uric.acid_HMDB0000289	-0.044552926
## D.Ribose.5.phosphate_HMDB0001548	0.143051438
## myo.Inositol_HMDB0000211	0.255504563
## D.Ribose.5.phosphate_HMDB0001548.1	0.199520177
## Heptadecanoic.acid_HMDB0002259	0.239106573
## Octadecanol_HMDB0002350	0.500664917
## Glutathione_HMDB0000125	0.213681095
## Linoleic.acid_HMDB0000673	0.355631443
## Oleic.acid_HMDB0000207	0.323611571
## Elaidic.acid_HMDB0000573	0.326955675
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.113746216
## Stearic.acid_HMDB0000827	0.321524897
## L.Tryptophan_HMDB0000929	0.235255806
## Fructose.1.phosphate_HMDB0001076	0.192177247
## Mannose.6.phosphate_HMDB0001078	0.076760801
## Arachidonic.acid_HMDB0001043	0.336158128
## Glucose.6.phosphate_HMDB0001401	0.403416482
## X6.Phosphogluconic.acid_HMDB0001316	0.587008346
## Inositol.phosphate_HMDB0002985	0.442136685
## Uridine_HMDB0000296	0.363959612
## Stigmasterol_HMDB0000937	0.124163244
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.379216171
## Sucrose_HMDB0000258	-0.211401826
## MG.18.0e.0.0.0.0._HMDB0011143	0.404529524
## Trehalose_HMDB0000975	-0.349536525
## D.Maltose_HMDB0000163	-0.345812726
## Lactitol_HMDB00040937	-0.062693198
## Xanthylic.acid_HMDB0001554	-0.169654201
## Adenosine.monophosphate_HMDB0000045	0.352410526
## Cholesterol_HMDB0000067	0.544074428
## Lathosterol_HMDB0001170	0.318826530
## X7b.Hydroxycholesterol_.HMDB0006119	-0.148019733
## Capric.acid_HMDB0000511	
## Dimethylglycine_HMDB0000092	0.352469500
## Glyoxylic.acid_HMDB0000119	0.335484721
## Pyruvic.acid_HMDB0000243	0.072504628
## L.Lactic.acid_HMDB0000190	-0.152369140
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.313108010
## Glycolic.acid_HMDB0000115	0.877879223
## Caproic.acid_HMDB0000535	0.423701622

## L.Alanine_HMDB0000161	-0.303779009
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.033898301
## Glycine_HMDB0000123	-0.289833849
## Oxalic.acid_HMDB0002329	0.367147217
## Hydroxylamine_HMDB0003338	0.223328276
## X2.Hydroxybutyric.acid_HMDB0000008	0.453646535
## Acetoacetic.acid_HMDB0000060	0.501478951
## Hydroxypropionic.acid_HMDB0000700	0.242963168
## Pyruvic.acid_HMDB0000243.1	0.029212199
## X3.Hydroxybutyric.acid_HMDB0000357	0.387448276
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.404278543
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.732306204
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.125434147
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.256580575
## Beta.Alanine_HMDB0000056	-0.279307207
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.033135236
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.106372143
## Malonic.acid_HMDB0000691	-0.041405948
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.159744957
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.148839514
## Ketoleucine_HMDB0000695	0.302333137
## L.Valine_HMDB0000883	-0.113033276
## ITSD_Valine	-0.051494846
## Urea_HMDB0000294	-0.145477772
## Benzoic.acid_HMDB0001870	0.758211948
## Caprylic.acid_HMDB0000482	0.582252890
## Glycerol_HMDB0000131	-0.175801463
## Ethanolamine_HMDB0000149	-0.265257236
## L.Leucine_HMDB0000687	-0.089552520
## Acetyl glycine_HMDB0000532	0.755548947
## L.Isoleucine_HMDB0000172	-0.181578895
## Nicotinic.acid_HMDB0001488	-0.100685641
## Maleic.acid_HMDB0000176	0.529979969
## L.Proline_HMDB0000162	-0.033690411
## Phenylacetic.acid_HMDB0000209	0.495589205
## Succinic.acid_HMDB0000254	0.081813359
## Glycine_HMDB0000123.1	-0.101136090
## Methylsuccinic.acid_HMDB0001844	0.582083231
## Glyceric.acid_HMDB0000139	0.573779991
## Fumaric.acid_HMDB0000134	0.054692973
## Uracil_HMDB0000300	-0.122299767
## Pelargonic.acid_HMDB0000847	0.484736627
## L.Serine_HMDB0000187	-0.253575540
## L.Threonine_HMDB0000167	-0.243860537
## Mesaconic.acid_HMDB0000749	0.261861772
## Glutaric.acid_HMDB0000661	-0.083469544
## Thymine_HMDB0000262	-0.425466375
## Beta.Alanine_HMDB0000056.1	-0.221922296
## L.Homoserine_HMDB0000719	0.956048870
## Capric.acid_HMDB0000511	1.000000000
## Citramalic.acid_HMDB0000426	-0.349166555
## Malic.acid_HMDB0000744	0.527300078
## Niacinamide_HMDB0001406	-0.179910227
## Adipic.acid_HMDB0000448	-0.282856965

## D.Threitol_HMDB0004136	0.400117252
## Dihydrouracil_HMDB0000076	0.079037086
## Erythritol_HMDB0002994	0.335333068
## N.Acetylserine_HMDB0002931	-0.289002218
## L.Aspartic.acid_HMDB0000191	-0.216754645
## L.Methionine_HMDB0000696	-0.318210633
## X4.Hydroxyproline_HMDB0000725	-0.142810299
## Pyroglutamic.acid_HMDB0000267	-0.249282544
## Cytosine_HMDB0000630	0.019358068
## Gamma.Aminobutyric.acid_HMDB0000112	-0.377250766
## Threonic.acid_HMDB0000943	0.615740007
## L.Cysteine_HMDB0000574	0.635992296
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.422822442
## Creatinine_HMDB0000562	-0.041821213
## X3.Hydroxyglutaric.acid_HMDB0000428	0.450620624
## Oxoglutaric.acid_HMDB0000208	0.224727621
## Phenylpyruvic.acid_HMDB0000205	0.422630770
## Pimelic.acid_HMDB0000857	-0.595385007
## Phenyllactic.acid_HMDB0000779	0.315758598
## Phosphoenolpyruvic.acid_HMDB0000263	0.078790256
## Ornithine_HMDB0000214	-0.362785991
## Hypotaurine_HMDB0000965	-0.343887722
## Triethanolamine_HMDB0032538	-0.482537940
## X2.Aminobenzoic.acid_HMDB0001123	-0.261736322
## L.Glutamic.acid_HMDB0000148	-0.241832227
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.189035948
## X5.Aminopentanoic.acid_HMDB0003355	-0.117714155
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.622328106
## L.Phenylalanine_HMDB0000159	-0.260654616
## Dodecanoic.acid_HMDB0000638	0.491126125
## Lyxose_HMDB0003402_1	0.470470759
## D.Xylose_HMDB0000098	0.065830977
## Lyxose_HMDB0003402_2	-0.073052021
## D.Arabinose_HMDB0029942	0.338088272
## L.Asparagine_HMDB0000168	-0.276309863
## D.Ribulose_HMDB0000621	0.353175036
## D.Ribose_HMDB0000283	0.313306665
## D.Xylulose_HMDB0001644	0.339278040
## X3.Sulfinioalanine_HMDB0000996	-0.013533152
## Suberic.acid_HMDB0000893	-0.251586790
## L.Lysine_HMDB0000182	-0.193116920
## Levoglucosan_HMDB0000640	-0.028567286
## D.Arabitol_HMDB0000568	0.110590724
## Ribitol_HMDB0000508	0.597003035
## cis.Aconitic.acid_HMDB0000072	-0.065936919
## Quinolinic.acid_HMDB0000232	0.006932534
## Putrescine_HMDB0001414	-0.141834451
## Glycerol.3.phosphate_HMDB0000126	0.244171521
## Vanillic.acid_HMDB0000484	0.200693087
## L.Glutamine_HMDB0000641	-0.218912104
## X2.Phosphoglyceric.acid_HMDB0000362	0.090661503
## Azelaic.acid_HMDB0000784	-0.294646505
## L.Dihydroorotic.acid_HMDB0003349	0.392463152
## O.Phosphoethanolamine_HMDB0000224	0.288712031

## X3.Phosphoglyceric.acid_HMDB0000807	-0.050406367
## Isocitric.acid_HMDB0000193	0.495970995
## Hypoxanthine_HMDB0000157	0.019698237
## Citric.acid_HMDB0000094	0.310491271
## L.Arginine_HMDB0000517	0.547369220
## Ornithine_HMDB0000214.1	-0.374421643
## Dopamine_HMDB0000073	-0.347086773
## Myristic.acid_HMDB0000806	0.133248192
## X1.5.Anhydrosorbitol_HMDB0002712	0.392929756
## D.Tagatose_HMDB0003418	0.364879053
## Psicose_1	-0.099114554
## Sebacic.acid_HMDB0000792	0.053789439
## D.Fructose_HMDB0000660	0.319402174
## Gluconolactone_HMDB0000150	0.478426292
## L.Sorbose_HMDB0001266	0.328217306
## D.Mannose_HMDB0000169	-0.209777236
## Hydroxyphenyllactic.acid_HMDB0000755	0.170726573
## D.Glucose_HMDB0000122	-0.250314967
## N.Acetylglutamine_HMDB0006029	-0.217887214
## L.Lysine_HMDB0000182.1	-0.239730554
## D.Mannose_HMDB0000169.1	-0.225498518
## Tyramine_HMDB0000306	-0.237266904
## L.Histidine_HMDB0000177	-0.237278211
## D.Glucose_HMDB0000122.1	-0.229862480
## X1.Hexadecanol_HMDB0003424	0.706097158
## L.Tyrosine_HMDB0000158	-0.333392798
## Mannitol_HMDB0000765	-0.149556010
## Sorbitol_HMDB0000247	-0.125551087
## ITSD_Sorbitol	0.213489240
## Galacturonic.acid_HMDB0002545	0.369753543
## Pantothenic.acid_HMDB0000210	0.373488413
## Palmitoleic.acid_HMDB0003229	0.292404454
## Xanthine_HMDB0000292	-0.515765180
## Gluconic.acid_HMDB0000625	0.124887214
## Palmitic.acid_HMDB0000220	0.324519210
## Glucaric.acid_HMDB0000663	-0.071575594
## N.Acetylmannosamine_HMDB0001129	0.023297714
## N.Acetyl.D.glucosamine_HMDB0000215	-0.089565600
## D.Ribulose.5.phosphate_HMDB0000618	0.341232875
## Uric.acid_HMDB0000289	-0.175251613
## D.Ribose.5.phosphate_HMDB0001548	0.257788756
## myo.Inositol_HMDB0000211	0.259175655
## D.Ribose.5.phosphate_HMDB0001548.1	0.320444026
## Heptadecanoic.acid_HMDB0002259	0.249934068
## Octadecanol_HMDB0002350	0.590120958
## Glutathione_HMDB0000125	0.152826350
## Linoleic.acid_HMDB0000673	0.394761434
## Oleic.acid_HMDB0000207	0.322374257
## Elaidic.acid_HMDB0000573	0.350565332
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.216719023
## Stearic.acid_HMDB0000827	0.416103537
## L.Tryptophan_HMDB0000929	0.324068577
## Fructose.1.phosphate_HMDB0001076	0.335102292
## Mannose.6.phosphate_HMDB0001078	0.079813240

## Arachidonic.acid_HMDB0001043	0.338362343
## Glucose.6.phosphate_HMDB0001401	0.527524691
## X6.Phosphogluconic.acid_HMDB0001316	0.675797615
## Inositol.phosphate_HMDB0002985	0.627297883
## Uridine_HMDB0000296	0.425648457
## Stigmasterol_HMDB0000937	0.179026408
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.321711856
## Sucrose_HMDB0000258	-0.191259035
## MG.18.0e.0.0.0.0._HMDB0011143	0.520022186
## Trehalose_HMDB0000975	-0.337344066
## D.Maltose_HMDB0000163	-0.334131526
## Lactitol_HMDB00040937	0.061039739
## Xanthylic.acid_HMDB0001554	-0.135966195
## Adenosine.monophosphate_HMDB0000045	0.451262465
## Cholesterol_HMDB0000067	0.631524534
## Lathosterol_HMDB0001170	0.410027204
## X7b.Hydroxycholesterol_.HMDB0006119	-0.119023436
## Citramalic.acid_HMDB0000426	
## Dimethylglycine_HMDB0000092	-0.335711893
## Glyoxylic.acid_HMDB0000119	-0.326938458
## Pyruvic.acid_HMDB0000243	0.662141639
## L.Lactic.acid_HMDB0000190	0.564976240
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.396069651
## Glycolic.acid_HMDB0000115	-0.260027980
## Caproic.acid_HMDB0000535	-0.193719819
## L.Alanine_HMDB0000161	0.624920821
## Alpha.ketoisovaleric.acid_HMDB0000019	0.431722338
## Glycine_HMDB0000123	0.698976867
## Oxalic.acid_HMDB0002329	-0.114487451
## Hydroxylamine_HMDB0003338	0.169683756
## X2.Hydroxybutyric.acid_HMDB0000008	-0.051107854
## Acetoacetic.acid_HMDB0000060	-0.004468728
## Hydroxypropionic.acid_HMDB0000700	0.294707229
## Pyruvic.acid_HMDB0000243.1	0.237221461
## X3.Hydroxybutyric.acid_HMDB0000357	-0.007982448
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.038375296
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.349260463
## D.Alpha.aminobutyric.acid_HMDB0000650	0.388849799
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.026026484
## Beta.Alanine_HMDB0000056	0.581641661
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.460967859
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.168594347
## Malonic.acid_HMDB0000691	0.856959818
## X3.Aminoisobutanoic.acid_HMDB0003911	0.268970893
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.348315780
## Ketoleucine_HMDB0000695	0.062246236
## L.Valine_HMDB0000883	0.481532943
## ITSD_Valine	0.420361537
## Urea_HMDB0000294	0.503171379
## Benzoic.acid_HMDB0001870	-0.227481575
## Caprylic.acid_HMDB0000482	-0.218391429
## Glycerol_HMDB0000131	0.524383379
## Ethanolamine_HMDB0000149	0.608674087
## L.Leucine_HMDB0000687	0.436599101

## Acetylglycine_HMDB0000532	-0.037257716
## L.Isoleucine_HMDB0000172	0.484117125
## Nicotinic.acid_HMDB0001488	0.174605466
## Maleic.acid_HMDB0000176	-0.076658915
## L.Proline_HMDB0000162	0.365408670
## Phenylacetic.acid_HMDB0000209	-0.187525553
## Succinic.acid_HMDB0000254	0.528648462
## Glycine_HMDB0000123.1	0.553985322
## Methylsuccinic.acid_HMDB0001844	0.261400348
## Glyceric.acid_HMDB0000139	-0.380948990
## Fumaric.acid_HMDB0000134	0.517902298
## Uracil_HMDB0000300	0.556823807
## Pelargonic.acid_HMDB0000847	-0.302999484
## L.Serine_HMDB0000187	0.597161039
## L.Threonine_HMDB0000167	0.619423996
## Mesaconic.acid_HMDB0000749	0.199538436
## Glutaric.acid_HMDB0000661	0.539569575
## Thymine_HMDB0000262	0.582750330
## Beta.Alanine_HMDB0000056.1	0.448595330
## L.Homoserine_HMDB0000719	-0.293019499
## Capric.acid_HMDB0000511	-0.349166555
## Citramalic.acid_HMDB0000426	1.000000000
## Malic.acid_HMDB0000744	-0.018993011
## Niacinamide_HMDB0001406	0.654528560
## Adipic.acid_HMDB0000448	0.689482734
## D.Threitol_HMDB0004136	0.217172071
## Dihydrouracil_HMDB0000076	0.516307142
## Erythritol_HMDB0002994	0.267983373
## N.Acetylserine_HMDB0002931	0.635954373
## L.Aspartic.acid_HMDB0000191	0.589254520
## L.Methionine_HMDB0000696	0.487841317
## X4.Hydroxyproline_HMDB0000725	0.604153944
## Pyroglutamic.acid_HMDB0000267	0.572701573
## Cytosine_HMDB0000630	0.310657680
## Gamma.Aminobutyric.acid_HMDB0000112	0.580187924
## Threonic.acid_HMDB0000943	-0.296809341
## L.Cysteine_HMDB0000574	-0.271553502
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.159128577
## Creatinine_HMDB0000562	0.254068767
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.081910158
## Oxoglutaric.acid_HMDB0000208	0.138357261
## Phenylpyruvic.acid_HMDB0000205	-0.237686264
## Pimelic.acid_HMDB0000857	0.557146096
## Phenyllactic.acid_HMDB0000779	-0.136112666
## Phosphoenolpyruvic.acid_HMDB0000263	-0.308922610
## Ornithine_HMDB0000214	0.586864499
## Hypotaurine_HMDB0000965	0.559282113
## Triethanolamine_HMDB0032538	0.722707832
## X2.Aminobenzoic.acid_HMDB0001123	0.482826972
## L.Glutamic.acid_HMDB0000148	0.488075225
## X4.Hydroxybenzoic.acid_HMDB0000500	0.541863789
## X5.Aminopentanoic.acid_HMDB0003355	0.259113746
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.067772790
## L.Phenylalanine_HMDB0000159	0.485285930

## Dodecanoic.acid_HMDB0000638	0.087303690
## Lyxose_HMDB0003402_1	-0.453655689
## D.Xylose_HMDB0000098	-0.154739181
## Lyxose_HMDB0003402_2	0.104979327
## D.Arabinose_HMDB0029942	-0.413981098
## L.Asparagine_HMDB0000168	0.371112872
## D.Ribulose_HMDB0000621	-0.348060151
## D.Ribose_HMDB0000283	-0.411855624
## D.Xylulose_HMDB0001644	-0.356317210
## X3.Sulfinoalanine_HMDB0000996	0.078758845
## Suberic.acid_HMDB0000893	0.884510326
## L.Lysine_HMDB0000182	0.399612673
## Levoglucosan_HMDB0000640	-0.082770816
## D.Arabitol_HMDB0000568	0.461720393
## Ribitol_HMDB0000508	-0.052181212
## cis.Aconitic.acid_HMDB0000072	-0.005047740
## Quinolinic.acid_HMDB0000232	0.484323529
## Putrescine_HMDB0001414	0.287529221
## Glycerol.3.phosphate_HMDB0000126	-0.337619210
## Vanillic.acid_HMDB0000484	0.300875151
## L.Glutamine_HMDB0000641	0.101607310
## X2.Phosphoglyceric.acid_HMDB0000362	0.307937125
## Azelaic.acid_HMDB0000784	0.440589661
## L.Dihydroorotic.acid_HMDB0003349	-0.390985585
## O.Phosphoethanolamine_HMDB0000224	0.187800939
## X3.Phosphoglyceric.acid_HMDB0000807	0.414246705
## Isocitric.acid_HMDB0000193	0.445199566
## Hypoxanthine_HMDB0000157	-0.257528745
## Citric.acid_HMDB0000094	-0.053618049
## L.Arginine_HMDB0000517	-0.266186671
## Ornithine_HMDB0000214.1	0.554703582
## Dopamine_HMDB0000073	0.552178140
## Myristic.acid_HMDB0000806	0.362906254
## X1.5.Anhydrosorbitol_HMDB0002712	-0.037409236
## D.Tagatose_HMDB0003418	-0.350921671
## Psicose_1	-0.079758122
## Sebacic.acid_HMDB0000792	0.509221336
## D.Fructose_HMDB0000660	-0.194454881
## Gluconolactone_HMDB0000150	-0.268794812
## L.Sorbose_HMDB0001266	-0.213564316
## D.Mannose_HMDB0000169	0.376350672
## Hydroxyphenyllactic.acid_HMDB0000755	0.213730279
## D.Glucose_HMDB0000122	0.412568140
## N.Acetylglutamine_HMDB0006029	0.357492261
## L.Lysine_HMDB0000182.1	0.430199221
## D.Mannose_HMDB0000169.1	0.353147543
## Tyramine_HMDB0000306	0.412150734
## L.Histidine_HMDB0000177	0.420345298
## D.Glucose_HMDB0000122.1	0.376532058
## X1.Hexadecanol_HMDB0003424	-0.309670632
## L.Tyrosine_HMDB0000158	0.430168589
## Mannitol_HMDB0000765	0.494400299
## Sorbitol_HMDB0000247	-0.055569329
## ITSD_Sorbitol	0.198814101

## Galacturonic.acid_HMDB0002545	-0.074001932
## Pantothenic.acid_HMDB0000210	0.041123812
## Palmitoleic.acid_HMDB0003229	0.025348044
## Xanthine_HMDB0000292	0.191494159
## Gluconic.acid_HMDB0000625	-0.074501399
## Palmitic.acid_HMDB0000220	0.177534045
## Glucaric.acid_HMDB0000663	0.191423180
## N.Acetylmannosamine_HMDB0001129	0.092563282
## N.Acetyl.D.glucosamine_HMDB0000215	0.355591336
## D.Ribulose.5.phosphate_HMDB0000618	-0.364898336
## Uric.acid_HMDB0000289	0.146963468
## D.Ribose.5.phosphate_HMDB0001548	-0.434897729
## myo.Inositol_HMDB0000211	0.667491063
## D.Ribose.5.phosphate_HMDB0001548.1	-0.402032728
## Heptadecanoic.acid_HMDB0002259	0.171526361
## Octadecanol_HMDB0002350	0.036332400
## Glutathione_HMDB0000125	0.091690354
## Linoleic.acid_HMDB0000673	-0.135104886
## Oleic.acid_HMDB0000207	-0.080583723
## Elaidic.acid_HMDB0000573	0.001799063
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.268698713
## Stearic.acid_HMDB0000827	0.202479460
## L.Tryptophan_HMDB0000929	0.250131506
## Fructose.1.phosphate_HMDB0001076	-0.026746980
## Mannose.6.phosphate_HMDB0001078	-0.176566850
## Arachidonic.acid_HMDB0001043	-0.226996138
## Glucose.6.phosphate_HMDB0001401	-0.164798023
## X6.Phosphogluconic.acid_HMDB0001316	-0.311203812
## Inositol.phosphate_HMDB0002985	-0.388014261
## Uridine_HMDB0000296	0.118648296
## Stigmasterol_HMDB0000937	0.370951667
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.155684247
## Sucrose_HMDB0000258	0.435727198
## MG.18.0e.0.0.0.0._HMDB0011143	-0.057357733
## Trehalose_HMDB0000975	0.157533510
## D.Maltose_HMDB0000163	0.164349440
## Lactitol_HMDB00040937	0.097174459
## Xanthylic.acid_HMDB0001554	-0.354664070
## Adenosine.monophosphate_HMDB0000045	-0.319345234
## Cholesterol_HMDB0000067	-0.357008156
## Lathosterol_HMDB0001170	-0.312123056
## X7b.Hydroxycholesterol_.HMDB0006119	0.151185435
##	Malic.acid_HMDB0000744
## Dimethylglycine_HMDB0000092	0.523405678
## Glyoxylic.acid_HMDB0000119	0.517307938
## Pyruvic.acid_HMDB0000243	0.317197596
## L.Lactic.acid_HMDB0000190	0.111742001
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.476444762
## Glycolic.acid_HMDB0000115	0.801837215
## Caproic.acid_HMDB0000535	0.749893618
## L.Alanine_HMDB0000161	-0.047102569
## Alpha.ketoisovaleric.acid_HMDB0000019	0.534414275
## Glycine_HMDB0000123	0.080727937
## Oxalic.acid_HMDB0002329	0.581708675

## Hydroxylamine_HMDB0003338	0.342371489
## X2.Hydroxybutyric.acid_HMDB0000008	0.753734525
## Acetoacetic.acid_HMDB0000060	0.719253092
## Hydroxypropionic.acid_HMDB0000700	0.254381118
## Pyruvic.acid_HMDB0000243.1	0.373788136
## X3.Hydroxybutyric.acid_HMDB0000357	0.691743698
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.734193358
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.774717287
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.084780440
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.544997916
## Beta.Alanine_HMDB0000056	-0.352127735
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.465384591
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.521310915
## Malonic.acid_HMDB0000691	0.224133154
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.342841088
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.230312947
## Ketoleucine_HMDB0000695	0.829324996
## L.Valine_HMDB0000883	0.015629190
## ITSD_Valine	-0.030223277
## Urea_HMDB0000294	0.270696177
## Benzoic.acid_HMDB0001870	0.388893911
## Caprylic.acid_HMDB0000482	0.727155816
## Glycerol_HMDB0000131	-0.084172133
## Ethanolamine_HMDB0000149	-0.005309865
## L.Leucine_HMDB0000687	0.000637668
## Acetyl glycine_HMDB0000532	0.786783718
## L.Isoleucine_HMDB0000172	0.006064736
## Nicotinic.acid_HMDB0001488	0.155515590
## Maleic.acid_HMDB0000176	0.906572611
## L.Proline_HMDB0000162	0.290972929
## Phenylacetic.acid_HMDB0000209	0.896770147
## Succinic.acid_HMDB0000254	0.373801132
## Glycine_HMDB0000123.1	0.067271026
## Methylsuccinic.acid_HMDB0001844	0.300125505
## Glyceric.acid_HMDB0000139	0.840029688
## Fumaric.acid_HMDB0000134	0.341379880
## Uracil_HMDB0000300	0.408933165
## Pelargonic.acid_HMDB0000847	0.620936050
## L.Serine_HMDB0000187	0.009059572
## L.Threonine_HMDB0000167	0.088714639
## Mesaconic.acid_HMDB0000749	0.189800148
## Glutaric.acid_HMDB0000661	0.556956033
## Thymine_HMDB0000262	0.054318235
## Beta.Alanine_HMDB0000056.1	-0.313222989
## L.Homoserine_HMDB0000719	0.476049753
## Capric.acid_HMDB0000511	0.527300078
## Citramalic.acid_HMDB0000426	-0.018993011
## Malic.acid_HMDB0000744	1.000000000
## Niacinamide_HMDB0001406	-0.026584707
## Adipic.acid_HMDB0000448	-0.033253385
## D.Threitol_HMDB0004136	0.333119123
## Dihydrouracil_HMDB0000076	0.416576003
## Erythritol_HMDB0002994	0.541716729
## N.Acetylserine_HMDB0002931	0.186626482

## L.Aspartic.acid_HMDB0000191	-0.012868292
## L.Methionine_HMDB0000696	-0.405111989
## X4.Hydroxyproline_HMDB0000725	0.135539077
## Pyroglutamic.acid_HMDB0000267	-0.011061817
## Cytosine_HMDB0000630	-0.132922486
## Gamma.Aminobutyric.acid_HMDB0000112	0.058949531
## Threonic.acid_HMDB0000943	0.855530574
## L.Cysteine_HMDB0000574	0.815192238
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.851781060
## Creatinine_HMDB0000562	-0.384563281
## X3.Hydroxyglutaric.acid_HMDB0000428	0.606583968
## Oxoglutaric.acid_HMDB0000208	0.448092553
## Phenylpyruvic.acid_HMDB0000205	0.416015817
## Pimelic.acid_HMDB0000857	-0.238553063
## Phenyllactic.acid_HMDB0000779	0.501216513
## Phosphoenolpyruvic.acid_HMDB0000263	0.359962102
## Ornithine_HMDB0000214	-0.429461331
## Hypotaurine_HMDB0000965	-0.090026652
## Triethanolamine_HMDB0032538	-0.029122967
## X2.Aminobenzoic.acid_HMDB0001123	-0.269176212
## L.Glutamic.acid_HMDB0000148	-0.390596313
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.053417300
## X5.Aminopentanoic.acid_HMDB0003355	0.570218404
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.750125660
## L.Phenylalanine_HMDB0000159	-0.314503795
## Dodecanoic.acid_HMDB0000638	0.170940809
## Lyxose_HMDB0003402_1	0.720085347
## D.Xylose_HMDB0000098	-0.178603027
## Lyxose_HMDB0003402_2	-0.273454328
## D.Arabinose_HMDB0029942	0.658731288
## L.Asparagine_HMDB0000168	-0.572994478
## D.Ribulose_HMDB0000621	0.529213179
## D.Ribose_HMDB0000283	0.634631624
## D.Xylulose_HMDB0001644	0.506451810
## X3.Sulfinioalanine_HMDB0000996	-0.620043489
## Suberic.acid_HMDB0000893	0.105214202
## L.Lysine_HMDB0000182	-0.510262567
## Levoglucosan_HMDB0000640	-0.308996471
## D.Arabitol_HMDB0000568	0.142401017
## Ribitol_HMDB0000508	0.378284081
## cis.Aconitic.acid_HMDB0000072	-0.262020824
## Quinolinic.acid_HMDB0000232	0.364708013
## Putrescine_HMDB0001414	0.389459179
## Glycerol.3.phosphate_HMDB0000126	0.185898153
## Vanillic.acid_HMDB0000484	0.215987782
## L.Glutamine_HMDB0000641	-0.548682801
## X2.Phosphoglyceric.acid_HMDB0000362	0.642104092
## Azelaic.acid_HMDB0000784	-0.100783790
## L.Dihydroorotic.acid_HMDB0003349	0.715000934
## O.Phosphoethanolamine_HMDB0000224	-0.148863307
## X3.Phosphoglyceric.acid_HMDB0000807	0.592680681
## Isocitric.acid_HMDB0000193	0.434919575
## Hypoxanthine_HMDB0000157	-0.638546651
## Citric.acid_HMDB0000094	0.745193375

## L.Arginine_HMDB0000517	0.284814927
## Ornithine_HMDB0000214.1	-0.317136748
## Dopamine_HMDB0000073	-0.305051976
## Myristic.acid_HMDB0000806	-0.087299633
## X1.5.Anhydrosorbitol_HMDB0002712	0.584295237
## D.Tagatose_HMDB0003418	0.648778003
## Psicose_1	-0.235543667
## Sebacic.acid_HMDB0000792	0.210120254
## D.Fructose_HMDB0000660	0.744332788
## Gluconolactone_HMDB0000150	0.705063823
## L.Sorbose_HMDB0001266	0.727843688
## D.Mannose_HMDB0000169	-0.429172062
## Hydroxyphenyllactic.acid_HMDB0000755	0.507301130
## D.Glucose_HMDB0000122	-0.472387673
## N.Acetylglutamine_HMDB0006029	-0.438453090
## L.Lysine_HMDB0000182.1	-0.431956784
## D.Mannose_HMDB0000169.1	-0.478208014
## Tyramine_HMDB0000306	-0.438679499
## L.Histidine_HMDB0000177	-0.470060054
## D.Glucose_HMDB0000122.1	-0.529625984
## X1.Hexadecanol_HMDB0003424	0.333970745
## L.Tyrosine_HMDB0000158	-0.481114826
## Mannitol_HMDB0000765	-0.060175150
## Sorbitol_HMDB0000247	-0.027655753
## ITSD_Sorbitol	0.083487695
## Galacturonic.acid_HMDB0002545	0.516130577
## Pantothenic.acid_HMDB0000210	0.655308633
## Palmitoleic.acid_HMDB0003229	-0.213950636
## Xanthine_HMDB0000292	-0.393167741
## Gluconic.acid_HMDB0000625	0.590988008
## Palmitic.acid_HMDB0000220	0.059375707
## Glucaric.acid_HMDB0000663	-0.005461666
## N.Acetylmannosamine_HMDB0001129	-0.264075818
## N.Acetyl.D.glucosamine_HMDB0000215	-0.208760697
## D.Ribulose.5.phosphate_HMDB0000618	0.498209673
## Uric.acid_HMDB0000289	-0.687411491
## D.Ribose.5.phosphate_HMDB0001548	0.432813749
## myo.Inositol_HMDB0000211	0.189824362
## D.Ribose.5.phosphate_HMDB0001548.1	0.483844645
## Heptadecanoic.acid_HMDB0002259	0.717185103
## Octadecanol_HMDB0002350	0.739661680
## Glutathione_HMDB0000125	-0.123000049
## Linoleic.acid_HMDB0000673	-0.069507557
## Oleic.acid_HMDB0000207	-0.246979733
## Elaidic.acid_HMDB0000573	-0.182658662
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.553523823
## Stearic.acid_HMDB0000827	0.365841125
## L.Tryptophan_HMDB0000929	0.336589685
## Fructose.1.phosphate_HMDB0001076	0.657651514
## Mannose.6.phosphate_HMDB0001078	-0.141737001
## Arachidonic.acid_HMDB0001043	-0.416905447
## Glucose.6.phosphate_HMDB0001401	0.771096903
## X6.Phosphogluconic.acid_HMDB0001316	0.516432652
## Inositol.phosphate_HMDB0002985	0.248294788

## Uridine_HMDB0000296	0.459361271
## Stigmasterol_HMDB0000937	0.401200530
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.222006279
## Sucrose_HMDB0000258	-0.455839627
## MG.18.0e.0.0.0.0._HMDB0011143	0.447911792
## Trehalose_HMDB0000975	-0.312249067
## D.Maltose_HMDB0000163	-0.307147983
## Lactitol_HMDB0040937	0.110286503
## Xanthylic.acid_HMDB0001554	-0.197351062
## Adenosine.monophosphate_HMDB0000045	0.686522465
## Cholesterol_HMDB0000067	0.022252518
## Lathosterol_HMDB0001170	-0.184672219
## X7b.Hydroxycholesterol_.HMDB0006119	0.550059817
##	Niacinamide_HMDB0001406
## Dimethylglycine_HMDB0000092	-0.497716035
## Glyoxylic.acid_HMDB0000119	-0.497347837
## Pyruvic.acid_HMDB0000243	0.691086090
## L.Lactic.acid_HMDB0000190	0.883058998
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.620443100
## Glycolic.acid_HMDB0000115	-0.137479268
## Caproic.acid_HMDB0000535	-0.498537155
## L.Alanine_HMDB0000161	0.905524269
## Alpha.ketoisovaleric.acid_HMDB0000019	0.622507778
## Glycine_HMDB0000123	0.822146848
## Oxalic.acid_HMDB0002329	-0.283412101
## Hydroxylamine_HMDB0003338	0.362028329
## X2.Hydroxybutyric.acid_HMDB0000008	0.389027833
## Acetoacetic.acid_HMDB0000060	0.062567226
## Hydroxypropionic.acid_HMDB0000700	0.673405242
## Pyruvic.acid_HMDB0000243.1	0.576736325
## X3.Hydroxybutyric.acid_HMDB0000357	0.324488346
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.422714474
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.018614693
## D.Alpha.aminobutyric.acid_HMDB0000650	0.809537241
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.460351408
## Beta.Alanine_HMDB0000056	0.785800770
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.588083314
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.653618004
## Malonic.acid_HMDB0000691	0.526307161
## X3.Aminoisobutanoic.acid_HMDB0003911	0.712632962
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.782758337
## Ketoleucine_HMDB0000695	0.303077265
## L.Valine_HMDB0000883	0.873005080
## ITSD_Valine	0.841308500
## Urea_HMDB0000294	0.883645078
## Benzoic.acid_HMDB0001870	-0.062039678
## Caprylic.acid_HMDB0000482	-0.341511492
## Glycerol_HMDB0000131	0.834152707
## Ethanolamine_HMDB0000149	0.842759611
## L.Leucine_HMDB0000687	0.856923208
## Acetyl glycine_HMDB0000532	0.115349156
## L.Isoleucine_HMDB0000172	0.892479694
## Nicotinic.acid_HMDB0001488	0.140930256
## Maleic.acid_HMDB0000176	-0.022384860

## L.Proline_HMDB0000162	0.777343392
## Phenylacetic.acid_HMDB0000209	-0.262043687
## Succinic.acid_HMDB0000254	0.754688368
## Glycine_HMDB0000123.1	0.824877855
## Methylsuccinic.acid_HMDB0001844	0.100869793
## Glyceric.acid_HMDB0000139	-0.340135103
## Fumaric.acid_HMDB0000134	0.869872406
## Uracil_HMDB0000300	0.755919773
## Pelargonic.acid_HMDB0000847	-0.418047973
## L.Serine_HMDB0000187	0.794073274
## L.Threonine_HMDB0000167	0.891173759
## Mesaconic.acid_HMDB0000749	0.425402771
## Glutaric.acid_HMDB0000661	0.308380873
## Thymine_HMDB0000262	0.686664185
## Beta.Alanine_HMDB0000056.1	0.846929446
## L.Homoserine_HMDB0000719	-0.113437463
## Capric.acid_HMDB0000511	-0.179910227
## Citramalic.acid_HMDB0000426	0.654528560
## Malic.acid_HMDB0000744	-0.026584707
## Niacinamide_HMDB0001406	1.000000000
## Adipic.acid_HMDB0000448	0.773515920
## D.Threitol_HMDB0004136	0.422764008
## Dihydrouracil_HMDB0000076	0.747613597
## Erythritol_HMDB0002994	0.714887851
## N.Acetylserine_HMDB0002931	0.775261505
## L.Aspartic.acid_HMDB0000191	0.869587519
## L.Methionine_HMDB0000696	0.764087138
## X4.Hydroxyproline_HMDB0000725	0.932642924
## Pyroglutamic.acid_HMDB0000267	0.864162875
## Cytosine_HMDB0000630	0.318923506
## Gamma.Aminobutyric.acid_HMDB0000112	0.597037186
## Threonic.acid_HMDB0000943	-0.018305928
## L.Cysteine_HMDB0000574	0.094653067
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.191065530
## Creatinine_HMDB0000562	0.550805079
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.361622109
## Oxoglutaric.acid_HMDB0000208	0.322734771
## Phenylpyruvic.acid_HMDB0000205	-0.316066288
## Pimelic.acid_HMDB0000857	0.586455883
## Phenyllactic.acid_HMDB0000779	-0.211712820
## Phosphoenolpyruvic.acid_HMDB0000263	-0.599483523
## Ornithine_HMDB0000214	0.520534453
## Hypotaurine_HMDB0000965	0.856568287
## Triethanolamine_HMDB0032538	0.827889474
## X2.Aminobenzoic.acid_HMDB0001123	0.765354381
## L.Glutamic.acid_HMDB0000148	0.842627194
## X4.Hydroxybenzoic.acid_HMDB0000500	0.852808441
## X5.Aminopentanoic.acid_HMDB0003355	0.308635485
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.243798063
## L.Phenylalanine_HMDB0000159	0.806100533
## Dodecanoic.acid_HMDB0000638	0.490210912
## Lyxose_HMDB0003402_1	-0.534934608
## D.Xylose_HMDB0000098	-0.350936260
## Lyxose_HMDB0003402_2	-0.199835614

## D.Arabinose_HMDB0029942	-0.623928524
## L.Asparagine_HMDB0000168	0.428340471
## D.Ribulose_HMDB0000621	-0.679064188
## D.Ribose_HMDB0000283	-0.622615484
## D.Xylulose_HMDB0001644	-0.664245905
## X3.Sulfinioalanine_HMDB0000996	0.228205941
## Suberic.acid_HMDB0000893	0.738553246
## L.Lysine_HMDB0000182	0.322464631
## Levoglucosan_HMDB0000640	-0.245967461
## D.Arabit01_HMDB0000568	0.452649818
## Ribitol_HMDB0000508	0.103010977
## cis.Aconitic.acid_HMDB0000072	-0.080418744
## Quinolinic.acid_HMDB0000232	0.404382584
## Putrescine_HMDB0001414	0.345590120
## Glycerol.3.phosphate_HMDB0000126	-0.488943594
## Vanillic.acid_HMDB0000484	0.663983220
## L.Glutamine_HMDB0000641	0.165211746
## X2.Phosphoglyceric.acid_HMDB0000362	0.442553734
## Azelaic.acid_HMDB0000784	0.198719520
## L.Dihydroorotic.acid_HMDB0003349	-0.605135637
## O.Phosphoethanolamine_HMDB0000224	0.443787853
## X3.Phosphoglyceric.acid_HMDB0000807	0.488977603
## Isocitric.acid_HMDB0000193	0.480359355
## Hypoxanthine_HMDB0000157	-0.261596150
## Citric.acid_HMDB0000094	-0.001893096
## L.Arginine_HMDB0000517	-0.310537310
## Ornithine_HMDB0000214.1	0.775295367
## Dopamine_HMDB0000073	0.762841922
## Myristic.acid_HMDB0000806	0.732152386
## X1.5.Anhydrosorbitol_HMDB0002712	0.305781950
## D.Tagatose_HMDB0003418	-0.580026060
## Psicose_1	-0.067264870
## Sebacic.acid_HMDB0000792	0.819750773
## D.Fructose_HMDB0000660	-0.535226057
## Gluconolactone_HMDB0000150	-0.567147269
## L.Sorbose_HMDB0001266	-0.552347789
## D.Mannose_HMDB0000169	0.786688163
## Hydroxyphenyllactic.acid_HMDB0000755	0.525124067
## D.Glucose_HMDB0000122	0.747241819
## N.Acetylglutamine_HMDB0006029	0.785615973
## L.Lysine_HMDB0000182.1	0.710210034
## D.Mannose_HMDB0000169.1	0.732833783
## Tyramine_HMDB0000306	0.696332346
## L.Histidine_HMDB0000177	0.692342387
## D.Glucose_HMDB0000122.1	0.745681751
## X1.Hexadecanol_HMDB0003424	-0.181226848
## L.Tyrosine_HMDB0000158	0.671963905
## Mannitol_HMDB0000765	0.874388349
## Sorbitol_HMDB0000247	-0.127860752
## ITSD_Sorbitol	0.704988949
## Galacturonic.acid_HMDB0002545	0.430381828
## Pantothenic.acid_HMDB0000210	0.055115126
## Palmitoleic.acid_HMDB0003229	0.391877556
## Xanthine_HMDB0000292	0.194136506

## Gluconic.acid_HMDB0000625	-0.195326270
## Palmitic.acid_HMDB0000220	0.490856115
## Glucaric.acid_HMDB0000663	0.562192215
## N.Acetylmannosamine_HMDB0001129	0.609299500
## N.Acetyl.D.glucosamine_HMDB0000215	0.815853433
## D.Ribulose.5.phosphate_HMDB0000618	-0.555873993
## Uric.acid_HMDB0000289	0.280093985
## D.Ribose.5.phosphate_HMDB0001548	-0.626479666
## myo.Inositol_HMDB0000211	0.740492995
## D.Ribose.5.phosphate_HMDB0001548.1	-0.694769680
## Heptadecanoic.acid_HMDB0002259	0.131146302
## Octadecanol_HMDB0002350	0.146071681
## Glutathione_HMDB0000125	0.230947196
## Linoleic.acid_HMDB0000673	0.190113541
## Oleic.acid_HMDB0000207	0.263355136
## Elaidic.acid_HMDB0000573	0.371092071
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.498244940
## Stearic.acid_HMDB0000827	0.287868269
## L.Tryptophan_HMDB0000929	0.336500242
## Fructose.1.phosphate_HMDB0001076	-0.316651951
## Mannose.6.phosphate_HMDB0001078	-0.323969827
## Arachidonic.acid_HMDB0001043	0.023425699
## Glucose.6.phosphate_HMDB0001401	-0.369989300
## X6.Phosphogluconic.acid_HMDB0001316	-0.110271656
## Inositol.phosphate_HMDB0002985	-0.104554206
## Uridine_HMDB0000296	0.370581870
## Stigmasterol_HMDB0000937	0.587282419
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.115639628
## Sucrose_HMDB0000258	0.425881622
## MG.18.0e.0.0.0.0._HMDB0011143	0.213139202
## Trehalose_HMDB0000975	-0.022762582
## D.Maltose_HMDB0000163	-0.016938773
## Lactitol_HMDB00040937	0.325167210
## Xanthylic.acid_HMDB0001554	-0.661772181
## Adenosine.monophosphate_HMDB0000045	-0.444313901
## Cholesterol_HMDB0000067	0.143447109
## Lathosterol_HMDB0001170	0.169850112
## X7b.Hydroxycholesterol_.HMDB0006119	-0.074843682
## Adipic.acid_HMDB0000448	
## Dimethylglycine_HMDB0000092	-0.4223973285
## Glyoxylic.acid_HMDB0000119	-0.4169601795
## Pyruvic.acid_HMDB0000243	0.4886311832
## L.Lactic.acid_HMDB0000190	0.7612254889
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.2141893752
## Glycolic.acid_HMDB0000115	-0.2921776921
## Caproic.acid_HMDB0000535	-0.2996286052
## L.Alanine_HMDB0000161	0.8250320729
## Alpha.ketoisovaleric.acid_HMDB0000019	0.5690971311
## Glycine_HMDB0000123	0.6802905832
## Oxalic.acid_HMDB0002329	-0.5056698389
## Hydroxylamine_HMDB0003338	0.2342330680
## X2.Hydroxybutyric.acid_HMDB0000008	0.0882646407
## Acetoacetic.acid_HMDB0000060	-0.1612000890
## Hydroxypropionic.acid_HMDB0000700	0.4019422820

## Pyruvic.acid_HMDB0000243.1	0.2760711787
## X3.Hydroxybutyric.acid_HMDB0000357	-0.0757648376
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.0728716137
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.2946710406
## D.Alpha.aminobutyric.acid_HMDB0000650	0.5482117928
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.2178132401
## Beta.Alanine_HMDB0000056	0.5892004020
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.4499194958
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.3590510119
## Malonic.acid_HMDB0000691	0.4961106746
## X3.Aminoisobutanoic.acid_HMDB0003911	0.5821934984
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.4452052863
## Ketoleucine_HMDB0000695	0.1821487269
## L.Valine_HMDB0000883	0.7065660370
## ITSD_Valine	0.5829682427
## Urea_HMDB0000294	0.6279526626
## Benzoic.acid_HMDB0001870	-0.1010995471
## Caprylic.acid_HMDB0000482	-0.3959240361
## Glycerol_HMDB0000131	0.7456662517
## Ethanolamine_HMDB0000149	0.8663780869
## L.Leucine_HMDB0000687	0.7048357264
## Acetyl glycine_HMDB0000532	-0.0657756779
## L.Isoleucine_HMDB0000172	0.7736608442
## Nicotinic.acid_HMDB0001488	0.0738165333
## Maleic.acid_HMDB0000176	-0.2233834079
## L.Proline_HMDB0000162	0.6519833809
## Phenylacetic.acid_HMDB0000209	-0.3667956623
## Succinic.acid_HMDB0000254	0.6046348588
## Glycine_HMDB0000123.1	0.7386349375
## Methylsuccinic.acid_HMDB0001844	-0.1135616390
## Glyceric.acid_HMDB0000139	-0.3516056228
## Fumaric.acid_HMDB0000134	0.5808879330
## Uracil_HMDB0000300	0.6967736260
## Pelargonic.acid_HMDB0000847	-0.4381431361
## L.Serine_HMDB0000187	0.8577958704
## L.Threonine_HMDB0000167	0.8519201456
## Mesaconic.acid_HMDB0000749	0.1829780819
## Glutaric.acid_HMDB0000661	0.4792984808
## Thymine_HMDB0000262	0.5705246404
## Beta.Alanine_HMDB0000056.1	0.6445138913
## L.Homoserine_HMDB0000719	-0.1613239268
## Capric.acid_HMDB0000511	-0.2828569655
## Citramalic.acid_HMDB0000426	0.6894827338
## Malic.acid_HMDB0000744	-0.0332533848
## Niacinamide_HMDB0001406	0.7735159198
## Adipic.acid_HMDB0000448	1.0000000000
## D.Threitol_HMDB0004136	0.2346617210
## Dihydrouracil_HMDB0000076	0.6277265260
## Erythritol_HMDB0002994	0.3356336977
## N.Acetylserine_HMDB0002931	0.8579876227
## L.Aspartic.acid_HMDB0000191	0.8900377464
## L.Methionine_HMDB0000696	0.7067594608
## X4.Hydroxyproline_HMDB0000725	0.8337933101
## Pyroglutamic.acid_HMDB0000267	0.7938392322

## Cytosine_HMDB0000630	0.4566863578
## Gamma.Aminobutyric.acid_HMDB0000112	0.3786350748
## Threonic.acid_HMDB0000943	-0.2397792731
## L.Cysteine_HMDB0000574	-0.1069219564
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.2188497515
## Creatinine_HMDB0000562	0.4671114229
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.2568967783
## Oxoglutaric.acid_HMDB0000208	-0.0271242759
## Phenylpyruvic.acid_HMDB0000205	-0.1608219873
## Pimelic.acid_HMDB0000857	0.4374187998
## Phenyllactic.acid_HMDB0000779	-0.1209407326
## Phosphoenolpyruvic.acid_HMDB0000263	-0.3906242213
## Ornithine_HMDB0000214	0.7708223413
## Hypotaurine_HMDB0000965	0.7215331948
## Triethanolamine_HMDB0032538	0.8505671766
## X2.Aminobenzoic.acid_HMDB0001123	0.6578260425
## L.Glutamic.acid_HMDB0000148	0.7998170971
## X4.Hydroxybenzoic.acid_HMDB0000500	0.7761012021
## X5.Aminopentanoic.acid_HMDB0003355	0.2541684615
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.1134652020
## L.Phenylalanine_HMDB0000159	0.7602319973
## Dodecanoic.acid_HMDB0000638	0.1402114262
## Lyxose_HMDB0003402_1	-0.5067332583
## D.Xylose_HMDB0000098	-0.2223306420
## Lyxose_HMDB0003402_2	-0.0648479798
## D.Arabinose_HMDB0029942	-0.5660020660
## L.Asparagine_HMDB0000168	0.6692321686
## D.Ribulose_HMDB0000621	-0.5199077283
## D.Ribose_HMDB0000283	-0.5751443916
## D.Xylulose_HMDB0001644	-0.5119542541
## X3.Sulfinoalanine_HMDB0000996	0.3543450020
## Suberic.acid_HMDB0000893	0.8340622849
## L.Lysine_HMDB0000182	0.6117808998
## Levoglucosan_HMDB0000640	-0.1113729886
## D.Arabitol_HMDB0000568	0.1291099648
## Ribitol_HMDB0000508	0.2331954893
## cis.Aconitic.acid_HMDB0000072	-0.0526188012
## Quinolinic.acid_HMDB0000232	0.3798849778
## Putrescine_HMDB0001414	0.3299794495
## Glycerol.3.phosphate_HMDB0000126	-0.4388564085
## Vanillic.acid_HMDB0000484	0.5057342643
## L.Glutamine_HMDB0000641	0.4903012570
## X2.Phosphoglyceric.acid_HMDB0000362	0.5416582391
## Azelaic.acid_HMDB0000784	0.2324965409
## L.Dihydroorotic.acid_HMDB0003349	-0.5264963044
## O.Phosphoethanolamine_HMDB0000224	0.2208393522
## X3.Phosphoglyceric.acid_HMDB0000807	0.4969685105
## Isocitric.acid_HMDB0000193	0.5505584211
## Hypoxanthine_HMDB0000157	-0.0234052746
## Citric.acid_HMDB0000094	0.1800443604
## L.Arginine_HMDB0000517	0.0246238980
## Ornithine_HMDB0000214.1	0.8178906557
## Dopamine_HMDB0000073	0.8306045520
## Myristic.acid_HMDB0000806	0.5241886810

## X1.5.Anhydrosorbitol_HMDB0002712	-0.0364102668
## D.Tagatose_HMDB0003418	-0.5066734051
## Psicose_1	-0.0426912106
## Sebacic.acid_HMDB0000792	0.6694630024
## D.Fructose_HMDB0000660	-0.4354919374
## Gluconolactone_HMDB0000150	-0.3649229531
## L.Sorbose_HMDB0001266	-0.4512539867
## D.Mannose_HMDB0000169	0.5473519160
## Hydroxyphenyllactic.acid_HMDB0000755	0.0640797134
## D.Glucose_HMDB0000122	0.5278789676
## N.Acetylglutamine_HMDB0006029	0.5200344745
## L.Lysine_HMDB0000182.1	0.7188304067
## D.Mannose_HMDB0000169.1	0.5953164747
## Tyramine_HMDB0000306	0.7074049683
## L.Histidine_HMDB0000177	0.6885253091
## D.Glucose_HMDB0000122.1	0.4858858612
## X1.Hexadecanol_HMDB0003424	-0.3430761920
## L.Tyrosine_HMDB0000158	0.7846524533
## Mannitol_HMDB0000765	0.6202690891
## Sorbitol_HMDB0000247	0.1778972797
## ITSD_Sorbitol	0.4077179004
## Galacturonic.acid_HMDB0002545	0.1343890590
## Pantothenic.acid_HMDB0000210	-0.0995893664
## Palmitoleic.acid_HMDB0003229	0.0554183334
## Xanthine_HMDB0000292	0.6275861121
## Gluconic.acid_HMDB0000625	0.0438910478
## Palmitic.acid_HMDB0000220	0.0980663156
## Glucaric.acid_HMDB0000663	0.5794875291
## N.Acetylmannosamine_HMDB0001129	0.2838746485
## N.Acetyl.D.glucosamine_HMDB0000215	0.5296175462
## D.Ribulose.5.phosphate_HMDB0000618	-0.5501216038
## Uric.acid_HMDB0000289	0.4881059329
## D.Ribose.5.phosphate_HMDB0001548	-0.6520803063
## myo.Inositol_HMDB0000211	0.6374873521
## D.Ribose.5.phosphate_HMDB0001548.1	-0.6478779729
## Heptadecanoic.acid_HMDB0002259	0.3434354936
## Octadecanol_HMDB0002350	-0.1131212055
## Glutathione_HMDB0000125	0.4263761196
## Linoleic.acid_HMDB0000673	-0.1660851760
## Oleic.acid_HMDB0000207	-0.0450988399
## Elaidic.acid_HMDB0000573	-0.0006196701
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.3602691659
## Stearic.acid_HMDB0000827	-0.0722902021
## L.Tryptophan_HMDB0000929	-0.0391031316
## Fructose.1.phosphate_HMDB0001076	-0.2417861275
## Mannose.6.phosphate_HMDB0001078	-0.1777134250
## Arachidonic.acid_HMDB0001043	-0.2316185767
## Glucose.6.phosphate_HMDB0001401	-0.3447826952
## X6.Phosphogluconic.acid_HMDB0001316	-0.3648525765
## Inositol.phosphate_HMDB0002985	-0.4497540412
## Uridine_HMDB0000296	0.0786105993
## Stigmasterol_HMDB0000937	0.1780065440
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.1043913820
## Sucrose_HMDB0000258	0.3177861583

## MG.18.0e.0.0.0.0._HMDB0011143	-0.2635788002
## Trehalose_HMDB0000975	-0.0258655527
## D.Maltose_HMDB0000163	-0.0212481919
## Lactitol_HMDB0040937	-0.0699108380
## Xanthylic.acid_HMDB0001554	-0.3088505297
## Adenosine.monophosphate_HMDB0000045	-0.3850181443
## Cholesterol_HMDB0000067	-0.1906690237
## Lathosterol_HMDB0001170	-0.2942302936
## X7b.Hydroxycholesterol_.HMDB0006119	0.1808051751
## D.Threitol_HMDB0004136	0.113197948
## Dimethylglycine_HMDB0000092	0.103889950
## Glyoxylic.acid_HMDB0000119	0.499236676
## Pyruvic.acid_HMDB0000243	0.334933312
## L.Lactic.acid_HMDB0000190	0.696008244
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.369614812
## Glycolic.acid_HMDB0000115	0.117446206
## Caproic.acid_HMDB0000535	0.315058330
## L.Alanine_HMDB0000161	0.404508565
## Alpha.ketoisovaleric.acid_HMDB0000019	0.377366036
## Glycine_HMDB0000123	-0.038174185
## Oxalic.acid_HMDB0002329	0.365675398
## Hydroxylamine_HMDB0003338	0.496437577
## X2.Hydroxybutyric.acid_HMDB0000008	0.356449771
## Acetoacetic.acid_HMDB0000060	0.379298042
## Hydroxypropionic.acid_HMDB0000700	0.553147697
## Pyruvic.acid_HMDB0000243.1	0.531029782
## X3.Hydroxybutyric.acid_HMDB0000357	0.505258492
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.463814635
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.220986974
## D.Alpha.aminobutyric.acid_HMDB0000650	0.341122741
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.285866596
## Beta.Alanine_HMDB0000056	0.332155294
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.430278828
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.344090545
## Malonic.acid_HMDB0000691	0.301060605
## X3.Aminoisobutanoic.acid_HMDB0003911	0.405446807
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.435873462
## Ketoleucine_HMDB0000695	0.379272215
## L.Valine_HMDB0000883	0.341071217
## ITSD_Valine	0.469437077
## Urea_HMDB0000294	0.504531062
## Benzoic.acid_HMDB0001870	0.335770689
## Caprylic.acid_HMDB0000482	0.275817431
## Glycerol_HMDB0000131	0.275594943
## Ethanolamine_HMDB0000149	0.356002785
## L.Leucine_HMDB0000687	0.425999754
## Acetylglucine_HMDB0000532	0.326559254
## L.Isoleucine_HMDB0000172	0.317767222
## Nicotinic.acid_HMDB0001488	0.426824586
## Maleic.acid_HMDB0000176	0.403253057
## L.Proline_HMDB0000162	0.306626909
## Phenylacetic.acid_HMDB0000209	0.396414935
## Succinic.acid_HMDB0000254	0.362562704
## Glycine_HMDB0000123.1	

## Methylsuccinic.acid_HMDB0001844	0.332843160
## Glyceric.acid_HMDB0000139	0.328052544
## Fumaric.acid_HMDB0000134	0.566175316
## Uracil_HMDB0000300	0.576531787
## Pelargonic.acid_HMDB0000847	0.204929435
## L.Serine_HMDB0000187	0.338460189
## L.Threonine_HMDB0000167	0.327938517
## Mesaconic.acid_HMDB0000749	0.563643034
## Glutaric.acid_HMDB0000661	0.235395665
## Thymine_HMDB0000262	0.195192205
## Beta.Alanine_HMDB0000056.1	0.217114118
## L.Homoserine_HMDB0000719	0.307075736
## Capric.acid_HMDB0000511	0.400117252
## Citramalic.acid_HMDB0000426	0.217172071
## Malic.acid_HMDB0000744	0.333119123
## Niacinamide_HMDB0001406	0.422764008
## Adipic.acid_HMDB0000448	0.234661721
## D.Threitol_HMDB0004136	1.000000000
## Dihydrouracil_HMDB0000076	0.338621509
## Erythritol_HMDB0002994	0.500230911
## N.Acetylserine_HMDB0002931	0.287155534
## L.Aspartic.acid_HMDB0000191	0.338460428
## L.Methionine_HMDB0000696	0.173321940
## X4.Hydroxyproline_HMDB0000725	0.424206999
## Pyroglutamic.acid_HMDB0000267	0.450875263
## Cytosine_HMDB0000630	0.225534068
## Gamma.Aminobutyric.acid_HMDB0000112	0.333368395
## Threonic.acid_HMDB0000943	0.382981217
## L.Cysteine_HMDB0000574	0.460073787
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.222630590
## Creatinine_HMDB0000562	0.167950476
## X3.Hydroxyglutaric.acid_HMDB0000428	0.199217235
## Oxoglutaric.acid_HMDB0000208	0.399788049
## Phenylpyruvic.acid_HMDB0000205	0.219496814
## Pimelic.acid_HMDB0000857	-0.154061479
## Phenyllactic.acid_HMDB0000779	0.268261436
## Phosphoenolpyruvic.acid_HMDB0000263	-0.245306313
## Ornithine_HMDB0000214	0.018081436
## Hypotaurine_HMDB0000965	0.310732502
## Triethanolamine_HMDB0032538	0.153367927
## X2.Aminobenzoic.acid_HMDB0001123	0.154433904
## L.Glutamic.acid_HMDB0000148	0.233746899
## X4.Hydroxybenzoic.acid_HMDB0000500	0.234725958
## X5.Aminopentanoic.acid_HMDB0003355	0.228260144
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.295904995
## L.Phenylalanine_HMDB0000159	0.172678773
## Dodecanoic.acid_HMDB0000638	0.476070290
## Lyxose_HMDB0003402_1	0.028355790
## D.Xylose_HMDB0000098	0.023823914
## Lyxose_HMDB0003402_2	0.009226683
## D.Arabinose_HMDB0029942	-0.120329701
## L.Asparagine_HMDB0000168	-0.160726661
## D.Ribulose_HMDB0000621	0.028956659
## D.Ribose_HMDB0000283	-0.109841037

## D.Xylulose_HMDB0001644	0.012290216
## X3.Sulfinioalanine_HMDB0000996	0.084330324
## Suberic.acid_HMDB0000893	0.258317621
## L.Lysine_HMDB0000182	-0.045851879
## Levoglucosan_HMDB0000640	-0.002146063
## D.Arabitol_HMDB0000568	0.515691551
## Ribitol_HMDB0000508	0.704511985
## cis.Aconitic.acid_HMDB0000072	0.031075930
## Quinolinic.acid_HMDB0000232	0.418933525
## Putrescine_HMDB0001414	0.356800297
## Glycerol.3.phosphate_HMDB0000126	0.040826709
## Vanillic.acid_HMDB0000484	0.637339234
## L.Glutamine_HMDB0000641	-0.277711977
## X2.Phosphoglyceric.acid_HMDB0000362	0.334363188
## Azelaic.acid_HMDB0000784	0.076840041
## L.Dihydroorotic.acid_HMDB0003349	-0.047098107
## O.Phosphoethanolamine_HMDB0000224	0.276025757
## X3.Phosphoglyceric.acid_HMDB0000807	0.243765012
## Isocitric.acid_HMDB0000193	0.549927302
## Hypoxanthine_HMDB0000157	-0.368377755
## Citric.acid_HMDB0000094	0.268220953
## L.Arginine_HMDB0000517	0.028669531
## Ornithine_HMDB0000214.1	0.124806165
## Dopamine_HMDB0000073	0.125172465
## Myristic.acid_HMDB0000806	0.348782325
## X1.5.Anhydrosorbitol_HMDB0002712	0.398793516
## D.Tagatose_HMDB0003418	-0.038373798
## Psicose_1	-0.012756562
## Sebacic.acid_HMDB0000792	0.471005117
## D.Fructose_HMDB0000660	0.074038254
## Gluconolactone_HMDB0000150	0.169254768
## L.Sorbose_HMDB0001266	0.076444298
## D.Mannose_HMDB0000169	0.257243589
## Hydroxyphenyllactic.acid_HMDB0000755	0.465088143
## D.Glucose_HMDB0000122	0.277296983
## N.Acetylglutamine_HMDB0006029	0.248121125
## L.Lysine_HMDB0000182.1	0.104863912
## D.Mannose_HMDB0000169.1	0.152583122
## Tyramine_HMDB0000306	0.089628158
## L.Histidine_HMDB0000177	0.078710334
## D.Glucose_HMDB0000122.1	0.247587765
## X1.Hexadecanol_HMDB0003424	0.684077515
## L.Tyrosine_HMDB0000158	0.033614060
## Mannitol_HMDB0000765	0.316641043
## Sorbitol_HMDB0000247	-0.033135417
## ITSD_Sorbitol	0.319713613
## Galacturonic.acid_HMDB0002545	0.402498277
## Pantothenic.acid_HMDB0000210	0.442525708
## Palmitoleic.acid_HMDB0003229	0.282154496
## Xanthine_HMDB0000292	-0.210973063
## Gluconic.acid_HMDB0000625	0.155122515
## Palmitic.acid_HMDB0000220	0.478865756
## Glucaric.acid_HMDB0000663	0.175222267
## N.Acetylmannosamine_HMDB0001129	0.520350403

## N.Acetyl.D.glucosamine_HMDB0000215	0.420682314
## D.Ribulose.5.phosphate_HMDB0000618	0.081135526
## Uric.acid_HMDB0000289	-0.159374645
## D.Ribose.5.phosphate_HMDB0001548	-0.103600405
## myo.Inositol_HMDB0000211	0.620562502
## D.Ribose.5.phosphate_HMDB0001548.1	-0.115596521
## Heptadecanoic.acid_HMDB0002259	0.155504459
## Octadecanol_HMDB0002350	0.548235082
## Glutathione_HMDB0000125	-0.031205402
## Linoleic.acid_HMDB0000673	0.285968613
## Oleic.acid_HMDB0000207	0.213689414
## Elaidic.acid_HMDB0000573	0.299533291
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.093306247
## Stearic.acid_HMDB0000827	0.521630400
## L.Tryptophan_HMDB0000929	0.490214840
## Fructose.1.phosphate_HMDB0001076	0.073746901
## Mannose.6.phosphate_HMDB0001078	0.056182526
## Arachidonic.acid_HMDB0001043	0.042149889
## Glucose.6.phosphate_HMDB0001401	0.183428238
## X6.Phosphogluconic.acid_HMDB0001316	0.526533866
## Inositol.phosphate_HMDB0002985	0.386356491
## Uridine_HMDB0000296	0.498221912
## Stigmasterol_HMDB0000937	0.617426319
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.162220666
## Sucrose_HMDB0000258	0.316917655
## MG.18.0e.0.0.0.0._HMDB0011143	0.521504011
## Trehalose_HMDB0000975	0.011531301
## D.Maltose_HMDB0000163	0.020575534
## Lactitol_HMDB00040937	0.330696827
## Xanthylic.acid_HMDB0001554	-0.486640776
## Adenosine.monophosphate_HMDB0000045	0.173072800
## Cholesterol_HMDB0000067	0.482763351
## Lathosterol_HMDB0001170	0.419709834
## X7b.Hydroxycholesterol_.HMDB0006119	-0.030602825
##	Dihydrouracil_HMDB0000076
## Dimethylglycine_HMDB0000092	-0.017592788
## Glyoxylic.acid_HMDB0000119	-0.017423665
## Pyruvic.acid_HMDB0000243	0.453774397
## L.Lactic.acid_HMDB0000190	0.726324797
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.679111443
## Glycolic.acid_HMDB0000115	0.191466038
## Caproic.acid_HMDB0000535	0.039214674
## L.Alanine_HMDB0000161	0.694772730
## Alpha.ketoisovaleric.acid_HMDB0000019	0.735866316
## Glycine_HMDB0000123	0.554064365
## Oxalic.acid_HMDB0002329	0.090703529
## Hydroxylamine_HMDB0003338	0.676832452
## X2.Hydroxybutyric.acid_HMDB0000008	0.561663496
## Acetoacetic.acid_HMDB0000060	0.487207315
## Hydroxypropionic.acid_HMDB0000700	0.566039752
## Pyruvic.acid_HMDB0000243.1	0.685954211
## X3.Hydroxybutyric.acid_HMDB0000357	0.430268330
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.558444634
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.348302182

## D.Alpha.aminobutyric.acid_HMDB0000650	0.586562083
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.736196082
## Beta.Alanine_HMDB0000056	0.310336541
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.651121419
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.668155130
## Malonic.acid_HMDB0000691	0.363549130
## X3.Aminoisobutanoic.acid_HMDB0003911	0.333753355
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.642610876
## Ketoleucine_HMDB0000695	0.622855145
## L.Valine_HMDB0000883	0.677965564
## ITSD_Valine	0.571350123
## Urea_HMDB0000294	0.725447452
## Benzoic.acid_HMDB0001870	0.076238385
## Caprylic.acid_HMDB0000482	0.094714870
## Glycerol_HMDB0000131	0.559117504
## Ethanolamine_HMDB0000149	0.649945631
## L.Leucine_HMDB0000687	0.611300972
## Acetylglycine_HMDB0000532	0.327289471
## L.Isoleucine_HMDB0000172	0.661753915
## Nicotinic.acid_HMDB0001488	0.115411204
## Maleic.acid_HMDB0000176	0.324667923
## L.Proline_HMDB0000162	0.694032172
## Phenylacetic.acid_HMDB0000209	0.168276298
## Succinic.acid_HMDB0000254	0.711331795
## Glycine_HMDB0000123.1	0.639410160
## Methylsuccinic.acid_HMDB0001844	0.185413294
## Glyceric.acid_HMDB0000139	-0.003769361
## Fumaric.acid_HMDB0000134	0.739249732
## Uracil_HMDB0000300	0.759454087
## Pelargonic.acid_HMDB0000847	0.008627611
## L.Serine_HMDB0000187	0.616687953
## L.Threonine_HMDB0000167	0.707682828
## Mesaconic.acid_HMDB0000749	0.253130696
## Glutaric.acid_HMDB0000661	0.501042509
## Thymine_HMDB0000262	0.690988834
## Beta.Alanine_HMDB0000056.1	0.482977992
## L.Homoserine_HMDB0000719	0.104162738
## Capric.acid_HMDB0000511	0.079037086
## Citramalic.acid_HMDB0000426	0.516307142
## Malic.acid_HMDB0000744	0.416576003
## Niacinamide_HMDB0001406	0.747613597
## Adipic.acid_HMDB0000448	0.627726526
## D.Threitol_HMDB0004136	0.338621509
## Dihydrouracil_HMDB0000076	1.000000000
## Erythritol_HMDB0002994	0.730206218
## N.Acetylserine_HMDB0002931	0.698361205
## L.Aspartic.acid_HMDB0000191	0.662719023
## L.Methionine_HMDB0000696	0.337774867
## X4.Hydroxyproline_HMDB0000725	0.737743121
## Pyroglutamic.acid_HMDB0000267	0.566737279
## Cytosine_HMDB0000630	0.179185021
## Gamma.Aminobutyric.acid_HMDB0000112	0.301493261
## Threonic.acid_HMDB0000943	0.365585834
## L.Cysteine_HMDB0000574	0.420223446

## L.2.Hydroxyglutaric.acid_HMDB0000694	0.258444090
## Creatinine_HMDB0000562	0.159989876
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.032664771
## Oxoglutaric.acid_HMDB0000208	0.455645872
## Phenylpyruvic.acid_HMDB0000205	-0.158342677
## Pimelic.acid_HMDB0000857	0.314444678
## Phenyllactic.acid_HMDB0000779	0.150876404
## Phosphoenolpyruvic.acid_HMDB0000263	-0.227683955
## Ornithine_HMDB0000214	0.243549698
## Hypotaurine_HMDB0000965	0.637600437
## Triethanolamine_HMDB0032538	0.648659271
## X2.Aminobenzoic.acid_HMDB0001123	0.428055952
## L.Glutamic.acid_HMDB0000148	0.464516902
## X4.Hydroxybenzoic.acid_HMDB0000500	0.618222190
## X5.Aminopentanoic.acid_HMDB0003355	0.481572031
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.131463490
## L.Phenylalanine_HMDB0000159	0.439392038
## Dodecanoic.acid_HMDB0000638	0.344785154
## Lyxose_HMDB0003402_1	-0.067809327
## D.Xylose_HMDB0000098	-0.261336205
## Lyxose_HMDB0003402_2	-0.149575676
## D.Arabinose_HMDB0029942	-0.155505304
## L.Asparagine_HMDB0000168	0.142303941
## D.Ribulose_HMDB0000621	-0.243209385
## D.Ribose_HMDB0000283	-0.164253318
## D.Xylulose_HMDB0001644	-0.244247446
## X3.Sulfinoalanine_HMDB0000996	-0.092371541
## Suberic.acid_HMDB0000893	0.595319085
## L.Lysine_HMDB0000182	0.029198234
## Levoglucosan_HMDB0000640	-0.218243423
## D.Arabitol_HMDB0000568	0.102428708
## Ribitol_HMDB0000508	0.239162150
## cis.Aconitic.acid_HMDB0000072	-0.118510223
## Quinolinic.acid_HMDB0000232	0.320126102
## Putrescine_HMDB0001414	0.304418360
## Glycerol.3.phosphate_HMDB0000126	-0.349290308
## Vanillic.acid_HMDB0000484	0.604933875
## L.Glutamine_HMDB0000641	0.072489300
## X2.Phosphoglyceric.acid_HMDB0000362	0.684026756
## Azelaic.acid_HMDB0000784	-0.028546607
## L.Dihydroorotic.acid_HMDB0003349	-0.105113546
## O.Phosphoethanolamine_HMDB0000224	0.208455144
## X3.Phosphoglyceric.acid_HMDB0000807	0.696997345
## Isocitric.acid_HMDB0000193	0.585340514
## Hypoxanthine_HMDB0000157	-0.369483196
## Citric.acid_HMDB0000094	0.390188200
## L.Arginine_HMDB0000517	0.082753557
## Ornithine_HMDB0000214.1	0.451569088
## Dopamine_HMDB0000073	0.454997230
## Myristic.acid_HMDB0000806	0.398945930
## X1.5.Anhydrosorbitol_HMDB0002712	0.406246506
## D.Tagatose_HMDB0003418	-0.109570400
## Psicose_1	-0.070562332
## Sebacic.acid_HMDB0000792	0.636847447

## D.Fructose_HMDB0000660	-0.129568558
## Gluconolactone_HMDB0000150	-0.090665687
## L.Sorbose_HMDB0001266	-0.156981531
## D.Mannose_HMDB0000169	0.327882989
## Hydroxyphenyllactic.acid_HMDB0000755	0.532885411
## D.Glucose_HMDB0000122	0.265925510
## N.Acetylglutamine_HMDB0006029	0.328069382
## L.Lysine_HMDB0000182.1	0.328444791
## D.Mannose_HMDB0000169.1	0.294945233
## Tyramine_HMDB0000306	0.318028123
## L.Histidine_HMDB0000177	0.288464743
## D.Glucose_HMDB0000122.1	0.276964447
## X1.Hexadecanol_HMDB0003424	-0.250004701
## L.Tyrosine_HMDB0000158	0.314482992
## Mannitol_HMDB0000765	0.558470397
## Sorbitol_HMDB0000247	0.043569390
## ITSD_Sorbitol	0.482593627
## Galacturonic.acid_HMDB0002545	0.548824700
## Pantothenic.acid_HMDB0000210	0.054294806
## Palmitoleic.acid_HMDB0003229	0.081416846
## Xanthine_HMDB0000292	0.003841002
## Gluconic.acid_HMDB0000625	0.287133445
## Palmitic.acid_HMDB0000220	0.260228733
## Glucaric.acid_HMDB0000663	0.296362068
## N.Acetylmannosamine_HMDB0001129	0.370302203
## N.Acetyl.D.glucosamine_HMDB0000215	0.469368588
## D.Ribulose.5.phosphate_HMDB0000618	-0.235372105
## Uric.acid_HMDB0000289	-0.035652518
## D.Ribose.5.phosphate_HMDB0001548	-0.305373191
## myo.Inositol_HMDB0000211	0.543117530
## D.Ribose.5.phosphate_HMDB0001548.1	-0.278247111
## Heptadecanoic.acid_HMDB0002259	0.578100752
## Octadecanol_HMDB0002350	0.313406916
## Glutathione_HMDB0000125	0.308627886
## Linoleic.acid_HMDB0000673	-0.036550962
## Oleic.acid_HMDB0000207	-0.032630689
## Elaidic.acid_HMDB0000573	0.078392503
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.082499815
## Stearic.acid_HMDB0000827	0.233924569
## L.Tryptophan_HMDB0000929	0.253992661
## Fructose.1.phosphate_HMDB0001076	0.140313159
## Mannose.6.phosphate_HMDB0001078	-0.369185679
## Arachidonic.acid_HMDB0001043	-0.271652994
## Glucose.6.phosphate_HMDB0001401	0.124553893
## X6.Phosphogluconic.acid_HMDB0001316	-0.024038108
## Inositol.phosphate_HMDB0002985	-0.158536129
## Uridine_HMDB0000296	0.482635415
## Stigmasterol_HMDB0000937	0.559363591
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.240566075
## Sucrose_HMDB0000258	-0.098079163
## MG.18.0e.0.0.0.0._HMDB0011143	0.247162586
## Trehalose_HMDB0000975	-0.331695328
## D.Maltose_HMDB0000163	-0.329004312
## Lactitol_HMDB0040937	0.295227831

## Xanthylic.acid_HMDB0001554	-0.447349364
## Adenosine.monophosphate_HMDB0000045	-0.071543809
## Cholesterol_HMDB0000067	0.034268440
## Lathosterol_HMDB0001170	-0.115875839
## X7b.Hydroxycholesterol_.HMDB0006119	0.354924137
## Erythritol_HMDB0002994	
## Dimethylglycine_HMDB0000092	-0.074283008
## Glyoxylic.acid_HMDB0000119	-0.081767413
## Pyruvic.acid_HMDB0000243	0.711308359
## L.Lactic.acid_HMDB0000190	0.670641675
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.818630494
## Glycolic.acid_HMDB0000115	0.502973325
## Caproic.acid_HMDB0000535	-0.028855009
## L.Alanine_HMDB0000161	0.556707040
## Alpha.ketoisovaleric.acid_HMDB0000019	0.671514981
## Glycine_HMDB0000123	0.583041434
## Oxalic.acid_HMDB0002329	0.200598376
## Hydroxylamine_HMDB0003338	0.443875925
## X2.Hydroxybutyric.acid_HMDB0000008	0.874528636
## Acetoacetic.acid_HMDB0000060	0.551380308
## Hydroxypropionic.acid_HMDB0000700	0.747769755
## Pyruvic.acid_HMDB0000243.1	0.640026105
## X3.Hydroxybutyric.acid_HMDB0000357	0.816139440
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.885448394
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.651543983
## D.Alpha.aminobutyric.acid_HMDB0000650	0.618562219
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.718725602
## Beta.Alanine_HMDB0000056	0.391540403
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.677380247
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.836651981
## Malonic.acid_HMDB0000691	0.410107141
## X3.Aminoisobutanoic.acid_HMDB0003911	0.354646775
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.822333178
## Ketoleucine_HMDB0000695	0.702604222
## L.Valine_HMDB0000883	0.658755431
## ITSD_Valine	0.678032988
## Urea_HMDB0000294	0.810218864
## Benzoic.acid_HMDB0001870	0.249982340
## Caprylic.acid_HMDB0000482	0.197165831
## Glycerol_HMDB0000131	0.538466667
## Ethanolamine_HMDB0000149	0.515061702
## L.Leucine_HMDB0000687	0.647535165
## Acetylglutamine_HMDB0000532	0.672154056
## L.Isoleucine_HMDB0000172	0.637819473
## Nicotinic.acid_HMDB0001488	0.089100313
## Maleic.acid_HMDB0000176	0.602041222
## L.Proline_HMDB0000162	0.724641842
## Phenylacetic.acid_HMDB0000209	0.379495991
## Succinic.acid_HMDB0000254	0.762920791
## Glycine_HMDB0000123.1	0.601992127
## Methylsuccinic.acid_HMDB0001844	0.349761233
## Glyceric.acid_HMDB0000139	0.294558506
## Fumaric.acid_HMDB0000134	0.889789384
## Uracil_HMDB0000300	0.653378036

## Pelargonic.acid_HMDB0000847	0.079687872
## L.Serine_HMDB0000187	0.437970349
## L.Threonine_HMDB0000167	0.619044100
## Mesaconic.acid_HMDB0000749	0.509863243
## Glutaric.acid_HMDB0000661	0.320909911
## Thymine_HMDB0000262	0.435418673
## Beta.Alanine_HMDB0000056.1	0.480942149
## L.Homoserine_HMDB0000719	0.324948909
## Capric.acid_HMDB0000511	0.335333068
## Citramalic.acid_HMDB0000426	0.267983373
## Malic.acid_HMDB0000744	0.541716729
## Niacinamide_HMDB0001406	0.714887851
## Adipic.acid_HMDB0000448	0.335633698
## D.Threitol_HMDB0004136	0.500230911
## Dihydrouracil_HMDB0000076	0.730206218
## Erythritol_HMDB0002994	1.000000000
## N.Acetylserine_HMDB0002931	0.507841802
## L.Aspartic.acid_HMDB0000191	0.525598201
## L.Methionine_HMDB0000696	0.307956457
## X4.Hydroxyproline_HMDB0000725	0.713326985
## Pyroglutamic.acid_HMDB0000267	0.558601708
## Cytosine_HMDB0000630	0.095369687
## Gamma.Aminobutyric.acid_HMDB0000112	0.402452560
## Threonic.acid_HMDB0000943	0.622936457
## L.Cysteine_HMDB0000574	0.686023901
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.341865774
## Creatinine_HMDB0000562	0.248388814
## X3.Hydroxyglutaric.acid_HMDB0000428	0.004138703
## Oxoglutaric.acid_HMDB0000208	0.552697096
## Phenylpyruvic.acid_HMDB0000205	-0.057680002
## Pimelic.acid_HMDB0000857	0.220545458
## Phenyllactic.acid_HMDB0000779	0.031607683
## Phosphoenolpyruvic.acid_HMDB0000263	-0.322207632
## Ornithine_HMDB0000214	-0.036736323
## Hypotaurine_HMDB0000965	0.545790481
## Triethanolamine_HMDB0032538	0.435990436
## X2.Aminobenzoic.acid_HMDB0001123	0.396903419
## L.Glutamic.acid_HMDB0000148	0.357159977
## X4.Hydroxybenzoic.acid_HMDB0000500	0.564084272
## X5.Aminopentanoic.acid_HMDB0003355	0.495992609
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.196120479
## L.Phenylalanine_HMDB0000159	0.386585771
## Dodecanoic.acid_HMDB0000638	0.685532393
## Lyxose_HMDB0003402_1	0.056562663
## D.Xylose_HMDB0000098	-0.411388089
## Lyxose_HMDB0003402_2	-0.401773829
## D.Arabinose_HMDB0029942	-0.068493238
## L.Asparagine_HMDB0000168	-0.138181922
## D.Ribulose_HMDB0000621	-0.248424152
## D.Ribose_HMDB0000283	-0.082069484
## D.Xylulose_HMDB0001644	-0.240709336
## X3.Sulfinioalanine_HMDB0000996	-0.240488163
## Suberic.acid_HMDB0000893	0.424223457
## L.Lysine_HMDB0000182	-0.195829777

## Levoglucosan_HMDB0000640	-0.413161404
## D.Arabitol_HMDB0000568	0.472861225
## Ribitol_HMDB0000508	0.266273887
## cis.Aconitic.acid_HMDB0000072	-0.233449527
## Quinolinic.acid_HMDB0000232	0.379312425
## Putrescine_HMDB0001414	0.351739981
## Glycerol.3.phosphate_HMDB0000126	-0.263715802
## Vanillic.acid_HMDB0000484	0.658957182
## L.Glutamine_HMDB0000641	-0.335364792
## X2.Phosphoglyceric.acid_HMDB0000362	0.550822368
## Azelaic.acid_HMDB0000784	-0.038157324
## L.Dihydroorotic.acid_HMDB0003349	-0.038149848
## O.Phosphoethanolamine_HMDB0000224	0.365019572
## X3.Phosphoglyceric.acid_HMDB0000807	0.567323744
## Isocitric.acid_HMDB0000193	0.568365174
## Hypoxanthine_HMDB0000157	-0.594443129
## Citric.acid_HMDB0000094	0.319202602
## L.Arginine_HMDB0000517	-0.157631661
## Ornithine_HMDB0000214.1	0.293889914
## Dopamine_HMDB0000073	0.282246601
## Myristic.acid_HMDB0000806	0.594547896
## X1.5.Anhydrosorbitol_HMDB0002712	0.737913969
## D.Tagatose_HMDB0003418	-0.059809931
## Psicose_1	-0.227901517
## Sebacic.acid_HMDB0000792	0.760071397
## D.Fructose_HMDB0000660	-0.025346340
## Gluconolactone_HMDB0000150	-0.073042196
## L.Sorbose_HMDB0001266	-0.043520399
## D.Mannose_HMDB0000169	0.412794378
## Hydroxyphenyllactic.acid_HMDB0000755	0.849724442
## D.Glucose_HMDB0000122	0.327307659
## N.Acetylglutamine_HMDB0006029	0.421745924
## L.Lysine_HMDB0000182.1	0.240521394
## D.Mannose_HMDB0000169.1	0.306926192
## Tyramine_HMDB0000306	0.228007275
## L.Histidine_HMDB0000177	0.217595636
## D.Glucose_HMDB0000122.1	0.337309251
## X1.Hexadecanol_HMDB0003424	0.198104203
## L.Tyrosine_HMDB0000158	0.126988390
## Mannitol_HMDB0000765	0.626461720
## Sorbitol_HMDB0000247	-0.313674143
## ITSD_Sorbitol	0.750419582
## Galacturonic.acid_HMDB0002545	0.783944925
## Pantothenic.acid_HMDB0000210	0.545187145
## Palmitoleic.acid_HMDB0003229	0.382627333
## Xanthine_HMDB0000292	-0.296972174
## Gluconic.acid_HMDB0000625	0.061733742
## Palmitic.acid_HMDB0000220	0.587614903
## Glucaric.acid_HMDB0000663	0.433862762
## N.Acetylmannosamine_HMDB0001129	0.424308973
## N.Acetyl.D.glucosamine_HMDB0000215	0.556115977
## D.Ribulose.5.phosphate_HMDB0000618	-0.078767443
## Uric.acid_HMDB0000289	-0.241451294
## D.Ribose.5.phosphate_HMDB0001548	-0.163873928

## myo.Inositol_HMDB0000211	0.634724161
## D.Ribose.5.phosphate_HMDB0001548.1	-0.208020316
## Heptadecanoic.acid_HMDB0002259	0.344139445
## Octadecanol_HMDB0002350	0.652678337
## Glutathione_HMDB0000125	0.021715824
## Linoleic.acid_HMDB0000673	0.343765592
## Oleic.acid_HMDB0000207	0.280275519
## Elaidic.acid_HMDB0000573	0.416152998
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.097518206
## Stearic.acid_HMDB0000827	0.572551873
## L.Tryptophan_HMDB0000929	0.590307238
## Fructose.1.phosphate_HMDB0001076	0.098893032
## Mannose.6.phosphate_HMDB0001078	-0.403608654
## Arachidonic.acid_HMDB0001043	0.021415890
## Glucose.6.phosphate_HMDB0001401	0.197808543
## X6.Phosphogluconic.acid_HMDB0001316	0.403353355
## Inositol.phosphate_HMDB0002985	0.358444437
## Uridine_HMDB0000296	0.618531854
## Stigmasterol_HMDB0000937	0.748627258
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.284523793
## Sucrose_HMDB0000258	0.065880498
## MG.18.0e.0.0.0.0._HMDB0011143	0.641365654
## Trehalose_HMDB0000975	-0.279120306
## D.Maltose_HMDB0000163	-0.272470778
## Lactitol_HMDB00040937	0.490809257
## Xanthylic.acid_HMDB0001554	-0.729075727
## Adenosine.monophosphate_HMDB0000045	0.074137545
## Cholesterol_HMDB0000067	0.407844211
## Lathosterol_HMDB0001170	0.331561104
## X7b.Hydroxycholesterol_.HMDB0006119	0.043162722
##	N.Acetylserine_HMDB0002931
## Dimethylglycine_HMDB0000092	-0.4615927658
## Glyoxylic.acid_HMDB0000119	-0.4567126689
## Pyruvic.acid_HMDB0000243	0.6226340954
## L.Lactic.acid_HMDB0000190	0.9257230845
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.4262750762
## Glycolic.acid_HMDB0000115	-0.1607148951
## Caproic.acid_HMDB0000535	-0.2711923438
## L.Alanine_HMDB0000161	0.9072992793
## Alpha.ketoisovaleric.acid_HMDB0000019	0.7073331549
## Glycine_HMDB0000123	0.8200474825
## Oxalic.acid_HMDB0002329	-0.2946040554
## Hydroxylamine_HMDB0003338	0.4195305830
## X2.Hydroxybutyric.acid_HMDB0000008	0.3073950786
## Acetoacetic.acid_HMDB0000060	0.1282992796
## Hydroxypropionic.acid_HMDB0000700	0.6318525107
## Pyruvic.acid_HMDB0000243.1	0.5478961471
## X3.Hydroxybutyric.acid_HMDB0000357	0.2498147794
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.3530525124
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.0974242055
## D.Alpha.aminobutyric.acid_HMDB0000650	0.6826074331
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.2834552049
## Beta.Alanine_HMDB0000056	0.5693550020
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.6303153834

## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.5679188145
## Malonic.acid_HMDB0000691	0.5630869293
## X3.Aminoisobutanoic.acid_HMDB0003911	0.6232816275
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.6604500388
## Ketoleucine_HMDB0000695	0.3945991547
## L.Valine_HMDB0000883	0.8209050314
## ITSD_Valine	0.7097829538
## Urea_HMDB0000294	0.7925564831
## Benzoic.acid_HMDB0001870	-0.0592766672
## Caprylic.acid_HMDB0000482	-0.3043991232
## Glycerol_HMDB0000131	0.8698007819
## Ethanolamine_HMDB0000149	0.9309182959
## L.Leucine_HMDB0000687	0.8200258878
## Acetyl glycine_HMDB0000532	0.0776793360
## L.Isoleucine_HMDB0000172	0.8887416794
## Nicotinic.acid_HMDB0001488	-0.0178366339
## Maleic.acid_HMDB0000176	0.0434349985
## L.Proline_HMDB0000162	0.7971032884
## Phenylacetic.acid_HMDB0000209	-0.1361272725
## Succinic.acid_HMDB0000254	0.7927226475
## Glycine_HMDB0000123.1	0.8897898183
## Methylsuccinic.acid_HMDB0001844	-0.0750079940
## Glyceric.acid_HMDB0000139	-0.0766880161
## Fumaric.acid_HMDB0000134	0.7579567694
## Uracil_HMDB0000300	0.8712846191
## Pelargonic.acid_HMDB0000847	-0.4223816249
## L.Serine_HMDB0000187	0.9552822568
## L.Threonine_HMDB0000167	0.9596650039
## Mesaconic.acid_HMDB0000749	0.0115294664
## Glutaric.acid_HMDB0000661	0.4533111147
## Thymine_HMDB0000262	0.6597444659
## Beta.Alanine_HMDB0000056.1	0.6762053394
## L.Homoserine_HMDB0000719	-0.1628580539
## Capric.acid_HMDB0000511	-0.2890022182
## Citramalic.acid_HMDB0000426	0.6359543732
## Malic.acid_HMDB0000744	0.1866264821
## Niacinamide_HMDB0001406	0.7752615049
## Adipic.acid_HMDB0000448	0.8579876227
## D.Threitol_HMDB0004136	0.2871555345
## Dihydrouracil_HMDB0000076	0.6983612049
## Erythritol_HMDB0002994	0.5078418016
## N.Acetylserine_HMDB0002931	1.0000000000
## L.Aspartic.acid_HMDB0000191	0.9297882523
## L.Methionine_HMDB0000696	0.6932013153
## X4.Hydroxyproline_HMDB0000725	0.9145402741
## Pyroglutamic.acid_HMDB0000267	0.8857204859
## Cytosine_HMDB0000630	0.0912789713
## Gamma.Aminobutyric.acid_HMDB0000112	0.4873831518
## Threonic.acid_HMDB0000943	-0.0673606329
## L.Cysteine_HMDB0000574	0.0312619863
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.1051877469
## Creatinine_HMDB0000562	0.4443134077
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.3465342932
## Oxoglutaric.acid_HMDB0000208	0.2990964324

## Phenylpyruvic.acid_HMDB0000205	-0.1420535105
## Pimelic.acid_HMDB0000857	0.5692928727
## Phenyllactic.acid_HMDB0000779	-0.0617153816
## Phosphoenolpyruvic.acid_HMDB0000263	-0.4869187560
## Ornithine_HMDB0000214	0.5887493727
## Hypotaurine_HMDB0000965	0.7876668464
## Triethanolamine_HMDB0032538	0.9126943959
## X2.Aminobenzoic.acid_HMDB0001123	0.7444041202
## L.Glutamic.acid_HMDB0000148	0.6388136371
## X4.Hydroxybenzoic.acid_HMDB0000500	0.8684409027
## X5.Aminopentanoic.acid_HMDB0003355	0.4263105803
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.1009205807
## L.Phenylalanine_HMDB0000159	0.7471119446
## Dodecanoic.acid_HMDB0000638	0.2462102722
## Lyxose_HMDB0003402_1	-0.3982428166
## D.Xylose_HMDB0000098	-0.3890438858
## Lyxose_HMDB0003402_2	-0.2513599297
## D.Arabinose_HMDB0029942	-0.4747169264
## L.Asparagine_HMDB0000168	0.3510729773
## D.Ribulose_HMDB0000621	-0.4730315975
## D.Ribose_HMDB0000283	-0.4998596907
## D.Xylulose_HMDB0001644	-0.4755477712
## X3.Sulfinolalanine_HMDB0000996	-0.0441931091
## Suberic.acid_HMDB0000893	0.7516522015
## L.Lysine_HMDB0000182	0.3315810005
## Levoglucosan_HMDB0000640	-0.2986812345
## D.Arabitol_HMDB0000568	0.1859476717
## Ribitol_HMDB0000508	0.2021077194
## cis.Aconitic.acid_HMDB0000072	-0.2184855655
## Quinolinic.acid_HMDB0000232	0.3620157590
## Putrescine_HMDB0001414	0.4096741113
## Glycerol.3.phosphate_HMDB0000126	-0.6112933956
## Vanillic.acid_HMDB0000484	0.6097288432
## L.Glutamine_HMDB0000641	0.1240448511
## X2.Phosphoglyceric.acid_HMDB0000362	0.5530432848
## Azelaic.acid_HMDB0000784	0.0711184867
## L.Dihydroorotic.acid_HMDB0003349	-0.4351242287
## O.Phosphoethanolamine_HMDB0000224	0.2738532786
## X3.Phosphoglyceric.acid_HMDB0000807	0.5765400327
## Isocitric.acid_HMDB0000193	0.3872058861
## Hypoxanthine_HMDB0000157	-0.3394430896
## Citric.acid_HMDB0000094	0.1610489761
## L.Arginine_HMDB0000517	-0.2345661838
## Ornithine_HMDB0000214.1	0.7964308701
## Dopamine_HMDB0000073	0.7892510409
## Myristic.acid_HMDB0000806	0.5839308269
## X1.5.Anhydrosorbitol_HMDB0002712	0.0290435977
## D.Tagatose_HMDB0003418	-0.4519668689
## Psicose_1	-0.1439475007
## Sebacic.acid_HMDB0000792	0.6656625441
## D.Fructose_HMDB0000660	-0.3166643384
## Gluconolactone_HMDB0000150	-0.3223148306
## L.Sorbose_HMDB0001266	-0.3402605386
## D.Mannose_HMDB0000169	0.5327963711

## Hydroxyphenyllactic.acid_HMDB0000755	0.3999872076
## D.Glucose_HMDB0000122	0.4923746998
## N.Acetylglutamine_HMDB0006029	0.5056694853
## L.Lysine_HMDB0000182.1	0.6332597438
## D.Mannose_HMDB0000169.1	0.5579317740
## Tyramine_HMDB0000306	0.6210367035
## L.Histidine_HMDB0000177	0.5926626761
## D.Glucose_HMDB0000122.1	0.4398599670
## X1.Hexadecanol_HMDB0003424	-0.3100530887
## L.Tyrosine_HMDB0000158	0.6158755349
## Mannitol_HMDB0000765	0.6588954764
## Sorbitol_HMDB0000247	-0.0376886965
## ITSD_Sorbitol	0.5405202970
## Galacturonic.acid_HMDB0002545	0.3028640738
## Pantothenic.acid_HMDB0000210	0.0725082581
## Palmitoleic.acid_HMDB0003229	0.1588796696
## Xanthine_HMDB0000292	0.4366641228
## Gluconic.acid_HMDB0000625	0.0353692490
## Palmitic.acid_HMDB0000220	0.2612728595
## Glucaric.acid_HMDB0000663	0.7041474831
## N.Acetylmannosamine_HMDB0001129	0.2124362805
## N.Acetyl.D.glucosamine_HMDB0000215	0.5846156590
## D.Ribulose.5.phosphate_HMDB0000618	-0.6019738610
## Uric.acid_HMDB0000289	0.1797643077
## D.Ribose.5.phosphate_HMDB0001548	-0.6238497064
## myo.Inositol_HMDB0000211	0.5013085583
## D.Ribose.5.phosphate_HMDB0001548.1	-0.6368199612
## Heptadecanoic.acid_HMDB0002259	0.3626644701
## Octadecanol_HMDB0002350	0.1131109299
## Glutathione_HMDB0000125	0.0046375649
## Linoleic.acid_HMDB0000673	-0.0266416270
## Oleic.acid_HMDB0000207	0.0326371039
## Elaidic.acid_HMDB0000573	0.0671081956
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.4109614635
## Stearic.acid_HMDB0000827	0.1030082424
## L.Tryptophan_HMDB0000929	0.1208260193
## Fructose.1.phosphate_HMDB0001076	-0.2657097565
## Mannose.6.phosphate_HMDB0001078	-0.4279073699
## Arachidonic.acid_HMDB0001043	-0.2473173197
## Glucose.6.phosphate_HMDB0001401	-0.2431190698
## X6.Phosphogluconic.acid_HMDB0001316	-0.1562453899
## Inositol.phosphate_HMDB0002985	-0.4761040953
## Uridine_HMDB0000296	0.2691929955
## Stigmasterol_HMDB0000937	0.4818057038
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.0375147701
## Sucrose_HMDB0000258	0.2390646503
## MG.18.Oe.0.0.0.0._HMDB0011143	0.0007925741
## Trehalose_HMDB0000975	-0.2061061666
## D.Maltose_HMDB0000163	-0.1996140024
## Lactitol_HMDB0040937	-0.0891551605
## Xanthylic.acid_HMDB0001554	-0.5861776864
## Adenosine.monophosphate_HMDB0000045	-0.3661589944
## Cholesterol_HMDB0000067	-0.2918116458
## Lathosterol_HMDB0001170	-0.2423440099

## X7b.Hydroxycholesterol_HMDB0006119	0.1644673717
## L.Aspartic.acid_HMDB0000191	
## Dimethylglycine_HMDB0000092	-0.553250285
## Glyoxylic.acid_HMDB0000119	-0.551114713
## Pyruvic.acid_HMDB0000243	0.594050325
## L.Lactic.acid_HMDB0000190	0.927197487
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.426110806
## Glycolic.acid_HMDB0000115	-0.209070024
## Caproic.acid_HMDB0000535	-0.460355103
## L.Alanine_HMDB0000161	0.939137854
## Alpha.ketoisovaleric.acid_HMDB0000019	0.615888451
## Glycine_HMDB0000123	0.748653309
## Oxalic.acid_HMDB0002329	-0.474591850
## Hydroxylamine_HMDB0003338	0.375712653
## X2.Hydroxybutyric.acid_HMDB0000008	0.278241551
## Acetoacetic.acid_HMDB0000060	-0.011856030
## Hydroxypropionic.acid_HMDB0000700	0.701219788
## Pyruvic.acid_HMDB0000243.1	0.476297881
## X3.Hydroxybutyric.acid_HMDB0000357	0.181132943
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.307645718
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.121440705
## D.Alpha.aminobutyric.acid_HMDB0000650	0.806616389
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.313324165
## Beta.Alanine_HMDB0000056	0.679702784
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.508614264
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.549060242
## Malonic.acid_HMDB0000691	0.495259577
## X3.Aminoisobutanoic.acid_HMDB0003911	0.756614180
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.737855461
## Ketoleucine_HMDB0000695	0.268822171
## L.Valine_HMDB0000883	0.908849747
## ITSD_Valine	0.810486949
## Urea_HMDB0000294	0.776858064
## Benzoic.acid_HMDB0001870	0.047557348
## Caprylic.acid_HMDB0000482	-0.413238122
## Glycerol_HMDB0000131	0.927591964
## Ethanolamine_HMDB0000149	0.940376486
## L.Leucine_HMDB0000687	0.922786137
## Acetyl glycine_HMDB0000532	0.033212443
## L.Isoleucine_HMDB0000172	0.949837102
## Nicotinic.acid_HMDB0001488	-0.010714777
## Maleic.acid_HMDB0000176	-0.132644493
## L.Proline_HMDB0000162	0.840773811
## Phenylacetic.acid_HMDB0000209	-0.322849275
## Succinic.acid_HMDB0000254	0.780401281
## Glycine_HMDB0000123.1	0.933017052
## Methylsuccinic.acid_HMDB0001844	-0.040559726
## Glyceric.acid_HMDB0000139	-0.249315868
## Fumaric.acid_HMDB0000134	0.741995934
## Uracil_HMDB0000300	0.799637553
## Pelargonic.acid_HMDB0000847	-0.510326429
## L.Serine_HMDB0000187	0.975646969
## L.Threonine_HMDB0000167	0.963410561
## Mesaconic.acid_HMDB0000749	0.157916494

## Glutaric.acid_HMDB0000661	0.319643784
## Thymine_HMDB0000262	0.607442703
## Beta.Alanine_HMDB0000056.1	0.844378608
## L.Homoserine_HMDB0000719	-0.089989736
## Capric.acid_HMDB0000511	-0.216754645
## Citramalic.acid_HMDB0000426	0.589254520
## Malic.acid_HMDB0000744	-0.012868292
## Niacinamide_HMDB0001406	0.869587519
## Adipic.acid_HMDB0000448	0.890037746
## D.Threitol_HMDB0004136	0.338460428
## Dihydrouracil_HMDB0000076	0.662719023
## Erythritol_HMDB0002994	0.525598201
## N.Acetylserine_HMDB0002931	0.929788252
## L.Aspartic.acid_HMDB0000191	1.000000000
## L.Methionine_HMDB0000696	0.836180832
## X4.Hydroxyproline_HMDB0000725	0.950820576
## Pyroglutamic.acid_HMDB0000267	0.939266938
## Cytosine_HMDB0000630	0.177167757
## Gamma.Aminobutyric.acid_HMDB0000112	0.457918777
## Threonic.acid_HMDB0000943	-0.149711836
## L.Cysteine_HMDB0000574	-0.006392796
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.256210248
## Creatinine_HMDB0000562	0.631709294
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.481235787
## Oxoglutaric.acid_HMDB0000208	0.218936496
## Phenylpyruvic.acid_HMDB0000205	-0.218708257
## Pimelic.acid_HMDB0000857	0.573127661
## Phenyllactic.acid_HMDB0000779	-0.214327534
## Phosphoenolpyruvic.acid_HMDB0000263	-0.641145010
## Ornithine_HMDB0000214	0.676126464
## Hypotaurine_HMDB0000965	0.859333344
## Triethanolamine_HMDB0032538	0.864096805
## X2.Aminobenzoic.acid_HMDB0001123	0.842318191
## L.Glutamic.acid_HMDB0000148	0.827913433
## X4.Hydroxybenzoic.acid_HMDB0000500	0.928219993
## X5.Aminopentanoic.acid_HMDB0003355	0.210972581
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.201541477
## L.Phenylalanine_HMDB0000159	0.872931401
## Dodecanoic.acid_HMDB0000638	0.366205618
## Lyxose_HMDB0003402_1	-0.539826975
## D.Xylose_HMDB0000098	-0.399270807
## Lyxose_HMDB0003402_2	-0.269405393
## D.Arabinose_HMDB0029942	-0.654549734
## L.Asparagine_HMDB0000168	0.513673391
## D.Ribulose_HMDB0000621	-0.675321997
## D.Ribose_HMDB0000283	-0.680123004
## D.Xylulose_HMDB0001644	-0.675384561
## X3.Sulfinioalanine_HMDB0000996	0.217401179
## Suberic.acid_HMDB0000893	0.720068494
## L.Lysine_HMDB0000182	0.474472815
## Levoglucosan_HMDB0000640	-0.287431235
## D.Arabitool_HMDB0000568	0.198928304
## Ribitol_HMDB0000508	0.279824476
## cis.Aconitic.acid_HMDB0000072	-0.181723182

## Quinolinic.acid_HMDB0000232	0.328430439
## Putrescine_HMDB0001414	0.329154954
## Glycerol.3.phosphate_HMDB0000126	-0.615272338
## Vanillic.acid_HMDB0000484	0.639512251
## L.Glutamine_HMDB0000641	0.259137581
## X2.Phosphoglyceric.acid_HMDB0000362	0.410566934
## Azelaic.acid_HMDB0000784	0.074626184
## L.Dihydroorotic.acid_HMDB0003349	-0.620774774
## O.Phosphoethanolamine_HMDB0000224	0.435564974
## X3.Phosphoglyceric.acid_HMDB0000807	0.420076322
## Isocitric.acid_HMDB0000193	0.438025570
## Hypoxanthine_HMDB0000157	-0.159814899
## Citric.acid_HMDB0000094	0.051459692
## L.Arginine_HMDB0000517	-0.212051629
## Ornithine_HMDB0000214.1	0.881867254
## Dopamine_HMDB0000073	0.879278029
## Myristic.acid_HMDB0000806	0.735588148
## X1.5.Anhydrosorbitol_HMDB0002712	0.021105683
## D.Tagatose_HMDB0003418	-0.611017931
## Psicose_1	-0.139561717
## Sebacic.acid_HMDB0000792	0.712189842
## D.Fructose_HMDB0000660	-0.551992189
## Gluconolactone_HMDB0000150	-0.512624439
## L.Sorbose_HMDB0001266	-0.569243276
## D.Mannose_HMDB0000169	0.709405204
## Hydroxyphenyllactic.acid_HMDB0000755	0.348521810
## D.Glucose_HMDB0000122	0.656800817
## N.Acetylglutamine_HMDB0006029	0.682462551
## L.Lysine_HMDB0000182.1	0.793139611
## D.Mannose_HMDB0000169.1	0.732851033
## Tyramine_HMDB0000306	0.785223561
## L.Histidine_HMDB0000177	0.762103780
## D.Glucose_HMDB0000122.1	0.639382142
## X1.Hexadecanol_HMDB0003424	-0.254821606
## L.Tyrosine_HMDB0000158	0.767213454
## Mannitol_HMDB0000765	0.751336422
## Sorbitol_HMDB0000247	-0.015958576
## ITSD_Sorbitol	0.658290034
## Galacturonic.acid_HMDB0002545	0.324856826
## Pantothenic.acid_HMDB0000210	-0.034137520
## Palmitoleic.acid_HMDB0003229	0.345528307
## Xanthine_HMDB0000292	0.491167522
## Gluconic.acid_HMDB0000625	-0.129471278
## Palmitic.acid_HMDB0000220	0.356907401
## Glucaric.acid_HMDB0000663	0.756754772
## N.Acetylmannosamine_HMDB0001129	0.424544807
## N.Acetyl.D.glucosamine_HMDB0000215	0.731944593
## D.Ribulose.5.phosphate_HMDB0000618	-0.695634695
## Uric.acid_HMDB0000289	0.395060191
## D.Ribose.5.phosphate_HMDB0001548	-0.756526239
## myo.Inositol_HMDB0000211	0.615529006
## D.Ribose.5.phosphate_HMDB0001548.1	-0.787046894
## Heptadecanoic.acid_HMDB0002259	0.226654236
## Octadecanol_HMDB0002350	0.039722939

## Glutathione_HMDB0000125	0.160834464
## Linoleic.acid_HMDB0000673	0.121043205
## Oleic.acid_HMDB0000207	0.227460132
## Elaidic.acid_HMDB0000573	0.262417758
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.576337205
## Stearic.acid_HMDB0000827	0.090662866
## L.Tryptophan_HMDB0000929	0.087748596
## Fructose.1.phosphate_HMDB0001076	-0.397929174
## Mannose.6.phosphate_HMDB0001078	-0.372024083
## Arachidonic.acid_HMDB0001043	-0.027050575
## Glucose.6.phosphate_HMDB0001401	-0.394394276
## X6.Phosphogluconic.acid_HMDB0001316	-0.136520497
## Inositol.phosphate_HMDB0002985	-0.336559069
## Uridine_HMDB0000296	0.288968603
## Stigmasterol_HMDB0000937	0.414952171
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.050427035
## Sucrose_HMDB0000258	0.391336652
## MG.18.0e.0.0.0.0._HMDB0011143	0.001929499
## Trehalose_HMDB0000975	-0.170451707
## D.Maltose_HMDB0000163	-0.164217313
## Lactitol_HMDB00040937	0.021083072
## Xanthylic.acid_HMDB0001554	-0.624844019
## Adenosine.monophosphate_HMDB0000045	-0.495490591
## Cholesterol_HMDB0000067	-0.069702591
## Lathosterol_HMDB0001170	-0.034928199
## X7b.Hydroxycholesterol._HMDB0006119	-0.043303011
##	L.Methionine_HMDB0000696
## Dimethylglycine_HMDB0000092	-0.803183175
## Glyoxylic.acid_HMDB0000119	-0.803385868
## Pyruvic.acid_HMDB0000243	0.502046560
## L.Lactic.acid_HMDB0000190	0.777879829
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.203947905
## Glycolic.acid_HMDB0000115	-0.372293902
## Caproic.acid_HMDB0000535	-0.821571796
## L.Alanine_HMDB0000161	0.850573883
## Alpha.ketoisovaleric.acid_HMDB0000019	0.281198349
## Glycine_HMDB0000123	0.639343092
## Oxalic.acid_HMDB0002329	-0.590473232
## Hydroxylamine_HMDB0003338	0.218347151
## X2.Hydroxybutyric.acid_HMDB0000008	-0.057940807
## Acetoacetic.acid_HMDB0000060	-0.254289763
## Hydroxypropionic.acid_HMDB0000700	0.583255743
## Pyruvic.acid_HMDB0000243.1	0.309230876
## X3.Hydroxybutyric.acid_HMDB0000357	-0.085349446
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.011278899
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.380404051
## D.Alpha.aminobutyric.acid_HMDB0000650	0.827177558
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.054816115
## Beta.Alanine_HMDB0000056	0.792903651
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.255503855
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.309283959
## Malonic.acid_HMDB0000691	0.405136328
## X3.Aminoisobutanoic.acid_HMDB0003911	0.916542037
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.599956976

## Ketoleucine_HMDB0000695	-0.188947451
## L.Valine_HMDB0000883	0.837862971
## ITSD_Valine	0.835653246
## Urea_HMDB0000294	0.611854552
## Benzoic.acid_HMDB0001870	-0.206071012
## Caprylic.acid_HMDB0000482	-0.775551886
## Glycerol_HMDB0000131	0.880980551
## Ethanolamine_HMDB0000149	0.871094008
## L.Leucine_HMDB0000687	0.857374790
## Acetylglycine_HMDB0000532	-0.184754404
## L.Isoleucine_HMDB0000172	0.861805062
## Nicotinic.acid_HMDB0001488	-0.296382233
## Maleic.acid_HMDB0000176	-0.450105760
## L.Proline_HMDB0000162	0.644026285
## Phenylacetic.acid_HMDB0000209	-0.633399151
## Succinic.acid_HMDB0000254	0.577278990
## Glycine_HMDB0000123.1	0.855534712
## Methylsuccinic.acid_HMDB0001844	0.003946570
## Glyceric.acid_HMDB0000139	-0.506941299
## Fumaric.acid_HMDB0000134	0.547451369
## Uracil_HMDB0000300	0.485500477
## Pelargonic.acid_HMDB0000847	-0.838333018
## L.Serine_HMDB0000187	0.792612072
## L.Threonine_HMDB0000167	0.817159497
## Mesaconic.acid_HMDB0000749	0.001881382
## Glutaric.acid_HMDB0000661	-0.103664746
## Thymine_HMDB0000262	0.459772558
## Beta.Alanine_HMDB0000056.1	0.942442253
## L.Homoserine_HMDB0000719	-0.174615043
## Capric.acid_HMDB0000511	-0.318210633
## Citramalic.acid_HMDB0000426	0.487841317
## Malic.acid_HMDB0000744	-0.405111989
## Niacinamide_HMDB0001406	0.764087138
## Adipic.acid_HMDB0000448	0.706759461
## D.Threitol_HMDB0004136	0.173321940
## Dihydrouracil_HMDB0000076	0.337774867
## Erythritol_HMDB0002994	0.307956457
## N.Acetylserine_HMDB0002931	0.693201315
## L.Aspartic.acid_HMDB0000191	0.836180832
## L.Methionine_HMDB0000696	1.000000000
## X4.Hydroxyproline_HMDB0000725	0.754775146
## Pyroglutamic.acid_HMDB0000267	0.768059012
## Cytosine_HMDB0000630	0.244063680
## Gamma.Aminobutyric.acid_HMDB0000112	0.278547018
## Threonic.acid_HMDB0000943	-0.480080815
## L.Cysteine_HMDB0000574	-0.297621717
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.683907045
## Creatinine_HMDB0000562	0.905269903
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.716102837
## Oxoglutaric.acid_HMDB0000208	-0.098991346
## Phenylpyruvic.acid_HMDB0000205	-0.469346286
## Pimelic.acid_HMDB0000857	0.501132890
## Phenyllactic.acid_HMDB0000779	-0.588941220
## Phosphoenolpyruvic.acid_HMDB0000263	-0.867194221

## Ornithine_HMDB0000214	0.821986017
## Hypotaurine_HMDB0000965	0.827655023
## Triethanolamine_HMDB0032538	0.770614528
## X2.Aminobenzoic.acid_HMDB0001123	0.947621776
## L.Glutamic.acid_HMDB0000148	0.901444304
## X4.Hydroxybenzoic.acid_HMDB0000500	0.890527076
## X5.Aminopentanoic.acid_HMDB0003355	-0.143648814
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.452303176
## L.Phenylalanine_HMDB0000159	0.978973022
## Dodecanoic.acid_HMDB0000638	0.402034310
## Lyxose_HMDB0003402_1	-0.848209304
## D.Xylose_HMDB0000098	-0.346259376
## Lyxose_HMDB0003402_2	-0.178100698
## D.Arabinose_HMDB0029942	-0.898737168
## L.Asparagine_HMDB0000168	0.707828372
## D.Ribulose_HMDB0000621	-0.824874970
## D.Ribose_HMDB0000283	-0.898734752
## D.Xylulose_HMDB0001644	-0.813207397
## X3.Sulfinioalanine_HMDB0000996	0.445581630
## Suberic.acid_HMDB0000893	0.497018375
## L.Lysine_HMDB0000182	0.708131689
## Levoglucosan_HMDB0000640	-0.169628108
## D.Arabitol_HMDB0000568	0.254397749
## Ribitol_HMDB0000508	0.078551600
## cis.Aconitic.acid_HMDB0000072	-0.147689797
## Quinolinic.acid_HMDB0000232	0.018056317
## Putrescine_HMDB0001414	-0.043530752
## Glycerol.3.phosphate_HMDB0000126	-0.766954603
## Vanillic.acid_HMDB0000484	0.590588173
## L.Glutamine_HMDB0000641	0.424598329
## X2.Phosphoglyceric.acid_HMDB0000362	0.002612885
## Azelaic.acid_HMDB0000784	-0.080678528
## L.Dihydroorotic.acid_HMDB0003349	-0.896593452
## O.Phosphoethanolamine_HMDB0000224	0.509097511
## X3.Phosphoglyceric.acid_HMDB0000807	0.012298558
## Isocitric.acid_HMDB0000193	0.232790547
## Hypoxanthine_HMDB0000157	0.162370645
## Citric.acid_HMDB0000094	-0.399424894
## L.Arginine_HMDB0000517	-0.300355152
## Ornithine_HMDB0000214.1	0.968631586
## Dopamine_HMDB0000073	0.960576474
## Myristic.acid_HMDB0000806	0.800358805
## X1.5.Anhydrosorbitol_HMDB0002712	-0.215123699
## D.Tagatose_HMDB0003418	-0.892244935
## Psicose_1	-0.073655056
## Sebacic.acid_HMDB0000792	0.597057576
## D.Fructose_HMDB0000660	-0.813408059
## Gluconolactone_HMDB0000150	-0.755404549
## L.Sorbose_HMDB0001266	-0.811872484
## D.Mannose_HMDB0000169	0.908216016
## Hydroxyphenyllactic.acid_HMDB0000755	0.154428116
## D.Glucose_HMDB0000122	0.873650001
## N.Acetylglutamine_HMDB0006029	0.882138383
## L.Lysine_HMDB0000182.1	0.971402839

## D.Mannose_HMDB0000169.1	0.953795909
## Tyramine_HMDB0000306	0.969263575
## L.Histidine_HMDB0000177	0.964490155
## D.Glucose_HMDB0000122.1	0.868849966
## X1.Hexadecanol_HMDB0003424	-0.272608881
## L.Tyrosine_HMDB0000158	0.915786915
## Mannitol_HMDB0000765	0.711110231
## Sorbitol_HMDB0000247	-0.197065479
## ITSD_Sorbitol	0.691702227
## Galacturonic.acid_HMDB0002545	0.127935933
## Pantothenic.acid_HMDB0000210	-0.136693063
## Palmitoleic.acid_HMDB0003229	0.534615290
## Xanthine_HMDB0000292	0.556443212
## Gluconic.acid_HMDB0000625	-0.463741842
## Palmitic.acid_HMDB0000220	0.403357848
## Glucaric.acid_HMDB0000663	0.775289649
## N.Acetylmannosamine_HMDB0001129	0.540547728
## N.Acetyl.D.glucosamine_HMDB0000215	0.815850025
## D.Ribulose.5.phosphate_HMDB0000618	-0.863803068
## Uric.acid_HMDB0000289	0.684150459
## D.Ribose.5.phosphate_HMDB0001548	-0.897495856
## myo.Inositol_HMDB0000211	0.461692812
## D.Ribose.5.phosphate_HMDB0001548.1	-0.933861955
## Heptadecanoic.acid_HMDB0002259	-0.309003779
## Octadecanol_HMDB0002350	-0.294514693
## Glutathione_HMDB0000125	0.036763739
## Linoleic.acid_HMDB0000673	0.250751786
## Oleic.acid_HMDB0000207	0.435989615
## Elaidic.acid_HMDB0000573	0.443828972
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.865474364
## Stearic.acid_HMDB0000827	-0.035125002
## L.Tryptophan_HMDB0000929	-0.009838517
## Fructose.1.phosphate_HMDB0001076	-0.782340822
## Mannose.6.phosphate_HMDB0001078	-0.462618775
## Arachidonic.acid_HMDB0001043	0.302319813
## Glucose.6.phosphate_HMDB0001401	-0.735104040
## X6.Phosphogluconic.acid_HMDB0001316	-0.306028825
## Inositol.phosphate_HMDB0002985	-0.261442600
## Uridine_HMDB0000296	0.135104844
## Stigmasterol_HMDB0000937	0.246640089
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.108500466
## Sucrose_HMDB0000258	0.507145407
## MG.18.0e.0.0.0.0._HMDB0011143	-0.120590093
## Trehalose_HMDB0000975	-0.166270386
## D.Maltose_HMDB0000163	-0.161990622
## Lactitol_HMDB0040937	-0.004317221
## Xanthylic.acid_HMDB0001554	-0.646008117
## Adenosine.monophosphate_HMDB0000045	-0.786982779
## Cholesterol_HMDB0000067	0.065328041
## Lathosterol_HMDB0001170	0.200327062
## X7b.Hydroxycholesterol_.HMDB0006119	-0.452200627
##	
## X4.Hydroxyproline_HMDB0000725	
## Dimethylglycine_HMDB0000092	-0.478681732
## Glyoxylic.acid_HMDB0000119	-0.478004083

## Pyruvic.acid_HMDB0000243	0.715094338
## L.Lactic.acid_HMDB0000190	0.947426334
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.566717881
## Glycolic.acid_HMDB0000115	-0.076510277
## Caproic.acid_HMDB0000535	-0.386556178
## L.Alanine_HMDB0000161	0.947381229
## Alpha.ketoisovaleric.acid_HMDB0000019	0.688670214
## Glycine_HMDB0000123	0.854623440
## Oxalic.acid_HMDB0002329	-0.288492964
## Hydroxylamine_HMDB0003338	0.336309955
## X2.Hydroxybutyric.acid_HMDB0000008	0.470015715
## Acetoacetic.acid_HMDB0000060	0.088341771
## Hydroxypropionic.acid_HMDB0000700	0.729852853
## Pyruvic.acid_HMDB0000243.1	0.542799004
## X3.Hydroxybutyric.acid_HMDB0000357	0.376789089
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.491165209
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.044171924
## D.Alpha.aminobutyric.acid_HMDB0000650	0.809518464
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.439205866
## Beta.Alanine_HMDB0000056	0.732175013
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.687346354
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.681112855
## Malonic.acid_HMDB0000691	0.551895444
## X3.Aminoisobutanoic.acid_HMDB0003911	0.711072937
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.806532007
## Ketoleucine_HMDB0000695	0.414024712
## L.Valine_HMDB0000883	0.912571946
## ITSD_Valine	0.840552359
## Urea_HMDB0000294	0.905430099
## Benzoic.acid_HMDB0001870	0.066217092
## Caprylic.acid_HMDB0000482	-0.276354150
## Glycerol_HMDB0000131	0.900825069
## Ethanolamine_HMDB0000149	0.916969955
## L.Leucine_HMDB0000687	0.906965937
## Acetyl glycine_HMDB0000532	0.205819885
## L.Isoleucine_HMDB0000172	0.943863294
## Nicotinic.acid_HMDB0001488	0.058988728
## Maleic.acid_HMDB0000176	0.060872109
## L.Proline_HMDB0000162	0.864184926
## Phenylacetic.acid_HMDB0000209	-0.161208974
## Succinic.acid_HMDB0000254	0.828970779
## Glycine_HMDB0000123.1	0.897160787
## Methylsuccinic.acid_HMDB0001844	0.045190893
## Glyceric.acid_HMDB0000139	-0.154753650
## Fumaric.acid_HMDB0000134	0.892433582
## Uracil_HMDB0000300	0.831809429
## Pelargonic.acid_HMDB0000847	-0.373744835
## L.Serine_HMDB0000187	0.908416047
## L.Threonine_HMDB0000167	0.973272089
## Mesaconic.acid_HMDB0000749	0.323332324
## Glutaric.acid_HMDB0000661	0.414105824
## Thymine_HMDB0000262	0.597238704
## Beta.Alanine_HMDB0000056.1	0.792288831
## L.Homoserine_HMDB0000719	-0.038559470

## Capric.acid_HMDB0000511	-0.142810299
## Citramalic.acid_HMDB0000426	0.604153944
## Malic.acid_HMDB0000744	0.135539077
## Niacinamide_HMDB0001406	0.932642924
## Adipic.acid_HMDB0000448	0.833793310
## D.Threitol_HMDB0004136	0.424206999
## Dihydrouracil_HMDB0000076	0.737743121
## Erythritol_HMDB0002994	0.713326985
## N.Acetylserine_HMDB0002931	0.914540274
## L.Aspartic.acid_HMDB0000191	0.950820576
## L.Methionine_HMDB0000696	0.754775146
## X4.Hydroxyproline_HMDB0000725	1.000000000
## Pyroglutamic.acid_HMDB0000267	0.955502799
## Cytosine_HMDB0000630	0.222800955
## Gamma.Aminobutyric.acid_HMDB0000112	0.571379712
## Threonic.acid_HMDB0000943	0.037878134
## L.Cysteine_HMDB0000574	0.156421245
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.102412008
## Creatinine_HMDB0000562	0.539898601
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.328363672
## Oxoglutaric.acid_HMDB0000208	0.358144747
## Phenylpyruvic.acid_HMDB0000205	-0.177445558
## Pimelic.acid_HMDB0000857	0.571064962
## Phenyllactic.acid_HMDB0000779	-0.088197736
## Phosphoenolpyruvic.acid_HMDB0000263	-0.561100356
## Ornithine_HMDB0000214	0.548540775
## Hypotaurine_HMDB0000965	0.859498483
## Triethanolamine_HMDB0032538	0.868210954
## X2.Aminobenzoic.acid_HMDB0001123	0.764301978
## L.Glutamic.acid_HMDB0000148	0.784954778
## X4.Hydroxybenzoic.acid_HMDB0000500	0.898821010
## X5.Aminopentanoic.acid_HMDB0003355	0.372486291
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.173970525
## L.Phenylalanine_HMDB0000159	0.811971299
## Dodecanoic.acid_HMDB0000638	0.436067669
## Lyxose_HMDB0003402_1	-0.413518231
## D.Xylose_HMDB0000098	-0.445673453
## Lyxose_HMDB0003402_2	-0.328150827
## D.Arabinose_HMDB0029942	-0.532963276
## L.Asparagine_HMDB0000168	0.380877405
## D.Ribulose_HMDB0000621	-0.616840982
## D.Ribose_HMDB0000283	-0.553471384
## D.Xylulose_HMDB0001644	-0.607870261
## X3.Sulfinioalanine_HMDB0000996	0.101427557
## Suberic.acid_HMDB0000893	0.758308212
## L.Lysine_HMDB0000182	0.325439859
## Levoglucosan_HMDB0000640	-0.356495299
## D.Arabitol_HMDB0000568	0.391564813
## Ribitol_HMDB0000508	0.233545896
## cis.Aconitic.acid_HMDB0000072	-0.221848297
## Quinolinic.acid_HMDB0000232	0.450020182
## Putrescine_HMDB0001414	0.397521343
## Glycerol.3.phosphate_HMDB0000126	-0.536813358
## Vanillic.acid_HMDB0000484	0.699998862

## L.Glutamine_HMDB0000641	0.101811259
## X2.Phosphoglyceric.acid_HMDB0000362	0.536390815
## Azelaic.acid_HMDB0000784	0.175935750
## L.Dihydroorotic.acid_HMDB0003349	-0.508185709
## O.Phosphoethanolamine_HMDB0000224	0.392481882
## X3.Phosphoglyceric.acid_HMDB0000807	0.561994134
## Isocitric.acid_HMDB0000193	0.506194268
## Hypoxanthine_HMDB0000157	-0.329564901
## Citric.acid_HMDB0000094	0.131667926
## L.Arginine_HMDB0000517	-0.279310861
## Ornithine_HMDB0000214.1	0.797679720
## Dopamine_HMDB0000073	0.785154433
## Myristic.acid_HMDB0000806	0.717372413
## X1.5.Anhydrosorbitol_HMDB0002712	0.265897158
## D.Tagatose_HMDB0003418	-0.489416675
## Psicose_1	-0.186793582
## Sebacic.acid_HMDB0000792	0.817607844
## D.Fructose_HMDB0000660	-0.416574438
## Gluconolactone_HMDB0000150	-0.445804686
## L.Sorbose_HMDB0001266	-0.435015084
## D.Mannose_HMDB0000169	0.680329609
## Hydroxyphenyllactic.acid_HMDB0000755	0.513781089
## D.Glucose_HMDB0000122	0.633103886
## N.Acetylglutamine_HMDB0006029	0.669254821
## L.Lysine_HMDB0000182.1	0.693022641
## D.Mannose_HMDB0000169.1	0.665209386
## Tyramine_HMDB0000306	0.679617142
## L.Histidine_HMDB0000177	0.660728497
## D.Glucose_HMDB0000122.1	0.612630830
## X1.Hexadecanol_HMDB0003424	-0.164018299
## L.Tyrosine_HMDB0000158	0.657472582
## Mannitol_HMDB0000765	0.808079021
## Sorbitol_HMDB0000247	-0.162231648
## ITSD_Sorbitol	0.701118038
## Galacturonic.acid_HMDB0002545	0.462834695
## Pantothenic.acid_HMDB0000210	0.159234745
## Palmitoleic.acid_HMDB0003229	0.326271478
## Xanthine_HMDB0000292	0.310869360
## Gluconic.acid_HMDB0000625	-0.104111786
## Palmitic.acid_HMDB0000220	0.415554572
## Glucaric.acid_HMDB0000663	0.711402921
## N.Acetylmannosamine_HMDB0001129	0.416605195
## N.Acetyl.D.glucosamine_HMDB0000215	0.718032296
## D.Ribulose.5.phosphate_HMDB0000618	-0.562605193
## Uric.acid_HMDB0000289	0.217076284
## D.Ribose.5.phosphate_HMDB0001548	-0.601332462
## myo.Inositol_HMDB0000211	0.683544338
## D.Ribose.5.phosphate_HMDB0001548.1	-0.673960872
## Heptadecanoic.acid_HMDB0002259	0.270381178
## Octadecanol_HMDB0002350	0.211503858
## Glutathione_HMDB0000125	0.135261503
## Linoleic.acid_HMDB0000673	0.126860561
## Oleic.acid_HMDB0000207	0.192249439
## Elaidic.acid_HMDB0000573	0.269894607

## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.469865253
## Stearic.acid_HMDB0000827	0.227284004
## L.Tryptophan_HMDB0000929	0.253024173
## Fructose.1.phosphate_HMDB0001076	-0.276347964
## Mannose.6.phosphate_HMDB0001078	-0.371546284
## Arachidonic.acid_HMDB0001043	-0.081921649
## Glucose.6.phosphate_HMDB0001401	-0.260558378
## X6.Phosphogluconic.acid_HMDB0001316	-0.044674231
## Inositol.phosphate_HMDB0002985	-0.227862489
## Uridine_HMDB0000296	0.349960993
## Stigmasterol_HMDB0000937	0.556770020
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.081821546
## Sucrose_HMDB0000258	0.340253179
## MG.18.0e.0.0.0.0._HMDB0011143	0.163997778
## Trehalose_HMDB0000975	-0.093959151
## D.Maltose_HMDB0000163	-0.086899923
## Lactitol_HMDB00040937	0.177101703
## Xanthylic.acid_HMDB0001554	-0.690697405
## Adenosine.monophosphate_HMDB0000045	-0.355620165
## Cholesterol_HMDB0000067	0.005621638
## Lathosterol_HMDB0001170	0.015306516
## X7b.Hydroxycholesterol._HMDB0006119	0.024227743
## Pyroglutamic.acid_HMDB0000267	
## Dimethylglycine_HMDB0000092	-0.520706416
## Glyoxylic.acid_HMDB0000119	-0.517774428
## Pyruvic.acid_HMDB0000243	0.649114848
## L.Lactic.acid_HMDB0000190	0.889881950
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.471063375
## Glycolic.acid_HMDB0000115	-0.241736223
## Caproic.acid_HMDB0000535	-0.452535747
## L.Alanine_HMDB0000161	0.911731817
## Alpha.ketoisovaleric.acid_HMDB0000019	0.590231061
## Glycine_HMDB0000123	0.841089003
## Oxalic.acid_HMDB0002329	-0.407702497
## Hydroxylamine_HMDB0003338	0.201051630
## X2.Hydroxybutyric.acid_HMDB0000008	0.353609271
## Acetoacetic.acid_HMDB0000060	-0.053822951
## Hydroxypropionic.acid_HMDB0000700	0.659159415
## Pyruvic.acid_HMDB0000243.1	0.443491217
## X3.Hydroxybutyric.acid_HMDB0000357	0.304433028
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.382679661
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.092570346
## D.Alpha.aminobutyric.acid_HMDB0000650	0.751915091
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.294039796
## Beta.Alanine_HMDB0000056	0.765904189
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.615992564
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.557831891
## Malonic.acid_HMDB0000691	0.517061785
## X3.Aminoisobutanoic.acid_HMDB0003911	0.724067824
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.732599884
## Ketoleucine_HMDB0000695	0.307251253
## L.Valine_HMDB0000883	0.863134646
## ITSD_Valine	0.774795158
## Urea_HMDB0000294	0.829467981

## Benzoic.acid_HMDB0001870	0.105387960
## Caprylic.acid_HMDB0000482	-0.314648636
## Glycerol_HMDB0000131	0.889441651
## Ethanolamine_HMDB0000149	0.864263182
## L.Leucine_HMDB0000687	0.871010460
## Acetylglycine_HMDB0000532	0.047786929
## L.Isoleucine_HMDB0000172	0.899073593
## Nicotinic.acid_HMDB0001488	0.108909090
## Maleic.acid_HMDB0000176	-0.059430219
## L.Proline_HMDB0000162	0.793610244
## Phenylacetic.acid_HMDB0000209	-0.252219572
## Succinic.acid_HMDB0000254	0.722861106
## Glycine_HMDB0000123.1	0.855010044
## Methylsuccinic.acid_HMDB0001844	-0.070115954
## Glyceric.acid_HMDB0000139	-0.201879259
## Fumaric.acid_HMDB0000134	0.805611503
## Uracil_HMDB0000300	0.778090026
## Pelargonic.acid_HMDB0000847	-0.404693012
## L.Serine_HMDB0000187	0.922893400
## L.Threonine_HMDB0000167	0.925585459
## Mesaconic.acid_HMDB0000749	0.287109643
## Glutaric.acid_HMDB0000661	0.352150518
## Thymine_HMDB0000262	0.510476290
## Beta.Alanine_HMDB0000056.1	0.768107951
## L.Homoserine_HMDB0000719	-0.144279567
## Capric.acid_HMDB0000511	-0.249282544
## Citramalic.acid_HMDB0000426	0.572701573
## Malic.acid_HMDB0000744	-0.011061817
## Niacinamide_HMDB0001406	0.864162875
## Adipic.acid_HMDB0000448	0.793839232
## D.Threitol_HMDB0004136	0.450875263
## Dihydrouracil_HMDB0000076	0.566737279
## Erythritol_HMDB0002994	0.558601708
## N.Acetylserine_HMDB0002931	0.885720486
## L.Aspartic.acid_HMDB0000191	0.939266938
## L.Methionine_HMDB0000696	0.768059012
## X4.Hydroxyproline_HMDB0000725	0.955502799
## Pyroglutamic.acid_HMDB0000267	1.000000000
## Cytosine_HMDB0000630	0.133084889
## Gamma.Aminobutyric.acid_HMDB0000112	0.629021017
## Threonic.acid_HMDB0000943	-0.101312584
## L.Cysteine_HMDB0000574	0.007025967
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.204996821
## Creatinine_HMDB0000562	0.534539444
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.400627212
## Oxoglutaric.acid_HMDB0000208	0.352556475
## Phenylpyruvic.acid_HMDB0000205	-0.114786748
## Pimelic.acid_HMDB0000857	0.611108735
## Phenyllactic.acid_HMDB0000779	-0.072347230
## Phosphoenolpyruvic.acid_HMDB0000263	-0.578809209
## Ornithine_HMDB0000214	0.562751077
## Hypotaurine_HMDB0000965	0.828716233
## Triethanolamine_HMDB0032538	0.818346840
## X2.Aminobenzoic.acid_HMDB0001123	0.744308880

## L.Glutamic.acid_HMDB0000148	0.764849327
## X4.Hydroxybenzoic.acid_HMDB0000500	0.841692497
## X5.Aminopentanoic.acid_HMDB0003355	0.289747008
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.288389549
## L.Phenylalanine_HMDB0000159	0.791334312
## Dodecanoic.acid_HMDB0000638	0.349248884
## Lyxose_HMDB0003402_1	-0.464914142
## D.Xylose_HMDB0000098	-0.397227089
## Lyxose_HMDB0003402_2	-0.293167604
## D.Arabinose_HMDB0029942	-0.592810421
## L.Asparagine_HMDB0000168	0.359781862
## D.Ribulose_HMDB0000621	-0.648172393
## D.Ribose_HMDB0000283	-0.619871196
## D.Xylulose_HMDB0001644	-0.641841539
## X3.Sulfinioalanine_HMDB0000996	0.131367768
## Suberic.acid_HMDB0000893	0.723419831
## L.Lysine_HMDB0000182	0.342952872
## Levoglucosan_HMDB0000640	-0.312202457
## D.Arabitol_HMDB0000568	0.385639023
## Ribitol_HMDB0000508	0.242028160
## cis.Aconitic.acid_HMDB0000072	-0.176840300
## Quinolinic.acid_HMDB0000232	0.460996385
## Putrescine_HMDB0001414	0.411359683
## Glycerol.3.phosphate_HMDB0000126	-0.499156101
## Vanillic.acid_HMDB0000484	0.631310031
## L.Glutamine_HMDB0000641	0.061676430
## X2.Phosphoglyceric.acid_HMDB0000362	0.395050524
## Azelaic.acid_HMDB0000784	0.267258665
## L.Dihydroorotic.acid_HMDB0003349	-0.574294126
## O.Phosphoethanolamine_HMDB0000224	0.386761109
## X3.Phosphoglyceric.acid_HMDB0000807	0.438300462
## Isocitric.acid_HMDB0000193	0.362070860
## Hypoxanthine_HMDB0000157	-0.296663320
## Citric.acid_HMDB0000094	0.035668810
## L.Arginine_HMDB0000517	-0.418517189
## Ornithine_HMDB0000214.1	0.783247882
## Dopamine_HMDB0000073	0.762272607
## Myristic.acid_HMDB0000806	0.674184633
## X1.5.Anhydrosorbitol_HMDB0002712	0.131473100
## D.Tagatose_HMDB0003418	-0.535063658
## Psicose_1	-0.178030577
## Sebacic.acid_HMDB0000792	0.701916714
## D.Fructose_HMDB0000660	-0.462396506
## Gluconolactone_HMDB0000150	-0.500673409
## L.Sorbose_HMDB0001266	-0.478599635
## D.Mannose_HMDB0000169	0.674493156
## Hydroxyphenyllactic.acid_HMDB0000755	0.433930460
## D.Glucose_HMDB0000122	0.651867015
## N.Acetylglutamine_HMDB0006029	0.663531076
## L.Lysine_HMDB0000182.1	0.678081231
## D.Mannose_HMDB0000169.1	0.659280621
## Tyramine_HMDB0000306	0.664940636
## L.Histidine_HMDB0000177	0.648583518
## D.Glucose_HMDB0000122.1	0.635267773

## X1.Hexadecanol_HMDB0003424	-0.127258324
## L.Tyrosine_HMDB0000158	0.647320155
## Mannitol_HMDB0000765	0.738633554
## Sorbitol_HMDB0000247	-0.159567087
## ITSD_Sorbitol	0.603434722
## Galacturonic.acid_HMDB0002545	0.343014454
## Pantothenic.acid_HMDB0000210	0.097678023
## Palmitoleic.acid_HMDB0003229	0.331912576
## Xanthine_HMDB0000292	0.372766603
## Gluconic.acid_HMDB0000625	-0.178409029
## Palmitic.acid_HMDB0000220	0.388902977
## Glucaric.acid_HMDB0000663	0.707601997
## N.Acetylmannosamine_HMDB0001129	0.390317380
## N.Acetyl.D.glucosamine_HMDB0000215	0.679690349
## D.Ribulose.5.phosphate_HMDB0000618	-0.592289458
## Uric.acid_HMDB0000289	0.229120356
## D.Ribose.5.phosphate_HMDB0001548	-0.612146224
## myo.Inositol_HMDB0000211	0.610580815
## D.Ribose.5.phosphate_HMDB0001548.1	-0.704675192
## Heptadecanoic.acid_HMDB0002259	0.154883258
## Octadecanol_HMDB0002350	0.154676883
## Glutathione_HMDB0000125	0.047842094
## Linoleic.acid_HMDB0000673	0.142274290
## Oleic.acid_HMDB0000207	0.208597729
## Elaidic.acid_HMDB0000573	0.255136868
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.527832220
## Stearic.acid_HMDB0000827	0.194024542
## L.Tryptophan_HMDB0000929	0.207733404
## Fructose.1.phosphate_HMDB0001076	-0.345349492
## Mannose.6.phosphate_HMDB0001078	-0.249978703
## Arachidonic.acid_HMDB0001043	-0.051283233
## Glucose.6.phosphate_HMDB0001401	-0.323927237
## X6.Phosphogluconic.acid_HMDB0001316	-0.017930092
## Inositol.phosphate_HMDB0002985	-0.292664293
## Uridine_HMDB0000296	0.224682931
## Stigmasterol_HMDB0000937	0.499430368
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.077038533
## Sucrose_HMDB0000258	0.466887468
## MG.18.0e.0.0.0.0._HMDB0011143	0.113433871
## Trehalose_HMDB0000975	0.045648609
## D.Maltose_HMDB0000163	0.053187006
## Lactitol_HMDB00040937	0.129920224
## Xanthylic.acid_HMDB0001554	-0.649197346
## Adenosine.monophosphate_HMDB0000045	-0.389554270
## Cholesterol_HMDB0000067	-0.057109990
## Lathosterol_HMDB0001170	0.028076091
## X7b.Hydroxycholesterol_.HMDB0006119	-0.052967156
## Cytosine_HMDB0000630	
## Dimethylglycine_HMDB0000092	-0.021912656
## Glyoxylic.acid_HMDB0000119	-0.026405291
## Pyruvic.acid_HMDB0000243	0.237971017
## L.Lactic.acid_HMDB0000190	0.076154410
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.003940850
## Glycolic.acid_HMDB0000115	-0.056371581

## Caproic.acid_HMDB0000535	-0.071311967
## L.Alanine_HMDB0000161	0.242417242
## Alpha.ketoisovaleric.acid_HMDB0000019	0.019253332
## Glycine_HMDB0000123	0.133756567
## Oxalic.acid_HMDB0002329	-0.346984727
## Hydroxylamine_HMDB0003338	-0.074613004
## X2.Hydroxybutyric.acid_HMDB0000008	-0.119072710
## Acetoacetic.acid_HMDB0000060	-0.317835507
## Hydroxypropionic.acid_HMDB0000700	-0.162610581
## Pyruvic.acid_HMDB0000243.1	-0.066653787
## X3.Hydroxybutyric.acid_HMDB0000357	-0.305484251
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.197297660
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.184936711
## D.Alpha.aminobutyric.acid_HMDB0000650	0.099689354
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.003772107
## Beta.Alanine_HMDB0000056	0.253683073
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.030351696
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.051177031
## Malonic.acid_HMDB0000691	0.217286905
## X3.Aminoisobutanoic.acid_HMDB0003911	0.167955144
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.093559199
## Ketoleucine_HMDB0000695	-0.141563060
## L.Valine_HMDB0000883	0.163438898
## ITSD_Valine	0.160812428
## Urea_HMDB0000294	0.144032902
## Benzoic.acid_HMDB0001870	-0.149511936
## Caprylic.acid_HMDB0000482	-0.145206421
## Glycerol_HMDB0000131	0.051702670
## Ethanolamine_HMDB0000149	0.286908454
## L.Leucine_HMDB0000687	0.068654286
## Acetyl glycine_HMDB0000532	0.113577698
## L.Isoleucine_HMDB0000172	0.111471176
## Nicotinic.acid_HMDB0001488	-0.057143711
## Maleic.acid_HMDB0000176	-0.185326227
## L.Proline_HMDB0000162	0.008329992
## Phenylacetic.acid_HMDB0000209	-0.265137026
## Succinic.acid_HMDB0000254	0.072999066
## Glycine_HMDB0000123.1	0.052504622
## Methylsuccinic.acid_HMDB0001844	0.192913406
## Glyceric.acid_HMDB0000139	-0.364247707
## Fumaric.acid_HMDB0000134	0.193793376
## Uracil_HMDB0000300	0.090209187
## Pelargonic.acid_HMDB0000847	-0.076914608
## L.Serine_HMDB0000187	0.070100184
## L.Threonine_HMDB0000167	0.196447859
## Mesaconic.acid_HMDB0000749	0.534904383
## Glutaric.acid_HMDB0000661	0.243860268
## Thymine_HMDB0000262	0.089396892
## Beta.Alanine_HMDB0000056.1	0.142089375
## L.Homoserine_HMDB0000719	-0.010221598
## Capric.acid_HMDB0000511	0.019358068
## Citramalic.acid_HMDB0000426	0.310657680
## Malic.acid_HMDB0000744	-0.132922486
## Niacinamide_HMDB0001406	0.318923506

## Adipic.acid_HMDB0000448	0.456686358
## D.Threitol_HMDB0004136	0.225534068
## Dihydrouracil_HMDB0000076	0.179185021
## Erythritol_HMDB0002994	0.095369687
## N.Acetylserine_HMDB0002931	0.091278971
## L.Aspartic.acid_HMDB0000191	0.177167757
## L.Methionine_HMDB0000696	0.244063680
## X4.Hydroxyproline_HMDB0000725	0.222800955
## Pyroglutamic.acid_HMDB0000267	0.133084889
## Cytosine_HMDB0000630	1.000000000
## Gamma.Aminobutyric.acid_HMDB0000112	-0.064188799
## Threonic.acid_HMDB0000943	-0.133406700
## L.Cysteine_HMDB0000574	-0.007769571
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.122193200
## Creatinine_HMDB0000562	0.224291618
## X3.Hydroxyglutaric.acid_HMDB0000428	0.155404622
## Oxoglutaric.acid_HMDB0000208	-0.485929337
## Phenylpyruvic.acid_HMDB0000205	-0.321358187
## Pimelic.acid_HMDB0000857	-0.130695935
## Phenyllactic.acid_HMDB0000779	-0.045485117
## Phosphoenolpyruvic.acid_HMDB0000263	0.003252339
## Ornithine_HMDB0000214	0.469412875
## Hypotaurine_HMDB0000965	0.272639199
## Triethanolamine_HMDB0032538	0.288990893
## X2.Aminobenzoic.acid_HMDB0001123	0.098104552
## L.Glutamic.acid_HMDB0000148	0.476746219
## X4.Hydroxybenzoic.acid_HMDB0000500	0.190690896
## X5.Aminopentanoic.acid_HMDB0003355	0.110489855
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.085552677
## L.Phenylalanine_HMDB0000159	0.281432867
## Dodecanoic.acid_HMDB0000638	-0.009503929
## Lyxose_HMDB0003402_1	-0.240752523
## D.Xylose_HMDB0000098	0.166736815
## Lyxose_HMDB0003402_2	0.263885440
## D.Arabinose_HMDB0029942	-0.232413979
## L.Asparagine_HMDB0000168	0.587848732
## D.Ribulose_HMDB0000621	-0.089652012
## D.Ribose_HMDB0000283	-0.181300264
## D.Xylulose_HMDB0001644	-0.058857480
## X3.Sulfinioalanine_HMDB0000996	0.557749541
## Suberic.acid_HMDB0000893	0.321831356
## L.Lysine_HMDB0000182	0.489939889
## Levoglucosan_HMDB0000640	0.262088792
## D.Arabitool_HMDB0000568	0.235072674
## Ribitol_HMDB0000508	0.228570905
## cis.Aconitic.acid_HMDB0000072	0.126385938
## Quinolinic.acid_HMDB0000232	0.172562965
## Putrescine_HMDB0001414	-0.088257604
## Glycerol.3.phosphate_HMDB0000126	-0.029738826
## Vanillic.acid_HMDB0000484	0.312836546
## L.Glutamine_HMDB0000641	0.566107496
## X2.Phosphoglyceric.acid_HMDB0000362	0.340816760
## Azelaic.acid_HMDB0000784	0.241778873
## L.Dihydroorotic.acid_HMDB0003349	-0.232987943

## O.Phosphoethanolamine_HMDB0000224	-0.171616901
## X3.Phosphoglyceric.acid_HMDB0000807	0.208309984
## Isocitric.acid_HMDB0000193	0.625250237
## Hypoxanthine_HMDB0000157	0.216713096
## Citric.acid_HMDB0000094	0.152389905
## L.Arginine_HMDB0000517	0.425675905
## Ornithine_HMDB0000214.1	0.308705362
## Dopamine_HMDB0000073	0.336859077
## Myristic.acid_HMDB0000806	0.091600195
## X1.5.Anhydrosorbitol_HMDB0002712	0.232457467
## D.Tagatose_HMDB0003418	-0.166097049
## Psicose_1	0.189552465
## Sebacic.acid_HMDB0000792	0.569573379
## D.Fructose_HMDB0000660	-0.156183345
## Gluconolactone_HMDB0000150	-0.008674061
## L.Sorbose_HMDB0001266	-0.137782880
## D.Mannose_HMDB0000169	0.252518891
## Hydroxyphenyllactic.acid_HMDB0000755	-0.257138631
## D.Glucose_HMDB0000122	0.279367057
## N.Acetylglutamine_HMDB0006029	0.262547780
## L.Lysine_HMDB0000182.1	0.337225174
## D.Mannose_HMDB0000169.1	0.273191714
## Tyramine_HMDB0000306	0.324712958
## L.Histidine_HMDB0000177	0.328353566
## D.Glucose_HMDB0000122.1	0.246606070
## X1.Hexadecanol_HMDB0003424	0.090520330
## L.Tyrosine_HMDB0000158	0.462594518
## Mannitol_HMDB0000765	0.310814387
## Sorbitol_HMDB0000247	0.020520122
## ITSD_Sorbitol	0.127517608
## Galacturonic.acid_HMDB0002545	0.014357622
## Pantothenic.acid_HMDB0000210	0.133035337
## Palmitoleic.acid_HMDB0003229	-0.164188430
## Xanthine_HMDB0000292	0.359385961
## Gluconic.acid_HMDB0000625	0.082992987
## Palmitic.acid_HMDB0000220	-0.159812286
## Glucaric.acid_HMDB0000663	0.101391807
## N.Acetylmannosamine_HMDB0001129	0.230493617
## N.Acetyl.D.glucosamine_HMDB0000215	0.224151310
## D.Ribulose.5.phosphate_HMDB0000618	-0.003718814
## Uric.acid_HMDB0000289	0.483707331
## D.Ribose.5.phosphate_HMDB0001548	-0.155505484
## myo.Inositol_HMDB0000211	0.478585690
## D.Ribose.5.phosphate_HMDB0001548.1	-0.185492905
## Heptadecanoic.acid_HMDB0002259	0.055685989
## Octadecanol_HMDB0002350	-0.218644246
## Glutathione_HMDB0000125	0.487110732
## Linoleic.acid_HMDB0000673	-0.336261647
## Oleic.acid_HMDB0000207	-0.206489178
## Elaidic.acid_HMDB0000573	-0.087164995
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.069907845
## Stearic.acid_HMDB0000827	-0.214923276
## L.Tryptophan_HMDB0000929	-0.162511665
## Fructose.1.phosphate_HMDB0001076	-0.053038792

## Mannose.6.phosphate_HMDB0001078	-0.019566625
## Arachidonic.acid_HMDB0001043	-0.137296499
## Glucose.6.phosphate_HMDB0001401	-0.188455663
## X6.Phosphogluconic.acid_HMDB0001316	-0.457257672
## Inositol.phosphate_HMDB0002985	0.078049824
## Uridine_HMDB0000296	0.087218287
## Stigmasterol_HMDB0000937	-0.166362547
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.439970727
## Sucrose_HMDB0000258	0.192547197
## MG.18.0e.0.0.0.0._HMDB0011143	-0.341702349
## Trehalose_HMDB0000975	0.145838478
## D.Maltose_HMDB0000163	0.145926905
## Lactitol_HMDB0040937	0.203287820
## Xanthylic.acid_HMDB0001554	0.136565398
## Adenosine.monophosphate_HMDB0000045	-0.149982891
## Cholesterol_HMDB0000067	0.273898000
## Lathosterol_HMDB0001170	-0.068770655
## X7b.Hydroxycholesterol._HMDB0006119	0.161169395
##	Gamma.Aminobutyric.acid_HMDB0000112
## Dimethylglycine_HMDB0000092	-0.317472819
## Glyoxylic.acid_HMDB0000119	-0.311123386
## Pyruvic.acid_HMDB0000243	0.575958168
## L.Lactic.acid_HMDB0000190	0.502582071
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.500133576
## Glycolic.acid_HMDB0000115	-0.217556663
## Caproic.acid_HMDB0000535	-0.188096152
## L.Alanine_HMDB0000161	0.504779866
## Alpha.ketoisovaleric.acid_HMDB0000019	0.360759425
## Glycine_HMDB0000123	0.716252066
## Oxalic.acid_HMDB0002329	0.110207603
## Hydroxylamine_HMDB0003338	-0.087941282
## X2.Hydroxybutyric.acid_HMDB0000008	0.319590030
## Acetoacetic.acid_HMDB0000060	-0.022578415
## Hydroxypropionic.acid_HMDB0000700	0.389353436
## Pyruvic.acid_HMDB0000243.1	0.342900197
## X3.Hydroxybutyric.acid_HMDB0000357	0.416226018
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.422461638
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.023148848
## D.Alpha.aminobutyric.acid_HMDB0000650	0.347591053
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.300768135
## Beta.Alanine_HMDB0000056	0.635422315
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.473264872
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.457756696
## Malonic.acid_HMDB0000691	0.512968429
## X3.Aminoisobutanoic.acid_HMDB0003911	0.253018773
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.517465142
## Ketoleucine_HMDB0000695	0.255375612
## L.Valine_HMDB0000883	0.430328748
## ITSD_Valine	0.427336922
## Urea_HMDB0000294	0.612303640
## Benzoic.acid_HMDB0001870	-0.007916461
## Caprylic.acid_HMDB0000482	-0.058786529
## Glycerol_HMDB0000131	0.447322990
## Ethanolamine_HMDB0000149	0.363751377

## L.Leucine_HMDB0000687	0.445434427
## Acetylglycine_HMDB0000532	0.037599000
## L.Isoleucine_HMDB0000172	0.464973652
## Nicotinic.acid_HMDB0001488	0.669784788
## Maleic.acid_HMDB0000176	0.128570332
## L.Proline_HMDB0000162	0.486192170
## Phenylacetic.acid_HMDB0000209	-0.022016206
## Succinic.acid_HMDB0000254	0.491739658
## Glycine_HMDB0000123.1	0.377896433
## Methylsuccinic.acid_HMDB0001844	0.010103085
## Glyceric.acid_HMDB0000139	-0.129933930
## Fumaric.acid_HMDB0000134	0.573581351
## Uracil_HMDB0000300	0.549950672
## Pelargonic.acid_HMDB0000847	-0.102807388
## L.Serine_HMDB0000187	0.484426196
## L.Threonine_HMDB0000167	0.500106913
## Mesaconic.acid_HMDB0000749	0.443374395
## Glutaric.acid_HMDB0000661	0.508931432
## Thymine_HMDB0000262	0.472827874
## Beta.Alanine_HMDB0000056.1	0.373884378
## L.Homoserine_HMDB0000719	-0.382808334
## Capric.acid_HMDB0000511	-0.377250766
## Citramalic.acid_HMDB0000426	0.580187924
## Malic.acid_HMDB0000744	0.058949531
## Niacinamide_HMDB0001406	0.597037186
## Adipic.acid_HMDB0000448	0.378635075
## D.Threitol_HMDB0004136	0.333368395
## Dihydrouracil_HMDB0000076	0.301493261
## Erythritol_HMDB0002994	0.402452560
## N.Acetylserine_HMDB0002931	0.487383152
## L.Aspartic.acid_HMDB0000191	0.457918777
## L.Methionine_HMDB0000696	0.278547018
## X4.Hydroxyproline_HMDB0000725	0.571379712
## Pyroglutamic.acid_HMDB0000267	0.629021017
## Cytosine_HMDB0000630	-0.064188799
## Gamma.Aminobutyric.acid_HMDB0000112	1.000000000
## Threonic.acid_HMDB0000943	-0.013895088
## L.Cysteine_HMDB0000574	-0.082124994
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.143372212
## Creatinine_HMDB0000562	0.037593544
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.010714678
## Oxoglutaric.acid_HMDB0000208	0.574540605
## Phenylpyruvic.acid_HMDB0000205	-0.016833317
## Pimelic.acid_HMDB0000857	0.678782821
## Phenyllactic.acid_HMDB0000779	0.069412746
## Phosphoenolpyruvic.acid_HMDB0000263	-0.179653647
## Ornithine_HMDB0000214	0.074687331
## Hypotaurine_HMDB0000965	0.379352927
## Triethanolamine_HMDB0032538	0.479815986
## X2.Aminobenzoic.acid_HMDB0001123	0.310254235
## L.Glutamic.acid_HMDB0000148	0.336953722
## X4.Hydroxybenzoic.acid_HMDB0000500	0.382617156
## X5.Aminopentanoic.acid_HMDB0003355	0.336692966
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.240014920

## L.Phenylalanine_HMDB0000159	0.304890723
## Dodecanoic.acid_HMDB0000638	0.137082076
## Lyxose_HMDB0003402_1	-0.141331784
## D.Xylose_HMDB0000098	-0.467500736
## Lyxose_HMDB0003402_2	-0.381257251
## D.Arabinose_HMDB0029942	-0.174203762
## L.Asparagine_HMDB0000168	-0.051989769
## D.Ribulose_HMDB0000621	-0.437889881
## D.Ribose_HMDB0000283	-0.167947269
## D.Xylulose_HMDB0001644	-0.449325578
## X3.Sulfinoalanine_HMDB0000996	-0.060880596
## Suberic.acid_HMDB0000893	0.579771087
## L.Lysine_HMDB0000182	-0.102751968
## Levoglucosan_HMDB0000640	-0.489766859
## D.Arabitol_HMDB0000568	0.638021237
## Ribitol_HMDB0000508	-0.259264155
## cis.Aconitic.acid_HMDB0000072	-0.245592161
## Quinolinic.acid_HMDB0000232	0.600535056
## Putrescine_HMDB0001414	0.775164813
## Glycerol.3.phosphate_HMDB0000126	0.099853269
## Vanillic.acid_HMDB0000484	0.037530701
## L.Glutamine_HMDB0000641	-0.302344495
## X2.Phosphoglyceric.acid_HMDB0000362	0.255732943
## Azelaic.acid_HMDB0000784	0.671346011
## L.Dihydroorotic.acid_HMDB0003349	-0.196679282
## O.Phosphoethanolamine_HMDB0000224	0.225859059
## X3.Phosphoglyceric.acid_HMDB0000807	0.400161326
## Isocitric.acid_HMDB0000193	0.036927498
## Hypoxanthine_HMDB0000157	-0.550097525
## Citric.acid_HMDB0000094	-0.031680153
## L.Arginine_HMDB0000517	-0.613503974
## Ornithine_HMDB0000214.1	0.268099109
## Dopamine_HMDB0000073	0.241435331
## Myristic.acid_HMDB0000806	0.286918128
## X1.5.Anhydrosorbitol_HMDB0002712	0.216143435
## D.Tagatose_HMDB0003418	-0.150433873
## Psicose_1	-0.322949652
## Sebacic.acid_HMDB0000792	0.384894729
## D.Fructose_HMDB0000660	-0.017164936
## Gluconolactone_HMDB0000150	-0.388478757
## L.Sorbose_HMDB0001266	-0.033249451
## D.Mannose_HMDB0000169	0.258782782
## Hydroxyphenyllactic.acid_HMDB0000755	0.469962829
## D.Glucose_HMDB0000122	0.261112638
## N.Acetylglutamine_HMDB0006029	0.256340156
## L.Lysine_HMDB0000182.1	0.165303592
## D.Mannose_HMDB0000169.1	0.174122161
## Tyramine_HMDB0000306	0.146926051
## L.Histidine_HMDB0000177	0.163261011
## D.Glucose_HMDB0000122.1	0.228694036
## X1.Hexadecanol_HMDB0003424	-0.061981351
## L.Tyrosine_HMDB0000158	0.139461341
## Mannitol_HMDB0000765	0.539964461
## Sorbitol_HMDB0000247	0.038891159

## ITSD_Sorbitol	0.133911642
## Galacturonic.acid_HMDB0002545	-0.003351513
## Pantothenic.acid_HMDB0000210	0.133115813
## Palmitoleic.acid_HMDB0003229	0.136846214
## Xanthine_HMDB0000292	-0.100468563
## Gluconic.acid_HMDB0000625	-0.269967799
## Palmitic.acid_HMDB0000220	0.315249094
## Glucaric.acid_HMDB0000663	0.045243701
## N.Acetylmannosamine_HMDB0001129	0.149236389
## N.Acetyl.D.glucosamine_HMDB0000215	0.315631184
## D.Ribulose.5.phosphate_HMDB0000618	-0.164177052
## Uric.acid_HMDB0000289	-0.265883537
## D.Ribose.5.phosphate_HMDB0001548	-0.100023893
## myo.Inositol_HMDB0000211	0.469092702
## D.Ribose.5.phosphate_HMDB0001548.1	-0.283632287
## Heptadecanoic.acid_HMDB0002259	0.134611337
## Octadecanol_HMDB0002350	0.295072688
## Glutathione_HMDB0000125	-0.117264216
## Linoleic.acid_HMDB0000673	0.127349313
## Oleic.acid_HMDB0000207	0.059010202
## Elaidic.acid_HMDB0000573	0.122248226
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.139292744
## Stearic.acid_HMDB0000827	0.403095011
## L.Tryptophan_HMDB0000929	0.450553509
## Fructose.1.phosphate_HMDB0001076	0.055811181
## Mannose.6.phosphate_HMDB0001078	0.058001226
## Arachidonic.acid_HMDB0001043	-0.154661446
## Glucose.6.phosphate_HMDB0001401	-0.129424121
## X6.Phosphogluconic.acid_HMDB0001316	0.050164221
## Inositol.phosphate_HMDB0002985	-0.121189657
## Uridine_HMDB0000296	0.130801006
## Stigmasterol_HMDB0000937	0.541190085
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.046084495
## Sucrose_HMDB0000258	0.445765270
## MG.18.0e.0.0.0.0._HMDB0011143	0.332419693
## Trehalose_HMDB0000975	0.563101969
## D.Maltose_HMDB0000163	0.569641799
## Lactitol_HMDB00040937	0.175935192
## Xanthylic.acid_HMDB0001554	-0.404282971
## Adenosine.monophosphate_HMDB0000045	-0.080835190
## Cholesterol_HMDB0000067	-0.301607347
## Lathosterol_HMDB0001170	-0.016098213
## X7b.Hydroxycholesterol_.HMDB0006119	0.070368069
##	
## Threonic.acid_HMDB0000943	
## Dimethylglycine_HMDB0000092	0.643920993
## Glyoxylic.acid_HMDB0000119	0.635077159
## Pyruvic.acid_HMDB0000243	0.133685222
## L.Lactic.acid_HMDB0000190	-0.029393657
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.498665299
## Glycolic.acid_HMDB0000115	0.801370562
## Caproic.acid_HMDB0000535	0.653317505
## L.Alanine_HMDB0000161	-0.174205006
## Alpha.ketoisovaleric.acid_HMDB0000019	0.463714264
## Glycine_HMDB0000123	-0.082303428

## Oxalic.acid_HMDB0002329	0.531455520
## Hydroxylamine_HMDB0003338	0.292593471
## X2.Hydroxybutyric.acid_HMDB0000008	0.866626663
## Acetoacetic.acid_HMDB0000060	0.685332117
## Hydroxypropionic.acid_HMDB0000700	0.189230231
## Pyruvic.acid_HMDB0000243.1	0.373964240
## X3.Hydroxybutyric.acid_HMDB0000357	0.779452451
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.797206323
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.945550057
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.087944334
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.719005490
## Beta.Alanine_HMDB0000056	-0.392189440
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.371217532
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.578859402
## Malonic.acid_HMDB0000691	-0.093978837
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.350562432
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.220278429
## Ketoleucine_HMDB0000695	0.847611160
## L.Valine_HMDB0000883	-0.050305542
## ITSD_Valine	-0.071609967
## Urea_HMDB0000294	0.250819976
## Benzoic.acid_HMDB0001870	0.435885841
## Caprylic.acid_HMDB0000482	0.786889729
## Glycerol_HMDB0000131	-0.221725950
## Ethanolamine_HMDB0000149	-0.196274879
## L.Leucine_HMDB0000687	-0.065416494
## Acetyl glycine_HMDB0000532	0.733477631
## L.Isoleucine_HMDB0000172	-0.080499050
## Nicotinic.acid_HMDB0001488	0.232657232
## Maleic.acid_HMDB0000176	0.883306823
## L.Proline_HMDB0000162	0.219183558
## Phenylacetic.acid_HMDB0000209	0.882600089
## Succinic.acid_HMDB0000254	0.187574411
## Glycine_HMDB0000123.1	-0.095392566
## Methylsuccinic.acid_HMDB0001844	0.190013771
## Glyceric.acid_HMDB0000139	0.774788175
## Fumaric.acid_HMDB0000134	0.308788230
## Uracil_HMDB0000300	0.253411225
## Pelargonic.acid_HMDB0000847	0.736454269
## L.Serine_HMDB0000187	-0.197969629
## L.Threonine_HMDB0000167	-0.077035454
## Mesaconic.acid_HMDB0000749	0.385279510
## Glutaric.acid_HMDB0000661	0.329138272
## Thymine_HMDB0000262	-0.029890288
## Beta.Alanine_HMDB0000056.1	-0.310839476
## L.Homoserine_HMDB0000719	0.508330213
## Capric.acid_HMDB0000511	0.615740007
## Citramalic.acid_HMDB0000426	-0.296809341
## Malic.acid_HMDB0000744	0.855530574
## Niacinamide_HMDB0001406	-0.018305928
## Adipic.acid_HMDB0000448	-0.239779273
## D.Threitol_HMDB0004136	0.382981217
## Dihydrouracil_HMDB0000076	0.365585834
## Erythritol_HMDB0002994	0.622936457

## N.Acetylserine_HMDB0002931	-0.067360633
## L.Aspartic.acid_HMDB0000191	-0.149711836
## L.Methionine_HMDB0000696	-0.480080815
## X4.Hydroxyproline_HMDB0000725	0.037878134
## Pyroglutamic.acid_HMDB0000267	-0.101312584
## Cytosine_HMDB0000630	-0.133406700
## Gamma.Aminobutyric.acid_HMDB0000112	-0.013895088
## Threonic.acid_HMDB0000943	1.000000000
## L.Cysteine_HMDB0000574	0.965850667
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.840066807
## Creatinine_HMDB0000562	-0.431714413
## X3.Hydroxyglutaric.acid_HMDB0000428	0.553627085
## Oxoglutaric.acid_HMDB0000208	0.467469112
## Phenylpyruvic.acid_HMDB0000205	0.399906033
## Pimelic.acid_HMDB0000857	-0.337782183
## Phenyllactic.acid_HMDB0000779	0.487146302
## Phosphoenolpyruvic.acid_HMDB0000263	0.386906126
## Ornithine_HMDB0000214	-0.650014123
## Hypotaurine_HMDB0000965	-0.119597668
## Triethanolamine_HMDB0032538	-0.233282360
## X2.Aminobenzoic.acid_HMDB0001123	-0.385201438
## L.Glutamic.acid_HMDB0000148	-0.383494975
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.198547304
## X5.Aminopentanoic.acid_HMDB0003355	0.511624917
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.643747841
## L.Phenylalanine_HMDB0000159	-0.408594963
## Dodecanoic.acid_HMDB0000638	0.265001744
## Lyxose_HMDB0003402_1	0.754225152
## D.Xylose_HMDB0000098	-0.049965795
## Lyxose_HMDB0003402_2	-0.220384832
## D.Arabinose_HMDB0029942	0.659493078
## L.Asparagine_HMDB0000168	-0.675481502
## D.Ribulose_HMDB0000621	0.494455455
## D.Ribose_HMDB0000283	0.642623027
## D.Xylulose_HMDB0001644	0.489661621
## X3.Sulfinioalanine_HMDB0000996	-0.538214280
## Suberic.acid_HMDB0000893	-0.114549525
## L.Lysine_HMDB0000182	-0.684534412
## Levoglucosan_HMDB0000640	-0.190521572
## D.Arabitol_HMDB0000568	0.097883806
## Ribitol_HMDB0000508	0.369364625
## cis.Aconitic.acid_HMDB0000072	-0.081506473
## Quinolinic.acid_HMDB0000232	0.289073049
## Putrescine_HMDB0001414	0.288943893
## Glycerol.3.phosphate_HMDB0000126	0.316173777
## Vanillic.acid_HMDB0000484	0.232295941
## L.Glutamine_HMDB0000641	-0.588787501
## X2.Phosphoglyceric.acid_HMDB0000362	0.535793918
## Azelaic.acid_HMDB0000784	-0.146739400
## L.Dihydroorotic.acid_HMDB0003349	0.702862824
## O.Phosphoethanolamine_HMDB0000224	-0.142243562
## X3.Phosphoglyceric.acid_HMDB0000807	0.486321672
## Isocitric.acid_HMDB0000193	0.325396753
## Hypoxanthine_HMDB0000157	-0.577148065

## Citric.acid_HMDB0000094	0.721744742
## L.Arginine_HMDB0000517	0.223718123
## Ornithine_HMDB0000214.1	-0.464726151
## Dopamine_HMDB0000073	-0.463765216
## Myristic.acid_HMDB0000806	-0.114975593
## X1.5.Anhydrosorbitol_HMDB0002712	0.800435763
## D.Tagatose_HMDB0003418	0.657742184
## Psicose_1	-0.095190099
## Sebacic.acid_HMDB0000792	0.161380558
## D.Fructose_HMDB0000660	0.615887554
## Gluconolactone_HMDB0000150	0.618191195
## L.Sorbose_HMDB0001266	0.602109183
## D.Mannose_HMDB0000169	-0.344268322
## Hydroxyphenyllactic.acid_HMDB0000755	0.584287713
## D.Glucose_HMDB0000122	-0.390924358
## N.Acetylglutamine_HMDB0006029	-0.323020384
## L.Lysine_HMDB0000182.1	-0.517043133
## D.Mannose_HMDB0000169.1	-0.457377736
## Tyramine_HMDB0000306	-0.519662629
## L.Histidine_HMDB0000177	-0.545691720
## D.Glucose_HMDB0000122.1	-0.393773916
## X1.Hexadecanol_HMDB0003424	0.444405320
## L.Tyrosine_HMDB0000158	-0.569452362
## Mannitol_HMDB0000765	-0.058535393
## Sorbitol_HMDB0000247	-0.067199904
## ITSD_Sorbitol	0.141168703
## Galacturonic.acid_HMDB0002545	0.713521313
## Pantothenic.acid_HMDB0000210	0.604233592
## Palmitoleic.acid_HMDB0003229	-0.120216596
## Xanthine_HMDB0000292	-0.558290087
## Gluconic.acid_HMDB0000625	0.563604452
## Palmitic.acid_HMDB0000220	0.131844270
## Glucaric.acid_HMDB0000663	-0.094839603
## N.Acetylmannosamine_HMDB0001129	0.018450443
## N.Acetyl.D.glucosamine_HMDB0000215	-0.134355148
## D.Ribulose.5.phosphate_HMDB0000618	0.627491805
## Uric.acid_HMDB0000289	-0.701516521
## D.Ribose.5.phosphate_HMDB0001548	0.533666473
## myo.Inositol_HMDB0000211	0.122775401
## D.Ribose.5.phosphate_HMDB0001548.1	0.554311771
## Heptadecanoic.acid_HMDB0002259	0.561167631
## Octadecanol_HMDB0002350	0.760400611
## Glutathione_HMDB0000125	0.007271111
## Linoleic.acid_HMDB0000673	0.062815054
## Oleic.acid_HMDB0000207	-0.131793719
## Elaidic.acid_HMDB0000573	-0.044345554
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.597871191
## Stearic.acid_HMDB0000827	0.407555066
## L.Tryptophan_HMDB0000929	0.387686491
## Fructose.1.phosphate_HMDB0001076	0.637453225
## Mannose.6.phosphate_HMDB0001078	0.001098723
## Arachidonic.acid_HMDB0001043	-0.264688407
## Glucose.6.phosphate_HMDB0001401	0.755871368
## X6.Phosphogluconic.acid_HMDB0001316	0.655782593

## Inositol.phosphate_HMDB0002985	0.534891402
## Uridine_HMDB0000296	0.454021004
## Stigmasterol_HMDB0000937	0.387533399
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.298787602
## Sucrose_HMDB0000258	-0.467587335
## MG.18.0e.0.0.0.0._HMDB0011143	0.583049756
## Trehalose_HMDB0000975	-0.258904027
## D.Maltose_HMDB0000163	-0.256333862
## Lactitol_HMDB0040937	0.427323086
## Xanthylic.acid_HMDB0001554	-0.141889099
## Adenosine.monophosphate_HMDB0000045	0.740623010
## Cholesterol_HMDB0000067	0.396525104
## Lathosterol_HMDB0001170	0.143420245
## X7b.Hydroxycholesterol_.HMDB0006119	0.420335246
##	L.Cysteine_HMDB0000574
## Dimethylglycine_HMDB0000092	0.570317574
## Glyoxylic.acid_HMDB0000119	0.559401870
## Pyruvic.acid_HMDB0000243	0.197969400
## L.Lactic.acid_HMDB0000190	0.073693854
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.509212549
## Glycolic.acid_HMDB0000115	0.801387480
## Caproic.acid_HMDB0000535	0.541620371
## L.Alanine_HMDB0000161	-0.044572299
## Alpha.ketoisovaleric.acid_HMDB0000019	0.542193566
## Glycine_HMDB0000123	-0.041483322
## Oxalic.acid_HMDB0002329	0.360456437
## Hydroxylamine_HMDB0003338	0.357415513
## X2.Hydroxybutyric.acid_HMDB0000008	0.876930993
## Acetoacetic.acid_HMDB0000060	0.636294785
## Hydroxypropionic.acid_HMDB0000700	0.262287480
## Pyruvic.acid_HMDB0000243.1	0.423673845
## X3.Hydroxybutyric.acid_HMDB0000357	0.744116620
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.787619145
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.922936234
## D.Alpha.aminobutyric.acid_HMDB0000650	0.054525782
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.724460809
## Beta.Alanine_HMDB0000056	-0.320368335
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.381121860
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.649155704
## Malonic.acid_HMDB0000691	-0.064699973
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.188425257
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.287555003
## Ketoleucine_HMDB0000695	0.840462550
## L.Valine_HMDB0000883	0.093879495
## ITSD_Valine	0.060462985
## Urea_HMDB0000294	0.348585125
## Benzoic.acid_HMDB0001870	0.421866192
## Caprylic.acid_HMDB0000482	0.672124760
## Glycerol_HMDB0000131	-0.100902689
## Ethanolamine_HMDB0000149	-0.039074459
## L.Leucine_HMDB0000687	0.076947553
## Acetyl glycine_HMDB0000532	0.741260872
## L.Isoleucine_HMDB0000172	0.058469557
## Nicotinic.acid_HMDB0001488	0.109844008

## Maleic.acid_HMDB0000176	0.813854036
## L.Proline_HMDB0000162	0.339736176
## Phenylacetic.acid_HMDB0000209	0.802313046
## Succinic.acid_HMDB0000254	0.264110450
## Glycine_HMDB0000123.1	0.052828871
## Methylsuccinic.acid_HMDB0001844	0.191322909
## Glyceric.acid_HMDB0000139	0.728128851
## Fumaric.acid_HMDB0000134	0.385527489
## Uracil_HMDB0000300	0.338593297
## Pelargonic.acid_HMDB0000847	0.616785463
## L.Serine_HMDB0000187	-0.081856403
## L.Threonine_HMDB0000167	0.054006036
## Mesaconic.acid_HMDB0000749	0.414893476
## Glutaric.acid_HMDB0000661	0.296694220
## Thymine_HMDB0000262	0.007102134
## Beta.Alanine_HMDB0000056.1	-0.157669624
## L.Homoserine_HMDB0000719	0.549688339
## Capric.acid_HMDB0000511	0.635992296
## Citramalic.acid_HMDB0000426	-0.271553502
## Malic.acid_HMDB0000744	0.815192238
## Niacinamide_HMDB0001406	0.094653067
## Adipic.acid_HMDB0000448	-0.106921956
## D.Threitol_HMDB0004136	0.460073787
## Dihydrouracil_HMDB0000076	0.420223446
## Erythritol_HMDB0002994	0.686023901
## N.Acetylserine_HMDB0002931	0.031261986
## L.Aspartic.acid_HMDB0000191	-0.006392796
## L.Methionine_HMDB0000696	-0.297621717
## X4.Hydroxyproline_HMDB0000725	0.156421245
## Pyroglutamic.acid_HMDB0000267	0.007025967
## Cytosine_HMDB0000630	-0.007769571
## Gamma.Aminobutyric.acid_HMDB0000112	-0.082124994
## Threonic.acid_HMDB0000943	0.965850667
## L.Cysteine_HMDB0000574	1.000000000
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.723685320
## Creatinine_HMDB0000562	-0.238433257
## X3.Hydroxyglutaric.acid_HMDB0000428	0.450168722
## Oxoglutaric.acid_HMDB0000208	0.343795271
## Phenylpyruvic.acid_HMDB0000205	0.323201360
## Pimelic.acid_HMDB0000857	-0.359972781
## Phenyllactic.acid_HMDB0000779	0.365630291
## Phosphoenolpyruvic.acid_HMDB0000263	0.244542143
## Ornithine_HMDB0000214	-0.481473975
## Hypotaurine_HMDB0000965	0.047439615
## Triethanolamine_HMDB0032538	-0.119000470
## X2.Aminobenzoic.acid_HMDB0001123	-0.234718643
## L.Glutamic.acid_HMDB0000148	-0.213742690
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.054217589
## X5.Aminopentanoic.acid_HMDB0003355	0.475018734
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.641699121
## L.Phenylalanine_HMDB0000159	-0.237113380
## Dodecanoic.acid_HMDB0000638	0.341087149
## Lyxose_HMDB0003402_1	0.624683807
## D.Xylose_HMDB0000098	-0.051778386

## Lyxose_HMDB0003402_2	-0.209571531
## D.Arabinose_HMDB0029942	0.513332258
## L.Asparagine_HMDB0000168	-0.524327242
## D.Ribulose_HMDB0000621	0.405063963
## D.Ribose_HMDB0000283	0.497587010
## D.Xylulose_HMDB0001644	0.404487581
## X3.Sulfinioalanine_HMDB0000996	-0.421682502
## Suberic.acid_HMDB0000893	-0.066350482
## L.Lysine_HMDB0000182	-0.518159669
## Levoglucosan_HMDB0000640	-0.156664147
## D.Arabitol_HMDB0000568	0.103400243
## Ribitol_HMDB0000508	0.507372539
## cis.Aconitic.acid_HMDB0000072	-0.072826419
## Quinolinic.acid_HMDB0000232	0.278465551
## Putrescine_HMDB0001414	0.208946189
## Glycerol.3.phosphate_HMDB0000126	0.158217896
## Vanillic.acid_HMDB0000484	0.414670900
## L.Glutamine_HMDB0000641	-0.470044761
## X2.Phosphoglyceric.acid_HMDB0000362	0.572674090
## Azelaic.acid_HMDB0000784	-0.245405037
## L.Dihydroorotic.acid_HMDB0003349	0.566335690
## O.Phosphoethanolamine_HMDB0000224	-0.102122904
## X3.Phosphoglyceric.acid_HMDB0000807	0.487617979
## Isocitric.acid_HMDB0000193	0.442648200
## Hypoxanthine_HMDB0000157	-0.499817770
## Citric.acid_HMDB0000094	0.729474853
## L.Arginine_HMDB0000517	0.283177108
## Ornithine_HMDB0000214.1	-0.287936891
## Dopamine_HMDB0000073	-0.282729119
## Myristic.acid_HMDB0000806	0.022075209
## X1.5.Anhydrosorbitol_HMDB0002712	0.802353149
## D.Tagatose_HMDB0003418	0.516616241
## Psicose_1	-0.058336085
## Sebacic.acid_HMDB0000792	0.294208741
## D.Fructose_HMDB0000660	0.476726916
## Gluconolactone_HMDB0000150	0.560182072
## L.Sorbose_HMDB0001266	0.466592551
## D.Mannose_HMDB0000169	-0.176965503
## Hydroxyphenyllactic.acid_HMDB0000755	0.579940519
## D.Glucose_HMDB0000122	-0.228256176
## N.Acetylglutamine_HMDB0006029	-0.160984633
## L.Lysine_HMDB0000182.1	-0.331286881
## D.Mannose_HMDB0000169.1	-0.279227763
## Tyramine_HMDB0000306	-0.331931884
## L.Histidine_HMDB0000177	-0.366599907
## D.Glucose_HMDB0000122.1	-0.236491187
## X1.Hexadecanol_HMDB0003424	0.456512110
## L.Tyrosine_HMDB0000158	-0.386840822
## Mannitol_HMDB0000765	0.044955654
## Sorbitol_HMDB0000247	-0.104634368
## ITSD_Sorbitol	0.293451888
## Galacturonic.acid_HMDB0002545	0.815086303
## Pantothenic.acid_HMDB0000210	0.633511419
## Palmitoleic.acid_HMDB0003229	-0.053576590

## Xanthine_HMDB0000292	-0.400603753
## Gluconic.acid_HMDB0000625	0.569041778
## Palmitic.acid_HMDB0000220	0.163529410
## Glucaric.acid_HMDB0000663	0.097483573
## N.Acetylmannosamine_HMDB0001129	0.157127999
## N.Acetyl.D.glucosamine_HMDB0000215	0.019803206
## D.Ribulose.5.phosphate_HMDB0000618	0.519719533
## Uric.acid_HMDB0000289	-0.530754889
## D.Ribose.5.phosphate_HMDB0001548	0.372354104
## myo.Inositol_HMDB0000211	0.214794069
## D.Ribose.5.phosphate_HMDB0001548.1	0.411412136
## Heptadecanoic.acid_HMDB0002259	0.512980153
## Octadecanol_HMDB0002350	0.692299368
## Glutathione_HMDB0000125	0.059120060
## Linoleic.acid_HMDB0000673	0.069580145
## Oleic.acid_HMDB0000207	-0.081656748
## Elaidic.acid_HMDB0000573	0.010940400
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.464648768
## Stearic.acid_HMDB0000827	0.343002705
## L.Tryptophan_HMDB0000929	0.321361283
## Fructose.1.phosphate_HMDB0001076	0.491495073
## Mannose.6.phosphate_HMDB0001078	-0.093392486
## Arachidonic.acid_HMDB0001043	-0.226905120
## Glucose.6.phosphate_HMDB0001401	0.647527970
## X6.Phosphogluconic.acid_HMDB0001316	0.615451513
## Inositol.phosphate_HMDB0002985	0.552721149
## Uridine_HMDB0000296	0.507990285
## Stigmasterol_HMDB0000937	0.373421226
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.251053147
## Sucrose_HMDB0000258	-0.427054528
## MG.18.Oe.0.0.0.0._HMDB0011143	0.513648762
## Trehalose_HMDB0000975	-0.371366387
## D.Maltose_HMDB0000163	-0.368008934
## Lactitol_HMDB00040937	0.471610873
## Xanthylic.acid_HMDB0001554	-0.240672644
## Adenosine.monophosphate_HMDB0000045	0.637383439
## Cholesterol_HMDB0000067	0.514276640
## Lathosterol_HMDB0001170	0.198304480
## X7b.Hydroxycholesterol_.HMDB0006119	0.359591198
##	L.2.Hydroxyglutaric.acid_HMDB0000694
## Dimethylglycine_HMDB0000092	0.722186165
## Glyoxylic.acid_HMDB0000119	0.718717619
## Pyruvic.acid_HMDB0000243	0.039416723
## L.Lactic.acid_HMDB0000190	-0.185527196
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.357889339
## Glycolic.acid_HMDB0000115	0.642202517
## Caproic.acid_HMDB0000535	0.865809614
## L.Alanine_HMDB0000161	-0.289342218
## Alpha.ketoisovaleric.acid_HMDB0000019	0.296988744
## Glycine_HMDB0000123	-0.169419614
## Oxalic.acid_HMDB0002329	0.633591289
## Hydroxylamine_HMDB0003338	0.118008177
## X2.Hydroxybutyric.acid_HMDB0000008	0.663019716
## Acetoacetic.acid_HMDB0000060	0.541202624

## Hydroxypropionic.acid_HMDB0000700	-0.011161022
## Pyruvic.acid_HMDB0000243.1	0.188711746
## X3.Hydroxybutyric.acid_HMDB0000357	0.582997577
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.629162635
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.740646245
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.302600982
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.628806812
## Beta.Alanine_HMDB0000056	-0.481355116
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.224129550
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.352619827
## Malonic.acid_HMDB0000691	-0.027375586
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.610871595
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.023570758
## Ketoleucine_HMDB0000695	0.731066634
## L.Valine_HMDB0000883	-0.229719904
## ITSD_Valine	-0.284907156
## Urea_HMDB0000294	0.040053582
## Benzoic.acid_HMDB0001870	0.423696123
## Caprylic.acid_HMDB0000482	0.864079763
## Glycerol_HMDB0000131	-0.390740642
## Ethanolamine_HMDB0000149	-0.332184015
## L.Leucine_HMDB0000687	-0.263996186
## Acetylglycine_HMDB0000532	0.634273517
## L.Isoleucine_HMDB0000172	-0.273279234
## Nicotinic.acid_HMDB0001488	0.493216154
## Maleic.acid_HMDB0000176	0.807048557
## L.Proline_HMDB0000162	0.072173792
## Phenylacetic.acid_HMDB0000209	0.856982162
## Succinic.acid_HMDB0000254	0.111059755
## Glycine_HMDB0000123.1	-0.289997063
## Methylsuccinic.acid_HMDB0001844	0.180986879
## Glyceric.acid_HMDB0000139	0.701573972
## Fumaric.acid_HMDB0000134	0.093852435
## Uracil_HMDB0000300	0.188330378
## Pelargonic.acid_HMDB0000847	0.851567687
## L.Serine_HMDB0000187	-0.246349438
## L.Threonine_HMDB0000167	-0.202655726
## Mesaconic.acid_HMDB0000749	0.380230619
## Glutaric.acid_HMDB0000661	0.609002363
## Thymine_HMDB0000262	-0.034049554
## Beta.Alanine_HMDB0000056.1	-0.530456061
## L.Homoserine_HMDB0000719	0.293535410
## Capric.acid_HMDB0000511	0.422822442
## Citramalic.acid_HMDB0000426	-0.159128577
## Malic.acid_HMDB0000744	0.851781060
## Niacinamide_HMDB0001406	-0.191065530
## Adipic.acid_HMDB0000448	-0.218849751
## D.Threitol_HMDB0004136	0.222630590
## Dihydrouracil_HMDB0000076	0.258444090
## Erythritol_HMDB0002994	0.341865774
## N.Acetylserine_HMDB0002931	-0.105187747
## L.Aspartic.acid_HMDB0000191	-0.256210248
## L.Methionine_HMDB0000696	-0.683907045
## X4.Hydroxyproline_HMDB0000725	-0.102412008

## Pyroglutamic.acid_HMDB0000267	-0.204996821
## Cytosine_HMDB0000630	-0.122193200
## Gamma.Aminobutyric.acid_HMDB0000112	0.143372212
## Threonic.acid_HMDB0000943	0.840066807
## L.Cysteine_HMDB0000574	0.723685320
## L.2.Hydroxyglutaric.acid_HMDB0000694	1.000000000
## Creatinine_HMDB0000562	-0.680203844
## X3.Hydroxyglutaric.acid_HMDB0000428	0.736646084
## Oxoglutaric.acid_HMDB0000208	0.453220479
## Phenylpyruvic.acid_HMDB0000205	0.407485378
## Pimelic.acid_HMDB0000857	-0.222112142
## Phenyllactic.acid_HMDB0000779	0.640687624
## Phosphoenolpyruvic.acid_HMDB0000263	0.649710579
## Ornithine_HMDB0000214	-0.660779608
## Hypotaurine_HMDB0000965	-0.311800646
## Triethanolamine_HMDB0032538	-0.283975218
## X2.Aminobenzoic.acid_HMDB0001123	-0.573486813
## L.Glutamic.acid_HMDB0000148	-0.528029920
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.353087102
## X5.Aminopentanoic.acid_HMDB0003355	0.504547776
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.603122954
## L.Phenylalanine_HMDB0000159	-0.588002477
## Dodecanoic.acid_HMDB0000638	-0.078396969
## Lyxose_HMDB0003402_1	0.900073626
## D.Xylose_HMDB0000098	-0.127634549
## Lyxose_HMDB0003402_2	-0.267842536
## D.Arabinose_HMDB0029942	0.847734799
## L.Asparagine_HMDB0000168	-0.665700626
## D.Ribulose_HMDB0000621	0.567973115
## D.Ribose_HMDB0000283	0.838716220
## D.Xylulose_HMDB0001644	0.542848009
## X3.Sulfinoalanine_HMDB0000996	-0.525085861
## Suberic.acid_HMDB0000893	-0.062436702
## L.Lysine_HMDB0000182	-0.699858920
## Levoglucosan_HMDB0000640	-0.301464227
## D.Arabitol_HMDB0000568	0.046052256
## Ribitol_HMDB0000508	0.200334293
## cis.Aconitic.acid_HMDB0000072	-0.215916585
## Quinolinic.acid_HMDB0000232	0.385078794
## Putrescine_HMDB0001414	0.520304605
## Glycerol.3.phosphate_HMDB0000126	0.590223611
## Vanillic.acid_HMDB0000484	-0.157130933
## L.Glutamine_HMDB0000641	-0.537790894
## X2.Phosphoglyceric.acid_HMDB0000362	0.531009999
## Azelaic.acid_HMDB0000784	0.172225101
## L.Dihydroorotic.acid_HMDB0003349	0.869593548
## O.Phosphoethanolamine_HMDB0000224	-0.324096824
## X3.Phosphoglyceric.acid_HMDB0000807	0.513087929
## Isocitric.acid_HMDB0000193	0.246976928
## Hypoxanthine_HMDB0000157	-0.600078728
## Citric.acid_HMDB0000094	0.765651751
## L.Arginine_HMDB0000517	0.294323289
## Ornithine_HMDB0000214.1	-0.604380775
## Dopamine_HMDB0000073	-0.590520768

## Myristic.acid_HMDB0000806	-0.391974194
## X1.5.Anhydrosorbitol_HMDB0002712	0.613397848
## D.Tagatose_HMDB0003418	0.859880861
## Psicose_1	-0.235353767
## Sebacic.acid_HMDB0000792	0.005996838
## D.Fructose_HMDB0000660	0.841786779
## Gluconolactone_HMDB0000150	0.699178499
## L.Sorbose_HMDB0001266	0.828825957
## D.Mannose_HMDB0000169	-0.667596085
## Hydroxyphenyllactic.acid_HMDB0000755	0.340255567
## D.Glucose_HMDB0000122	-0.703656917
## N.Acetylglutamine_HMDB0006029	-0.658955475
## L.Lysine_HMDB0000182.1	-0.692491147
## D.Mannose_HMDB0000169.1	-0.734320771
## Tyramine_HMDB0000306	-0.698164436
## L.Histidine_HMDB0000177	-0.719885206
## D.Glucose_HMDB0000122.1	-0.725830632
## X1.Hexadecanol_HMDB0003424	0.305227885
## L.Tyrosine_HMDB0000158	-0.673947612
## Mannitol_HMDB0000765	-0.204347146
## Sorbitol_HMDB0000247	0.215977267
## ITSD_Sorbitol	-0.243536892
## Galacturonic.acid_HMDB0002545	0.315469192
## Pantothenic.acid_HMDB0000210	0.463663670
## Palmitoleic.acid_HMDB0003229	-0.400248297
## Xanthine_HMDB0000292	-0.481462480
## Gluconic.acid_HMDB0000625	0.583959104
## Palmitic.acid_HMDB0000220	-0.152688803
## Glucaric.acid_HMDB0000663	-0.398275021
## N.Acetylmannosamine_HMDB0001129	-0.317464582
## N.Acetyl.D.glucosamine_HMDB0000215	-0.431743677
## D.Ribulose.5.phosphate_HMDB0000618	0.739321981
## Uric.acid_HMDB0000289	-0.793499157
## D.Ribose.5.phosphate_HMDB0001548	0.709334563
## myo.Inositol_HMDB0000211	0.045978045
## D.Ribose.5.phosphate_HMDB0001548.1	0.681880220
## Heptadecanoic.acid_HMDB0002259	0.744986147
## Octadecanol_HMDB0002350	0.661408158
## Glutathione_HMDB0000125	0.013902944
## Linoleic.acid_HMDB0000673	-0.187228748
## Oleic.acid_HMDB0000207	-0.391571473
## Elaidic.acid_HMDB0000573	-0.322347370
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.762073495
## Stearic.acid_HMDB0000827	0.259277285
## L.Tryptophan_HMDB0000929	0.223074476
## Fructose.1.phosphate_HMDB0001076	0.881145824
## Mannose.6.phosphate_HMDB0001078	0.147720745
## Arachidonic.acid_HMDB0001043	-0.489858663
## Glucose.6.phosphate_HMDB0001401	0.827298565
## X6.Phosphogluconic.acid_HMDB0001316	0.441638946
## Inositol.phosphate_HMDB0002985	0.308584525
## Uridine_HMDB0000296	0.331496763
## Stigmasterol_HMDB0000937	0.201253862
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.112965651

## Sucrose_HMDB0000258	-0.466101707
## MG.18.0e.0.0.0.0._HMDB0011143	0.386820176
## Trehalose_HMDB0000975	0.037371000
## D.Maltose_HMDB0000163	0.038673385
## Lactitol_HMDB00040937	0.216231988
## Xanthylic.acid_HMDB0001554	0.148485094
## Adenosine.monophosphate_HMDB0000045	0.812597718
## Cholesterol_HMDB0000067	-0.032199964
## Lathosterol_HMDB0001170	-0.227521024
## X7b.Hydroxycholesterol_.HMDB0006119	0.668570433
## Creatinine_HMDB0000562	
## Dimethylglycine_HMDB0000092	-0.75913605
## Glyoxylic.acid_HMDB0000119	-0.76587635
## Pyruvic.acid_HMDB0000243	0.41656763
## L.Lactic.acid_HMDB0000190	0.59333993
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.17372024
## Glycolic.acid_HMDB0000115	-0.14807357
## Caproic.acid_HMDB0000535	-0.77599111
## L.Alanine_HMDB0000161	0.65089743
## Alpha.ketoisovaleric.acid_HMDB0000019	0.01367974
## Glycine_HMDB0000123	0.39238584
## Oxalic.acid_HMDB0002329	-0.46781246
## Hydroxylamine_HMDB0003338	0.22588979
## X2.Hydroxybutyric.acid_HMDB0000008	-0.07426387
## Acetoacetic.acid_HMDB0000060	-0.17008077
## Hydroxypropionic.acid_HMDB0000700	0.59953556
## Pyruvic.acid_HMDB0000243.1	0.21401526
## X3.Hydroxybutyric.acid_HMDB0000357	-0.08725310
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.02480947
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.25073664
## D.Alpha.aminobutyric.acid_HMDB0000650	0.76318575
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.13935904
## Beta.Alanine_HMDB0000056	0.68525776
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.05455886
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.16716784
## Malonic.acid_HMDB0000691	0.29101472
## X3.Aminoisobutanoic.acid_HMDB0003911	0.88508167
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.55937153
## Ketoleucine_HMDB0000695	-0.34538093
## L.Valine_HMDB0000883	0.74531570
## ITSD_Valine	0.80289365
## Urea_HMDB0000294	0.39480146
## Benzoic.acid_HMDB0001870	-0.04078505
## Caprylic.acid_HMDB0000482	-0.73728023
## Glycerol_HMDB0000131	0.74459110
## Ethanolamine_HMDB0000149	0.69892667
## L.Leucine_HMDB0000687	0.76890375
## Acetylglucine_HMDB0000532	-0.03010731
## L.Isoleucine_HMDB0000172	0.70758531
## Nicotinic.acid_HMDB0001488	-0.45699807
## Maleic.acid_HMDB0000176	-0.40542368
## L.Proline_HMDB0000162	0.54653236
## Phenylacetic.acid_HMDB0000209	-0.58009925
## Succinic.acid_HMDB0000254	0.51197059

## Glycine_HMDB0000123.1	0.73728660
## Methylsuccinic.acid_HMDB0001844	0.24536569
## Glyceric.acid_HMDB0000139	-0.38068948
## Fumaric.acid_HMDB0000134	0.38445931
## Uracil_HMDB0000300	0.25255116
## Pelargonic.acid_HMDB0000847	-0.80450726
## L.Serine_HMDB0000187	0.58414999
## L.Threonine_HMDB0000167	0.60880157
## Mesaconic.acid_HMDB0000749	-0.04313434
## Glutaric.acid_HMDB0000661	-0.32387456
## Thymine_HMDB0000262	0.24153749
## Beta.Alanine_HMDB0000056.1	0.85584701
## L.Homoserine_HMDB0000719	0.06911989
## Capric.acid_HMDB0000511	-0.04182121
## Citramalic.acid_HMDB0000426	0.25406877
## Malic.acid_HMDB0000744	-0.38456328
## Niacinamide_HMDB0001406	0.55080508
## Adipic.acid_HMDB0000448	0.46711142
## D.Threitol_HMDB0004136	0.16795048
## Dihydrouracil_HMDB0000076	0.15998988
## Erythritol_HMDB0002994	0.24838881
## N.Acetylserine_HMDB0002931	0.44431341
## L.Aspartic.acid_HMDB0000191	0.63170929
## L.Methionine_HMDB0000696	0.90526990
## X4.Hydroxyproline_HMDB0000725	0.53989860
## Pyroglutamic.acid_HMDB0000267	0.53453944
## Cytosine_HMDB0000630	0.22429162
## Gamma.Aminobutyric.acid_HMDB0000112	0.03759354
## Threonic.acid_HMDB0000943	-0.43171441
## L.Cysteine_HMDB0000574	-0.23843326
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.68020384
## Creatinine_HMDB0000562	1.00000000
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.68090736
## Oxoglutaric.acid_HMDB0000208	-0.19941981
## Phenylpyruvic.acid_HMDB0000205	-0.50543135
## Pimelic.acid_HMDB0000857	0.21536513
## Phenyllactic.acid_HMDB0000779	-0.68118171
## Phosphoenolpyruvic.acid_HMDB0000263	-0.91917374
## Ornithine_HMDB0000214	0.74187858
## Hypotaurine_HMDB0000965	0.63793008
## Triethanolamine_HMDB0032538	0.48867233
## X2.Aminobenzoic.acid_HMDB0001123	0.85927671
## L.Glutamic.acid_HMDB0000148	0.77578681
## X4.Hydroxybenzoic.acid_HMDB0000500	0.76592270
## X5.Aminopentanoic.acid_HMDB0003355	-0.42403842
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.37897849
## L.Phenylalanine_HMDB0000159	0.88738783
## Dodecanoic.acid_HMDB0000638	0.54005303
## Lyxose_HMDB0003402_1	-0.75036444
## D.Xylose_HMDB0000098	-0.41783149
## Lyxose_HMDB0003402_2	-0.28727689
## D.Arabinose_HMDB0029942	-0.81264995
## L.Asparagine_HMDB0000168	0.66766346
## D.Ribulose_HMDB0000621	-0.77063347

## D.Ribose_HMDB0000283	-0.80316253
## D.Xylulose_HMDB0001644	-0.77060022
## X3.Sulfinioalanine_HMDB0000996	0.52568238
## Suberic.acid_HMDB0000893	0.20538020
## L.Lysine_HMDB0000182	0.73201417
## Levoglucosan_HMDB0000640	-0.24842862
## D.Arabitol_HMDB0000568	0.22184901
## Ribitol_HMDB0000508	0.17558807
## cis.Aconitic.acid_HMDB0000072	-0.31250090
## Quinolinic.acid_HMDB0000232	-0.23774962
## Putrescine_HMDB0001414	-0.23697054
## Glycerol.3.phosphate_HMDB0000126	-0.69925046
## Vanillic.acid_HMDB0000484	0.53067736
## L.Glutamine_HMDB0000641	0.42114948
## X2.Phosphoglyceric.acid_HMDB0000362	-0.23481462
## Azelaic.acid_HMDB0000784	-0.29641261
## L.Dihydroorotic.acid_HMDB0003349	-0.81544984
## O.Phosphoethanolamine_HMDB0000224	0.61695879
## X3.Phosphoglyceric.acid_HMDB0000807	-0.28416287
## Isocitric.acid_HMDB0000193	0.26493971
## Hypoxanthine_HMDB0000157	0.30839885
## Citric.acid_HMDB0000094	-0.52325019
## L.Arginine_HMDB0000517	-0.09969384
## Ornithine_HMDB0000214.1	0.82600954
## Dopamine_HMDB0000073	0.83079283
## Myristic.acid_HMDB0000806	0.81207436
## X1.5.Anhydrosorbitol_HMDB0002712	-0.28352982
## D.Tagatose_HMDB0003418	-0.82461905
## Psicose_1	-0.22852661
## Sebacic.acid_HMDB0000792	0.49551966
## D.Fructose_HMDB0000660	-0.75462961
## Gluconolactone_HMDB0000150	-0.67120041
## L.Sorbose_HMDB0001266	-0.73682231
## D.Mannose_HMDB0000169	0.80788214
## Hydroxyphenyllactic.acid_HMDB0000755	0.07177654
## D.Glucose_HMDB0000122	0.74024409
## N.Acetylglutamine_HMDB0006029	0.76939144
## L.Lysine_HMDB0000182.1	0.92043168
## D.Mannose_HMDB0000169.1	0.88490087
## Tyramine_HMDB0000306	0.92333360
## L.Histidine_HMDB0000177	0.92363465
## D.Glucose_HMDB0000122.1	0.76357637
## X1.Hexadecanol_HMDB0003424	-0.06869693
## L.Tyrosine_HMDB0000158	0.81998412
## Mannitol_HMDB0000765	0.52850145
## Sorbitol_HMDB0000247	-0.21907150
## ITSD_Sorbitol	0.69496281
## Galacturonic.acid_HMDB0002545	0.05355227
## Pantothenic.acid_HMDB0000210	-0.06763105
## Palmitoleic.acid_HMDB0003229	0.70034787
## Xanthine_HMDB0000292	0.44202548
## Gluconic.acid_HMDB0000625	-0.56626983
## Palmitic.acid_HMDB0000220	0.47385478
## Glucaric.acid_HMDB0000663	0.68507012

## N.Acetylmannosamine_HMDB0001129	0.54021896
## N.Acetyl.D.glucosamine_HMDB0000215	0.72649229
## D.Ribulose.5.phosphate_HMDB0000618	-0.78795131
## Uric.acid_HMDB0000289	0.72494243
## D.Ribose.5.phosphate_HMDB0001548	-0.82471916
## myo.Inositol_HMDB0000211	0.38416747
## D.Ribose.5.phosphate_HMDB0001548.1	-0.85417986
## Heptadecanoic.acid_HMDB0002259	-0.46292601
## Octadecanol_HMDB0002350	-0.29237870
## Glutathione_HMDB0000125	-0.04458227
## Linoleic.acid_HMDB0000673	0.43978747
## Oleic.acid_HMDB0000207	0.63467967
## Elaidic.acid_HMDB0000573	0.62248560
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.91708689
## Stearic.acid_HMDB0000827	-0.01380981
## L.Tryptophan_HMDB0000929	-0.02189173
## Fructose.1.phosphate_HMDB0001076	-0.79347743
## Mannose.6.phosphate_HMDB0001078	-0.54394361
## Arachidonic.acid_HMDB0001043	0.57347825
## Glucose.6.phosphate_HMDB0001401	-0.66810699
## X6.Phosphogluconic.acid_HMDB0001316	-0.17251390
## Inositol.phosphate_HMDB0002985	-0.01100075
## Uridine_HMDB0000296	0.18918672
## Stigmasterol_HMDB0000937	0.16245733
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.20671956
## Sucrose_HMDB0000258	0.43749736
## MG.18.Oe.0.0.0.0._HMD0011143	-0.02344152
## Trehalose_HMDB0000975	-0.29997608
## D.Maltose_HMDB0000163	-0.29677305
## Lactitol_HMDB0040937	-0.04665834
## Xanthylic.acid_HMDB0001554	-0.66865912
## Adenosine.monophosphate_HMDB0000045	-0.74969816
## Cholesterol_HMDB0000067	0.25607551
## Lathosterol_HMDB0001170	0.40173045
## X7b.Hydroxycholesterol_.HMD0006119	-0.67034966
##	
## X3.Hydroxyglutaric.acid_HMDB0000428	
## Dimethylglycine_HMDB0000092	0.712595435
## Glyoxylic.acid_HMDB0000119	0.708318229
## Pyruvic.acid_HMDB0000243	-0.107085701
## L.Lactic.acid_HMDB0000190	-0.469023770
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.005548845
## Glycolic.acid_HMDB0000115	0.537528194
## Caproic.acid_HMDB0000535	0.794883512
## L.Alanine_HMDB0000161	-0.465684684
## Alpha.ketoisovaleric.acid_HMDB0000019	0.073627781
## Glycine_HMDB0000123	-0.240246353
## Oxalic.acid_HMDB0002329	0.608549154
## Hydroxylamine_HMDB0003338	-0.252110396
## X2.Hydroxybutyric.acid_HMDB0000008	0.256685729
## Acetoacetic.acid_HMDB0000060	0.162579194
## Hydroxypropionic.acid_HMDB0000700	-0.419377384
## Pyruvic.acid_HMDB0000243.1	-0.185972550
## X3.Hydroxybutyric.acid_HMDB0000357	0.152431171
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.160544365

## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.427694788
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.587555852
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.226179442
## Beta.Alanine_HMDB0000056	-0.430662608
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.187166455
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.024859285
## Malonic.acid_HMDB0000691	-0.013250589
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.660113834
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.389160257
## Ketoleucine_HMDB0000695	0.378530869
## L.Valine_HMDB0000883	-0.528629491
## ITSD_Valine	-0.557780581
## Urea_HMDB0000294	-0.175150056
## Benzoic.acid_HMDB0001870	0.302398474
## Caprylic.acid_HMDB0000482	0.761798234
## Glycerol_HMDB0000131	-0.608233969
## Ethanolamine_HMDB0000149	-0.497101969
## L.Leucine_HMDB0000687	-0.570743859
## Acetyl glycine_HMDB0000532	0.447416703
## L.Isoleucine_HMDB0000172	-0.547435849
## Nicotinic.acid_HMDB0001488	0.417175849
## Maleic.acid_HMDB0000176	0.500049712
## L.Proline_HMDB0000162	-0.302048554
## Phenylacetic.acid_HMDB0000209	0.649214808
## Succinic.acid_HMDB0000254	-0.287487842
## Glycine_HMDB0000123.1	-0.544662590
## Methylsuccinic.acid_HMDB0001844	0.195876962
## Glyceric.acid_HMDB0000139	0.456666034
## Fumaric.acid_HMDB0000134	-0.177220431
## Uracil_HMDB0000300	-0.142250213
## Pelargonic.acid_HMDB0000847	0.805865304
## L.Serine_HMDB0000187	-0.481239682
## L.Threonine_HMDB0000167	-0.429670823
## Mesaconic.acid_HMDB0000749	0.366102844
## Glutaric.acid_HMDB0000661	0.535306275
## Thymine_HMDB0000262	-0.413178962
## Beta.Alanine_HMDB0000056.1	-0.715986393
## L.Homoserine_HMDB0000719	0.386290882
## Capric.acid_HMDB0000511	0.450620624
## Citramalic.acid_HMDB0000426	-0.081910158
## Malic.acid_HMDB0000744	0.606583968
## Niacinamide_HMDB0001406	-0.361622109
## Adipic.acid_HMDB0000448	-0.256896778
## D.Threitol_HMDB0004136	0.199217235
## Dihydrouracil_HMDB0000076	-0.032664771
## Erythritol_HMDB0002994	0.004138703
## N.Acetylserine_HMDB0002931	-0.346534293
## L.Aspartic.acid_HMDB0000191	-0.481235787
## L.Methionine_HMDB0000696	-0.716102837
## X4.Hydroxyproline_HMDB0000725	-0.328363672
## Pyroglutamic.acid_HMDB0000267	-0.400627212
## Cytosine_HMDB0000630	0.155404622
## Gamma.Aminobutyric.acid_HMDB0000112	-0.010714678
## Threonic.acid_HMDB0000943	0.553627085

## L.Cysteine_HMDB0000574	0.450168722
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.736646084
## Creatinine_HMDB0000562	-0.680907359
## X3.Hydroxyglutaric.acid_HMDB0000428	1.000000000
## Oxoglutaric.acid_HMDB0000208	0.125321660
## Phenylpyruvic.acid_HMDB0000205	0.605340395
## Pimelic.acid_HMDB0000857	-0.421997449
## Phenyllactic.acid_HMDB0000779	0.722750294
## Phosphoenolpyruvic.acid_HMDB0000263	0.783937781
## Ornithine_HMDB0000214	-0.463880486
## Hypotaurine_HMDB0000965	-0.508078908
## Triethanolamine_HMDB0032538	-0.388008851
## X2.Aminobenzoic.acid_HMDB0001123	-0.750411831
## L.Glutamic.acid_HMDB0000148	-0.505984271
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.601600572
## X5.Aminopentanoic.acid_HMDB0003355	0.252529925
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.622015234
## L.Phenylalanine_HMDB0000159	-0.665984966
## Dodecanoic.acid_HMDB0000638	-0.306965445
## Lyxose_HMDB0003402_1	0.767005726
## D.Xylose_HMDB0000098	0.208626793
## Lyxose_HMDB0003402_2	0.106616158
## D.Arabinose_HMDB0029942	0.782730683
## L.Asparagine_HMDB0000168	-0.411320337
## D.Ribulose_HMDB0000621	0.708218625
## D.Ribose_HMDB0000283	0.786595897
## D.Xylulose_HMDB0001644	0.702993591
## X3.Sulfinoalanine_HMDB0000996	-0.192180332
## Suberic.acid_HMDB0000893	-0.033208105
## L.Lysine_HMDB0000182	-0.363093807
## Levoglucosan_HMDB0000640	0.044424350
## D.Arabitol_HMDB0000568	0.249593421
## Ribitol_HMDB0000508	0.134553529
## cis.Aconitic.acid_HMDB0000072	0.029409075
## Quinolinic.acid_HMDB0000232	0.479880472
## Putrescine_HMDB0001414	0.198045003
## Glycerol.3.phosphate_HMDB0000126	0.719200859
## Vanillic.acid_HMDB0000484	-0.236488616
## L.Glutamine_HMDB0000641	-0.281429732
## X2.Phosphoglyceric.acid_HMDB0000362	0.429147840
## Azelaic.acid_HMDB0000784	0.380190690
## L.Dihydroorotic.acid_HMDB0003349	0.798067832
## O.Phosphoethanolamine_HMDB0000224	-0.480762561
## X3.Phosphoglyceric.acid_HMDB0000807	0.371045012
## Isocitric.acid_HMDB0000193	0.249687469
## Hypoxanthine_HMDB0000157	-0.157782633
## Citric.acid_HMDB0000094	0.633254672
## L.Arginine_HMDB0000517	0.438841984
## Ornithine_HMDB0000214.1	-0.644169819
## Dopamine_HMDB0000073	-0.630502939
## Myristic.acid_HMDB0000806	-0.586965782
## X1.5.Anhydrosorbitol_HMDB0002712	0.442187071
## D.Tagatose_HMDB0003418	0.822161494
## Psicose_1	-0.019012703

## Sebacic.acid_HMDB0000792	-0.202722283
## D.Fructose_HMDB0000660	0.841789469
## Gluconolactone_HMDB0000150	0.745174115
## L.Sorbose_HMDB0001266	0.844402024
## D.Mannose_HMDB0000169	-0.698217135
## Hydroxyphenyllactic.acid_HMDB0000755	-0.114963865
## D.Glucose_HMDB0000122	-0.612108790
## N.Acetylglutamine_HMDB0006029	-0.680692134
## L.Lysine_HMDB0000182.1	-0.676398781
## D.Mannose_HMDB0000169.1	-0.732418546
## Tyramine_HMDB0000306	-0.680434721
## L.Histidine_HMDB0000177	-0.688548048
## D.Glucose_HMDB0000122.1	-0.681203276
## X1.Hexadecanol_HMDB0003424	0.370858891
## L.Tyrosine_HMDB0000158	-0.595403618
## Mannitol_HMDB0000765	-0.360037438
## Sorbitol_HMDB0000247	0.089229994
## ITSD_Sorbitol	-0.523467760
## Galacturonic.acid_HMDB0002545	0.060663524
## Pantothenic.acid_HMDB0000210	0.354179635
## Palmitoleic.acid_HMDB0003229	-0.568075009
## Xanthine_HMDB0000292	-0.391009375
## Gluconic.acid_HMDB0000625	0.492128302
## Palmitic.acid_HMDB0000220	-0.370142757
## Glucaric.acid_HMDB0000663	-0.550202984
## N.Acetylmannosamine_HMDB0001129	-0.453054121
## N.Acetyl.D.glucosamine_HMDB0000215	-0.630636310
## D.Ribulose.5.phosphate_HMDB0000618	0.806266352
## Uric.acid_HMDB0000289	-0.548900331
## D.Ribose.5.phosphate_HMDB0001548	0.806603547
## myo.Inositol_HMDB0000211	0.031746078
## D.Ribose.5.phosphate_HMDB0001548.1	0.794284656
## Heptadecanoic.acid_HMDB0002259	0.468374581
## Octadecanol_HMDB0002350	0.380452076
## Glutathione_HMDB0000125	0.244897016
## Linoleic.acid_HMDB0000673	-0.399149526
## Oleic.acid_HMDB0000207	-0.544845571
## Elaidic.acid_HMDB0000573	-0.498413586
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.795943162
## Stearic.acid_HMDB0000827	0.065390463
## L.Tryptophan_HMDB0000929	0.080494936
## Fructose.1.phosphate_HMDB0001076	0.779575751
## Mannose.6.phosphate_HMDB0001078	0.520455944
## Arachidonic.acid_HMDB0001043	-0.477700629
## Glucose.6.phosphate_HMDB0001401	0.715787196
## X6.Phosphogluconic.acid_HMDB0001316	0.250001962
## Inositol.phosphate_HMDB0002985	0.181182231
## Uridine_HMDB0000296	-0.018190173
## Stigmasterol_HMDB0000937	-0.113745760
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.083682882
## Sucrose_HMDB0000258	-0.476252601
## MG.18.0e.0.0.0.0._HMDB0011143	0.082566363
## Trehalose_HMDB0000975	0.337549825
## D.Maltose_HMDB0000163	0.338828875

## Lactitol_HMDB00040937	0.112108141
## Xanthylic.acid_HMDB0001554	0.422846391
## Adenosine.monophosphate_HMDB0000045	0.854304314
## Cholesterol_HMDB0000067	-0.010120057
## Lathosterol_HMDB0001170	-0.318275595
## X7b.Hydroxycholesterol_.HMDB0006119	0.596130569
## Oxoglutaric.acid_HMDB0000208	
## Dimethylglycine_HMDB0000092	-0.016207448
## Glyoxylic.acid_HMDB0000119	-0.017910698
## Pyruvic.acid_HMDB0000243	0.353873439
## L.Lactic.acid_HMDB0000190	0.419640133
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.701729068
## Glycolic.acid_HMDB0000115	0.316926243
## Caproic.acid_HMDB0000535	0.148845602
## L.Alanine_HMDB0000161	0.238019434
## Alpha.ketoisovaleric.acid_HMDB0000019	0.349961915
## Glycine_HMDB0000123	0.433772947
## Oxalic.acid_HMDB0002329	0.499360813
## Hydroxylamine_HMDB0003338	0.340317424
## X2.Hydroxybutyric.acid_HMDB0000008	0.610126476
## Acetoacetic.acid_HMDB0000060	0.569371168
## Hydroxypropionic.acid_HMDB0000700	0.559298482
## Pyruvic.acid_HMDB0000243.1	0.544754492
## X3.Hydroxybutyric.acid_HMDB0000357	0.736577621
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.707686903
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.548575278
## D.Alpha.aminobutyric.acid_HMDB0000650	0.232339253
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.512064414
## Beta.Alanine_HMDB0000056	0.205555329
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.513098072
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.510893633
## Malonic.acid_HMDB0000691	0.225862248
## X3.Aminoisobutanoic.acid_HMDB0003911	0.065321795
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.603649036
## Ketoleucine_HMDB0000695	0.568704496
## L.Valine_HMDB0000883	0.276212655
## ITSD_Valine	0.286015698
## Urea_HMDB0000294	0.426457662
## Benzoic.acid_HMDB0001870	0.464369975
## Caprylic.acid_HMDB0000482	0.420372085
## Glycerol_HMDB0000131	0.301713641
## Ethanolamine_HMDB0000149	0.094285036
## L.Leucine_HMDB0000687	0.293881902
## Acetyl glycine_HMDB0000532	0.410892511
## L.Isoleucine_HMDB0000172	0.290449697
## Nicotinic.acid_HMDB0001488	0.433971885
## Maleic.acid_HMDB0000176	0.552709643
## L.Proline_HMDB0000162	0.352730123
## Phenylacetic.acid_HMDB0000209	0.390758219
## Succinic.acid_HMDB0000254	0.469630004
## Glycine_HMDB0000123.1	0.267844286
## Methylsuccinic.acid_HMDB0001844	0.217481548
## Glyceric.acid_HMDB0000139	0.352901251
## Fumaric.acid_HMDB0000134	0.538970028

## Uracil_HMDB0000300	0.449659296
## Pelargonic.acid_HMDB0000847	0.277142614
## L.Serine_HMDB0000187	0.288561929
## L.Threonine_HMDB0000167	0.261838423
## Mesaconic.acid_HMDB0000749	0.201802635
## Glutaric.acid_HMDB0000661	0.249576112
## Thymine_HMDB0000262	0.260644002
## Beta.Alanine_HMDB0000056.1	0.126869220
## L.Homoserine_HMDB0000719	0.204793922
## Capric.acid_HMDB0000511	0.224727621
## Citramalic.acid_HMDB0000426	0.138357261
## Malic.acid_HMDB0000744	0.448092553
## Niacinamide_HMDB0001406	0.322734771
## Adipic.acid_HMDB0000448	-0.027124276
## D.Threitol_HMDB0004136	0.399788049
## Dihydrouracil_HMDB0000076	0.455645872
## Erythritol_HMDB0002994	0.552697096
## N.Acetylserine_HMDB0002931	0.299096432
## L.Aspartic.acid_HMDB0000191	0.218936496
## L.Methionine_HMDB0000696	-0.098991346
## X4.Hydroxyproline_HMDB0000725	0.358144747
## Pyroglutamic.acid_HMDB0000267	0.352556475
## Cytosine_HMDB0000630	-0.485929337
## Gamma.Aminobutyric.acid_HMDB0000112	0.574540605
## Threonic.acid_HMDB0000943	0.467469112
## L.Cysteine_HMDB0000574	0.343795271
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.453220479
## Creatinine_HMDB0000562	-0.199419808
## X3.Hydroxyglutaric.acid_HMDB0000428	0.125321660
## Oxoglutaric.acid_HMDB0000208	1.000000000
## Phenylpyruvic.acid_HMDB0000205	0.293627858
## Pimelic.acid_HMDB0000857	0.356014089
## Phenyllactic.acid_HMDB0000779	0.462044995
## Phosphoenolpyruvic.acid_HMDB0000263	-0.073652865
## Ornithine_HMDB0000214	-0.416154640
## Hypotaurine_HMDB0000965	0.060488620
## Triethanolamine_HMDB0032538	0.100166387
## X2.Aminobenzoic.acid_HMDB0001123	0.086622722
## L.Glutamic.acid_HMDB0000148	-0.073440540
## X4.Hydroxybenzoic.acid_HMDB0000500	0.191101171
## X5.Aminopentanoic.acid_HMDB0003355	0.377682751
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.095344315
## L.Phenylalanine_HMDB0000159	-0.022930735
## Dodecanoic.acid_HMDB0000638	0.377946628
## Lyxose_HMDB0003402_1	0.267420010
## D.Xylose_HMDB0000098	-0.296992178
## Lyxose_HMDB0003402_2	-0.333271347
## D.Arabinose_HMDB0029942	0.143196637
## L.Asparagine_HMDB0000168	-0.498455910
## D.Ribulose_HMDB0000621	-0.060096230
## D.Ribose_HMDB0000283	0.109865964
## D.Xylulose_HMDB0001644	-0.080412191
## X3.Sulfinioalanine_HMDB0000996	-0.422529826
## Suberic.acid_HMDB0000893	0.182878735

## L.Lysine_HMDB0000182	-0.555890054
## Levoglucosan_HMDB0000640	-0.389987478
## D.Arabitol_HMDB0000568	0.339326970
## Ribitol_HMDB0000508	0.019083001
## cis.Aconitic.acid_HMDB0000072	-0.182887699
## Quinolinic.acid_HMDB0000232	0.361823661
## Putrescine_HMDB0001414	0.548433260
## Glycerol.3.phosphate_HMDB0000126	0.106148410
## Vanillic.acid_HMDB0000484	0.135725368
## L.Glutamine_HMDB0000641	-0.583469109
## X2.Phosphoglyceric.acid_HMDB0000362	0.266060331
## Azelaic.acid_HMDB0000784	0.185960414
## L.Dihydroorotic.acid_HMDB0003349	0.162376057
## O.Phosphoethanolamine_HMDB0000224	0.380156081
## X3.Phosphoglyceric.acid_HMDB0000807	0.384497765
## Isocitric.acid_HMDB0000193	0.023330302
## Hypoxanthine_HMDB0000157	-0.602173199
## Citric.acid_HMDB0000094	0.140520715
## L.Arginine_HMDB0000517	-0.365274445
## Ornithine_HMDB0000214.1	-0.109544568
## Dopamine_HMDB0000073	-0.135342536
## Myristic.acid_HMDB0000806	0.224766027
## X1.5.Anhydrosorbitol_HMDB0002712	0.383132882
## D.Tagatose_HMDB0003418	0.159447185
## Psicose_1	-0.206298056
## Sebacic.acid_HMDB0000792	0.161185609
## D.Fructose_HMDB0000660	0.191306833
## Gluconolactone_HMDB0000150	-0.029040938
## L.Sorbose_HMDB0001266	0.165509412
## D.Mannose_HMDB0000169	0.004321861
## Hydroxyphenyllactic.acid_HMDB0000755	0.688117719
## D.Glucose_HMDB0000122	-0.031349801
## N.Acetylglutamine_HMDB0006029	0.013580436
## L.Lysine_HMDB0000182.1	-0.177196505
## D.Mannose_HMDB0000169.1	-0.088180542
## Tyramine_HMDB0000306	-0.189469598
## L.Histidine_HMDB0000177	-0.183855727
## D.Glucose_HMDB0000122.1	-0.023877161
## X1.Hexadecanol_HMDB0003424	0.209442295
## L.Tyrosine_HMDB0000158	-0.289692312
## Mannitol_HMDB0000765	0.311615737
## Sorbitol_HMDB0000247	-0.104786111
## ITSD_Sorbitol	0.229114082
## Galacturonic.acid_HMDB0002545	0.321269929
## Pantothenic.acid_HMDB0000210	0.134373794
## Palmitoleic.acid_HMDB0003229	0.296650765
## Xanthine_HMDB0000292	-0.619279759
## Gluconic.acid_HMDB0000625	-0.088739867
## Palmitic.acid_HMDB0000220	0.510369834
## Glucaric.acid_HMDB0000663	-0.050129384
## N.Acetylmannosamine_HMDB0001129	0.061191861
## N.Acetyl.D.glucosamine_HMDB0000215	0.187290398
## D.Ribulose.5.phosphate_HMDB0000618	-0.020630359
## Uric.acid_HMDB0000289	-0.583411401

## D.Ribose.5.phosphate_HMDB0001548	0.110718661
## myo.Inositol_HMDB0000211	0.239056977
## D.Ribose.5.phosphate_HMDB0001548.1	0.008962799
## Heptadecanoic.acid_HMDB0002259	0.383250771
## Octadecanol_HMDB0002350	0.717352929
## Glutathione_HMDB0000125	-0.214822976
## Linoleic.acid_HMDB0000673	0.399335930
## Oleic.acid_HMDB0000207	0.246581442
## Elaidic.acid_HMDB0000573	0.288852291
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.050780972
## Stearic.acid_HMDB0000827	0.663953968
## L.Tryptophan_HMDB0000929	0.628346223
## Fructose.1.phosphate_HMDB0001076	0.268032031
## Mannose.6.phosphate_HMDB0001078	-0.004886041
## Arachidonic.acid_HMDB0001043	0.024586514
## Glucose.6.phosphate_HMDB0001401	0.300892762
## X6.Phosphogluconic.acid_HMDB0001316	0.543809469
## Inositol.phosphate_HMDB0002985	0.070022924
## Uridine_HMDB0000296	0.450417275
## Stigmasterol_HMDB0000937	0.766305487
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.503619396
## Sucrose_HMDB0000258	0.073493317
## MG.18.0e.0.0.0.0._HMDB0011143	0.762664159
## Trehalose_HMDB0000975	0.065989053
## D.Maltose_HMDB0000163	0.071038004
## Lactitol_HMDB00040937	0.075620833
## Xanthylic.acid_HMDB0001554	-0.439444883
## Adenosine.monophosphate_HMDB0000045	0.182568298
## Cholesterol_HMDB0000067	-0.035649395
## Lathosterol_HMDB0001170	0.201674724
## X7b.Hydroxycholesterol_.HMDB0006119	0.061255176
##	Phenylpyruvic.acid_HMDB0000205
## Dimethylglycine_HMDB0000092	0.40695115
## Glyoxylic.acid_HMDB0000119	0.40660923
## Pyruvic.acid_HMDB0000243	-0.17702407
## L.Lactic.acid_HMDB0000190	-0.25414476
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.13989717
## Glycolic.acid_HMDB0000115	0.34782899
## Caproic.acid_HMDB0000535	0.49788352
## L.Alanine_HMDB0000161	-0.38242269
## Alpha.ketoisovaleric.acid_HMDB0000019	0.19821984
## Glycine_HMDB0000123	-0.09127389
## Oxalic.acid_HMDB0002329	0.23047656
## Hydroxylamine_HMDB0003338	-0.26186430
## X2.Hydroxybutyric.acid_HMDB0000008	0.22557843
## Acetoacetic.acid_HMDB0000060	0.10093654
## Hydroxypropionic.acid_HMDB0000700	-0.20248657
## Pyruvic.acid_HMDB0000243.1	-0.22875268
## X3.Hydroxybutyric.acid_HMDB0000357	0.18968438
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.12989070
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.31132857
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.53882761
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.03562817
## Beta.Alanine_HMDB0000056	-0.33037222

## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.26613813
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.04384210
## Malonic.acid_HMDB0000691	-0.12571342
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.37087894
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.24761781
## Ketoleucine_HMDB0000695	0.40434400
## L.Valine_HMDB0000883	-0.44258266
## ITSD_Valine	-0.50063650
## Urea_HMDB0000294	-0.14177567
## Benzoic.acid_HMDB0001870	0.46964508
## Caprylic.acid_HMDB0000482	0.56903329
## Glycerol_HMDB0000131	-0.27990374
## Ethanolamine_HMDB0000149	-0.37127982
## L.Leucine_HMDB0000687	-0.34209722
## Acetyl glycine_HMDB0000532	0.17544079
## L.Isoleucine_HMDB0000172	-0.31259524
## Nicotinic.acid_HMDB0001488	0.33029525
## Maleic.acid_HMDB0000176	0.32617838
## L.Proline_HMDB0000162	-0.20399887
## Phenylacetic.acid_HMDB0000209	0.45357155
## Succinic.acid_HMDB0000254	-0.30498169
## Glycine_HMDB0000123.1	-0.29437731
## Methylsuccinic.acid_HMDB0001844	-0.22573622
## Glyceric.acid_HMDB0000139	0.52266060
## Fumaric.acid_HMDB0000134	-0.14835841
## Uracil_HMDB0000300	-0.07351292
## Pelargonic.acid_HMDB0000847	0.53456703
## L.Serine_HMDB0000187	-0.17311773
## L.Threonine_HMDB0000167	-0.27789386
## Mesaconic.acid_HMDB0000749	0.00868291
## Glutaric.acid_HMDB0000661	0.19316791
## Thymine_HMDB0000262	-0.49552421
## Beta.Alanine_HMDB0000056.1	-0.50558125
## L.Homoserine_HMDB0000719	0.47608201
## Capric.acid_HMDB0000511	0.42263077
## Citramalic.acid_HMDB0000426	-0.23768626
## Malic.acid_HMDB0000744	0.41601582
## Niacinamide_HMDB0001406	-0.31606629
## Adipic.acid_HMDB0000448	-0.16082199
## D.Threitol_HMDB0004136	0.21949681
## Dihydrouracil_HMDB0000076	-0.15834268
## Erythritol_HMDB0002994	-0.05768000
## N.Acetylserine_HMDB0002931	-0.14205351
## L.Aspartic.acid_HMDB0000191	-0.21870826
## L.Methionine_HMDB0000696	-0.46934629
## X4.Hydroxyproline_HMDB0000725	-0.17744556
## Pyroglutamic.acid_HMDB0000267	-0.11478675
## Cytosine_HMDB0000630	-0.32135819
## Gamma.Aminobutyric.acid_HMDB0000112	-0.01683332
## Threonic.acid_HMDB0000943	0.39990603
## L.Cysteine_HMDB0000574	0.32320136
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.40748538
## Creatinine_HMDB0000562	-0.50543135
## X3.Hydroxyglutaric.acid_HMDB0000428	0.60534040

## Oxoglutaric.acid_HMDB0000208	0.29362786
## Phenylpyruvic.acid_HMDB0000205	1.00000000
## Pimelic.acid_HMDB0000857	-0.31181837
## Phenyllactic.acid_HMDB0000779	0.65459280
## Phosphoenolpyruvic.acid_HMDB0000263	0.48875689
## Ornithine_HMDB0000214	-0.41468647
## Hypotaurine_HMDB0000965	-0.48356293
## Triethanolamine_HMDB0032538	-0.35646785
## X2.Aminobenzoic.acid_HMDB0001123	-0.49406555
## L.Glutamic.acid_HMDB0000148	-0.40976238
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.43914419
## X5.Aminopentanoic.acid_HMDB0003355	0.15773589
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.59962682
## L.Phenylalanine_HMDB0000159	-0.46966736
## Dodecanoic.acid_HMDB0000638	-0.11303762
## Lyxose_HMDB0003402_1	0.50065222
## D.Xylose_HMDB0000098	0.34401320
## Lyxose_HMDB0003402_2	0.16593189
## D.Arabinose_HMDB0029942	0.43744270
## L.Asparagine_HMDB0000168	-0.42136254
## D.Ribulose_HMDB0000621	0.53220130
## D.Ribose_HMDB0000283	0.37921101
## D.Xylulose_HMDB0001644	0.53337891
## X3.Sulfinoalanine_HMDB0000996	-0.23282085
## Suberic.acid_HMDB0000893	0.02568029
## L.Lysine_HMDB0000182	-0.30435763
## Levoglucosan_HMDB0000640	0.17812183
## D.Arabitol_HMDB0000568	0.04603525
## Ribitol_HMDB0000508	0.27683753
## cis.Aconitic.acid_HMDB0000072	0.29470866
## Quinolinic.acid_HMDB0000232	0.43704797
## Putrescine_HMDB0001414	0.20375598
## Glycerol.3.phosphate_HMDB0000126	0.48868367
## Vanillic.acid_HMDB0000484	-0.12399479
## L.Glutamine_HMDB0000641	-0.34988379
## X2.Phosphoglyceric.acid_HMDB0000362	0.26762215
## Azelaic.acid_HMDB0000784	0.20567166
## L.Dihydroorotic.acid_HMDB0003349	0.49432010
## O.Phosphoethanolamine_HMDB0000224	-0.10730426
## X3.Phosphoglyceric.acid_HMDB0000807	0.21221817
## Isocitric.acid_HMDB0000193	-0.01901309
## Hypoxanthine_HMDB0000157	-0.05553809
## Citric.acid_HMDB0000094	0.49403004
## L.Arginine_HMDB0000517	0.11273950
## Ornithine_HMDB0000214.1	-0.46498943
## Dopamine_HMDB0000073	-0.47110003
## Myristic.acid_HMDB0000806	-0.27954352
## X1.5.Anhydrosorbitol_HMDB0002712	0.17251152
## D.Tagatose_HMDB0003418	0.47053099
## Psicose_1	0.13820786
## Sebacic.acid_HMDB0000792	-0.38158510
## D.Fructose_HMDB0000660	0.48354825
## Gluconolactone_HMDB0000150	0.51579053
## L.Sorbose_HMDB0001266	0.46842941

## D.Mannose_HMDB0000169	-0.42175245
## Hydroxyphenyllactic.acid_HMDB0000755	-0.04942674
## D.Glucose_HMDB0000122	-0.33025543
## N.Acetylglutamine_HMDB0006029	-0.41582316
## L.Lysine_HMDB0000182.1	-0.48329528
## D.Mannose_HMDB0000169.1	-0.46278493
## Tyramine_HMDB0000306	-0.48180567
## L.Histidine_HMDB0000177	-0.48725121
## D.Glucose_HMDB0000122.1	-0.39362731
## X1.Hexadecanol_HMDB0003424	0.39712198
## L.Tyrosine_HMDB0000158	-0.46313068
## Mannitol_HMDB0000765	-0.33838492
## Sorbitol_HMDB0000247	0.05294502
## ITSD_Sorbitol	-0.31084775
## Galacturonic.acid_HMDB0002545	0.15582913
## Pantothenic.acid_HMDB0000210	0.14781995
## Palmitoleic.acid_HMDB0003229	-0.23567446
## Xanthine_HMDB0000292	-0.27916844
## Gluconic.acid_HMDB0000625	0.34215022
## Palmitic.acid_HMDB0000220	-0.07430474
## Glucaric.acid_HMDB0000663	-0.14137370
## N.Acetylmannosamine_HMDB0001129	-0.35350022
## N.Acetyl.D.glucosamine_HMDB0000215	-0.43718914
## D.Ribulose.5.phosphate_HMDB0000618	0.44429633
## Uric.acid_HMDB0000289	-0.40828080
## D.Ribose.5.phosphate_HMDB0001548	0.45051377
## myo.Inositol_HMDB0000211	-0.03106247
## D.Ribose.5.phosphate_HMDB0001548.1	0.50807621
## Heptadecanoic.acid_HMDB0002259	0.35673667
## Octadecanol_HMDB0002350	0.45016141
## Glutathione_HMDB0000125	0.20388902
## Linoleic.acid_HMDB0000673	-0.03418475
## Oleic.acid_HMDB0000207	-0.19098587
## Elaidic.acid_HMDB0000573	-0.25183537
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.57679828
## Stearic.acid_HMDB0000827	0.22595734
## L.Tryptophan_HMDB0000929	0.20637136
## Fructose.1.phosphate_HMDB0001076	0.42626803
## Mannose.6.phosphate_HMDB0001078	0.71615188
## Arachidonic.acid_HMDB0001043	-0.20739011
## Glucose.6.phosphate_HMDB0001401	0.51073993
## X6.Phosphogluconic.acid_HMDB0001316	0.58115851
## Inositol.phosphate_HMDB0002985	0.03371460
## Uridine_HMDB0000296	-0.22695887
## Stigmasterol_HMDB0000937	-0.02797656
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.47677872
## Sucrose_HMDB0000258	-0.22800365
## MG.18.0e.0.0.0.0._HMDB0011143	0.16823157
## Trehalose_HMDB0000975	0.20858323
## D.Maltose_HMDB0000163	0.21290327
## Lactitol_HMDB0040937	-0.19244160
## Xanthylic.acid_HMDB0001554	0.25284105
## Adenosine.monophosphate_HMDB0000045	0.70373553
## Cholesterol_HMDB0000067	0.02716951

## Lathosterol_HMDB0001170	-0.11267624
## X7b.Hydroxycholesterol_.HMDB0006119	0.25500000
## Pimelic.acid_HMDB0000857	
## Dimethylglycine_HMDB0000092	-0.575639690
## Glyoxylic.acid_HMDB0000119	-0.567389577
## Pyruvic.acid_HMDB0000243	0.393840053
## L.Lactic.acid_HMDB0000190	0.597761044
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.209963996
## Glycolic.acid_HMDB0000115	-0.473646469
## Caproic.acid_HMDB0000535	-0.499377191
## L.Alanine_HMDB0000161	0.616993747
## Alpha.ketoisovaleric.acid_HMDB0000019	0.300409753
## Glycine_HMDB0000123	0.583102454
## Oxalic.acid_HMDB0002329	-0.167005400
## Hydroxylamine_HMDB0003338	-0.019814048
## X2.Hydroxybutyric.acid_HMDB0000008	-0.011229132
## Acetoacetic.acid_HMDB0000060	-0.256660291
## Hydroxypropionic.acid_HMDB0000700	0.388584692
## Pyruvic.acid_HMDB0000243.1	0.223427509
## X3.Hydroxybutyric.acid_HMDB0000357	0.028410628
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.101152759
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.338232755
## D.Alpha.aminobutyric.acid_HMDB0000650	0.586370096
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.108953625
## Beta.Alanine_HMDB0000056	0.535527734
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.293335160
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.341567622
## Malonic.acid_HMDB0000691	0.416910839
## X3.Aminoisobutanoic.acid_HMDB0003911	0.339134944
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.490365446
## Ketoleucine_HMDB0000695	0.040279637
## L.Valine_HMDB0000883	0.498384057
## ITSD_Valine	0.483557323
## Urea_HMDB0000294	0.512350243
## Benzoic.acid_HMDB0001870	-0.250657576
## Caprylic.acid_HMDB0000482	-0.385563948
## Glycerol_HMDB0000131	0.574659145
## Ethanolamine_HMDB0000149	0.499402092
## L.Leucine_HMDB0000687	0.498854336
## Acetylglutamine_HMDB0000532	-0.195422230
## L.Isoleucine_HMDB0000172	0.553182259
## Nicotinic.acid_HMDB0001488	0.168553627
## Maleic.acid_HMDB0000176	-0.268865033
## L.Proline_HMDB0000162	0.391429805
## Phenylacetic.acid_HMDB0000209	-0.390289365
## Succinic.acid_HMDB0000254	0.448040117
## Glycine_HMDB0000123.1	0.501514126
## Methylsuccinic.acid_HMDB0001844	-0.138818878
## Glyceric.acid_HMDB0000139	-0.480625016
## Fumaric.acid_HMDB0000134	0.430843428
## Uracil_HMDB0000300	0.432844686
## Pelargonic.acid_HMDB0000847	-0.414859874
## L.Serine_HMDB0000187	0.586727438
## L.Threonine_HMDB0000167	0.585743343

## Mesaconic.acid_HMDB0000749	0.086322012
## Glutaric.acid_HMDB0000661	0.288384052
## Thymine_HMDB0000262	0.467550545
## Beta.Alanine_HMDB0000056.1	0.572407184
## L.Homoserine_HMDB0000719	-0.471916138
## Capric.acid_HMDB0000511	-0.595385007
## Citramalic.acid_HMDB0000426	0.557146096
## Malic.acid_HMDB0000744	-0.238553063
## Niacinamide_HMDB0001406	0.586455883
## Adipic.acid_HMDB0000448	0.437418800
## D.Threitol_HMDB0004136	-0.154061479
## Dihydrouracil_HMDB0000076	0.314444678
## Erythritol_HMDB0002994	0.220545458
## N.Acetylserine_HMDB0002931	0.569292873
## L.Aspartic.acid_HMDB0000191	0.573127661
## L.Methionine_HMDB0000696	0.501132890
## X4.Hydroxyproline_HMDB0000725	0.571064962
## Pyroglutamic.acid_HMDB0000267	0.611108735
## Cytosine_HMDB0000630	-0.130695935
## Gamma.Aminobutyric.acid_HMDB0000112	0.678782821
## Threonic.acid_HMDB0000943	-0.337782183
## L.Cysteine_HMDB0000574	-0.359972781
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.222112142
## Creatinine_HMDB0000562	0.215365131
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.421997449
## Oxoglutaric.acid_HMDB0000208	0.356014089
## Phenylpyruvic.acid_HMDB0000205	-0.311818369
## Pimelic.acid_HMDB0000857	1.000000000
## Phenyllactic.acid_HMDB0000779	-0.164830640
## Phosphoenolpyruvic.acid_HMDB0000263	-0.318701339
## Ornithine_HMDB0000214	0.286705614
## Hypotaurine_HMDB0000965	0.539374759
## Triethanolamine_HMDB0032538	0.667819815
## X2.Aminobenzoic.acid_HMDB0001123	0.570209699
## L.Glutamic.acid_HMDB0000148	0.471506170
## X4.Hydroxybenzoic.acid_HMDB0000500	0.574288130
## X5.Aminopentanoic.acid_HMDB0003355	0.244472277
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.499990089
## L.Phenylalanine_HMDB0000159	0.504457646
## Dodecanoic.acid_HMDB0000638	-0.065040477
## Lyxose_HMDB0003402_1	-0.425279302
## D.Xylose_HMDB0000098	-0.353039703
## Lyxose_HMDB0003402_2	-0.215214459
## D.Arabinose_HMDB0029942	-0.421974662
## L.Asparagine_HMDB0000168	0.251184027
## D.Ribulose_HMDB0000621	-0.597481308
## D.Ribose_HMDB0000283	-0.446370340
## D.Xylulose_HMDB0001644	-0.591775561
## X3.Sulfinioalanine_HMDB0000996	-0.042082471
## Suberic.acid_HMDB0000893	0.512167212
## L.Lysine_HMDB0000182	0.073709883
## Levoglucosan_HMDB0000640	-0.293150983
## D.Arabitol_HMDB0000568	0.291148139
## Ribitol_HMDB0000508	-0.451104558

## cis.Aconitic.acid_HMDB0000072	-0.103024095
## Quinolinic.acid_HMDB0000232	0.404815588
## Putrescine_HMDB0001414	0.356267734
## Glycerol.3.phosphate_HMDB0000126	-0.377598620
## Vanillic.acid_HMDB0000484	0.007765748
## L.Glutamine_HMDB0000641	0.005249009
## X2.Phosphoglyceric.acid_HMDB0000362	0.135370921
## Azelaic.acid_HMDB0000784	0.441357849
## L.Dihydroorotic.acid_HMDB0003349	-0.471236036
## O.Phosphoethanolamine_HMDB0000224	0.164318929
## X3.Phosphoglyceric.acid_HMDB0000807	0.367612450
## Isocitric.acid_HMDB0000193	-0.188963474
## Hypoxanthine_HMDB0000157	-0.235708792
## Citric.acid_HMDB0000094	-0.203236797
## L.Arginine_HMDB0000517	-0.639162025
## Ornithine_HMDB0000214.1	0.526353544
## Dopamine_HMDB0000073	0.498179654
## Myristic.acid_HMDB0000806	0.330118140
## X1.5.Anhydrosorbitol_HMDB0002712	0.004595595
## D.Tagatose_HMDB0003418	-0.419064695
## Psicose_1	-0.011980258
## Sebacic.acid_HMDB0000792	0.322529093
## D.Fructose_HMDB0000660	-0.396684841
## Gluconolactone_HMDB0000150	-0.646195427
## L.Sorbose_HMDB0001266	-0.419175397
## D.Mannose_HMDB0000169	0.457028951
## Hydroxyphenyllactic.acid_HMDB0000755	0.279562465
## D.Glucose_HMDB0000122	0.459102148
## N.Acetylglutamine_HMDB0006029	0.465578755
## L.Lysine_HMDB0000182.1	0.418983494
## D.Mannose_HMDB0000169.1	0.447144593
## Tyramine_HMDB0000306	0.414445673
## L.Histidine_HMDB0000177	0.419145429
## D.Glucose_HMDB0000122.1	0.427036555
## X1.Hexadecanol_HMDB0003424	-0.512217454
## L.Tyrosine_HMDB0000158	0.411053113
## Mannitol_HMDB0000765	0.688056031
## Sorbitol_HMDB0000247	-0.175280368
## ITSD_Sorbitol	0.288972018
## Galacturonic.acid_HMDB0002545	0.018064654
## Pantothenic.acid_HMDB0000210	-0.245984221
## Palmitoleic.acid_HMDB0003229	0.109262464
## Xanthine_HMDB0000292	0.184239629
## Gluconic.acid_HMDB0000625	-0.423882339
## Palmitic.acid_HMDB0000220	0.117080730
## Glucaric.acid_HMDB0000663	0.327336000
## N.Acetylmannosamine_HMDB0001129	-0.003617958
## N.Acetyl.D.glucosamine_HMDB0000215	0.440190889
## D.Ribulose.5.phosphate_HMDB0000618	-0.563127065
## Uric.acid_HMDB0000289	0.078117197
## D.Ribose.5.phosphate_HMDB0001548	-0.397691547
## myo.Inositol_HMDB0000211	0.209814407
## D.Ribose.5.phosphate_HMDB0001548.1	-0.543646371
## Heptadecanoic.acid_HMDB0002259	0.059966703

## Octadecanol_HMDB0002350	-0.069545683
## Glutathione_HMDB0000125	-0.112930358
## Linoleic.acid_HMDB0000673	-0.041172213
## Oleic.acid_HMDB0000207	0.021383018
## Elaidic.acid_HMDB0000573	0.048127530
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.403126004
## Stearic.acid_HMDB0000827	0.006643302
## L.Tryptophan_HMDB0000929	0.020325231
## Fructose.1.phosphate_HMDB0001076	-0.295489461
## Mannose.6.phosphate_HMDB0001078	-0.208319148
## Arachidonic.acid_HMDB0001043	-0.135508052
## Glucose.6.phosphate_HMDB0001401	-0.474169278
## X6.Phosphogluconic.acid_HMDB0001316	-0.360296452
## Inositol.phosphate_HMDB0002985	-0.494387548
## Uridine_HMDB0000296	0.162497876
## Stigmasterol_HMDB0000937	0.284559309
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.158094677
## Sucrose_HMDB0000258	0.378426038
## MG.18.0e.0.0.0.0._HMDB0011143	-0.052756755
## Trehalose_HMDB0000975	0.269650084
## D.Maltose_HMDB0000163	0.272505909
## Lactitol_HMDB00040937	-0.005525386
## Xanthylic.acid_HMDB0001554	-0.307303184
## Adenosine.monophosphate_HMDB0000045	-0.521776529
## Cholesterol_HMDB0000067	-0.466352237
## Lathosterol_HMDB0001170	-0.214484302
## X7b.Hydroxycholesterol_.HMDB0006119	0.022855018
##	Phenyllactic.acid_HMDB0000779
## Dimethylglycine_HMDB0000092	0.570015439
## Glyoxylic.acid_HMDB0000119	0.569159749
## Pyruvic.acid_HMDB0000243	-0.186823254
## L.Lactic.acid_HMDB0000190	-0.180987570
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.074420090
## Glycolic.acid_HMDB0000115	0.291425171
## Caproic.acid_HMDB0000535	0.654198380
## L.Alanine_HMDB0000161	-0.206733725
## Alpha.ketoisovaleric.acid_HMDB0000019	0.152449156
## Glycine_HMDB0000123	-0.045469394
## Oxalic.acid_HMDB0002329	0.424366127
## Hydroxylamine_HMDB0003338	-0.092944685
## X2.Hydroxybutyric.acid_HMDB0000008	0.297040289
## Acetoacetic.acid_HMDB0000060	0.174873808
## Hydroxypropionic.acid_HMDB0000700	-0.256758190
## Pyruvic.acid_HMDB0000243.1	-0.005039860
## X3.Hydroxybutyric.acid_HMDB0000357	0.207124432
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.209844874
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.380958288
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.403444659
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.298272076
## Beta.Alanine_HMDB0000056	-0.310685863
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.340359121
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.073537918
## Malonic.acid_HMDB0000691	-0.143683532
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.436689102

## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.206824369
## Ketoleucine_HMDB0000695	0.491933551
## L.Valine_HMDB0000883	-0.316241952
## ITSD_Valine	-0.418052318
## Urea_HMDB0000294	-0.037714350
## Benzoic.acid_HMDB0001870	0.469503574
## Caprylic.acid_HMDB0000482	0.742563806
## Glycerol_HMDB0000131	-0.326655890
## Ethanolamine_HMDB0000149	-0.301142682
## L.Leucine_HMDB0000687	-0.371979658
## Acetyl glycine_HMDB0000532	0.296714749
## L.Isoleucine_HMDB0000172	-0.307438135
## Nicotinic.acid_HMDB0001488	0.372882763
## Maleic.acid_HMDB0000176	0.413656108
## L.Proline_HMDB0000162	-0.197210337
## Phenylacetic.acid_HMDB0000209	0.493545860
## Succinic.acid_HMDB0000254	-0.188247055
## Glycine_HMDB0000123.1	-0.352010631
## Methylsuccinic.acid_HMDB0001844	-0.060477465
## Glyceric.acid_HMDB0000139	0.388004028
## Fumaric.acid_HMDB0000134	0.006434378
## Uracil_HMDB0000300	0.050006434
## Pelargonic.acid_HMDB0000847	0.751296558
## L.Serine_HMDB0000187	-0.159044422
## L.Threonine_HMDB0000167	-0.198281036
## Mesaconic.acid_HMDB0000749	0.234413420
## Glutaric.acid_HMDB0000661	0.470512980
## Thymine_HMDB0000262	-0.312349394
## Beta.Alanine_HMDB0000056.1	-0.561328636
## L.Homoserine_HMDB0000719	0.296664974
## Capric.acid_HMDB0000511	0.315758598
## Citramalic.acid_HMDB0000426	-0.136112666
## Malic.acid_HMDB0000744	0.501216513
## Niacinamide_HMDB0001406	-0.211712820
## Adipic.acid_HMDB0000448	-0.120940733
## D.Threitol_HMDB0004136	0.268261436
## Dihydrouracil_HMDB0000076	0.150876404
## Erythritol_HMDB0002994	0.031607683
## N.Acetylserine_HMDB0002931	-0.061715382
## L.Aspartic.acid_HMDB0000191	-0.214327534
## L.Methionine_HMDB0000696	-0.588941220
## X4.Hydroxyproline_HMDB0000725	-0.088197736
## Pyroglutamic.acid_HMDB0000267	-0.072347230
## Cytosine_HMDB0000630	-0.045485117
## Gamma.Aminobutyric.acid_HMDB0000112	0.069412746
## Threonic.acid_HMDB0000943	0.487146302
## L.Cysteine_HMDB0000574	0.365630291
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.640687624
## Creatinine_HMDB0000562	-0.681181707
## X3.Hydroxyglutaric.acid_HMDB0000428	0.722750294
## Oxoglutaric.acid_HMDB0000208	0.462044995
## Phenylpyruvic.acid_HMDB0000205	0.654592802
## Pimelic.acid_HMDB0000857	-0.164830640
## Phenyllactic.acid_HMDB0000779	1.000000000

## Phosphoenolpyruvic.acid_HMDB0000263	0.664053522
## Ornithine_HMDB0000214	-0.439624689
## Hypotaurine_HMDB0000965	-0.336140662
## Triethanolamine_HMDB0032538	-0.203989360
## X2.Aminobenzoic.acid_HMDB0001123	-0.581738233
## L.Glutamic.acid_HMDB0000148	-0.376575881
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.395043496
## X5.Aminopentanoic.acid_HMDB0003355	0.408921511
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.305295076
## L.Phenylalanine_HMDB0000159	-0.513068674
## Dodecanoic.acid_HMDB0000638	-0.322501017
## Lyxose_HMDB0003402_1	0.674983796
## D.Xylose_HMDB0000098	0.250539362
## Lyxose_HMDB0003402_2	0.126785155
## D.Arabinose_HMDB0029942	0.595845789
## L.Asparagine_HMDB0000168	-0.414911842
## D.Ribulose_HMDB0000621	0.558975186
## D.Ribose_HMDB0000283	0.567577936
## D.Xylulose_HMDB0001644	0.562912855
## X3.Sulfinoalanine_HMDB0000996	-0.269969934
## Suberic.acid_HMDB0000893	0.002784378
## L.Lysine_HMDB0000182	-0.455523331
## Levoglucosan_HMDB0000640	0.112526699
## D.Arabitol_HMDB0000568	0.051412452
## Ribitol_HMDB0000508	0.226206402
## cis.Aconitic.acid_HMDB0000072	0.104943454
## Quinolinic.acid_HMDB0000232	0.471622463
## Putrescine_HMDB0001414	0.252274477
## Glycerol.3.phosphate_HMDB0000126	0.518217335
## Vanillic.acid_HMDB0000484	-0.068357811
## L.Glutamine_HMDB0000641	-0.263621639
## X2.Phosphoglyceric.acid_HMDB0000362	0.501978543
## Azelaic.acid_HMDB0000784	0.383882781
## L.Dihydroorotic.acid_HMDB0003349	0.613844229
## O.Phosphoethanolamine_HMDB0000224	-0.388063532
## X3.Phosphoglyceric.acid_HMDB0000807	0.485310313
## Isocitric.acid_HMDB0000193	0.098685774
## Hypoxanthine_HMDB0000157	-0.212477114
## Citric.acid_HMDB0000094	0.615940696
## L.Arginine_HMDB0000517	0.229007331
## Ornithine_HMDB0000214.1	-0.483292563
## Dopamine_HMDB0000073	-0.491531099
## Myristic.acid_HMDB0000806	-0.513357997
## X1.5.Anhydrosorbitol_HMDB0002712	0.380536582
## D.Tagatose_HMDB0003418	0.671870110
## Psicose_1	0.112133910
## Sebacic.acid_HMDB0000792	-0.165612840
## D.Fructose_HMDB0000660	0.611926407
## Gluconolactone_HMDB0000150	0.566579891
## L.Sorbose_HMDB0001266	0.601720835
## D.Mannose_HMDB0000169	-0.562248427
## Hydroxyphenyllactic.acid_HMDB0000755	-0.026933736
## D.Glucose_HMDB0000122	-0.478551295
## N.Acetylglutamine_HMDB0006029	-0.526653073

## L.Lysine_HMDB0000182.1	-0.574872221
## D.Mannose_HMDB0000169.1	-0.582117930
## Tyramine_HMDB0000306	-0.582614510
## L.Histidine_HMDB0000177	-0.602256898
## D.Glucose_HMDB0000122.1	-0.523286690
## X1.Hexadecanol_HMDB0003424	0.266627142
## L.Tyrosine_HMDB0000158	-0.480900153
## Mannitol_HMDB0000765	-0.212412322
## Sorbitol_HMDB0000247	0.017695151
## ITSD_Sorbitol	-0.413383491
## Galacturonic.acid_HMDB0002545	0.161702541
## Pantothenic.acid_HMDB0000210	0.101708217
## Palmitoleic.acid_HMDB0003229	-0.492358836
## Xanthine_HMDB0000292	-0.315553604
## Gluconic.acid_HMDB0000625	0.450152953
## Palmitic.acid_HMDB0000220	-0.308812226
## Glucaric.acid_HMDB0000663	-0.343941784
## N.Acetylmannosamine_HMDB0001129	-0.410564063
## N.Acetyl.D.glucosamine_HMDB0000215	-0.469877588
## D.Ribulose.5.phosphate_HMDB0000618	0.511512164
## Uric.acid_HMDB0000289	-0.531872836
## D.Ribose.5.phosphate_HMDB0001548	0.632640007
## myo.Inositol_HMDB0000211	-0.082855254
## D.Ribose.5.phosphate_HMDB0001548.1	0.563774037
## Heptadecanoic.acid_HMDB0002259	0.592459452
## Octadecanol_HMDB0002350	0.421201498
## Glutathione_HMDB0000125	0.191868732
## Linoleic.acid_HMDB0000673	-0.367645229
## Oleic.acid_HMDB0000207	-0.495405161
## Elaidic.acid_HMDB0000573	-0.473151377
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.614827934
## Stearic.acid_HMDB0000827	0.050776717
## L.Tryptophan_HMDB0000929	0.033805748
## Fructose.1.phosphate_HMDB0001076	0.622237274
## Mannose.6.phosphate_HMDB0001078	0.503550176
## Arachidonic.acid_HMDB0001043	-0.503582765
## Glucose.6.phosphate_HMDB0001401	0.618385211
## X6.Phosphogluconic.acid_HMDB0001316	0.261236790
## Inositol.phosphate_HMDB0002985	-0.144840474
## Uridine_HMDB0000296	0.018035146
## Stigmasterol_HMDB0000937	0.051707989
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.220042904
## Sucrose_HMDB0000258	-0.391852754
## MG.18.0e.0.0.0.0._HMDB0011143	0.117275438
## Trehalose_HMDB0000975	0.300089025
## D.Maltose_HMDB0000163	0.300505688
## Lactitol_HMDB00040937	-0.018085888
## Xanthylic.acid_HMDB0001554	0.367743412
## Adenosine.monophosphate_HMDB0000045	0.665550260
## Cholesterol_HMDB0000067	-0.121445666
## Lathosterol_HMDB0001170	-0.334796066
## X7b.Hydroxycholesterol_.HMDB0006119	0.617300182
##	Phosphoenolpyruvic.acid_HMDB0000263
## Dimethylglycine_HMDB0000092	0.7946255307

## Glyoxylic.acid_HMDB0000119	0.7988540681
## Pyruvic.acid_HMDB0000243	-0.4991932705
## L.Lactic.acid_HMDB0000190	-0.6804208816
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.3740943659
## Glycolic.acid_HMDB0000115	0.1616319774
## Caproic.acid_HMDB0000535	0.7779498282
## L.Alanine_HMDB0000161	-0.6549931972
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.0663048843
## Glycine_HMDB0000123	-0.5003442055
## Oxalic.acid_HMDB0002329	0.3943562958
## Hydroxylamine_HMDB0003338	-0.3974789605
## X2.Hydroxybutyric.acid_HMDB0000008	0.0096625279
## Acetoacetic.acid_HMDB0000060	-0.0537739849
## Hydroxypropionic.acid_HMDB0000700	-0.7298584504
## Pyruvic.acid_HMDB0000243.1	-0.3988483694
## X3.Hydroxybutyric.acid_HMDB0000357	-0.1042215766
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.1062973716
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.1749397129
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.7631594587
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.1111682692
## Beta.Alanine_HMDB0000056	-0.7067025217
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.0901569375
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.2021019918
## Malonic.acid_HMDB0000691	-0.3638126025
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.8774267897
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.6835290691
## Ketoleucine_HMDB0000695	0.2584296914
## L.Valine_HMDB0000883	-0.7631374997
## ITSD_Valine	-0.8362291281
## Urea_HMDB0000294	-0.4319485237
## Benzoic.acid_HMDB0001870	0.0197102456
## Caprylic.acid_HMDB0000482	0.6663091886
## Glycerol_HMDB0000131	-0.8119419163
## Ethanolamine_HMDB0000149	-0.6817519332
## L.Leucine_HMDB0000687	-0.8041378969
## Acetylglycine_HMDB0000532	0.0495360043
## L.Isoleucine_HMDB0000172	-0.7443845884
## Nicotinic.acid_HMDB0001488	0.3556707059
## Maleic.acid_HMDB0000176	0.2684113362
## L.Proline_HMDB0000162	-0.5484150315
## Phenylacetic.acid_HMDB0000209	0.5036073892
## Succinic.acid_HMDB0000254	-0.5970548235
## Glycine_HMDB0000123.1	-0.7921257705
## Methylsuccinic.acid_HMDB0001844	-0.2633022556
## Glyceric.acid_HMDB0000139	0.3014776151
## Fumaric.acid_HMDB0000134	-0.4906090354
## Uracil_HMDB0000300	-0.3550254776
## Pelargonic.acid_HMDB0000847	0.7974304546
## L.Serine_HMDB0000187	-0.6352646717
## L.Threonine_HMDB0000167	-0.6246665248
## Mesaconic.acid_HMDB0000749	0.1112613760
## Glutaric.acid_HMDB0000661	0.3966191864
## Thymine_HMDB0000262	-0.4171919156
## Beta.Alanine_HMDB0000056.1	-0.8832602029

## L.Homoserine_HMDB0000719	0.0058173717
## Capric.acid_HMDB0000511	0.0787902559
## Citramalic.acid_HMDB0000426	-0.3089226099
## Malic.acid_HMDB0000744	0.3599621016
## Niacinamide_HMDB0001406	-0.5994835233
## Adipic.acid_HMDB0000448	-0.3906242213
## D.Threitol_HMDB0004136	-0.2453063129
## Dihydrouracil_HMDB0000076	-0.2276839548
## Erythritol_HMDB0002994	-0.3222076317
## N.Acetylserine_HMDB0002931	-0.4869187560
## L.Aspartic.acid_HMDB0000191	-0.6411450096
## L.Methionine_HMDB0000696	-0.8671942207
## X4.Hydroxyproline_HMDB0000725	-0.5611003558
## Pyroglutamic.acid_HMDB0000267	-0.5788092086
## Cytosine_HMDB0000630	0.0032523387
## Gamma.Aminobutyric.acid_HMDB0000112	-0.1796536467
## Threonic.acid_HMDB0000943	0.3869061256
## L.Cysteine_HMDB0000574	0.2445421427
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.6497105787
## Creatinine_HMDB0000562	-0.9191737380
## X3.Hydroxyglutaric.acid_HMDB0000428	0.7839377813
## Oxoglutaric.acid_HMDB0000208	-0.0736528653
## Phenylpyruvic.acid_HMDB0000205	0.4887568926
## Pimelic.acid_HMDB0000857	-0.3187013389
## Phenyllactic.acid_HMDB0000779	0.6640535216
## Phosphoenolpyruvic.acid_HMDB0000263	1.0000000000
## Ornithine_HMDB0000214	-0.5839637134
## Hypotaurine_HMDB0000965	-0.6173140962
## Triethanolamine_HMDB0032538	-0.4803081789
## X2.Aminobenzoic.acid_HMDB0001123	-0.9017881984
## L.Glutamic.acid_HMDB0000148	-0.6787446899
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.7880044771
## X5.Aminopentanoic.acid_HMDB0003355	0.3073721524
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.3851494000
## L.Phenylalanine_HMDB0000159	-0.8432655339
## Dodecanoic.acid_HMDB0000638	-0.6801609602
## Lyxose_HMDB0003402_1	0.7768241980
## D.Xylose_HMDB0000098	0.3881425840
## Lyxose_HMDB0003402_2	0.2479558240
## D.Arabinose_HMDB0029942	0.8471898367
## L.Asparagine_HMDB0000168	-0.4564000188
## D.Ribulose_HMDB0000621	0.7667220475
## D.Ribose_HMDB0000283	0.8433089311
## D.Xylulose_HMDB0001644	0.7748206970
## X3.Sulfinioalanine_HMDB0000996	-0.3274123326
## Suberic.acid_HMDB0000893	-0.2288466128
## L.Lysine_HMDB0000182	-0.5153724837
## Levoglucosan_HMDB0000640	0.2339231301
## D.Arabitool_HMDB0000568	-0.2242779243
## Ribitol_HMDB0000508	-0.1284839542
## cis.Aconitic.acid_HMDB0000072	0.2272102381
## Quinolinic.acid_HMDB0000232	0.2667191639
## Putrescine_HMDB0001414	0.1057316168
## Glycerol.3.phosphate_HMDB0000126	0.7250119243

## Vanillic.acid_HMDB0000484	-0.5384198435
## L.Glutamine_HMDB0000641	-0.1994293387
## X2.Phosphoglyceric.acid_HMDB0000362	0.2939821018
## Azelaic.acid_HMDB0000784	0.3364888531
## L.Dihydroorotic.acid_HMDB0003349	0.8340859926
## O.Phosphoethanolamine_HMDB0000224	-0.7786425007
## X3.Phosphoglyceric.acid_HMDB0000807	0.2892916344
## Isocitric.acid_HMDB0000193	-0.1629535523
## Hypoxanthine_HMDB0000157	-0.0888978717
## Citric.acid_HMDB0000094	0.6126617716
## L.Arginine_HMDB0000517	0.3202109623
## Ornithine_HMDB0000214.1	-0.7660578104
## Dopamine_HMDB0000073	-0.7602615166
## Myristic.acid_HMDB0000806	-0.8869801955
## X1.5.Anhydrosorbitol_HMDB0002712	0.2814147371
## D.Tagatose_HMDB0003418	0.8650173553
## Psicose_1	0.1901474117
## Sebacic.acid_HMDB0000792	-0.4746296729
## D.Fructose_HMDB0000660	0.7668297373
## Gluconolactone_HMDB0000150	0.7039827409
## L.Sorbose_HMDB0001266	0.7612544025
## D.Mannose_HMDB0000169	-0.8425049963
## Hydroxyphenyllactic.acid_HMDB0000755	-0.3118052793
## D.Glucose_HMDB0000122	-0.7604790474
## N.Acetylglutamine_HMDB0006029	-0.8050674532
## L.Lysine_HMDB0000182.1	-0.8367635299
## D.Mannose_HMDB0000169.1	-0.8659740850
## Tyramine_HMDB0000306	-0.8341289431
## L.Histidine_HMDB0000177	-0.8463515393
## D.Glucose_HMDB0000122.1	-0.8010928616
## X1.Hexadecanol_HMDB0003424	0.0273014293
## L.Tyrosine_HMDB0000158	-0.6828246832
## Mannitol_HMDB0000765	-0.5577731883
## Sorbitol_HMDB0000247	0.2161958905
## ITSD_Sorbitol	-0.7495639473
## Galacturonic.acid_HMDB0002545	-0.0672051426
## Pantothenic.acid_HMDB0000210	0.0768453389
## Palmitoleic.acid_HMDB0003229	-0.8422242855
## Xanthine_HMDB0000292	-0.2090565978
## Gluconic.acid_HMDB0000625	0.6010383991
## Palmitic.acid_HMDB0000220	-0.7044928452
## Glucaric.acid_HMDB0000663	-0.6292144320
## N.Acetylmannosamine_HMDB0001129	-0.6166189925
## N.Acetyl.D.glucosamine_HMDB0000215	-0.8173916474
## D.Ribulose.5.phosphate_HMDB0000618	0.8337443227
## Uric.acid_HMDB0000289	-0.5432141145
## D.Ribose.5.phosphate_HMDB0001548	0.8716439725
## myo.Inositol_HMDB0000211	-0.4003820686
## D.Ribose.5.phosphate_HMDB0001548.1	0.8763495095
## Heptadecanoic.acid_HMDB0002259	0.4485185100
## Octadecanol_HMDB0002350	0.0995438705
## Glutathione_HMDB0000125	0.2227442986
## Linoleic.acid_HMDB0000673	-0.6406324467
## Oleic.acid_HMDB0000207	-0.7762507041

## Elaidic.acid_HMDB0000573	-0.7699330488
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.9302685738
## Stearic.acid_HMDB0000827	-0.2628936860
## L.Tryptophan_HMDB0000929	-0.2450265505
## Fructose.1.phosphate_HMDB0001076	0.7671484083
## Mannose.6.phosphate_HMDB0001078	0.5741274926
## Arachidonic.acid_HMDB0001043	-0.6499905372
## Glucose.6.phosphate_HMDB0001401	0.6283409401
## X6.Phosphogluconic.acid_HMDB0001316	-0.0002526985
## Inositol.phosphate_HMDB0002985	-0.0298115016
## Uridine_HMDB0000296	-0.2875853652
## Stigmasterol_HMDB0000937	-0.4394221602
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.0005635251
## Sucrose_HMDB0000258	-0.5772917926
## MG.18.0e.0.0.0.0._HMDB0011143	-0.2356957165
## Trehalose_HMDB0000975	0.3461768550
## D.Maltose_HMDB0000163	0.3417666370
## Lactitol_HMDB0040937	0.0495268897
## Xanthylic.acid_HMDB0001554	0.7953253356
## Adenosine.monophosphate_HMDB0000045	0.7851589576
## Cholesterol_HMDB0000067	-0.2345046442
## Lathosterol_HMDB0001170	-0.5321474443
## X7b.Hydroxycholesterol_.HMDB0006119	0.7396244124
## Ornithine_HMDB0000214	
## Dimethylglycine_HMDB0000092	-0.589208655
## Glyoxylic.acid_HMDB0000119	-0.585222693
## Pyruvic.acid_HMDB0000243	0.290172894
## L.Lactic.acid_HMDB0000190	0.517001586
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.101442671
## Glycolic.acid_HMDB0000115	-0.478677658
## Caproic.acid_HMDB0000535	-0.576659085
## L.Alanine_HMDB0000161	0.689680355
## Alpha.ketoisovaleric.acid_HMDB0000019	0.113399605
## Glycine_HMDB0000123	0.449557475
## Oxalic.acid_HMDB0002329	-0.583764720
## Hydroxylamine_HMDB0003338	0.048477810
## X2.Hydroxybutyric.acid_HMDB0000008	-0.356772246
## Acetoacetic.acid_HMDB0000060	-0.426740200
## Hydroxypropionic.acid_HMDB0000700	0.209295758
## Pyruvic.acid_HMDB0000243.1	-0.017130985
## X3.Hydroxybutyric.acid_HMDB0000357	-0.460659836
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.363547622
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.638135895
## D.Alpha.aminobutyric.acid_HMDB0000650	0.529877385
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.248487544
## Beta.Alanine_HMDB0000056	0.628001216
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.166715629
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.057755375
## Malonic.acid_HMDB0000691	0.402701686
## X3.Aminoisobutanoic.acid_HMDB0003911	0.674687368
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.203814199
## Ketoleucine_HMDB0000695	-0.373242520
## L.Valine_HMDB0000883	0.596764343
## ITSD_Valine	0.525208249

## Urea_HMDB0000294	0.324248298
## Benzoic.acid_HMDB0001870	-0.266926882
## Caprylic.acid_HMDB0000482	-0.718083344
## Glycerol_HMDB0000131	0.631725499
## Ethanolamine_HMDB0000149	0.750632429
## L.Leucine_HMDB0000687	0.569106525
## Acetylglycine_HMDB0000532	-0.319415764
## L.Isoleucine_HMDB0000172	0.588603013
## Nicotinic.acid_HMDB0001488	-0.330436437
## Maleic.acid_HMDB0000176	-0.603605224
## L.Proline_HMDB0000162	0.395622329
## Phenylacetic.acid_HMDB0000209	-0.666013047
## Succinic.acid_HMDB0000254	0.336480650
## Glycine_HMDB0000123.1	0.616904654
## Methylsuccinic.acid_HMDB0001844	0.005571274
## Glyceric.acid_HMDB0000139	-0.607492041
## Fumaric.acid_HMDB0000134	0.241226490
## Uracil_HMDB0000300	0.286219680
## Pelargonic.acid_HMDB0000847	-0.715808980
## L.Serine_HMDB0000187	0.648985419
## L.Threonine_HMDB0000167	0.637690065
## Mesaconic.acid_HMDB0000749	-0.098761403
## Glutaric.acid_HMDB0000661	0.081263999
## Thymine_HMDB0000262	0.293774598
## Beta.Alanine_HMDB0000056.1	0.646804117
## L.Homoserine_HMDB0000719	-0.216180319
## Capric.acid_HMDB0000511	-0.362785991
## Citramalic.acid_HMDB0000426	0.586864499
## Malic.acid_HMDB0000744	-0.429461331
## Niacinamide_HMDB0001406	0.520534453
## Adipic.acid_HMDB0000448	0.770822341
## D.Threitol_HMDB0004136	0.018081436
## Dihydrouracil_HMDB0000076	0.243549698
## Erythritol_HMDB0002994	-0.036736323
## N.Acetylserine_HMDB0002931	0.588749373
## L.Aspartic.acid_HMDB0000191	0.676126464
## L.Methionine_HMDB0000696	0.821986017
## X4.Hydroxyproline_HMDB0000725	0.548540775
## Pyroglutamic.acid_HMDB0000267	0.562751077
## Cytosine_HMDB0000630	0.469412875
## Gamma.Aminobutyric.acid_HMDB0000112	0.074687331
## Threonic.acid_HMDB0000943	-0.650014123
## L.Cysteine_HMDB0000574	-0.481473975
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.660779608
## Creatinine_HMDB0000562	0.741878576
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.463880486
## Oxoglutaric.acid_HMDB0000208	-0.416154640
## Phenylpyruvic.acid_HMDB0000205	-0.414686471
## Pimelic.acid_HMDB0000857	0.286705614
## Phenyllactic.acid_HMDB0000779	-0.439624689
## Phosphoenolpyruvic.acid_HMDB0000263	-0.583963713
## Ornithine_HMDB0000214	1.000000000
## Hypotaurine_HMDB0000965	0.655515965
## Triethanolamine_HMDB0032538	0.690634387

## X2.Aminobenzoic.acid_HMDB0001123	0.688392985
## L.Glutamic.acid_HMDB0000148	0.789422516
## X4.Hydroxybenzoic.acid_HMDB0000500	0.665928924
## X5.Aminopentanoic.acid_HMDB0003355	-0.258695483
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.377510598
## L.Phenylalanine_HMDB0000159	0.805532435
## Dodecanoic.acid_HMDB0000638	0.042944373
## Lyxose_HMDB0003402_1	-0.744802078
## D.Xylose_HMDB0000098	-0.199135001
## Lyxose_HMDB0003402_2	0.013803479
## D.Arabinose_HMDB0029942	-0.738669577
## L.Asparagine_HMDB0000168	0.874907165
## D.Ribulose_HMDB0000621	-0.615420961
## D.Ribose_HMDB0000283	-0.730231553
## D.Xylulose_HMDB0001644	-0.608110050
## X3.Sulfinioalanine_HMDB0000996	0.575568685
## Suberic.acid_HMDB0000893	0.548270740
## L.Lysine_HMDB0000182	0.938007150
## Levoglucosan_HMDB0000640	-0.022772996
## D.Arabitol_HMDB0000568	0.088835319
## Ribitol_HMDB0000508	0.112333508
## cis.Aconitic.acid_HMDB0000072	-0.138417458
## Quinolinic.acid_HMDB0000232	-0.004440291
## Putrescine_HMDB0001414	-0.194069669
## Glycerol.3.phosphate_HMDB0000126	-0.607703502
## Vanillic.acid_HMDB0000484	0.411632287
## L.Glutamine_HMDB0000641	0.677131742
## X2.Phosphoglyceric.acid_HMDB0000362	0.021419480
## Azelaic.acid_HMDB0000784	0.053477206
## L.Dihydroorotic.acid_HMDB0003349	-0.735787669
## O.Phosphoethanolamine_HMDB0000224	0.216999912
## X3.Phosphoglyceric.acid_HMDB0000807	-0.022731995
## Isocitric.acid_HMDB0000193	0.347264120
## Hypoxanthine_HMDB0000157	0.393530651
## Citric.acid_HMDB0000094	-0.296892208
## L.Arginine_HMDB0000517	0.021867751
## Ornithine_HMDB0000214.1	0.869492816
## Dopamine_HMDB0000073	0.878854825
## Myristic.acid_HMDB0000806	0.468710536
## X1.5.Anhydrosorbitol_HMDB0002712	-0.447774496
## D.Tagatose_HMDB0003418	-0.696144179
## Psicose_1	-0.102731152
## Sebacic.acid_HMDB0000792	0.417002191
## D.Fructose_HMDB0000660	-0.627267854
## Gluconolactone_HMDB0000150	-0.518217761
## L.Sorbose_HMDB0001266	-0.618199086
## D.Mannose_HMDB0000169	0.590779686
## Hydroxyphenyllactic.acid_HMDB0000755	-0.286198839
## D.Glucose_HMDB0000122	0.600541970
## N.Acetylglutamine_HMDB0006029	0.557122802
## L.Lysine_HMDB0000182.1	0.854208338
## D.Mannose_HMDB0000169.1	0.709300552
## Tyramine_HMDB0000306	0.852170675
## L.Histidine_HMDB0000177	0.840390882

## D.Glucose_HMDB0000122.1	0.591142970
## X1.Hexadecanol_HMDB0003424	-0.414562527
## L.Tyrosine_HMDB0000158	0.896945183
## Mannitol_HMDB0000765	0.382438980
## Sorbitol_HMDB0000247	-0.024681847
## ITSD_Sorbitol	0.292975830
## Galacturonic.acid_HMDB0002545	-0.186874091
## Pantothenic.acid_HMDB0000210	-0.243395783
## Palmitoleic.acid_HMDB0003229	0.163952566
## Xanthine_HMDB0000292	0.780604050
## Gluconic.acid_HMDB0000625	-0.247979179
## Palmitic.acid_HMDB0000220	-0.008718912
## Glucaric.acid_HMDB0000663	0.542882614
## N.Acetylmannosamine_HMDB0001129	0.245165691
## N.Acetyl.D.glucosamine_HMDB0000215	0.432563675
## D.Ribulose.5.phosphate_HMDB0000618	-0.695688555
## Uric.acid_HMDB0000289	0.791227149
## D.Ribose.5.phosphate_HMDB0001548	-0.739317356
## myo.Inositol_HMDB0000211	0.374801318
## D.Ribose.5.phosphate_HMDB0001548.1	-0.723858883
## Heptadecanoic.acid_HMDB0002259	-0.210882276
## Octadecanol_HMDB0002350	-0.545051132
## Glutathione_HMDB0000125	0.241633768
## Linoleic.acid_HMDB0000673	-0.138910313
## Oleic.acid_HMDB0000207	0.086399979
## Elaidic.acid_HMDB0000573	0.072983937
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.672826064
## Stearic.acid_HMDB0000827	-0.349207804
## L.Tryptophan_HMDB0000929	-0.312942945
## Fructose.1.phosphate_HMDB0001076	-0.573891284
## Mannose.6.phosphate_HMDB0001078	-0.299900924
## Arachidonic.acid_HMDB0001043	0.066072294
## Glucose.6.phosphate_HMDB0001401	-0.584525795
## X6.Phosphogluconic.acid_HMDB0001316	-0.577783950
## Inositol.phosphate_HMDB0002985	-0.506249017
## Uridine_HMDB0000296	-0.164589795
## Stigmasterol_HMDB0000937	-0.135120378
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.300082967
## Sucrose_HMDB0000258	0.329977976
## MG.18.0e.0.0.0.0._HMDB0011143	-0.514893191
## Trehalose_HMDB0000975	-0.056923978
## D.Maltose_HMDB0000163	-0.055086313
## Lactitol_HMDB0040937	-0.140399088
## Xanthylic.acid_HMDB0001554	-0.270809824
## Adenosine.monophosphate_HMDB0000045	-0.647961788
## Cholesterol_HMDB0000067	-0.183663386
## Lathosterol_HMDB0001170	-0.207078321
## X7b.Hydroxycholesterol_.HMDB0006119	-0.196615377
##	Hypotaurine_HMDB0000965
## Dimethylglycine_HMDB0000092	-0.420016169
## Glyoxylic.acid_HMDB0000119	-0.418362119
## Pyruvic.acid_HMDB0000243	0.541860983
## L.Lactic.acid_HMDB0000190	0.803416816
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.436370396

## Glycolic.acid_HMDB0000115	-0.262384171
## Caproic.acid_HMDB0000535	-0.522091649
## L.Alanine_HMDB0000161	0.918779469
## Alpha.ketoisovaleric.acid_HMDB0000019	0.600901395
## Glycine_HMDB0000123	0.663100986
## Oxalic.acid_HMDB0002329	-0.427128611
## Hydroxylamine_HMDB0003338	0.361233044
## X2.Hydroxybutyric.acid_HMDB0000008	0.264775488
## Acetoacetic.acid_HMDB0000060	-0.044973174
## Hydroxypropionic.acid_HMDB0000700	0.541638863
## Pyruvic.acid_HMDB0000243.1	0.530254683
## X3.Hydroxybutyric.acid_HMDB0000357	0.171653634
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.271709826
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.121135736
## D.Alpha.aminobutyric.acid_HMDB0000650	0.874604691
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.340134133
## Beta.Alanine_HMDB0000056	0.640628166
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.498658445
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.576419564
## Malonic.acid_HMDB0000691	0.422793795
## X3.Aminoisobutanoic.acid_HMDB0003911	0.712969507
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.636984359
## Ketoleucine_HMDB0000695	0.223101328
## L.Valine_HMDB0000883	0.893376338
## ITSD_Valine	0.798305977
## Urea_HMDB0000294	0.830235743
## Benzoic.acid_HMDB0001870	-0.203740498
## Caprylic.acid_HMDB0000482	-0.441327456
## Glycerol_HMDB0000131	0.776151338
## Ethanolamine_HMDB0000149	0.881235764
## L.Leucine_HMDB0000687	0.831876830
## Acetyl glycine_HMDB0000532	-0.036337242
## L.Isoleucine_HMDB0000172	0.858395655
## Nicotinic.acid_HMDB0001488	-0.147096878
## Maleic.acid_HMDB0000176	-0.148835336
## L.Proline_HMDB0000162	0.784600158
## Phenylacetic.acid_HMDB0000209	-0.273105945
## Succinic.acid_HMDB0000254	0.655980581
## Glycine_HMDB0000123.1	0.840226993
## Methylsuccinic.acid_HMDB0001844	-0.018928000
## Glyceric.acid_HMDB0000139	-0.348247011
## Fumaric.acid_HMDB0000134	0.717407941
## Uracil_HMDB0000300	0.722457515
## Pelargonic.acid_HMDB0000847	-0.480863685
## L.Serine_HMDB0000187	0.788002044
## L.Threonine_HMDB0000167	0.885168322
## Mesaconic.acid_HMDB0000749	0.219497236
## Glutaric.acid_HMDB0000661	0.257874931
## Thymine_HMDB0000262	0.626785109
## Beta.Alanine_HMDB0000056.1	0.823766054
## L.Homoserine_HMDB0000719	-0.265619351
## Capric.acid_HMDB0000511	-0.343887722
## Citramalic.acid_HMDB0000426	0.559282113
## Malic.acid_HMDB0000744	-0.090026652

## Niacinamide_HMDB0001406	0.856568287
## Adipic.acid_HMDB0000448	0.721533195
## D.Threitol_HMDB0004136	0.310732502
## Dihydrouracil_HMDB0000076	0.637600437
## Erythritol_HMDB0002994	0.545790481
## N.Acetylserine_HMDB0002931	0.787666846
## L.Aspartic.acid_HMDB0000191	0.859333344
## L.Methionine_HMDB0000696	0.827655023
## X4.Hydroxyproline_HMDB0000725	0.859498483
## Pyroglutamic.acid_HMDB0000267	0.828716233
## Cytosine_HMDB0000630	0.272639199
## Gamma.Aminobutyric.acid_HMDB0000112	0.379352927
## Threonic.acid_HMDB0000943	-0.119597668
## L.Cysteine_HMDB0000574	0.047439615
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.311800646
## Creatinine_HMDB0000562	0.637930076
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.508078908
## Oxoglutaric.acid_HMDB0000208	0.060488620
## Phenylpyruvic.acid_HMDB0000205	-0.483562926
## Pimelic.acid_HMDB0000857	0.539374759
## Phenyllactic.acid_HMDB0000779	-0.336140662
## Phosphoenolpyruvic.acid_HMDB0000263	-0.617314096
## Ornithine_HMDB0000214	0.655515965
## Hypotaurine_HMDB0000965	1.000000000
## Triethanolamine_HMDB0032538	0.869629109
## X2.Aminobenzoic.acid_HMDB0001123	0.777813951
## L.Glutamic.acid_HMDB0000148	0.791650747
## X4.Hydroxybenzoic.acid_HMDB0000500	0.836747786
## X5.Aminopentanoic.acid_HMDB0003355	0.218556707
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.329016647
## L.Phenylalanine_HMDB0000159	0.817034339
## Dodecanoic.acid_HMDB0000638	0.259428664
## Lyxose_HMDB0003402_1	-0.544665743
## D.Xylose_HMDB0000098	-0.349763010
## Lyxose_HMDB0003402_2	-0.191003775
## D.Arabinose_HMDB0029942	-0.604673922
## L.Asparagine_HMDB0000168	0.445197828
## D.Ribulose_HMDB0000621	-0.626989280
## D.Ribose_HMDB0000283	-0.604498108
## D.Xylulose_HMDB0001644	-0.615763734
## X3.Sulfinioalanine_HMDB0000996	0.144421319
## Suberic.acid_HMDB0000893	0.580702983
## L.Lysine_HMDB0000182	0.418400641
## Levoglucosan_HMDB0000640	-0.209853918
## D.Arabitol_HMDB0000568	0.261341731
## Ribitol_HMDB0000508	0.174625625
## cis.Aconitic.acid_HMDB0000072	-0.161044769
## Quinolinic.acid_HMDB0000232	0.259083424
## Putrescine_HMDB0001414	0.092735682
## Glycerol.3.phosphate_HMDB0000126	-0.706096369
## Vanillic.acid_HMDB0000484	0.731074823
## L.Glutamine_HMDB0000641	0.191905643
## X2.Phosphoglyceric.acid_HMDB0000362	0.337925726
## Azelaic.acid_HMDB0000784	0.004511929

## L.Dihydroorotic.acid_HMDB0003349	-0.598584463
## O.Phosphoethanolamine_HMDB0000224	0.182957955
## X3.Phosphoglyceric.acid_HMDB0000807	0.390896981
## Isocitric.acid_HMDB0000193	0.353626173
## Hypoxanthine_HMDB0000157	-0.187152439
## Citric.acid_HMDB0000094	-0.009841543
## L.Arginine_HMDB0000517	-0.309096170
## Ornithine_HMDB0000214.1	0.850361651
## Dopamine_HMDB0000073	0.832855653
## Myristic.acid_HMDB0000806	0.587423048
## X1.5.Anhydrosorbitol_HMDB0002712	0.145224922
## D.Tagatose_HMDB0003418	-0.568017653
## Psicose_1	-0.073531255
## Sebacic.acid_HMDB0000792	0.711679947
## D.Fructose_HMDB0000660	-0.544779363
## Gluconolactone_HMDB0000150	-0.502041338
## L.Sorbose_HMDB0001266	-0.553605682
## D.Mannose_HMDB0000169	0.738566405
## Hydroxyphenyllactic.acid_HMDB0000755	0.399481041
## D.Glucose_HMDB0000122	0.713199987
## N.Acetylglutamine_HMDB0006029	0.736302676
## L.Lysine_HMDB0000182.1	0.739440224
## D.Mannose_HMDB0000169.1	0.726084240
## Tyramine_HMDB0000306	0.734839015
## L.Histidine_HMDB0000177	0.701836101
## D.Glucose_HMDB0000122.1	0.714884856
## X1.Hexadecanol_HMDB0003424	-0.333015152
## L.Tyrosine_HMDB0000158	0.713008143
## Mannitol_HMDB0000765	0.715238276
## Sorbitol_HMDB0000247	-0.231365188
## ITSD_Sorbitol	0.632286903
## Galacturonic.acid_HMDB0002545	0.444509319
## Pantothenic.acid_HMDB0000210	0.072091604
## Palmitoleic.acid_HMDB0003229	0.222687114
## Xanthine_HMDB0000292	0.476616706
## Gluconic.acid_HMDB0000625	-0.058125279
## Palmitic.acid_HMDB0000220	0.223060513
## Glucaric.acid_HMDB0000663	0.699384733
## N.Acetylmannosamine_HMDB0001129	0.538109500
## N.Acetyl.D.glucosamine_HMDB0000215	0.731766242
## D.Ribulose.5.phosphate_HMDB0000618	-0.567636961
## Uric.acid_HMDB0000289	0.336426684
## D.Ribose.5.phosphate_HMDB0001548	-0.643040677
## myo.Inositol_HMDB0000211	0.474844401
## D.Ribose.5.phosphate_HMDB0001548.1	-0.680690040
## Heptadecanoic.acid_HMDB0002259	-0.009726269
## Octadecanol_HMDB0002350	-0.109663767
## Glutathione_HMDB0000125	0.027753857
## Linoleic.acid_HMDB0000673	-0.037309882
## Oleic.acid_HMDB0000207	0.084241820
## Elaidic.acid_HMDB0000573	0.158428274
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.582662357
## Stearic.acid_HMDB0000827	-0.062103812
## L.Tryptophan_HMDB0000929	-0.023953256

## Fructose.1.phosphate_HMDB0001076	-0.438803105
## Mannose.6.phosphate_HMDB0001078	-0.526448240
## Arachidonic.acid_HMDB0001043	-0.119124071
## Glucose.6.phosphate_HMDB0001401	-0.399963977
## X6.Phosphogluconic.acid_HMDB0001316	-0.268864550
## Inositol.phosphate_HMDB0002985	-0.261315717
## Uridine_HMDB0000296	0.290503660
## Stigmasterol_HMDB0000937	0.368016598
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.038439167
## Sucrose_HMDB0000258	0.249019667
## MG.18.0e.0.0.0.0._HMD0011143	-0.070791748
## Trehalose_HMDB0000975	-0.194699214
## D.Maltose_HMDB0000163	-0.190511167
## Lactitol_HMDB0040937	0.388900607
## Xanthylic.acid_HMDB0001554	-0.637212586
## Adenosine.monophosphate_HMDB0000045	-0.504917507
## Cholesterol_HMDB0000067	0.039489034
## Lathosterol_HMDB0001170	0.007794163
## X7b.Hydroxycholesterol_.HMD0006119	-0.015829920
## Triethanolamine_HMDB0032538	
## Dimethylglycine_HMDB0000092	-0.533000540
## Glyoxylic.acid_HMDB0000119	-0.527244207
## Pyruvic.acid_HMDB0000243	0.592496624
## L.Lactic.acid_HMDB0000190	0.862052642
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.316496232
## Glycolic.acid_HMDB0000115	-0.332637638
## Caproic.acid_HMDB0000535	-0.449731198
## L.Alanine_HMDB0000161	0.928353890
## Alpha.ketoisovaleric.acid_HMDB0000019	0.645680734
## Glycine_HMDB0000123	0.822081877
## Oxalic.acid_HMDB0002329	-0.349698208
## Hydroxylamine_HMDB0003338	0.300739861
## X2.Hydroxybutyric.acid_HMDB0000008	0.123281099
## Acetoacetic.acid_HMDB0000060	-0.086273384
## Hydroxypropionic.acid_HMDB0000700	0.461781544
## Pyruvic.acid_HMDB0000243.1	0.485476705
## X3.Hydroxybutyric.acid_HMDB0000357	0.053143690
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.159056380
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.284752422
## D.Alpha.aminobutyric.acid_HMDB0000650	0.718430979
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.189879517
## Beta.Alanine_HMDB0000056	0.644130407
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.573802038
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.520149839
## Malonic.acid_HMDB0000691	0.557854375
## X3.Aminoisobutanoic.acid_HMDB0003911	0.641003303
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.541283498
## Ketoleucine_HMDB0000695	0.216638417
## L.Valine_HMDB0000883	0.782818630
## ITSD_Valine	0.701842380
## Urea_HMDB0000294	0.807730781
## Benzoic.acid_HMDB0001870	-0.362167444
## Caprylic.acid_HMDB0000482	-0.484831358
## Glycerol_HMDB0000131	0.804745255

## Ethanolamine_HMDB0000149	0.929067364
## L.Leucine_HMDB0000687	0.745401673
## Acetylglycine_HMDB0000532	-0.078386986
## L.Isoleucine_HMDB0000172	0.843696261
## Nicotinic.acid_HMDB0001488	-0.086133500
## Maleic.acid_HMDB0000176	-0.155206499
## L.Proline_HMDB0000162	0.682157066
## Phenylacetic.acid_HMDB0000209	-0.315590455
## Succinic.acid_HMDB0000254	0.666436810
## Glycine_HMDB0000123.1	0.816676762
## Methylsuccinic.acid_HMDB0001844	-0.108142471
## Glyceric.acid_HMDB0000139	-0.358758498
## Fumaric.acid_HMDB0000134	0.709934547
## Uracil_HMDB0000300	0.765785391
## Pelargonic.acid_HMDB0000847	-0.545260431
## L.Serine_HMDB0000187	0.849370100
## L.Threonine_HMDB0000167	0.929237672
## Mesaconic.acid_HMDB0000749	0.063989753
## Glutaric.acid_HMDB0000661	0.404441535
## Thymine_HMDB0000262	0.683379970
## Beta.Alanine_HMDB0000056.1	0.725915668
## L.Homoserine_HMDB0000719	-0.346589592
## Capric.acid_HMDB0000511	-0.482537940
## Citramalic.acid_HMDB0000426	0.722707832
## Malic.acid_HMDB0000744	-0.029122967
## Niacinamide_HMDB0001406	0.827889474
## Adipic.acid_HMDB0000448	0.850567177
## D.Threitol_HMDB0004136	0.153367927
## Dihydrouracil_HMDB0000076	0.648659271
## Erythritol_HMDB0002994	0.435990436
## N.Acetylserine_HMDB0002931	0.912694396
## L.Aspartic.acid_HMDB0000191	0.864096805
## L.Methionine_HMDB0000696	0.770614528
## X4.Hydroxyproline_HMDB0000725	0.868210954
## Pyroglutamic.acid_HMDB0000267	0.818346840
## Cytosine_HMDB0000630	0.288990893
## Gamma.Aminobutyric.acid_HMDB0000112	0.479815986
## Threonic.acid_HMDB0000943	-0.233282360
## L.Cysteine_HMDB0000574	-0.119000470
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.283975218
## Creatinine_HMDB0000562	0.488672328
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.388008851
## Oxoglutaric.acid_HMDB0000208	0.100166387
## Phenylpyruvic.acid_HMDB0000205	-0.356467849
## Pimelic.acid_HMDB0000857	0.667819815
## Phenyllactic.acid_HMDB0000779	-0.203989360
## Phosphoenolpyruvic.acid_HMDB0000263	-0.480308179
## Ornithine_HMDB0000214	0.690634387
## Hypotaurine_HMDB0000965	0.869629109
## Triethanolamine_HMDB0032538	1.000000000
## X2.Aminobenzoic.acid_HMDB0001123	0.770450299
## L.Glutamic.acid_HMDB0000148	0.743165354
## X4.Hydroxybenzoic.acid_HMDB0000500	0.852094530
## X5.Aminopentanoic.acid_HMDB0003355	0.403760971

## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.278375343
## L.Phenylalanine_HMDB0000159	0.798459377
## Dodecanoic.acid_HMDB0000638	0.114454748
## Lyxose_HMDB0003402_1	-0.566421107
## D.Xylose_HMDB0000098	-0.294892326
## Lyxose_HMDB0003402_2	-0.101831280
## D.Arabinose_HMDB0029942	-0.576143736
## L.Asparagine_HMDB0000168	0.512115456
## D.Ribulose_HMDB0000621	-0.536604018
## D.Ribose_HMDB0000283	-0.578595445
## D.Xylulose_HMDB0001644	-0.520558280
## X3.Sulfinioalanine_HMDB0000996	0.078487614
## Suberic.acid_HMDB0000893	0.761639444
## L.Lysine_HMDB0000182	0.435800698
## Levoglucosan_HMDB0000640	-0.162643574
## D.Arabitol_HMDB0000568	0.277681187
## Ribitol_HMDB0000508	-0.027166127
## cis.Aconitic.acid_HMDB0000072	-0.104468519
## Quinolinic.acid_HMDB0000232	0.361906397
## Putrescine_HMDB0001414	0.247419473
## Glycerol.3.phosphate_HMDB0000126	-0.676780442
## Vanillic.acid_HMDB0000484	0.584532948
## L.Glutamine_HMDB0000641	0.273129506
## X2.Phosphoglyceric.acid_HMDB0000362	0.511089686
## Azelaic.acid_HMDB0000784	0.152555721
## L.Dihydroorotic.acid_HMDB0003349	-0.565516946
## O.Phosphoethanolamine_HMDB0000224	0.126495370
## X3.Phosphoglyceric.acid_HMDB0000807	0.573384243
## Isocitric.acid_HMDB0000193	0.308249504
## Hypoxanthine_HMDB0000157	-0.208184138
## Citric.acid_HMDB0000094	0.030008586
## L.Arginine_HMDB0000517	-0.298456221
## Ornithine_HMDB0000214.1	0.871629070
## Dopamine_HMDB0000073	0.858179367
## Myristic.acid_HMDB0000806	0.515950832
## X1.5.Anhydrosorbitol_HMDB0002712	0.048591924
## D.Tagatose_HMDB0003418	-0.560663080
## Psicose_1	0.018158088
## Sebacic.acid_HMDB0000792	0.689998331
## D.Fructose_HMDB0000660	-0.438803837
## Gluconolactone_HMDB0000150	-0.463030077
## L.Sorbose_HMDB0001266	-0.457003549
## D.Mannose_HMDB0000169	0.653462137
## Hydroxyphenyllactic.acid_HMDB0000755	0.295737169
## D.Glucose_HMDB0000122	0.650600590
## N.Acetylglutamine_HMDB0006029	0.644416983
## L.Lysine_HMDB0000182.1	0.714086971
## D.Mannose_HMDB0000169.1	0.670238744
## Tyramine_HMDB0000306	0.703118762
## L.Histidine_HMDB0000177	0.681094981
## D.Glucose_HMDB0000122.1	0.587508598
## X1.Hexadecanol_HMDB0003424	-0.466131816
## L.Tyrosine_HMDB0000158	0.730154900
## Mannitol_HMDB0000765	0.754313009

## Sorbitol_HMDB0000247	-0.151526297
## ITSD_Sorbitol	0.511752135
## Galacturonic.acid_HMDB0002545	0.258643925
## Pantothenic.acid_HMDB0000210	-0.007386686
## Palmitoleic.acid_HMDB0003229	0.062731516
## Xanthine_HMDB0000292	0.507186351
## Gluconic.acid_HMDB0000625	-0.054969057
## Palmitic.acid_HMDB0000220	0.138613508
## Glucaric.acid_HMDB0000663	0.662507294
## N.Acetylmannosamine_HMDB0001129	0.264321851
## N.Acetyl.D.glucosamine_HMDB0000215	0.638114184
## D.Ribulose.5.phosphate_HMDB0000618	-0.635293056
## Uric.acid_HMDB0000289	0.314875255
## D.Ribose.5.phosphate_HMDB0001548	-0.639402902
## myo.Inositol_HMDB0000211	0.460984303
## D.Ribose.5.phosphate_HMDB0001548.1	-0.675482196
## Heptadecanoic.acid_HMDB0002259	0.164743628
## Octadecanol_HMDB0002350	-0.123376342
## Glutathione_HMDB0000125	0.063105953
## Linoleic.acid_HMDB0000673	-0.185374162
## Oleic.acid_HMDB0000207	-0.075464274
## Elaidic.acid_HMDB0000573	-0.013226588
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.467957182
## Stearic.acid_HMDB0000827	-0.061209919
## L.Tryptophan_HMDB0000929	0.004876458
## Fructose.1.phosphate_HMDB0001076	-0.398471954
## Mannose.6.phosphate_HMDB0001078	-0.444165551
## Arachidonic.acid_HMDB0001043	-0.289334873
## Glucose.6.phosphate_HMDB0001401	-0.441486940
## X6.Phosphogluconic.acid_HMDB0001316	-0.438216503
## Inositol.phosphate_HMDB0002985	-0.530290951
## Uridine_HMDB0000296	0.196444232
## Stigmasterol_HMDB0000937	0.366593472
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.054738523
## Sucrose_HMDB0000258	0.246495435
## MG.18.0e.0.0.0.0._HMDB0011143	-0.179797422
## Trehalose_HMDB0000975	-0.090377417
## D.Maltose_HMDB0000163	-0.085718792
## Lactitol_HMDB00040937	0.040970611
## Xanthylic.acid_HMDB0001554	-0.497806630
## Adenosine.monophosphate_HMDB0000045	-0.511262853
## Cholesterol_HMDB0000067	-0.282747507
## Lathosterol_HMDB0001170	-0.269087225
## X7b.Hydroxycholesterol_.HMDB0006119	0.152053233
##	X2.Aminobenzoic.acid_HMDB0001123
## Dimethylglycine_HMDB0000092	-0.84050198
## Glyoxylic.acid_HMDB0000119	-0.84168442
## Pyruvic.acid_HMDB0000243	0.57914967
## L.Lactic.acid_HMDB0000190	0.86564675
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.35097142
## Glycolic.acid_HMDB0000115	-0.24747191
## Caproic.acid_HMDB0000535	-0.75729407
## L.Alanine_HMDB0000161	0.85064067
## Alpha.ketoisovaleric.acid_HMDB0000019	0.32301775

## Glycine_HMDB0000123	0.66552335
## Oxalic.acid_HMDB0002329	-0.46267947
## Hydroxylamine_HMDB0003338	0.41312763
## X2.Hydroxybutyric.acid_HMDB0000008	0.02996350
## Acetoacetic.acid_HMDB0000060	-0.03443363
## Hydroxypropionic.acid_HMDB0000700	0.74143301
## Pyruvic.acid_HMDB0000243.1	0.47455389
## X3.Hydroxybutyric.acid_HMDB0000357	0.05864854
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.13327664
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.24775000
## D.Alpha.aminobutyric.acid_HMDB0000650	0.86038255
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.01089230
## Beta.Alanine_HMDB0000056	0.72867878
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.23916491
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.39058579
## Malonic.acid_HMDB0000691	0.45833506
## X3.Aminoisobutanoic.acid_HMDB0003911	0.88787546
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.73207895
## Ketoleucine_HMDB0000695	-0.08825844
## L.Valine_HMDB0000883	0.86656029
## ITSD_Valine	0.89319142
## Urea_HMDB0000294	0.62391697
## Benzoic.acid_HMDB0001870	-0.16503348
## Caprylic.acid_HMDB0000482	-0.71015078
## Glycerol_HMDB0000131	0.93341603
## Ethanolamine_HMDB0000149	0.88110959
## L.Leucine_HMDB0000687	0.89942848
## Acetyl glycine_HMDB0000532	-0.05742611
## L.Isoleucine_HMDB0000172	0.90448619
## Nicotinic.acid_HMDB0001488	-0.29209956
## Maleic.acid_HMDB0000176	-0.28921369
## L.Proline_HMDB0000162	0.68487619
## Phenylacetic.acid_HMDB0000209	-0.53414540
## Succinic.acid_HMDB0000254	0.72462365
## Glycine_HMDB0000123.1	0.91784591
## Methylsuccinic.acid_HMDB0001844	0.09845385
## Glyceric.acid_HMDB0000139	-0.37341795
## Fumaric.acid_HMDB0000134	0.61975533
## Uracil_HMDB0000300	0.57686327
## Pelargonic.acid_HMDB0000847	-0.82980940
## L.Serine_HMDB0000187	0.83254466
## L.Threonine_HMDB0000167	0.84378039
## Mesaconic.acid_HMDB0000749	-0.07769885
## Glutaric.acid_HMDB0000661	-0.11511285
## Thymine_HMDB0000262	0.58583662
## Beta.Alanine_HMDB0000056.1	0.95718342
## L.Homoserine_HMDB0000719	-0.12993971
## Capric.acid_HMDB0000511	-0.26173632
## Citramalic.acid_HMDB0000426	0.48282697
## Malic.acid_HMDB0000744	-0.26917621
## Niacinamide_HMDB0001406	0.76535438
## Adipic.acid_HMDB0000448	0.65782604
## D.Threitol_HMDB0004136	0.15443390
## Dihydrouracil_HMDB0000076	0.42805595

## Erythritol_HMDB0002994	0.39690342
## N.Acetylserine_HMDB0002931	0.74440412
## L.Aspartic.acid_HMDB0000191	0.84231819
## L.Methionine_HMDB0000696	0.94762178
## X4.Hydroxyproline_HMDB0000725	0.76430198
## Pyroglutamic.acid_HMDB0000267	0.74430888
## Cytosine_HMDB0000630	0.09810455
## Gamma.Aminobutyric.acid_HMDB0000112	0.31025423
## Threonic.acid_HMDB0000943	-0.38520144
## L.Cysteine_HMDB0000574	-0.23471864
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.57348681
## Creatinine_HMDB0000562	0.85927671
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.75041183
## Oxoglutaric.acid_HMDB0000208	0.08662272
## Phenylpyruvic.acid_HMDB0000205	-0.49406555
## Pimelic.acid_HMDB0000857	0.57020970
## Phenyllactic.acid_HMDB0000779	-0.58173823
## Phosphoenolpyruvic.acid_HMDB0000263	-0.90178820
## Ornithine_HMDB0000214	0.68839298
## Hypotaurine_HMDB0000965	0.77781395
## Triethanolamine_HMDB0032538	0.77045030
## X2.Aminobenzoic.acid_HMDB0001123	1.00000000
## L.Glutamic.acid_HMDB0000148	0.80975155
## X4.Hydroxybenzoic.acid_HMDB0000500	0.95083797
## X5.Aminopentanoic.acid_HMDB0003355	-0.04091602
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.37732468
## L.Phenylalanine_HMDB0000159	0.95477794
## Dodecanoic.acid_HMDB0000638	0.51206616
## Lyxose_HMDB0003402_1	-0.79410498
## D.Xylose_HMDB0000098	-0.41554044
## Lyxose_HMDB0003402_2	-0.24989810
## D.Arabinose_HMDB0029942	-0.85084959
## L.Asparagine_HMDB0000168	0.58152315
## D.Ribulose_HMDB0000621	-0.79345367
## D.Ribose_HMDB0000283	-0.85503856
## D.Xylulose_HMDB0001644	-0.79250359
## X3.Sulfinoalanine_HMDB0000996	0.28391667
## Suberic.acid_HMDB0000893	0.46469070
## L.Lysine_HMDB0000182	0.54229180
## Levoglucosan_HMDB0000640	-0.25207447
## D.Arabitool_HMDB0000568	0.21519319
## Ribitol_HMDB0000508	0.04342819
## cis.Aconitic.acid_HMDB0000072	-0.20308777
## Quinolinic.acid_HMDB0000232	-0.03616679
## Putrescine_HMDB0001414	0.06729859
## Glycerol.3.phosphate_HMDB0000126	-0.80770608
## Vanillic.acid_HMDB0000484	0.56255235
## L.Glutamine_HMDB0000641	0.31156453
## X2.Phosphoglyceric.acid_HMDB0000362	0.03180593
## Azelaic.acid_HMDB0000784	-0.19325295
## L.Dihydroorotic.acid_HMDB0003349	-0.83921589
## O.Phosphoethanolamine_HMDB0000224	0.62322447
## X3.Phosphoglyceric.acid_HMDB0000807	0.06265280
## Isocitric.acid_HMDB0000193	0.20969194

## Hypoxanthine_HMDB0000157	0.01201151
## Citric.acid_HMDB0000094	-0.39659190
## L.Arginine_HMDB0000517	-0.31262451
## Ornithine_HMDB0000214.1	0.92901732
## Dopamine_HMDB0000073	0.92532604
## Myristic.acid_HMDB0000806	0.86965152
## X1.5.Anhydrosorbitol_HMDB0002712	-0.18652892
## D.Tagatose_HMDB0003418	-0.86989764
## Psicose_1	-0.08638587
## Sebacic.acid_HMDB0000792	0.62564926
## D.Fructose_HMDB0000660	-0.75825924
## Gluconolactone_HMDB0000150	-0.72875581
## L.Sorbose_HMDB0001266	-0.76402808
## D.Mannose_HMDB0000169	0.88270664
## Hydroxyphenyllactic.acid_HMDB0000755	0.31829500
## D.Glucose_HMDB0000122	0.80991417
## N.Acetylglutamine_HMDB0006029	0.84869548
## L.Lysine_HMDB0000182.1	0.92197982
## D.Mannose_HMDB0000169.1	0.92119493
## Tyramine_HMDB0000306	0.91807926
## L.Histidine_HMDB0000177	0.91739702
## D.Glucose_HMDB0000122.1	0.79808174
## X1.Hexadecanol_HMDB0003424	-0.25369731
## L.Tyrosine_HMDB0000158	0.82633741
## Mannitol_HMDB0000765	0.77103950
## Sorbitol_HMDB0000247	-0.16333254
## ITSD_Sorbitol	0.77809547
## Galacturonic.acid_HMDB0002545	0.15427521
## Pantothenic.acid_HMDB0000210	-0.12356761
## Palmitoleic.acid_HMDB0003229	0.62637677
## Xanthine_HMDB0000292	0.39637779
## Gluconic.acid_HMDB0000625	-0.48345909
## Palmitic.acid_HMDB0000220	0.54069089
## Glucaric.acid_HMDB0000663	0.76526282
## N.Acetylmannosamine_HMDB0001129	0.50469806
## N.Acetyl.D.glucosamine_HMDB0000215	0.87299368
## D.Ribulose.5.phosphate_HMDB0000618	-0.91000617
## Uric.acid_HMDB0000289	0.55967783
## D.Ribose.5.phosphate_HMDB0001548	-0.92324025
## myo.Inositol_HMDB0000211	0.45713681
## D.Ribose.5.phosphate_HMDB0001548.1	-0.94898315
## Heptadecanoic.acid_HMDB0002259	-0.18539922
## Octadecanol_HMDB0002350	-0.13786178
## Glutathione_HMDB0000125	-0.09515680
## Linoleic.acid_HMDB0000673	0.37694089
## Oleic.acid_HMDB0000207	0.52820548
## Elaidic.acid_HMDB0000573	0.54058915
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.85752625
## Stearic.acid_HMDB0000827	0.12237317
## L.Tryptophan_HMDB0000929	0.12283876
## Fructose.1.phosphate_HMDB0001076	-0.74063140
## Mannose.6.phosphate_HMDB0001078	-0.59946270
## Arachidonic.acid_HMDB0001043	0.34332072
## Glucose.6.phosphate_HMDB0001401	-0.69375951

## X6.Phosphogluconic.acid_HMDB0001316	-0.22215307
## Inositol.phosphate_HMDB0002985	-0.22437646
## Uridine_HMDB0000296	0.33322372
## Stigmasterol_HMDB0000937	0.42550323
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.02407201
## Sucrose_HMDB0000258	0.50979797
## MG.18.0e.0.0.0.0._HMDB0011143	0.05578808
## Trehalose_HMDB0000975	-0.30959018
## D.Maltose_HMDB0000163	-0.30484899
## Lactitol_HMDB0040937	-0.11755622
## Xanthylic.acid_HMDB0001554	-0.73582695
## Adenosine.monophosphate_HMDB0000045	-0.81482799
## Cholesterol_HMDB0000067	0.01446826
## Lathosterol_HMDB0001170	0.23433291
## X7b.Hydroxycholesterol_.HMDB0006119	-0.44891058
## L.Glutamic.acid_HMDB0000148	
## Dimethylglycine_HMDB0000092	-0.666527816
## Glyoxylic.acid_HMDB0000119	-0.667852165
## Pyruvic.acid_HMDB0000243	0.414540739
## L.Lactic.acid_HMDB0000190	0.728846745
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.218344956
## Glycolic.acid_HMDB0000115	-0.358783958
## Caproic.acid_HMDB0000535	-0.721905736
## L.Alanine_HMDB0000161	0.848076273
## Alpha.ketoisovaleric.acid_HMDB0000019	0.287393453
## Glycine_HMDB0000123	0.604420695
## Oxalic.acid_HMDB0002329	-0.555953155
## Hydroxylamine_HMDB0003338	0.146108669
## X2.Hydroxybutyric.acid_HMDB0000008	0.013642009
## Acetoacetic.acid_HMDB0000060	-0.346126455
## Hydroxypropionic.acid_HMDB0000700	0.486732176
## Pyruvic.acid_HMDB0000243.1	0.267261824
## X3.Hydroxybutyric.acid_HMDB0000357	-0.126747179
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.004734293
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.305249188
## D.Alpha.aminobutyric.acid_HMDB0000650	0.776200713
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.168209069
## Beta.Alanine_HMDB0000056	0.810633858
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.285624745
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.352582235
## Malonic.acid_HMDB0000691	0.296242530
## X3.Aminoisobutanoic.acid_HMDB0003911	0.853076036
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.562175543
## Ketoleucine_HMDB0000695	-0.120948788
## L.Valine_HMDB0000883	0.808172736
## ITSD_Valine	0.782699397
## Urea_HMDB0000294	0.629835312
## Benzoic.acid_HMDB0001870	-0.105214196
## Caprylic.acid_HMDB0000482	-0.655747953
## Glycerol_HMDB0000131	0.792118032
## Ethanolamine_HMDB0000149	0.815848405
## L.Leucine_HMDB0000687	0.802032801
## Acetyl glycine_HMDB0000532	-0.138619845
## L.Isoleucine_HMDB0000172	0.820479032

## Nicotinic.acid_HMDB0001488	-0.057807781
## Maleic.acid_HMDB0000176	-0.471566210
## L.Proline_HMDB0000162	0.635680262
## Phenylacetic.acid_HMDB0000209	-0.655556108
## Succinic.acid_HMDB0000254	0.524524252
## Glycine_HMDB0000123.1	0.734071356
## Methylsuccinic.acid_HMDB0001844	-0.013407396
## Glyceric.acid_HMDB0000139	-0.616032434
## Fumaric.acid_HMDB0000134	0.557978046
## Uracil_HMDB0000300	0.472030639
## Pelargonic.acid_HMDB0000847	-0.659112072
## L.Serine_HMDB0000187	0.742057396
## L.Threonine_HMDB0000167	0.784598966
## Mesaconic.acid_HMDB0000749	0.283123049
## Glutaric.acid_HMDB0000661	0.073802084
## Thymine_HMDB0000262	0.438342023
## Beta.Alanine_HMDB0000056.1	0.887867545
## L.Homoserine_HMDB0000719	-0.118589095
## Capric.acid_HMDB0000511	-0.241832227
## Citramalic.acid_HMDB0000426	0.488075225
## Malic.acid_HMDB0000744	-0.390596313
## Niacinamide_HMDB0001406	0.842627194
## Adipic.acid_HMDB0000448	0.799817097
## D.Threitol_HMDB0004136	0.233746899
## Dihydrouracil_HMDB0000076	0.464516902
## Erythritol_HMDB0002994	0.357159977
## N.Acetylserine_HMDB0002931	0.638813637
## L.Aspartic.acid_HMDB0000191	0.827913433
## L.Methionine_HMDB0000696	0.901444304
## X4.Hydroxyproline_HMDB0000725	0.784954778
## Pyroglutamic.acid_HMDB0000267	0.764849327
## Cytosine_HMDB0000630	0.476746219
## Gamma.Aminobutyric.acid_HMDB0000112	0.336953722
## Threonic.acid_HMDB0000943	-0.383494975
## L.Cysteine_HMDB0000574	-0.213742690
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.528029920
## Creatinine_HMDB0000562	0.775786808
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.505984271
## Oxoglutaric.acid_HMDB0000208	-0.073440540
## Phenylpyruvic.acid_HMDB0000205	-0.409762379
## Pimelic.acid_HMDB0000857	0.471506170
## Phenyllactic.acid_HMDB0000779	-0.376575881
## Phosphoenolpyruvic.acid_HMDB0000263	-0.678744690
## Ornithine_HMDB0000214	0.789422516
## Hypotaurine_HMDB0000965	0.791650747
## Triethanolamine_HMDB0032538	0.743165354
## X2.Aminobenzoic.acid_HMDB0001123	0.809751549
## L.Glutamic.acid_HMDB0000148	1.000000000
## X4.Hydroxybenzoic.acid_HMDB0000500	0.822520433
## X5.Aminopentanoic.acid_HMDB0003355	-0.101169492
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.459626598
## L.Phenylalanine_HMDB0000159	0.926895350
## Dodecanoic.acid_HMDB0000638	0.328102737
## Lyxose_HMDB0003402_1	-0.735101627

## D.Xylose_HMDB0000098	-0.313934955
## Lyxose_HMDB0003402_2	-0.166117807
## D.Arabinose_HMDB0029942	-0.814568013
## L.Asparagine_HMDB0000168	0.807455323
## D.Ribulose_HMDB0000621	-0.828961870
## D.Ribose_HMDB0000283	-0.803970195
## D.Xylulose_HMDB0001644	-0.808557251
## X3.Sulfinioalanine_HMDB0000996	0.649237209
## Suberic.acid_HMDB0000893	0.556518735
## L.Lysine_HMDB0000182	0.708325607
## Levoglucosan_HMDB0000640	-0.155109883
## D.Arabitol_HMDB0000568	0.279320088
## Ribitol_HMDB0000508	0.096027834
## cis.Aconitic.acid_HMDB0000072	-0.110643330
## Quinolinic.acid_HMDB0000232	0.170297133
## Putrescine_HMDB0001414	0.068930798
## Glycerol.3.phosphate_HMDB0000126	-0.516493467
## Vanillic.acid_HMDB0000484	0.536416289
## L.Glutamine_HMDB0000641	0.590531316
## X2.Phosphoglyceric.acid_HMDB0000362	0.188739330
## Azelaic.acid_HMDB0000784	0.144260545
## L.Dihydroorotic.acid_HMDB0003349	-0.819369163
## O.Phosphoethanolamine_HMDB0000224	0.427357272
## X3.Phosphoglyceric.acid_HMDB0000807	0.164963965
## Isocitric.acid_HMDB0000193	0.378716332
## Hypoxanthine_HMDB0000157	0.241242978
## Citric.acid_HMDB0000094	-0.218239007
## L.Arginine_HMDB0000517	-0.107356155
## Ornithine_HMDB0000214.1	0.902605581
## Dopamine_HMDB0000073	0.903373873
## Myristic.acid_HMDB0000806	0.697680836
## X1.5.Anhydrosorbitol_HMDB0002712	-0.040132808
## D.Tagatose_HMDB0003418	-0.770623799
## Psicose_1	-0.045641069
## Sebacic.acid_HMDB0000792	0.664834021
## D.Fructose_HMDB0000660	-0.774938986
## Gluconolactone_HMDB0000150	-0.741911782
## L.Sorbose_HMDB0001266	-0.771943507
## D.Mannose_HMDB0000169	0.842120241
## Hydroxyphenyllactic.acid_HMDB0000755	0.050989726
## D.Glucose_HMDB0000122	0.815073393
## N.Acetylglutamine_HMDB0006029	0.830204451
## L.Lysine_HMDB0000182.1	0.924744202
## D.Mannose_HMDB0000169.1	0.886271785
## Tyramine_HMDB0000306	0.920412183
## L.Histidine_HMDB0000177	0.915771319
## D.Glucose_HMDB0000122.1	0.817511699
## X1.Hexadecanol_HMDB0003424	-0.264146389
## L.Tyrosine_HMDB0000158	0.940909080
## Mannitol_HMDB0000765	0.771588363
## Sorbitol_HMDB0000247	-0.031582086
## ITSD_Sorbitol	0.593981859
## Galacturonic.acid_HMDB0002545	0.148910124
## Pantothenic.acid_HMDB0000210	-0.235540731

## Palmitoleic.acid_HMDB0003229	0.403286269
## Xanthine_HMDB0000292	0.547630417
## Gluconic.acid_HMDB0000625	-0.392448184
## Palmitic.acid_HMDB0000220	0.285426421
## Glucaric.acid_HMDB0000663	0.608021649
## N.Acetylmannosamine_HMDB0001129	0.592661288
## N.Acetyl.D.glucosamine_HMDB0000215	0.764914150
## D.Ribulose.5.phosphate_HMDB0000618	-0.729871336
## Uric.acid_HMDB0000289	0.718221194
## D.Ribose.5.phosphate_HMDB0001548	-0.760919701
## myo.Inositol_HMDB0000211	0.574315639
## D.Ribose.5.phosphate_HMDB0001548.1	-0.855758045
## Heptadecanoic.acid_HMDB0002259	-0.126940041
## Octadecanol_HMDB0002350	-0.292575463
## Glutathione_HMDB0000125	0.390634254
## Linoleic.acid_HMDB0000673	0.116718566
## Oleic.acid_HMDB0000207	0.306639731
## Elaidic.acid_HMDB0000573	0.350291476
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.711907463
## Stearic.acid_HMDB0000827	-0.095439842
## L.Tryptophan_HMDB0000929	-0.058021424
## Fructose.1.phosphate_HMDB0001076	-0.606217444
## Mannose.6.phosphate_HMDB0001078	-0.245208575
## Arachidonic.acid_HMDB0001043	0.196416053
## Glucose.6.phosphate_HMDB0001401	-0.675037976
## X6.Phosphogluconic.acid_HMDB0001316	-0.382640701
## Inositol.phosphate_HMDB0002985	-0.232990484
## Uridine_HMDB0000296	0.126264200
## Stigmasterol_HMDB0000937	0.163931582
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.177720637
## Sucrose_HMDB0000258	0.440794646
## MG.18.Oe.0.0.0.0._HMDB0011143	-0.163572375
## Trehalose_HMDB0000975	0.042748277
## D.Maltose_HMDB0000163	0.045270663
## Lactitol_HMDB00040937	0.099748596
## Xanthylic.acid_HMDB0001554	-0.454191716
## Adenosine.monophosphate_HMDB0000045	-0.662857977
## Cholesterol_HMDB0000067	0.142512460
## Lathosterol_HMDB0001170	0.147776898
## X7b.Hydroxycholesterol_.HMDB0006119	-0.276562983
##	
##	X4.Hydroxybenzoic.acid_HMDB0000500
## Dimethylglycine_HMDB0000092	-0.718198113
## Glyoxylic.acid_HMDB0000119	-0.719446497
## Pyruvic.acid_HMDB0000243	0.671810465
## L.Lactic.acid_HMDB0000190	0.955615477
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.468280582
## Glycolic.acid_HMDB0000115	-0.135434476
## Caproic.acid_HMDB0000535	-0.585459819
## L.Alanine_HMDB0000161	0.936119556
## Alpha.ketoisovaleric.acid_HMDB0000019	0.472775610
## Glycine_HMDB0000123	0.750438685
## Oxalic.acid_HMDB0002329	-0.380724409
## Hydroxylamine_HMDB0003338	0.454924406
## X2.Hydroxybutyric.acid_HMDB0000008	0.233949147

## Acetoacetic.acid_HMDB0000060	0.066430622
## Hydroxypropionic.acid_HMDB0000700	0.799839352
## Pyruvic.acid_HMDB0000243.1	0.539515711
## X3.Hydroxybutyric.acid_HMDB0000357	0.196390289
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.312388186
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.106999354
## D.Alpha.aminobutyric.acid_HMDB0000650	0.891870988
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.214421475
## Beta.Alanine_HMDB0000056	0.725860348
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.414664377
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.522829105
## Malonic.acid_HMDB0000691	0.522026749
## X3.Aminoisobutanoic.acid_HMDB0003911	0.838405065
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.814927858
## Ketoleucine_HMDB0000695	0.129839291
## L.Valine_HMDB0000883	0.943861134
## ITSD_Valine	0.932851886
## Urea_HMDB0000294	0.750257912
## Benzoic.acid_HMDB0001870	-0.060307639
## Caprylic.acid_HMDB0000482	-0.545723034
## Glycerol_HMDB0000131	0.966593342
## Ethanolamine_HMDB0000149	0.958409577
## L.Leucine_HMDB0000687	0.951833526
## Acetylglycine_HMDB0000532	0.120344855
## L.Isoleucine_HMDB0000172	0.968812274
## Nicotinic.acid_HMDB0001488	-0.210860982
## Maleic.acid_HMDB0000176	-0.115929036
## L.Proline_HMDB0000162	0.805468986
## Phenylacetic.acid_HMDB0000209	-0.379862788
## Succinic.acid_HMDB0000254	0.855673564
## Glycine_HMDB0000123.1	0.960233576
## Methylsuccinic.acid_HMDB0001844	0.135665935
## Glyceric.acid_HMDB0000139	-0.264270869
## Fumaric.acid_HMDB0000134	0.768308951
## Uracil_HMDB0000300	0.717335550
## Pelargonic.acid_HMDB0000847	-0.665877445
## L.Serine_HMDB0000187	0.907902930
## L.Threonine_HMDB0000167	0.948848576
## Mesaconic.acid_HMDB0000749	0.067991552
## Glutaric.acid_HMDB0000661	0.125490744
## Thymine_HMDB0000262	0.637900884
## Beta.Alanine_HMDB0000056.1	0.919582812
## L.Homoserine_HMDB0000719	-0.067459353
## Capric.acid_HMDB0000511	-0.189035948
## Citramalic.acid_HMDB0000426	0.541863789
## Malic.acid_HMDB0000744	-0.053417300
## Niacinamide_HMDB0001406	0.852808441
## Adipic.acid_HMDB0000448	0.776101202
## D.Threitol_HMDB0004136	0.234725958
## Dihydrouracil_HMDB0000076	0.618222190
## Erythritol_HMDB0002994	0.564084272
## N.Acetylserine_HMDB0002931	0.868440903
## L.Aspartic.acid_HMDB0000191	0.928219993
## L.Methionine_HMDB0000696	0.890527076

## X4.Hydroxyproline_HMDB0000725	0.898821010
## Pyroglutamic.acid_HMDB0000267	0.841692497
## Cytosine_HMDB0000630	0.190690896
## Gamma.Aminobutyric.acid_HMDB0000112	0.382617156
## Threonic.acid_HMDB0000943	-0.198547304
## L.Cysteine_HMDB0000574	-0.054217589
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.353087102
## Creatinine_HMDB0000562	0.765922697
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.601600572
## Oxoglutaric.acid_HMDB0000208	0.191101171
## Phenylpyruvic.acid_HMDB0000205	-0.439144195
## Pimelic.acid_HMDB0000857	0.574288130
## Phenyllactic.acid_HMDB0000779	-0.395043496
## Phosphoenolpyruvic.acid_HMDB0000263	-0.788004477
## Ornithine_HMDB0000214	0.665928924
## Hypotaurine_HMDB0000965	0.836747786
## Triethanolamine_HMDB0032538	0.852094530
## X2.Aminobenzoic.acid_HMDB0001123	0.950837973
## L.Glutamic.acid_HMDB0000148	0.822520433
## X4.Hydroxybenzoic.acid_HMDB0000500	1.000000000
## X5.Aminopentanoic.acid_HMDB0003355	0.151711648
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.296106045
## L.Phenylalanine_HMDB0000159	0.941353203
## Dodecanoic.acid_HMDB0000638	0.512252137
## Lyxose_HMDB0003402_1	-0.630157029
## D.Xylose_HMDB0000098	-0.497000391
## Lyxose_HMDB0003402_2	-0.341563993
## D.Arabinose_HMDB0029942	-0.718119832
## L.Asparagine_HMDB0000168	0.541793934
## D.Ribulose_HMDB0000621	-0.741493000
## D.Ribose_HMDB0000283	-0.727445115
## D.Xylulose_HMDB0001644	-0.739736269
## X3.Sulfinoalanine_HMDB0000996	0.203951884
## Suberic.acid_HMDB0000893	0.589648904
## L.Lysine_HMDB0000182	0.475587582
## Levoglucosan_HMDB0000640	-0.352008708
## D.Arabitol_HMDB0000568	0.244899433
## Ribitol_HMDB0000508	0.141533458
## cis.Aconitic.acid_HMDB0000072	-0.293604396
## Quinolinic.acid_HMDB0000232	0.111857752
## Putrescine_HMDB0001414	0.207579648
## Glycerol.3.phosphate_HMDB0000126	-0.749972149
## Vanillic.acid_HMDB0000484	0.641177933
## L.Glutamine_HMDB0000641	0.274430139
## X2.Phosphoglyceric.acid_HMDB0000362	0.278396590
## Azelaic.acid_HMDB0000784	-0.096950022
## L.Dihydroorotic.acid_HMDB0003349	-0.701373389
## O.Phosphoethanolamine_HMDB0000224	0.549311522
## X3.Phosphoglyceric.acid_HMDB0000807	0.293650509
## Isocitric.acid_HMDB0000193	0.397804754
## Hypoxanthine_HMDB0000157	-0.142170378
## Citric.acid_HMDB0000094	-0.162766656
## L.Arginine_HMDB0000517	-0.225044274
## Ornithine_HMDB0000214.1	0.918371672

## Dopamine_HMDB0000073	0.917492654
## Myristic.acid_HMDB0000806	0.846657388
## X1.5.Anhydrosorbitol_HMDB0002712	-0.001653993
## D.Tagatose_HMDB0003418	-0.717350318
## Psicose_1	-0.175401960
## Sebacic.acid_HMDB0000792	0.777896749
## D.Fructose_HMDB0000660	-0.616685005
## Gluconolactone_HMDB0000150	-0.605746690
## L.Sorbose_HMDB0001266	-0.627122490
## D.Mannose_HMDB0000169	0.797293511
## Hydroxyphenyllactic.acid_HMDB0000755	0.407269098
## D.Glucose_HMDB0000122	0.710272983
## N.Acetylglutamine_HMDB0006029	0.767394186
## L.Lysine_HMDB0000182.1	0.869329138
## D.Mannose_HMDB0000169.1	0.834204259
## Tyramine_HMDB0000306	0.860691601
## L.Histidine_HMDB0000177	0.850329089
## D.Glucose_HMDB0000122.1	0.695799875
## X1.Hexadecanol_HMDB0003424	-0.244099581
## L.Tyrosine_HMDB0000158	0.798289488
## Mannitol_HMDB0000765	0.818295067
## Sorbitol_HMDB0000247	-0.146155286
## ITSD_Sorbitol	0.800316115
## Galacturonic.acid_HMDB0002545	0.282282162
## Pantothenic.acid_HMDB0000210	0.005309983
## Palmitoleic.acid_HMDB0003229	0.518219142
## Xanthine_HMDB0000292	0.392185259
## Gluconic.acid_HMDB0000625	-0.323099648
## Palmitic.acid_HMDB0000220	0.493111139
## Glucaric.acid_HMDB0000663	0.781840625
## N.Acetylmannosamine_HMDB0001129	0.445093096
## N.Acetyl.D.glucosamine_HMDB0000215	0.832058358
## D.Ribulose.5.phosphate_HMDB0000618	-0.810791011
## Uric.acid_HMDB0000289	0.448646893
## D.Ribose.5.phosphate_HMDB0001548	-0.829824510
## myo.Inositol_HMDB0000211	0.566355751
## D.Ribose.5.phosphate_HMDB0001548.1	-0.876561690
## Heptadecanoic.acid_HMDB0002259	0.068133480
## Octadecanol_HMDB0002350	0.008725023
## Glutathione_HMDB0000125	-0.007579829
## Linoleic.acid_HMDB0000673	0.271221074
## Oleic.acid_HMDB0000207	0.400892185
## Elaidic.acid_HMDB0000573	0.446263718
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.727192278
## Stearic.acid_HMDB0000827	0.148992808
## L.Tryptophan_HMDB0000929	0.151100292
## Fructose.1.phosphate_HMDB0001076	-0.547443525
## Mannose.6.phosphate_HMDB0001078	-0.619403146
## Arachidonic.acid_HMDB0001043	0.169588773
## Glucose.6.phosphate_HMDB0001401	-0.513470158
## X6.Phosphogluconic.acid_HMDB0001316	-0.194545867
## Inositol.phosphate_HMDB0002985	-0.239149744
## Uridine_HMDB0000296	0.411320108
## Stigmasterol_HMDB0000937	0.490500692

## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.044013972
## Sucrose_HMDB0000258	0.417986181
## MG.18.0e.0.0.0.0._HMDB0011143	0.093750560
## Trehalose_HMDB0000975	-0.307010505
## D.Maltose_HMDB0000163	-0.301691516
## Lactitol_HMDB0040937	-0.047730221
## Xanthylic.acid_HMDB0001554	-0.742207129
## Adenosine.monophosphate_HMDB0000045	-0.667836702
## Cholesterol_HMDB0000067	-0.014083199
## Lathosterol_HMDB0001170	0.110843637
## X7b.Hydroxycholesterol_.HMDB0006119	-0.230997599
##	X5.Aminopentanoic.acid_HMDB0003355
## Dimethylglycine_HMDB0000092	0.2451229472
## Glyoxylic.acid_HMDB0000119	0.2498889775
## Pyruvic.acid_HMDB0000243	0.4159215321
## L.Lactic.acid_HMDB0000190	0.3389969940
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.3893170731
## Glycolic.acid_HMDB0000115	0.1731266055
## Caproic.acid_HMDB0000535	0.3705494201
## L.Alanine_HMDB0000161	0.2282009929
## Alpha.ketoisovaleric.acid_HMDB0000019	0.6988386379
## Glycine_HMDB0000123	0.4494014246
## Oxalic.acid_HMDB0002329	0.1011505985
## Hydroxylamine_HMDB0003338	0.2403775672
## X2.Hydroxybutyric.acid_HMDB0000008	0.5092208757
## Acetoacetic.acid_HMDB0000060	0.3760197526
## Hydroxypropionic.acid_HMDB0000700	0.0963569193
## Pyruvic.acid_HMDB0000243.1	0.4527195187
## X3.Hydroxybutyric.acid_HMDB0000357	0.5000515670
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.5110624666
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.3286073225
## D.Alpha.aminobutyric.acid_HMDB0000650	0.0087287275
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.3995030993
## Beta.Alanine_HMDB0000056	-0.0897410534
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.5010789955
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.5219515414
## Malonic.acid_HMDB0000691	0.3018952320
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.1831050520
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.1809059762
## Ketoleucine_HMDB0000695	0.7577228823
## L.Valine_HMDB0000883	0.1034765209
## ITSD_Valine	0.0429618726
## Urea_HMDB0000294	0.4987621139
## Benzoic.acid_HMDB0001870	-0.1477918247
## Caprylic.acid_HMDB0000482	0.4004779389
## Glycerol_HMDB0000131	0.1145816588
## Ethanolamine_HMDB0000149	0.2422763966
## L.Leucine_HMDB0000687	0.0694378738
## Acetyl glycine_HMDB0000532	0.3215921514
## L.Isoleucine_HMDB0000172	0.2013696465
## Nicotinic.acid_HMDB0001488	0.2196157099
## Maleic.acid_HMDB0000176	0.6001548178
## L.Proline_HMDB0000162	0.2014261264
## Phenylacetic.acid_HMDB0000209	0.4966840440

## Succinic.acid_HMDB0000254	0.3204245964
## Glycine_HMDB0000123.1	0.1588570245
## Methylsuccinic.acid_HMDB0001844	-0.1766541183
## Glyceric.acid_HMDB0000139	0.3692860377
## Fumaric.acid_HMDB0000134	0.5546585756
## Uracil_HMDB0000300	0.5902040951
## Pelargonic.acid_HMDB0000847	0.3289152794
## L.Serine_HMDB0000187	0.2185121576
## L.Threonine_HMDB0000167	0.3358448774
## Mesaconic.acid_HMDB0000749	0.2588085786
## Glutaric.acid_HMDB0000661	0.5427487890
## Thymine_HMDB0000262	0.4248884052
## Beta.Alanine_HMDB0000056.1	-0.0977710614
## L.Homoserine_HMDB0000719	-0.1547384541
## Capric.acid_HMDB0000511	-0.1177141552
## Citramalic.acid_HMDB0000426	0.2591137456
## Malic.acid_HMDB0000744	0.5702184042
## Niacinamide_HMDB0001406	0.3086354847
## Adipic.acid_HMDB0000448	0.2541684615
## D.Threitol_HMDB0004136	0.2282601443
## Dihydrouracil_HMDB0000076	0.4815720307
## Erythritol_HMDB0002994	0.4959926090
## N.Acetylserine_HMDB0002931	0.4263105803
## L.Aspartic.acid_HMDB0000191	0.2109725808
## L.Methionine_HMDB0000696	-0.1436488145
## X4.Hydroxyproline_HMDB0000725	0.3724862909
## Pyroglutamic.acid_HMDB0000267	0.2897470081
## Cytosine_HMDB0000630	0.1104898548
## Gamma.Aminobutyric.acid_HMDB0000112	0.3366929657
## Threonic.acid_HMDB0000943	0.5116249170
## L.Cysteine_HMDB0000574	0.4750187340
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.5045477763
## Creatinine_HMDB0000562	-0.4240384193
## X3.Hydroxyglutaric.acid_HMDB0000428	0.2525299247
## Oxoglutaric.acid_HMDB0000208	0.3776827514
## Phenylpyruvic.acid_HMDB0000205	0.1577358876
## Pimelic.acid_HMDB0000857	0.2444722774
## Phenyllactic.acid_HMDB0000779	0.4089215108
## Phosphoenolpyruvic.acid_HMDB0000263	0.3073721524
## Ornithine_HMDB0000214	-0.2586954835
## Hypotaurine_HMDB0000965	0.2185567075
## Triethanolamine_HMDB0032538	0.4037609711
## X2.Aminobenzoic.acid_HMDB0001123	-0.0409160233
## L.Glutamic.acid_HMDB0000148	-0.1011694919
## X4.Hydroxybenzoic.acid_HMDB0000500	0.1517116485
## X5.Aminopentanoic.acid_HMDB0003355	1.0000000000
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.2766353961
## L.Phenylalanine_HMDB0000159	-0.0881803962
## Dodecanoic.acid_HMDB0000638	-0.0165244283
## Lyxose_HMDB0003402_1	0.2601735443
## D.Xylose_HMDB0000098	0.1479254204
## Lyxose_HMDB0003402_2	0.1345282245
## D.Arabinose_HMDB0029942	0.2555159642
## L.Asparagine_HMDB0000168	-0.3660477667

## D.Ribulose_HMDB0000621	0.3314928919
## D.Ribose_HMDB0000283	0.2428796589
## D.Xylulose_HMDB0001644	0.3539754203
## X3.Sulfinioalanine_HMDB0000996	-0.6070635171
## Suberic.acid_HMDB0000893	0.4307305750
## L.Lysine_HMDB0000182	-0.4999259889
## Levoglucosan_HMDB0000640	0.1017229197
## D.Arabitol_HMDB0000568	0.1490637115
## Ribitol_HMDB0000508	0.0595994269
## cis.Aconitic.acid_HMDB0000072	0.2382049996
## Quinolinic.acid_HMDB0000232	0.5135663348
## Putrescine_HMDB0001414	0.4955528461
## Glycerol.3.phosphate_HMDB0000126	-0.0579351262
## Vanillic.acid_HMDB0000484	0.3152036118
## L.Glutamine_HMDB0000641	-0.3858885324
## X2.Phosphoglyceric.acid_HMDB0000362	0.7902814511
## Azelaic.acid_HMDB0000784	0.1786469171
## L.Dihydroorotic.acid_HMDB0003349	0.2938595278
## O.Phosphoethanolamine_HMDB0000224	-0.3121341899
## X3.Phosphoglyceric.acid_HMDB0000807	0.8395179399
## Isocitric.acid_HMDB0000193	0.2248892761
## Hypoxanthine_HMDB0000157	-0.7529504795
## Citric.acid_HMDB0000094	0.6225347483
## L.Arginine_HMDB0000517	-0.1861649610
## Ornithine_HMDB0000214.1	-0.0220602217
## Dopamine_HMDB0000073	-0.0381510240
## Myristic.acid_HMDB0000806	-0.0517127674
## X1.5.Anhydrosorbitol_HMDB0002712	0.6430161280
## D.Tagatose_HMDB0003418	0.2592497249
## Psicose_1	0.2873083139
## Sebacic.acid_HMDB0000792	0.4513164762
## D.Fructose_HMDB0000660	0.3558670873
## Gluconolactone_HMDB0000150	0.3518134925
## L.Sorbose_HMDB0001266	0.3213039387
## D.Mannose_HMDB0000169	-0.0314320836
## Hydroxyphenyllactic.acid_HMDB0000755	0.5642968172
## D.Glucose_HMDB0000122	-0.0206235536
## N.Acetylglutamine_HMDB0006029	-0.0001370094
## L.Lysine_HMDB0000182.1	-0.2345390771
## D.Mannose_HMDB0000169.1	-0.1535891980
## Tyramine_HMDB0000306	-0.2540689145
## L.Histidine_HMDB0000177	-0.2682235707
## D.Glucose_HMDB0000122.1	-0.1048564349
## X1.Hexadecanol_HMDB0003424	0.0238799362
## L.Tyrosine_HMDB0000158	-0.1992688449
## Mannitol_HMDB0000765	0.3223765196
## Sorbitol_HMDB0000247	-0.1268558948
## ITSD_Sorbitol	0.1804623772
## Galacturonic.acid_HMDB0002545	0.5259989784
## Pantothenic.acid_HMDB0000210	0.4668389706
## Palmitoleic.acid_HMDB0003229	-0.3626289655
## Xanthine_HMDB0000292	-0.1694564527
## Gluconic.acid_HMDB0000625	0.5310869343
## Palmitic.acid_HMDB0000220	0.0163253842

## Glucaric.acid_HMDB0000663	0.1820851357
## N.Acetylmannosamine_HMDB0001129	-0.0972316365
## N.Acetyl.D.glucosamine_HMDB0000215	0.1233432499
## D.Ribulose.5.phosphate_HMDB0000618	0.2254296801
## Uric.acid_HMDB0000289	-0.5205780185
## D.Ribose.5.phosphate_HMDB0001548	0.1551131189
## myo.Inositol_HMDB0000211	0.2239681254
## D.Ribose.5.phosphate_HMDB0001548.1	0.1741501859
## Heptadecanoic.acid_HMDB0002259	0.6227479886
## Octadecanol_HMDB0002350	0.5304207699
## Glutathione_HMDB0000125	-0.0809050128
## Linoleic.acid_HMDB0000673	-0.2957907936
## Oleic.acid_HMDB0000207	-0.4321571496
## Elaidic.acid_HMDB0000573	-0.3118957519
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.4422057427
## Stearic.acid_HMDB0000827	0.2914012269
## L.Tryptophan_HMDB0000929	0.3413139522
## Fructose.1.phosphate_HMDB0001076	0.3701344665
## Mannose.6.phosphate_HMDB0001078	-0.0910482186
## Arachidonic.acid_HMDB0001043	-0.6424630697
## Glucose.6.phosphate_HMDB0001401	0.3356696827
## X6.Phosphogluconic.acid_HMDB0001316	0.0986015462
## Inositol.phosphate_HMDB0002985	-0.0585918571
## Uridine_HMDB0000296	0.3238101564
## Stigmasterol_HMDB0000937	0.4829377484
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.2081041624
## Sucrose_HMDB0000258	-0.0659948891
## MG.18.0e.0.0.0.0._HMDB0011143	0.2116509393
## Trehalose_HMDB0000975	-0.0688133950
## D.Maltose_HMDB0000163	-0.0644412745
## Lactitol_HMDB00040937	0.1947925698
## Xanthylic.acid_HMDB0001554	-0.0862014133
## Adenosine.monophosphate_HMDB0000045	0.3027191201
## Cholesterol_HMDB0000067	-0.1135808592
## Lathosterol_HMDB0001170	-0.2706971028
## X7b.Hydroxycholesterol_.HMDB0006119	0.6481459322
##	
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	
## Dimethylglycine_HMDB0000092	0.580096545
## Glyoxylic.acid_HMDB0000119	0.574180629
## Pyruvic.acid_HMDB0000243	0.091628054
## L.Lactic.acid_HMDB0000190	-0.196592910
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.190379289
## Glycolic.acid_HMDB0000115	0.748104735
## Caproic.acid_HMDB0000535	0.720925930
## L.Alanine_HMDB0000161	-0.359348429
## Alpha.ketoisovaleric.acid_HMDB0000019	0.399985945
## Glycine_HMDB0000123	-0.219203409
## Oxalic.acid_HMDB0002329	0.325739021
## Hydroxylamine_HMDB0003338	0.264542634
## X2.Hydroxybutyric.acid_HMDB0000008	0.382869269
## Acetoacetic.acid_HMDB0000060	0.546560789
## Hydroxypropionic.acid_HMDB0000700	-0.020639394
## Pyruvic.acid_HMDB0000243.1	0.104323484
## X3.Hydroxybutyric.acid_HMDB0000357	0.337457582

## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.337926331
## X2.Hydroxy.3.methylbutyric.acid_HMDB00000407	0.578802270
## D.Alpha.aminobutyric.acid_HMDB00000650	-0.390324847
## X3.Methyl.2.oxovaleric.acid_HMDB00000491	0.232699470
## Beta.Alanine_HMDB00000056	-0.559837403
## X2.Methyl.3.hydroxybutyric.acid_HMDB00000354	0.117988108
## X3.Methyl.2.oxovaleric.acid_HMDB00000491.1	0.214610136
## Malonic.acid_HMDB00000691	0.141565330
## X3.Aminoisobutanoic.acid_HMDB00003911	-0.468681070
## X3.Hydroxyisovaleric.acid_HMDB00000754	-0.116035204
## Ketoleucine_HMDB00000695	0.569048625
## L.Valine_HMDB00000883	-0.304393691
## ITSD_Valine	-0.342393766
## Urea_HMDB00000294	-0.084791291
## Benzoic.acid_HMDB00001870	0.335532194
## Caprylic.acid_HMDB00000482	0.656109565
## Glycerol_HMDB00000131	-0.310466662
## Ethanolamine_HMDB00000149	-0.241098723
## L.Leucine_HMDB00000687	-0.253887194
## Acetylglycine_HMDB00000532	0.532891887
## L.Isoleucine_HMDB00000172	-0.259458575
## Nicotinic.acid_HMDB00001488	0.130219100
## Maleic.acid_HMDB00000176	0.649956587
## L.Proline_HMDB00000162	-0.032482158
## Phenylacetic.acid_HMDB00000209	0.741521763
## Succinic.acid_HMDB00000254	0.017823266
## Glycine_HMDB00000123.1	-0.122971144
## Methylsuccinic.acid_HMDB00001844	0.222584477
## Glyceric.acid_HMDB00000139	0.725573023
## Fumaric.acid_HMDB00000134	-0.032033858
## Uracil_HMDB00000300	0.152161377
## Pelargonic.acid_HMDB00000847	0.554083492
## L.Serine_HMDB00000187	-0.194636823
## L.Threonine_HMDB00000167	-0.207161309
## Mesaconic.acid_HMDB00000749	0.061829350
## Glutaric.acid_HMDB00000661	0.303102746
## Thymine_HMDB00000262	-0.127065576
## Beta.Alanine_HMDB00000056.1	-0.430109032
## L.Homoserine_HMDB00000719	0.581031931
## Capric.acid_HMDB00000511	0.622328106
## Citramalic.acid_HMDB00000426	-0.067772790
## Malic.acid_HMDB00000744	0.750125660
## Niacinamide_HMDB00001406	-0.243798063
## Adipic.acid_HMDB00000448	-0.113465202
## D.Threitol_HMDB000004136	0.295904995
## Dihydrouracil_HMDB00000076	0.131463490
## Erythritol_HMDB00002994	0.196120479
## N.Acetylserine_HMDB00002931	-0.100920581
## L.Aspartic.acid_HMDB00000191	-0.201541477
## L.Methionine_HMDB00000696	-0.452303176
## X4.Hydroxyproline_HMDB00000725	-0.173970525
## Pyroglutamic.acid_HMDB00000267	-0.288389549
## Cytosine_HMDB00000630	-0.085552677
## Gamma.Aminobutyric.acid_HMDB00000112	-0.240014920

## Threonic.acid_HMDB0000943	0.643747841
## L.Cysteine_HMDB0000574	0.641699121
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.603122954
## Creatinine_HMDB0000562	-0.378978488
## X3.Hydroxyglutaric.acid_HMDB0000428	0.622015234
## Oxoglutaric.acid_HMDB0000208	0.095344315
## Phenylpyruvic.acid_HMDB0000205	0.599626816
## Pimelic.acid_HMDB0000857	-0.499990089
## Phenyllactic.acid_HMDB0000779	0.305295076
## Phosphoenolpyruvic.acid_HMDB0000263	0.385149400
## Ornithine_HMDB0000214	-0.377510598
## Hypotaurine_HMDB0000965	-0.329016647
## Triethanolamine_HMDB0032538	-0.278375343
## X2.Aminobenzoic.acid_HMDB0001123	-0.377324679
## L.Glutamic.acid_HMDB0000148	-0.459626598
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.296106045
## X5.Aminopentanoic.acid_HMDB0003355	0.276635396
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	1.000000000
## L.Phenylalanine_HMDB0000159	-0.441714735
## Dodecanoic.acid_HMDB0000638	0.116650673
## Lyxose_HMDB0003402_1	0.543717203
## D.Xylose_HMDB0000098	0.271454330
## Lyxose_HMDB0003402_2	0.171559347
## D.Arabinose_HMDB0029942	0.530496019
## L.Asparagine_HMDB0000168	-0.446537813
## D.Ribulose_HMDB0000621	0.685984764
## D.Ribose_HMDB0000283	0.503908727
## D.Xylulose_HMDB0001644	0.662100506
## X3.Sulfinoalanine_HMDB0000996	-0.367138503
## Suberic.acid_HMDB0000893	0.038817930
## L.Lysine_HMDB0000182	-0.308691213
## Levoglucosan_HMDB0000640	0.135747917
## D.Arabitol_HMDB0000568	-0.013196205
## Ribitol_HMDB0000508	0.487993293
## cis.Aconitic.acid_HMDB0000072	0.184608736
## Quinolinic.acid_HMDB0000232	0.279085714
## Putrescine_HMDB0001414	0.153564553
## Glycerol.3.phosphate_HMDB0000126	0.272382277
## Vanillic.acid_HMDB0000484	0.087337755
## L.Glutamine_HMDB0000641	-0.362573495
## X2.Phosphoglyceric.acid_HMDB0000362	0.407821246
## Azelaic.acid_HMDB0000784	-0.222108120
## L.Dihydroorotic.acid_HMDB0003349	0.627715001
## O.Phosphoethanolamine_HMDB0000224	-0.102344240
## X3.Phosphoglyceric.acid_HMDB0000807	0.302447579
## Isocitric.acid_HMDB0000193	0.394886429
## Hypoxanthine_HMDB0000157	-0.262164018
## Citric.acid_HMDB0000094	0.660046430
## L.Arginine_HMDB0000517	0.472590478
## Ornithine_HMDB0000214.1	-0.415214445
## Dopamine_HMDB0000073	-0.384338630
## Myristic.acid_HMDB0000806	-0.137406185
## X1.5.Anhydrosorbitol_HMDB0002712	0.332758673
## D.Tagatose_HMDB0003418	0.529774703

## Psicose_1	0.108041865
## Sebacic.acid_HMDB0000792	-0.080023665
## D.Fructose_HMDB0000660	0.616398318
## Gluconolactone_HMDB0000150	0.777025435
## L.Sorbose_HMDB0001266	0.601910039
## D.Mannose_HMDB0000169	-0.411002703
## Hydroxyphenyllactic.acid_HMDB0000755	0.193522132
## D.Glucose_HMDB0000122	-0.399353344
## N.Acetylglutamine_HMDB0006029	-0.434155247
## L.Lysine_HMDB0000182.1	-0.445091275
## D.Mannose_HMDB0000169.1	-0.470507904
## Tyramine_HMDB0000306	-0.443061464
## L.Histidine_HMDB0000177	-0.461223493
## D.Glucose_HMDB0000122.1	-0.469636069
## X1.Hexadecanol_HMDB0003424	0.440412067
## L.Tyrosine_HMDB0000158	-0.483379733
## Mannitol_HMDB0000765	-0.271932890
## Sorbitol_HMDB0000247	0.159233877
## ITSD_Sorbitol	-0.071997841
## Galacturonic.acid_HMDB0002545	0.342573044
## Pantothenic.acid_HMDB0000210	0.449909605
## Palmitoleic.acid_HMDB0003229	-0.209493395
## Xanthine_HMDB0000292	-0.339347762
## Gluconic.acid_HMDB0000625	0.624291564
## Palmitic.acid_HMDB0000220	0.026584914
## Glucaric.acid_HMDB0000663	-0.115449236
## N.Acetylmannosamine_HMDB0001129	-0.185683171
## N.Acetyl.D.glucosamine_HMDB0000215	-0.267659732
## D.Ribulose.5.phosphate_HMDB0000618	0.546062573
## Uric.acid_HMDB0000289	-0.433539328
## D.Ribose.5.phosphate_HMDB0001548	0.333368906
## myo.Inositol_HMDB0000211	0.198881685
## D.Ribose.5.phosphate_HMDB0001548.1	0.539886749
## Heptadecanoic.acid_HMDB0002259	0.532091923
## Octadecanol_HMDB0002350	0.565914048
## Glutathione_HMDB0000125	0.101744277
## Linoleic.acid_HMDB0000673	-0.027779648
## Oleic.acid_HMDB0000207	-0.185763266
## Elaidic.acid_HMDB0000573	-0.168166119
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.612433103
## Stearic.acid_HMDB0000827	0.322587044
## L.Tryptophan_HMDB0000929	0.275891706
## Fructose.1.phosphate_HMDB0001076	0.569650587
## Mannose.6.phosphate_HMDB0001078	0.191311975
## Arachidonic.acid_HMDB0001043	-0.252321864
## Glucose.6.phosphate_HMDB0001401	0.659731254
## X6.Phosphogluconic.acid_HMDB0001316	0.548122636
## Inositol.phosphate_HMDB0002985	0.358354743
## Uridine_HMDB0000296	0.269302165
## Stigmasterol_HMDB0000937	0.132750885
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.405592492
## Sucrose_HMDB0000258	-0.332674642
## MG.18.0e.0.0.0.0._HMDB0011143	0.266361851
## Trehalose_HMDB0000975	-0.338927727

## D.Maltose_HMDB0000163	-0.333532970
## Lactitol_HMDB0040937	-0.006009824
## Xanthylic.acid_HMDB0001554	0.046666570
## Adenosine.monophosphate_HMDB0000045	0.679174712
## Cholesterol_HMDB0000067	0.198985824
## Lathosterol_HMDB0001170	-0.088362775
## X7b.Hydroxycholesterol_.HMDB0006119	0.375420890
##	
## Dimethylglycine_HMDB0000092	-0.807975695
## Glyoxylic.acid_HMDB0000119	-0.809207773
## Pyruvic.acid_HMDB0000243	0.530873503
## L.Lactic.acid_HMDB0000190	0.843032560
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.261332754
## Glycolic.acid_HMDB0000115	-0.301693814
## Caproic.acid_HMDB0000535	-0.767753579
## L.Alanine_HMDB0000161	0.895565982
## Alpha.ketoisovaleric.acid_HMDB0000019	0.301065751
## Glycine_HMDB0000123	0.680140850
## Oxalic.acid_HMDB0002329	-0.513403363
## Hydroxylamine_HMDB0003338	0.272131912
## X2.Hydroxybutyric.acid_HMDB0000008	0.026931953
## Acetoacetic.acid_HMDB0000060	-0.187222678
## Hydroxypropionic.acid_HMDB0000700	0.652492803
## Pyruvic.acid_HMDB0000243.1	0.361865848
## X3.Hydroxybutyric.acid_HMDB0000357	-0.029574978
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.073327652
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.302727679
## D.Alpha.aminobutyric.acid_HMDB0000650	0.854239691
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.046333476
## Beta.Alanine_HMDB0000056	0.812213023
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.306983577
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.368524712
## Malonic.acid_HMDB0000691	0.401659012
## X3.Aminoisobutanoic.acid_HMDB0003911	0.932010317
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.672755217
## Ketoleucine_HMDB0000695	-0.123908762
## L.Valine_HMDB0000883	0.886673488
## ITSD_Valine	0.889253354
## Urea_HMDB0000294	0.652996329
## Benzoic.acid_HMDB0001870	-0.150590203
## Caprylic.acid_HMDB0000482	-0.740077008
## Glycerol_HMDB0000131	0.922327382
## Ethanolamine_HMDB0000149	0.913907243
## L.Leucine_HMDB0000687	0.902166713
## Acetylglucine_HMDB0000532	-0.084285078
## L.Isoleucine_HMDB0000172	0.912237726
## Nicotinic.acid_HMDB0001488	-0.260735223
## Maleic.acid_HMDB0000176	-0.380898149
## L.Proline_HMDB0000162	0.706366974
## Phenylacetic.acid_HMDB0000209	-0.604410927
## Succinic.acid_HMDB0000254	0.667872569
## Glycine_HMDB0000123.1	0.880747708
## Methylsuccinic.acid_HMDB0001844	0.047660761
## Glyceric.acid_HMDB0000139	-0.468378142

## Fumaric.acid_HMDB0000134	0.614258155
## Uracil_HMDB0000300	0.532831817
## Pelargonic.acid_HMDB0000847	-0.806902348
## L.Serine_HMDB0000187	0.831534725
## L.Threonine_HMDB0000167	0.867443114
## Mesaconic.acid_HMDB0000749	0.037041175
## Glutaric.acid_HMDB0000661	-0.035287930
## Thymine_HMDB0000262	0.501258975
## Beta.Alanine_HMDB0000056.1	0.950841090
## L.Homoserine_HMDB0000719	-0.116579069
## Capric.acid_HMDB0000511	-0.260654616
## Citramalic.acid_HMDB0000426	0.485285930
## Malic.acid_HMDB0000744	-0.314503795
## Niacinamide_HMDB0001406	0.806100533
## Adipic.acid_HMDB0000448	0.760231997
## D.Threitol_HMDB0004136	0.172678773
## Dihydrouracil_HMDB0000076	0.439392038
## Erythritol_HMDB0002994	0.386585771
## N.Acetylserine_HMDB0002931	0.747111945
## L.Aspartic.acid_HMDB0000191	0.872931401
## L.Methionine_HMDB0000696	0.978973022
## X4.Hydroxyproline_HMDB0000725	0.811971299
## Pyroglutamic.acid_HMDB0000267	0.791334312
## Cytosine_HMDB0000630	0.281432867
## Gamma.Aminobutyric.acid_HMDB0000112	0.304890723
## Threonic.acid_HMDB0000943	-0.408594963
## L.Cysteine_HMDB0000574	-0.237113380
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.588002477
## Creatinine_HMDB0000562	0.887387829
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.665984966
## Oxoglutaric.acid_HMDB0000208	-0.022930735
## Phenylpyruvic.acid_HMDB0000205	-0.469667365
## Pimelic.acid_HMDB0000857	0.504457646
## Phenyllactic.acid_HMDB0000779	-0.513068674
## Phosphoenolpyruvic.acid_HMDB0000263	-0.843265534
## Ornithine_HMDB0000214	0.805532435
## Hypotaurine_HMDB0000965	0.817034339
## Triethanolamine_HMDB0032538	0.798459377
## X2.Aminobenzoic.acid_HMDB0001123	0.954777936
## L.Glutamic.acid_HMDB0000148	0.926895350
## X4.Hydroxybenzoic.acid_HMDB0000500	0.941353203
## X5.Aminopentanoic.acid_HMDB0003355	-0.088180396
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.441714735
## L.Phenylalanine_HMDB0000159	1.000000000
## Dodecanoic.acid_HMDB0000638	0.445851808
## Lyxose_HMDB0003402_1	-0.787138630
## D.Xylose_HMDB0000098	-0.435332236
## Lyxose_HMDB0003402_2	-0.272581656
## D.Arabinose_HMDB0029942	-0.855294236
## L.Asparagine_HMDB0000168	0.727214193
## D.Ribulose_HMDB0000621	-0.842858636
## D.Ribose_HMDB0000283	-0.853288948
## D.Xylulose_HMDB0001644	-0.831876424
## X3.Sulfinioalanine_HMDB0000996	0.452942570

## Suberic.acid_HMDB0000893	0.520447507
## L.Lysine_HMDB0000182	0.686377963
## Levoglucosan_HMDB0000640	-0.262116794
## D.Arabit01_HMDB0000568	0.247503148
## Ribitol_HMDB0000508	0.077709719
## cis.Aconitic.acid_HMDB0000072	-0.240677392
## Quinolinic.acid_HMDB0000232	0.019898326
## Putrescine_HMDB0001414	0.038050988
## Glycerol.3.phosphate_HMDB0000126	-0.731652244
## Vanillic.acid_HMDB0000484	0.591331487
## L.Glutamine_HMDB0000641	0.464397766
## X2.Phosphoglyceric.acid_HMDB0000362	0.102343952
## Azelaic.acid_HMDB0000784	-0.068745175
## L.Dihydroorotic.acid_HMDB0003349	-0.853801026
## O.Phosphoethanolamine_HMDB0000224	0.543391560
## X3.Phosphoglyceric.acid_HMDB0000807	0.093179650
## Isocitric.acid_HMDB0000193	0.308958011
## Hypoxanthine_HMDB0000157	0.130888164
## Citric.acid_HMDB0000094	-0.337872482
## L.Arginine_HMDB0000517	-0.216007052
## Ornithine_HMDB0000214.1	0.974871114
## Dopamine_HMDB0000073	0.972248553
## Myristic.acid_HMDB0000806	0.824924585
## X1.5.Anhydrosorbitol_HMDB0002712	-0.160097730
## D.Tagatose_HMDB0003418	-0.851499370
## Psicose_1	-0.142546245
## Sebacic.acid_HMDB0000792	0.671486761
## D.Fructose_HMDB0000660	-0.774321675
## Gluconolactone_HMDB0000150	-0.746103567
## L.Sorbose_HMDB0001266	-0.773682620
## D.Mannose_HMDB0000169	0.878570002
## Hydroxyphenyllactic.acid_HMDB0000755	0.179151668
## D.Glucose_HMDB0000122	0.819926428
## N.Acetylglutamine_HMDB0006029	0.850463276
## L.Lysine_HMDB0000182.1	0.977887077
## D.Mannose_HMDB0000169.1	0.939027185
## Tyramine_HMDB0000306	0.973404295
## L.Histidine_HMDB0000177	0.968555372
## D.Glucose_HMDB0000122.1	0.814660862
## X1.Hexadecanol_HMDB0003424	-0.279567841
## L.Tyrosine_HMDB0000158	0.930770518
## Mannitol_HMDB0000765	0.759026070
## Sorbitol_HMDB0000247	-0.141885067
## ITSD_Sorbitol	0.722707122
## Galacturonic.acid_HMDB0002545	0.142404370
## Pantothenic.acid_HMDB0000210	-0.136354877
## Palmitoleic.acid_HMDB0003229	0.541831310
## Xanthine_HMDB0000292	0.531771060
## Gluconic.acid_HMDB0000625	-0.456277279
## Palmitic.acid_HMDB0000220	0.421500063
## Glucaric.acid_HMDB0000663	0.763631835
## N.Acetylmannosamine_HMDB0001129	0.520074311
## N.Acetyl.D.glucosamine_HMDB0000215	0.818636862
## D.Ribulose.5.phosphate_HMDB0000618	-0.870441157

## Uric.acid_HMDB0000289	0.669120692
## D.Ribose.5.phosphate_HMDB0001548	-0.879683203
## myo.Inositol_HMDB0000211	0.500642499
## D.Ribose.5.phosphate_HMDB0001548.1	-0.941477251
## Heptadecanoic.acid_HMDB0002259	-0.185322360
## Octadecanol_HMDB0002350	-0.239729144
## Glutathione_HMDB0000125	0.098015940
## Linoleic.acid_HMDB0000673	0.257639325
## Oleic.acid_HMDB0000207	0.439757695
## Elaidic.acid_HMDB0000573	0.458098406
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.838568204
## Stearic.acid_HMDB0000827	-0.008077781
## L.Tryptophan_HMDB0000929	0.016564857
## Fructose.1.phosphate_HMDB0001076	-0.723324314
## Mannose.6.phosphate_HMDB0001078	-0.498890073
## Arachidonic.acid_HMDB0001043	0.287657742
## Glucose.6.phosphate_HMDB0001401	-0.696265866
## X6.Phosphogluconic.acid_HMDB0001316	-0.314874325
## Inositol.phosphate_HMDB0002985	-0.266342513
## Uridine_HMDB0000296	0.195023382
## Stigmasterol_HMDB0000937	0.289461723
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.160234935
## Sucrose_HMDB0000258	0.458564566
## MG.18.0e.0.0.0.0._HMDB0011143	-0.074280295
## Trehalose_HMDB0000975	-0.180930914
## D.Maltose_HMDB0000163	-0.177123710
## Lactitol_HMDB00040937	-0.057002523
## Xanthylic.acid_HMDB0001554	-0.651136045
## Adenosine.monophosphate_HMDB0000045	-0.764635659
## Cholesterol_HMDB0000067	0.045801446
## Lathosterol_HMDB0001170	0.172709029
## X7b.Hydroxycholesterol_.HMDB0006119	-0.394697438
## Dodecanoic.acid_HMDB0000638	
## Dimethylglycine_HMDB0000092	-0.373558446
## Glyoxylic.acid_HMDB0000119	-0.383984017
## Pyruvic.acid_HMDB0000243	0.605502209
## L.Lactic.acid_HMDB0000190	0.521206782
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.674433494
## Glycolic.acid_HMDB0000115	0.447656759
## Caproic.acid_HMDB0000535	-0.281924572
## L.Alanine_HMDB0000161	0.330627514
## Alpha.ketoisovaleric.acid_HMDB0000019	0.179688765
## Glycine_HMDB0000123	0.398412560
## Oxalic.acid_HMDB0002329	0.018863221
## Hydroxylamine_HMDB0003338	0.482564958
## X2.Hydroxybutyric.acid_HMDB0000008	0.497111109
## Acetoacetic.acid_HMDB0000060	0.544857232
## Hydroxypropionic.acid_HMDB0000700	0.799035838
## Pyruvic.acid_HMDB0000243.1	0.468151739
## X3.Hydroxybutyric.acid_HMDB0000357	0.603367455
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.580803656
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.459324643
## D.Alpha.aminobutyric.acid_HMDB0000650	0.471074788
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.239038474

## Beta.Alanine_HMDB0000056	0.445076875
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.227800822
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.378098337
## Malonic.acid_HMDB0000691	0.331051367
## X3.Aminoisobutanoic.acid_HMDB0003911	0.528229009
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.744180127
## Ketoleucine_HMDB0000695	0.185407458
## L.Valine_HMDB0000883	0.533550982
## ITSD_Valine	0.662430327
## Urea_HMDB0000294	0.397283551
## Benzoic.acid_HMDB0001870	0.345663678
## Caprylic.acid_HMDB0000482	-0.074802205
## Glycerol_HMDB0000131	0.553902755
## Ethanolamine_HMDB0000149	0.373206747
## L.Leucine_HMDB0000687	0.603031989
## Acetylglycine_HMDB0000532	0.499322157
## L.Isoleucine_HMDB0000172	0.522029837
## Nicotinic.acid_HMDB0001488	-0.120264107
## Maleic.acid_HMDB0000176	0.363668425
## L.Proline_HMDB0000162	0.471123375
## Phenylacetic.acid_HMDB0000209	0.068943896
## Succinic.acid_HMDB0000254	0.627553307
## Glycine_HMDB0000123.1	0.551439255
## Methylsuccinic.acid_HMDB0001844	0.509763582
## Glyceric.acid_HMDB0000139	0.230369474
## Fumaric.acid_HMDB0000134	0.622259242
## Uracil_HMDB0000300	0.320975772
## Pelargonic.acid_HMDB0000847	-0.253153518
## L.Serine_HMDB0000187	0.326933292
## L.Threonine_HMDB0000167	0.386140210
## Mesaconic.acid_HMDB0000749	0.203361527
## Glutaric.acid_HMDB0000661	-0.289178890
## Thymine_HMDB0000262	0.289504821
## Beta.Alanine_HMDB0000056.1	0.540662575
## L.Homoserine_HMDB0000719	0.458405293
## Capric.acid_HMDB0000511	0.491126125
## Citramalic.acid_HMDB0000426	0.087303690
## Malic.acid_HMDB0000744	0.170940809
## Niacinamide_HMDB0001406	0.490210912
## Adipic.acid_HMDB0000448	0.140211426
## D.Threitol_HMDB0004136	0.476070290
## Dihydrouracil_HMDB0000076	0.344785154
## Erythritol_HMDB0002994	0.685532393
## N.Acetylserine_HMDB0002931	0.246210272
## L.Aspartic.acid_HMDB0000191	0.366205618
## L.Methionine_HMDB0000696	0.402034310
## X4.Hydroxyproline_HMDB0000725	0.436067669
## Pyroglutamic.acid_HMDB0000267	0.349248884
## Cytosine_HMDB0000630	-0.009503929
## Gamma.Aminobutyric.acid_HMDB0000112	0.137082076
## Threonic.acid_HMDB0000943	0.265001744
## L.Cysteine_HMDB0000574	0.341087149
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.078396969
## Creatinine_HMDB0000562	0.540053030

## X3.Hydroxyglutaric.acid_HMDB0000428	-0.306965445
## Oxoglutaric.acid_HMDB0000208	0.377946628
## Phenylpyruvic.acid_HMDB0000205	-0.113037623
## Pimelic.acid_HMDB0000857	-0.065040477
## Phenyllactic.acid_HMDB0000779	-0.322501017
## Phosphoenolpyruvic.acid_HMDB0000263	-0.680160960
## Ornithine_HMDB0000214	0.042944373
## Hypotaurine_HMDB0000965	0.259428664
## Triethanolamine_HMDB0032538	0.114454748
## X2.Aminobenzoic.acid_HMDB0001123	0.512066162
## L.Glutamic.acid_HMDB0000148	0.328102737
## X4.Hydroxybenzoic.acid_HMDB0000500	0.512252137
## X5.Aminopentanoic.acid_HMDB0003355	-0.016524428
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.116650673
## L.Phenylalanine_HMDB0000159	0.445851808
## Dodecanoic.acid_HMDB0000638	1.000000000
## Lyxose_HMDB0003402_1	-0.262470991
## D.Xylose_HMDB0000098	-0.305521597
## Lyxose_HMDB0003402_2	-0.290463517
## D.Arabinose_HMDB0029942	-0.388582382
## L.Asparagine_HMDB0000168	-0.005402894
## D.Ribulose_HMDB0000621	-0.373872124
## D.Ribose_HMDB0000283	-0.391150423
## D.Xylulose_HMDB0001644	-0.380747732
## X3.Sulfinoalanine_HMDB0000996	0.048137206
## Suberic.acid_HMDB0000893	0.156558206
## L.Lysine_HMDB0000182	0.036839563
## Levoglucosan_HMDB0000640	-0.266483111
## D.Arabitol_HMDB0000568	0.324925251
## Ribitol_HMDB0000508	0.331912427
## cis.Aconitic.acid_HMDB0000072	-0.162562890
## Quinolinic.acid_HMDB0000232	-0.145724687
## Putrescine_HMDB0001414	0.104594420
## Glycerol.3.phosphate_HMDB0000126	-0.310897072
## Vanillic.acid_HMDB0000484	0.544483190
## L.Glutamine_HMDB0000641	-0.179543462
## X2.Phosphoglyceric.acid_HMDB0000362	-0.037377580
## Azelaic.acid_HMDB0000784	-0.362890661
## L.Dihydroorotic.acid_HMDB0003349	-0.338282720
## O.Phosphoethanolamine_HMDB0000224	0.843465789
## X3.Phosphoglyceric.acid_HMDB0000807	-0.102466136
## Isocitric.acid_HMDB0000193	0.457282207
## Hypoxanthine_HMDB0000157	-0.248700852
## Citric.acid_HMDB0000094	-0.220557127
## L.Arginine_HMDB0000517	-0.098890370
## Ornithine_HMDB0000214.1	0.284874599
## Dopamine_HMDB0000073	0.288931653
## Myristic.acid_HMDB0000806	0.837062117
## X1.5.Anhydrosorbitol_HMDB0002712	0.250501878
## D.Tagatose_HMDB0003418	-0.405736746
## Psicose_1	-0.240913237
## Sebacic.acid_HMDB0000792	0.551914841
## D.Fructose_HMDB0000660	-0.320029098
## Gluconolactone_HMDB0000150	-0.246861657

## L.Sorbose_HMDB0001266	-0.323502495
## D.Mannose_HMDB0000169	0.547260521
## Hydroxyphenyllactic.acid_HMDB0000755	0.642670726
## D.Glucose_HMDB0000122	0.423931407
## N.Acetylglutamine_HMDB0006029	0.522378972
## L.Lysine_HMDB0000182.1	0.390727421
## D.Mannose_HMDB0000169.1	0.477491732
## Tyramine_HMDB0000306	0.379292461
## L.Histidine_HMDB0000177	0.406211506
## D.Glucose_HMDB0000122.1	0.480270219
## X1.Hexadecanol_HMDB0003424	0.439228584
## L.Tyrosine_HMDB0000158	0.197724250
## Mannitol_HMDB0000765	0.422568343
## Sorbitol_HMDB0000247	-0.196162643
## ITSD_Sorbitol	0.800781959
## Galacturonic.acid_HMDB0002545	0.383856236
## Pantothenic.acid_HMDB0000210	0.344801161
## Palmitoleic.acid_HMDB0003229	0.874380561
## Xanthine_HMDB0000292	-0.365571677
## Gluconic.acid_HMDB0000625	-0.326469642
## Palmitic.acid_HMDB0000220	0.941016750
## Glucaric.acid_HMDB0000663	0.384615110
## N.Acetylmannosamine_HMDB0001129	0.591763270
## N.Acetyl.D.glucosamine_HMDB0000215	0.646463135
## D.Ribulose.5.phosphate_HMDB0000618	-0.330767797
## Uric.acid_HMDB0000289	0.092303173
## D.Ribose.5.phosphate_HMDB0001548	-0.460408061
## myo.Inositol_HMDB0000211	0.593531540
## D.Ribose.5.phosphate_HMDB0001548.1	-0.427637042
## Heptadecanoic.acid_HMDB0002259	-0.090542730
## Octadecanol_HMDB0002350	0.524322930
## Glutathione_HMDB0000125	-0.101100283
## Linoleic.acid_HMDB0000673	0.863016900
## Oleic.acid_HMDB0000207	0.841849401
## Elaidic.acid_HMDB0000573	0.903561950
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.430843013
## Stearic.acid_HMDB0000827	0.759847389
## L.Tryptophan_HMDB0000929	0.733450230
## Fructose.1.phosphate_HMDB0001076	-0.237012327
## Mannose.6.phosphate_HMDB0001078	-0.397053879
## Arachidonic.acid_HMDB0001043	0.675009389
## Glucose.6.phosphate_HMDB0001401	-0.059970818
## X6.Phosphogluconic.acid_HMDB0001316	0.548549248
## Inositol.phosphate_HMDB0002985	0.577505234
## Uridine_HMDB0000296	0.506254957
## Stigmasterol_HMDB0000937	0.702610751
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.243664700
## Sucrose_HMDB0000258	0.425748799
## MG.18.0e.0.0.0.0._HMDB0011143	0.757847986
## Trehalose_HMDB0000975	-0.425073736
## D.Maltose_HMDB0000163	-0.418856593
## Lactitol_HMDB0040937	0.127491667
## Xanthylic.acid_HMDB0001554	-0.781644558
## Adenosine.monophosphate_HMDB0000045	-0.228570085

## Cholesterol_HMDB0000067	0.612281337
## Lathosterol_HMDB0001170	0.768039785
## X7b.Hydroxycholesterol_HMDB0006119	-0.589536150
##	Lyxose_HMDB0003402_1
## Dimethylglycine_HMDB0000092	0.822004122
## Glyoxylic.acid_HMDB0000119	0.817892991
## Pyruvic.acid_HMDB0000243	-0.273197046
## L.Lactic.acid_HMDB0000190	-0.496670673
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.036034686
## Glycolic.acid_HMDB0000115	0.604364976
## Caproic.acid_HMDB0000535	0.882253145
## L.Alanine_HMDB0000161	-0.564006796
## Alpha.ketoisovaleric.acid_HMDB0000019	0.009081536
## Glycine_HMDB0000123	-0.464167453
## Oxalic.acid_HMDB0002329	0.656416291
## Hydroxylamine_HMDB0003338	-0.115658158
## X2.Hydroxybutyric.acid_HMDB0000008	0.469462859
## Acetoacetic.acid_HMDB0000060	0.381265955
## Hydroxypropionic.acid_HMDB0000700	-0.265883894
## Pyruvic.acid_HMDB0000243.1	-0.113784018
## X3.Hydroxybutyric.acid_HMDB0000357	0.386663391
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.392409766
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.650044612
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.507412402
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.395308714
## Beta.Alanine_HMDB0000056	-0.671897473
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.055930135
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.078895045
## Malonic.acid_HMDB0000691	-0.292611251
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.748532115
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.261682727
## Ketoleucine_HMDB0000695	0.517883660
## L.Valine_HMDB0000883	-0.493780883
## ITSD_Valine	-0.540484660
## Urea_HMDB0000294	-0.261639801
## Benzoic.acid_HMDB0001870	0.442956887
## Caprylic.acid_HMDB0000482	0.871627309
## Glycerol_HMDB0000131	-0.640119233
## Ethanolamine_HMDB0000149	-0.602132161
## L.Leucine_HMDB0000687	-0.528071880
## Acetyl glycine_HMDB0000532	0.507834421
## L.Isoleucine_HMDB0000172	-0.557703581
## Nicotinic.acid_HMDB0001488	0.296850084
## Maleic.acid_HMDB0000176	0.665469638
## L.Proline_HMDB0000162	-0.207421987
## Phenylacetic.acid_HMDB0000209	0.825432123
## Succinic.acid_HMDB0000254	-0.229622393
## Glycine_HMDB0000123.1	-0.560679710
## Methylsuccinic.acid_HMDB0001844	0.093741446
## Glyceric.acid_HMDB0000139	0.708823757
## Fumaric.acid_HMDB0000134	-0.238444679
## Uracil_HMDB0000300	-0.178830357
## Pelargonic.acid_HMDB0000847	0.912760945
## L.Serine_HMDB0000187	-0.523873516

## L.Threonine_HMDB0000167	-0.501937829
## Mesaconic.acid_HMDB0000749	0.187544064
## Glutaric.acid_HMDB0000661	0.378968124
## Thymine_HMDB0000262	-0.407073770
## Beta.Alanine_HMDB0000056.1	-0.759490556
## L.Homoserine_HMDB0000719	0.358131310
## Capric.acid_HMDB0000511	0.470470759
## Citramalic.acid_HMDB0000426	-0.453655689
## Malic.acid_HMDB0000744	0.720085347
## Niacinamide_HMDB0001406	-0.534934608
## Adipic.acid_HMDB0000448	-0.506733258
## D.Threitol_HMDB0004136	0.028355790
## Dihydrouracil_HMDB0000076	-0.067809327
## Erythritol_HMDB0002994	0.056562663
## N.Acetylserine_HMDB0002931	-0.398242817
## L.Aspartic.acid_HMDB0000191	-0.539826975
## L.Methionine_HMDB0000696	-0.848209304
## X4.Hydroxyproline_HMDB0000725	-0.413518231
## Pyroglutamic.acid_HMDB0000267	-0.464914142
## Cytosine_HMDB0000630	-0.240752523
## Gamma.Aminobutyric.acid_HMDB0000112	-0.141331784
## Threonic.acid_HMDB0000943	0.754225152
## L.Cysteine_HMDB0000574	0.624683807
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.900073626
## Creatinine_HMDB0000562	-0.750364442
## X3.Hydroxyglutaric.acid_HMDB0000428	0.767005726
## Oxoglutaric.acid_HMDB0000208	0.267420010
## Phenylpyruvic.acid_HMDB0000205	0.500652224
## Pimelic.acid_HMDB0000857	-0.425279302
## Phenyllactic.acid_HMDB0000779	0.674983796
## Phosphoenolpyruvic.acid_HMDB0000263	0.776824198
## Ornithine_HMDB0000214	-0.744802078
## Hypotaurine_HMDB0000965	-0.544665743
## Triethanolamine_HMDB0032538	-0.566421107
## X2.Aminobenzoic.acid_HMDB0001123	-0.794104980
## L.Glutamic.acid_HMDB0000148	-0.735101627
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.630157029
## X5.Aminopentanoic.acid_HMDB0003355	0.260173544
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.543717203
## L.Phenylalanine_HMDB0000159	-0.787138630
## Dodecanoic.acid_HMDB0000638	-0.262470991
## Lyxose_HMDB0003402_1	1.000000000
## D.Xylose_HMDB0000098	-0.005707460
## Lyxose_HMDB0003402_2	-0.201602386
## D.Arabinose_HMDB0029942	0.968284513
## L.Asparagine_HMDB0000168	-0.720654799
## D.Ribulose_HMDB0000621	0.706363371
## D.Ribose_HMDB0000283	0.951441058
## D.Xylulose_HMDB0001644	0.686977400
## X3.Sulfinioalanine_HMDB0000996	-0.518743144
## Suberic.acid_HMDB0000893	-0.368965474
## L.Lysine_HMDB0000182	-0.694613624
## Levoglucosan_HMDB0000640	-0.192670282
## D.Arabitool_HMDB0000568	-0.108382865

## Ribitol_HMDB0000508	0.155386450
## cis.Aconitic.acid_HMDB0000072	-0.193361019
## Quinolinic.acid_HMDB0000232	0.192676859
## Putrescine_HMDB0001414	0.207245864
## Glycerol.3.phosphate_HMDB0000126	0.664856457
## Vanillic.acid_HMDB0000484	-0.328546809
## L.Glutamine_HMDB0000641	-0.527261670
## X2.Phosphoglyceric.acid_HMDB0000362	0.271911907
## Azelaic.acid_HMDB0000784	0.083708519
## L.Dihydroorotic.acid_HMDB0003349	0.967789351
## O.Phosphoethanolamine_HMDB0000224	-0.474894654
## X3.Phosphoglyceric.acid_HMDB0000807	0.244163874
## Isocitric.acid_HMDB0000193	0.017555891
## Hypoxanthine_HMDB0000157	-0.355117203
## Citric.acid_HMDB0000094	0.657793656
## L.Arginine_HMDB0000517	0.341883607
## Ornithine_HMDB0000214.1	-0.798481795
## Dopamine_HMDB0000073	-0.790864129
## Myristic.acid_HMDB0000806	-0.622595342
## X1.5.Anhydrosorbitol_HMDB0002712	0.453287046
## D.Tagatose_HMDB0003418	0.972436943
## Psicose_1	-0.215733918
## Sebacic.acid_HMDB0000792	-0.320578560
## D.Fructose_HMDB0000660	0.893620931
## Gluconolactone_HMDB0000150	0.784931835
## L.Sorbose_HMDB0001266	0.892163844
## D.Mannose_HMDB0000169	-0.852125021
## Hydroxyphenyllactic.acid_HMDB0000755	0.077402599
## D.Glucose_HMDB0000122	-0.856991730
## N.Acetylglutamine_HMDB0006029	-0.833933388
## L.Lysine_HMDB0000182.1	-0.842380038
## D.Mannose_HMDB0000169.1	-0.881283973
## Tyramine_HMDB0000306	-0.839129805
## L.Histidine_HMDB0000177	-0.862828501
## D.Glucose_HMDB0000122.1	-0.859791810
## X1.Hexadecanol_HMDB0003424	0.320954525
## L.Tyrosine_HMDB0000158	-0.811472157
## Mannitol_HMDB0000765	-0.520001504
## Sorbitol_HMDB0000247	0.101830602
## ITSD_Sorbitol	-0.451623285
## Galacturonic.acid_HMDB0002545	0.193565812
## Pantothenic.acid_HMDB0000210	0.389287630
## Palmitoleic.acid_HMDB0003229	-0.485792193
## Xanthine_HMDB0000292	-0.461232582
## Gluconic.acid_HMDB0000625	0.552150802
## Palmitic.acid_HMDB0000220	-0.353768523
## Glucaric.acid_HMDB0000663	-0.497533301
## N.Acetylmannosamine_HMDB0001129	-0.503161632
## N.Acetyl.D.glucosamine_HMDB0000215	-0.703041686
## D.Ribulose.5.phosphate_HMDB0000618	0.847736665
## Uric.acid_HMDB0000289	-0.768663150
## D.Ribose.5.phosphate_HMDB0001548	0.885329729
## myo.Inositol_HMDB0000211	-0.283848923
## D.Ribose.5.phosphate_HMDB0001548.1	0.861118938

## Heptadecanoic.acid_HMDB0002259	0.529314601
## Octadecanol_HMDB0002350	0.485850993
## Glutathione_HMDB0000125	-0.048196911
## Linoleic.acid_HMDB0000673	-0.249535486
## Oleic.acid_HMDB0000207	-0.436770585
## Elaidic.acid_HMDB0000573	-0.423671927
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.809537436
## Stearic.acid_HMDB0000827	0.046217695
## L.Tryptophan_HMDB0000929	0.001748569
## Fructose.1.phosphate_HMDB0001076	0.843001431
## Mannose.6.phosphate_HMDB0001078	0.264072037
## Arachidonic.acid_HMDB0001043	-0.412685767
## Glucose.6.phosphate_HMDB0001401	0.868187112
## X6.Phosphogluconic.acid_HMDB0001316	0.442965467
## Inositol.phosphate_HMDB0002985	0.287090826
## Uridine_HMDB0000296	0.085697968
## Stigmasterol_HMDB0000937	-0.100129043
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.072648969
## Sucrose_HMDB0000258	-0.635349681
## MG.18.Oe.0.0.0.0._HMDB0011143	0.229519476
## Trehalose_HMDB0000975	0.057891418
## D.Maltose_HMDB0000163	0.056351381
## Lactitol_HMDB00040937	0.150751711
## Xanthylic.acid_HMDB0001554	0.356258496
## Adenosine.monophosphate_HMDB0000045	0.892902860
## Cholesterol_HMDB0000067	-0.022196594
## Lathosterol_HMDB0001170	-0.238339918
## X7b.Hydroxycholesterol_.HMDB0006119	0.573020453
## D.Xylose_HMDB0000098	
## Dimethylglycine_HMDB0000092	0.375012455
## Glyoxylic.acid_HMDB0000119	0.377633257
## Pyruvic.acid_HMDB0000243	-0.378098776
## L.Lactic.acid_HMDB0000190	-0.459588423
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.343340681
## Glycolic.acid_HMDB0000115	-0.093729999
## Caproic.acid_HMDB0000535	0.202148910
## L.Alanine_HMDB0000161	-0.466946631
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.044851646
## Glycine_HMDB0000123	-0.340176019
## Oxalic.acid_HMDB0002329	-0.272812435
## Hydroxylamine_HMDB0003338	-0.066761155
## X2.Hydroxybutyric.acid_HMDB0000008	-0.398240811
## Acetoacetic.acid_HMDB0000060	-0.123358241
## Hydroxypropionic.acid_HMDB0000700	-0.620725869
## Pyruvic.acid_HMDB0000243.1	-0.237939826
## X3.Hydroxybutyric.acid_HMDB0000357	-0.371597793
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.474187692
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.143820869
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.583955980
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.349797930
## Beta.Alanine_HMDB0000056	-0.478002430
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.274472620
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.392213099
## Malonic.acid_HMDB0000691	-0.222313309

## X3.Aminoisobutanoic.acid_HMDB0003911	-0.390857142
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.646140449
## Ketoleucine_HMDB0000695	-0.065187770
## L.Valine_HMDB0000883	-0.598047120
## ITSD_Valine	-0.633022346
## Urea_HMDB0000294	-0.418635916
## Benzoic.acid_HMDB0001870	-0.139628977
## Caprylic.acid_HMDB0000482	0.242538637
## Glycerol_HMDB0000131	-0.476961339
## Ethanolamine_HMDB0000149	-0.406593712
## L.Leucine_HMDB0000687	-0.600060950
## Acetylglycine_HMDB0000532	-0.294292739
## L.Isoleucine_HMDB0000172	-0.512315399
## Nicotinic.acid_HMDB0001488	-0.095393302
## Maleic.acid_HMDB0000176	-0.112872942
## L.Proline_HMDB0000162	-0.683320389
## Phenylacetic.acid_HMDB0000209	0.018155521
## Succinic.acid_HMDB0000254	-0.640343836
## Glycine_HMDB0000123.1	-0.457162810
## Methylsuccinic.acid_HMDB0001844	-0.285620344
## Glyceric.acid_HMDB0000139	-0.035209060
## Fumaric.acid_HMDB0000134	-0.373320619
## Uracil_HMDB0000300	-0.288023907
## Pelargonic.acid_HMDB0000847	0.256276102
## L.Serine_HMDB0000187	-0.400466917
## L.Threonine_HMDB0000167	-0.458847003
## Mesaconic.acid_HMDB0000749	-0.100549890
## Glutaric.acid_HMDB0000661	-0.235231359
## Thymine_HMDB0000262	-0.267428153
## Beta.Alanine_HMDB0000056.1	-0.454584929
## L.Homoserine_HMDB0000719	0.039003859
## Capric.acid_HMDB0000511	0.065830977
## Citramalic.acid_HMDB0000426	-0.154739181
## Malic.acid_HMDB0000744	-0.178603027
## Niacinamide_HMDB0001406	-0.350936260
## Adipic.acid_HMDB0000448	-0.222330642
## D.Threitol_HMDB0004136	0.023823914
## Dihydrouracil_HMDB0000076	-0.261336205
## Erythritol_HMDB0002994	-0.411388089
## N.Acetylserine_HMDB0002931	-0.389043886
## L.Aspartic.acid_HMDB0000191	-0.399270807
## L.Methionine_HMDB0000696	-0.346259376
## X4.Hydroxyproline_HMDB0000725	-0.445673453
## Pyroglutamic.acid_HMDB0000267	-0.397227089
## Cytosine_HMDB0000630	0.166736815
## Gamma.Aminobutyric.acid_HMDB0000112	-0.467500736
## Threonic.acid_HMDB0000943	-0.049965795
## L.Cysteine_HMDB0000574	-0.051778386
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.127634549
## Creatinine_HMDB0000562	-0.417831490
## X3.Hydroxyglutaric.acid_HMDB0000428	0.208626793
## Oxoglutaric.acid_HMDB0000208	-0.296992178
## Phenylpyruvic.acid_HMDB0000205	0.344013195
## Pimelic.acid_HMDB0000857	-0.353039703

## Phenyllactic.acid_HMDB0000779	0.250539362
## Phosphoenolpyruvic.acid_HMDB0000263	0.388142584
## Ornithine_HMDB0000214	-0.199135001
## Hypotaurine_HMDB0000965	-0.349763010
## Triethanolamine_HMDB0032538	-0.294892326
## X2.Aminobenzoic.acid_HMDB0001123	-0.415540440
## L.Glutamic.acid_HMDB0000148	-0.313934955
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.497000391
## X5.Aminopentanoic.acid_HMDB0003355	0.147925420
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.271454330
## L.Phenylalanine_HMDB0000159	-0.435332236
## Dodecanoic.acid_HMDB0000638	-0.305521597
## Lyxose_HMDB0003402_1	-0.005707460
## D.Xylose_HMDB0000098	1.000000000
## Lyxose_HMDB0003402_2	0.953556089
## D.Arabinose_HMDB0029942	0.055113247
## L.Asparagine_HMDB0000168	-0.109422986
## D.Ribulose_HMDB0000621	0.594441648
## D.Ribose_HMDB0000283	0.046788308
## D.Xylulose_HMDB0001644	0.626382207
## X3.Sulfinoalanine_HMDB0000996	-0.016205934
## Suberic.acid_HMDB0000893	-0.117780362
## L.Lysine_HMDB0000182	-0.120367710
## Levoglucosan_HMDB0000640	0.975503676
## D.Arabitol_HMDB0000568	-0.265847185
## Ribitol_HMDB0000508	0.173445681
## cis.Aconitic.acid_HMDB0000072	0.926875867
## Quinolinic.acid_HMDB0000232	0.028164361
## Putrescine_HMDB0001414	-0.370199772
## Glycerol.3.phosphate_HMDB0000126	0.122236826
## Vanillic.acid_HMDB0000484	-0.011715663
## L.Glutamine_HMDB0000641	0.073895617
## X2.Phosphoglyceric.acid_HMDB0000362	0.017070906
## Azelaic.acid_HMDB0000784	-0.073576373
## L.Dihydroorotic.acid_HMDB0003349	0.109445018
## O.Phosphoethanolamine_HMDB0000224	-0.354916955
## X3.Phosphoglyceric.acid_HMDB0000807	-0.021698862
## Isocitric.acid_HMDB0000193	-0.107095143
## Hypoxanthine_HMDB0000157	0.247741835
## Citric.acid_HMDB0000094	0.169733103
## L.Arginine_HMDB0000517	0.171693920
## Ornithine_HMDB0000214.1	-0.337391290
## Dopamine_HMDB0000073	-0.337615467
## Myristic.acid_HMDB0000806	-0.401251376
## X1.5.Anhydrosorbitol_HMDB0002712	0.014260617
## D.Tagatose_HMDB0003418	0.100261773
## Psicose_1	0.871408230
## Sebacic.acid_HMDB0000792	-0.332388643
## D.Fructose_HMDB0000660	0.043085062
## Gluconolactone_HMDB0000150	0.394735616
## L.Sorbose_HMDB0001266	0.034134529
## D.Mannose_HMDB0000169	-0.129254261
## Hydroxyphenyllactic.acid_HMDB0000755	-0.301414862
## D.Glucose_HMDB0000122	0.008029601

## N.Acetylglutamine_HMDB0006029	-0.092169230
## L.Lysine_HMDB0000182.1	-0.338879770
## D.Mannose_HMDB0000169.1	-0.203575913
## Tyramine_HMDB0000306	-0.337966321
## L.Histidine_HMDB0000177	-0.329789914
## D.Glucose_HMDB0000122.1	-0.031756798
## X1.Hexadecanol_HMDB0003424	0.195319776
## L.Tyrosine_HMDB0000158	-0.257142108
## Mannitol_HMDB0000765	-0.300393133
## Sorbitol_HMDB0000247	-0.029835398
## ITSD_Sorbitol	-0.305797024
## Galacturonic.acid_HMDB0002545	0.024842525
## Pantothenic.acid_HMDB0000210	-0.143803322
## Palmitoleic.acid_HMDB0003229	-0.362236839
## Xanthine_HMDB0000292	-0.095793989
## Gluconic.acid_HMDB0000625	0.380781545
## Palmitic.acid_HMDB0000220	-0.244866758
## Glucaric.acid_HMDB0000663	-0.202315595
## N.Acetylmannosamine_HMDB0001129	-0.051428647
## N.Acetyl.D.glucosamine_HMDB0000215	-0.189208407
## D.Ribulose.5.phosphate_HMDB0000618	0.288228378
## Uric.acid_HMDB0000289	0.031364476
## D.Ribose.5.phosphate_HMDB0001548	0.152129625
## myo.Inositol_HMDB0000211	-0.173511958
## D.Ribose.5.phosphate_HMDB0001548.1	0.342205691
## Heptadecanoic.acid_HMDB0002259	-0.030780969
## Octadecanol_HMDB0002350	-0.059899140
## Glutathione_HMDB0000125	0.223378556
## Linoleic.acid_HMDB0000673	-0.282625852
## Oleic.acid_HMDB0000207	-0.312105910
## Elaidic.acid_HMDB0000573	-0.310288933
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.385438097
## Stearic.acid_HMDB0000827	-0.079776379
## L.Tryptophan_HMDB0000929	-0.072561671
## Fructose.1.phosphate_HMDB0001076	0.077364266
## Mannose.6.phosphate_HMDB0001078	0.510496167
## Arachidonic.acid_HMDB0001043	-0.173693997
## Glucose.6.phosphate_HMDB0001401	0.092596770
## X6.Phosphogluconic.acid_HMDB0001316	0.009141670
## Inositol.phosphate_HMDB0002985	0.010577731
## Uridine_HMDB0000296	-0.196356903
## Stigmasterol_HMDB0000937	-0.239793232
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.355544516
## Sucrose_HMDB0000258	-0.007108297
## MG.18.Oe.0.0.0.0._HMDB0011143	-0.240823308
## Trehalose_HMDB0000975	-0.012879533
## D.Maltose_HMDB0000163	-0.013996055
## Lactitol_HMDB00040937	-0.009514375
## Xanthylic.acid_HMDB0001554	0.543839283
## Adenosine.monophosphate_HMDB0000045	0.185809612
## Cholesterol_HMDB0000067	0.233397466
## Lathosterol_HMDB0001170	-0.028176547
## X7b.Hydroxycholesterol_.HMDB0006119	0.167191373
##	Lyxose_HMDB0003402_2

## Dimethylglycine_HMDB0000092	0.2332466860
## Glyoxylic.acid_HMDB0000119	0.2383001591
## Pyruvic.acid_HMDB0000243	-0.2460569140
## L.Lactic.acid_HMDB0000190	-0.3267310520
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.2812886686
## Glycolic.acid_HMDB0000115	-0.2196615056
## Caproic.acid_HMDB0000535	0.0787935212
## L.Alanine_HMDB0000161	-0.2991338650
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.0143746263
## Glycine_HMDB0000123	-0.1879758307
## Oxalic.acid_HMDB0002329	-0.3162272690
## Hydroxylamine_HMDB0003338	0.0035239275
## X2.Hydroxybutyric.acid_HMDB0000008	-0.5079630236
## Acetoacetic.acid_HMDB0000060	-0.1472904436
## Hydroxypropionic.acid_HMDB0000700	-0.5642604698
## Pyruvic.acid_HMDB0000243.1	-0.1850214031
## X3.Hydroxybutyric.acid_HMDB0000357	-0.4563480401
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.5511862392
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.3104953534
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.4573871143
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.4114560095
## Beta.Alanine_HMDB0000056	-0.3105169502
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.2165489899
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.4210997354
## Malonic.acid_HMDB0000691	-0.0233050377
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.2811536854
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.5820837036
## Ketoleucine_HMDB0000695	-0.1626253622
## L.Valine_HMDB0000883	-0.4651559259
## ITSD_Valine	-0.5039382891
## Urea_HMDB0000294	-0.3324079969
## Benzoic.acid_HMDB0001870	-0.2804549241
## Caprylic.acid_HMDB0000482	0.0893358124
## Glycerol_HMDB0000131	-0.3387780767
## Ethanolamine_HMDB0000149	-0.2382671344
## L.Leucine_HMDB0000687	-0.4909142471
## Acetyl glycine_HMDB0000532	-0.3711794574
## L.Isoleucine_HMDB0000172	-0.3935554905
## Nicotinic.acid_HMDB0001488	-0.1433731066
## Maleic.acid_HMDB0000176	-0.2147595552
## L.Proline_HMDB0000162	-0.6231887361
## Phenylacetic.acid_HMDB0000209	-0.1139164526
## Succinic.acid_HMDB0000254	-0.5256136250
## Glycine_HMDB0000123.1	-0.3142171863
## Methylsuccinic.acid_HMDB0001844	-0.1935527749
## Glyceric.acid_HMDB0000139	-0.2167247315
## Fumaric.acid_HMDB0000134	-0.2857903615
## Uracil_HMDB0000300	-0.2010320976
## Pelargonic.acid_HMDB0000847	0.0889187215
## L.Serine_HMDB0000187	-0.2668639423
## L.Threonine_HMDB0000167	-0.3133943800
## Mesaconic.acid_HMDB0000749	-0.1296916380
## Glutaric.acid_HMDB0000661	-0.1834518054
## Thymine_HMDB0000262	-0.0971888442

## Beta.Alanine_HMDB0000056.1	-0.3059370742
## L.Homoserine_HMDB0000719	-0.0843922818
## Capric.acid_HMDB0000511	-0.0730520206
## Citramalic.acid_HMDB0000426	0.1049793274
## Malic.acid_HMDB0000744	-0.2734543276
## Niacinamide_HMDB0001406	-0.1998356145
## Adipic.acid_HMDB0000448	-0.0648479798
## D.Threitol_HMDB0004136	0.0092266833
## Dihydrouracil_HMDB0000076	-0.1495756764
## Erythritol_HMDB0002994	-0.4017738295
## N.Acetylserine_HMDB0002931	-0.2513599297
## L.Aspartic.acid_HMDB0000191	-0.2694053930
## L.Methionine_HMDB0000696	-0.1781006979
## X4.Hydroxyproline_HMDB0000725	-0.3281508274
## Pyroglutamic.acid_HMDB0000267	-0.2931676043
## Cytosine_HMDB0000630	0.2638854397
## Gamma.Aminobutyric.acid_HMDB0000112	-0.3812572514
## Threonic.acid_HMDB0000943	-0.2203848323
## L.Cysteine_HMDB0000574	-0.2095715310
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.2678425358
## Creatinine_HMDB0000562	-0.2872768887
## X3.Hydroxyglutaric.acid_HMDB0000428	0.1066161581
## Oxoglutaric.acid_HMDB0000208	-0.3332713470
## Phenylpyruvic.acid_HMDB0000205	0.1659318943
## Pimelic.acid_HMDB0000857	-0.2152144588
## Phenyllactic.acid_HMDB0000779	0.1267851550
## Phosphoenolpyruvic.acid_HMDB0000263	0.2479558240
## Ornithine_HMDB0000214	0.0138034785
## Hypotaurine_HMDB0000965	-0.1910037747
## Triethanolamine_HMDB00032538	-0.1018312800
## X2.Aminobenzoic.acid_HMDB0001123	-0.2498980988
## L.Glutamic.acid_HMDB0000148	-0.1661178074
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.3415639932
## X5.Aminopentanoic.acid_HMDB0003355	0.1345282245
## X2.3.Dihydroxybutanedioic.acid_HMDB00059916	0.1715593465
## L.Phenylalanine_HMDB0000159	-0.2725816560
## Dodecanoic.acid_HMDB0000638	-0.2904635170
## Lyxose_HMDB0003402_1	-0.2016023860
## D.Xylose_HMDB0000098	0.9535560894
## Lyxose_HMDB0003402_2	1.0000000000
## D.Arabinose_HMDB00029942	-0.1115179570
## L.Asparagine_HMDB0000168	0.0525246360
## D.Ribulose_HMDB0000621	0.4603059222
## D.Ribose_HMDB0000283	-0.1111131963
## D.Xylulose_HMDB0001644	0.4904366060
## X3.Sulfinioalanine_HMDB0000996	0.0487339098
## Suberic.acid_HMDB0000893	0.0622491477
## L.Lysine_HMDB0000182	0.0488899234
## Levoglucosan_HMDB0000640	0.9724517651
## D.Arabitool_HMDB0000568	-0.1909175342
## Ribitol_HMDB0000508	0.1027654923
## cis.Aconitic.acid_HMDB0000072	0.9056951008
## Quinolinic.acid_HMDB0000232	0.0332502949
## Putrescine_HMDB0001414	-0.3985302202

## Glycerol.3.phosphate_HMDB0000126	-0.0347993471
## Vanillic.acid_HMDB0000484	0.0576870365
## L.Glutamine_HMDB0000641	0.1757201150
## X2.Phosphoglyceric.acid_HMDB0000362	0.0069281927
## Azelaic.acid_HMDB0000784	-0.0285587509
## L.Dihydroorotic.acid_HMDB0003349	-0.0584454925
## O.Phosphoethanolamine_HMDB0000224	-0.2951426081
## X3.Phosphoglyceric.acid_HMDB0000807	-0.0024819209
## Isocitric.acid_HMDB0000193	-0.0304718753
## Hypoxanthine_HMDB0000157	0.2588570822
## Citric.acid_HMDB0000094	0.0433836054
## L.Arginine_HMDB0000517	0.1112561372
## Ornithine_HMDB0000214.1	-0.1530755906
## Dopamine_HMDB0000073	-0.1533216788
## Myristic.acid_HMDB0000806	-0.3034311780
## X1.5.Anhydrosorbitol_HMDB0002712	-0.0863402555
## D.Tagatose_HMDB0003418	-0.0582611603
## Psicose_1	0.8512128821
## Sebacic.acid_HMDB0000792	-0.2236709722
## D.Fructose_HMDB0000660	-0.0777520842
## Gluconolactone_HMDB0000150	0.2647283293
## L.Sorbose_HMDB0001266	-0.0880822712
## D.Mannose_HMDB0000169	0.0008497504
## Hydroxyphenyllactic.acid_HMDB0000755	-0.3011475596
## D.Glucose_HMDB0000122	0.1429115204
## N.Acetylglutamine_HMDB0006029	0.0317534239
## L.Lysine_HMDB0000182.1	-0.1746838081
## D.Mannose_HMDB0000169.1	-0.0631928600
## Tyramine_HMDB0000306	-0.1772567960
## L.Histidine_HMDB0000177	-0.1651182824
## D.Glucose_HMDB0000122.1	0.1044392746
## X1.Hexadecanol_HMDB0003424	0.0465978833
## L.Tyrosine_HMDB0000158	-0.0955825346
## Mannitol_HMDB0000765	-0.1909093224
## Sorbitol_HMDB0000247	-0.0570406091
## ITSD_Sorbitol	-0.2562483778
## Galacturonic.acid_HMDB0002545	-0.0627715919
## Pantothenic.acid_HMDB0000210	-0.2008185867
## Palmitoleic.acid_HMDB0003229	-0.3273397439
## Xanthine_HMDB0000292	-0.0117165017
## Gluconic.acid_HMDB0000625	0.3052330956
## Palmitic.acid_HMDB0000220	-0.2101549930
## Glucaric.acid_HMDB0000663	-0.1643730801
## N.Acetylmannosamine_HMDB0001129	-0.0045868572
## N.Acetyl.D.glucosamine_HMDB0000215	-0.0816092452
## D.Ribulose.5.phosphate_HMDB0000618	0.1272552803
## Uric.acid_HMDB0000289	0.1488768878
## D.Ribose.5.phosphate_HMDB0001548	-0.0138784347
## myo.Inositol_HMDB0000211	-0.0569855291
## D.Ribose.5.phosphate_HMDB0001548.1	0.1904994181
## Heptadecanoic.acid_HMDB0002259	-0.0824054257
## Octadecanol_HMDB0002350	-0.1598916069
## Glutathione_HMDB0000125	0.2191052084
## Linoleic.acid_HMDB0000673	-0.3148277633

## Oleic.acid_HMDB0000207	-0.3031525403
## Elaidic.acid_HMDB0000573	-0.2855805178
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.2342797616
## Stearic.acid_HMDB0000827	-0.0868652627
## L.Tryptophan_HMDB0000929	-0.0620982235
## Fructose.1.phosphate_HMDB0001076	-0.0107861610
## Mannose.6.phosphate_HMDB0001078	0.3866976948
## Arachidonic.acid_HMDB0001043	-0.1755530791
## Glucose.6.phosphate_HMDB0001401	-0.0257838136
## X6.Phosphogluconic.acid_HMDB0001316	-0.1636091487
## Inositol.phosphate_HMDB0002985	-0.1230614019
## Uridine_HMDB0000296	-0.1904669686
## Stigmasterol_HMDB0000937	-0.1833523070
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.3370741977
## Sucrose_HMDB0000258	0.1006307974
## MG.18.Oe.0.0.0.0._HMDB0011143	-0.3075492426
## Trehalose_HMDB0000975	-0.0170638549
## D.Maltose_HMDB0000163	-0.0176318686
## Lactitol_HMDB00040937	-0.0055550079
## Xanthylic.acid_HMDB0001554	0.4540264152
## Adenosine.monophosphate_HMDB0000045	0.0029152554
## Cholesterol_HMDB0000067	0.1265825565
## Lathosterol_HMDB0001170	-0.0980359002
## X7b.Hydroxycholesterol_.HMDB0006119	0.1406826747
##	D.Arabinose_HMDB0029942
## Dimethylglycine_HMDB0000092	0.830976584
## Glyoxylic.acid_HMDB0000119	0.829412150
## Pyruvic.acid_HMDB0000243	-0.327934002
## L.Lactic.acid_HMDB0000190	-0.600611145
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.082028786
## Glycolic.acid_HMDB0000115	0.520870821
## Caproic.acid_HMDB0000535	0.882540428
## L.Alanine_HMDB0000161	-0.646973501
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.044500391
## Glycine_HMDB0000123	-0.508818456
## Oxalic.acid_HMDB0002329	0.690635072
## Hydroxylamine_HMDB0003338	-0.181777806
## X2.Hydroxybutyric.acid_HMDB0000008	0.324166166
## Acetoacetic.acid_HMDB0000060	0.322854343
## Hydroxypropionic.acid_HMDB0000700	-0.414513776
## Pyruvic.acid_HMDB0000243.1	-0.186482683
## X3.Hydroxybutyric.acid_HMDB0000357	0.268575071
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.255482392
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.524100802
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.607086462
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.273536846
## Beta.Alanine_HMDB0000056	-0.730214704
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.007317234
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.018295903
## Malonic.acid_HMDB0000691	-0.287124883
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.842174716
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.409417466
## Ketoleucine_HMDB0000695	0.415982995
## L.Valine_HMDB0000883	-0.614484837

## ITSD_Valine	-0.647585142
## Urea_HMDB0000294	-0.344071313
## Benzoic.acid_HMDB0001870	0.234526721
## Caprylic.acid_HMDB0000482	0.805814007
## Glycerol_HMDB0000131	-0.745549881
## Ethanolamine_HMDB0000149	-0.669781333
## L.Leucine_HMDB0000687	-0.655146885
## Acetylglycine_HMDB0000532	0.394286730
## L.Isoleucine_HMDB0000172	-0.666740840
## Nicotinic.acid_HMDB0001488	0.264392030
## Maleic.acid_HMDB0000176	0.604870698
## L.Proline_HMDB0000162	-0.331612424
## Phenylacetic.acid_HMDB0000209	0.800252041
## Succinic.acid_HMDB0000254	-0.339765926
## Glycine_HMDB0000123.1	-0.660002050
## Methylsuccinic.acid_HMDB0001844	0.052467203
## Glyceric.acid_HMDB0000139	0.642800479
## Fumaric.acid_HMDB0000134	-0.353890160
## Uracil_HMDB0000300	-0.271018841
## Pelargonic.acid_HMDB0000847	0.869481615
## L.Serine_HMDB0000187	-0.632593436
## L.Threonine_HMDB0000167	-0.590478700
## Mesaconic.acid_HMDB0000749	0.084958544
## Glutaric.acid_HMDB0000661	0.360622692
## Thymine_HMDB0000262	-0.397150128
## Beta.Alanine_HMDB0000056.1	-0.840636750
## L.Homoserine_HMDB0000719	0.224774130
## Capric.acid_HMDB0000511	0.338088272
## Citramalic.acid_HMDB0000426	-0.413981098
## Malic.acid_HMDB0000744	0.658731288
## Niacinamide_HMDB0001406	-0.623928524
## Adipic.acid_HMDB0000448	-0.566002066
## D.Threitol_HMDB0004136	-0.120329701
## Dihydrouracil_HMDB0000076	-0.155505304
## Erythritol_HMDB0002994	-0.068493238
## N.Acetylserine_HMDB0002931	-0.474716926
## L.Aspartic.acid_HMDB0000191	-0.654549734
## L.Methionine_HMDB0000696	-0.898737168
## X4.Hydroxyproline_HMDB0000725	-0.532963276
## Pyroglutamic.acid_HMDB0000267	-0.592810421
## Cytosine_HMDB0000630	-0.232413979
## Gamma.Aminobutyric.acid_HMDB0000112	-0.174203762
## Threonic.acid_HMDB0000943	0.659493078
## L.Cysteine_HMDB0000574	0.513332258
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.847734799
## Creatinine_HMDB0000562	-0.812649952
## X3.Hydroxyglutaric.acid_HMDB0000428	0.782730683
## Oxoglutaric.acid_HMDB0000208	0.143196637
## Phenylpyruvic.acid_HMDB0000205	0.437442701
## Pimelic.acid_HMDB0000857	-0.421974662
## Phenyllactic.acid_HMDB0000779	0.595845789
## Phosphoenolpyruvic.acid_HMDB0000263	0.847189837
## Ornithine_HMDB0000214	-0.738669577
## Hypotaurine_HMDB0000965	-0.604673922

## Triethanolamine_HMDB0032538	-0.576143736
## X2.Aminobenzoic.acid_HMDB0001123	-0.850849586
## L.Glutamic.acid_HMDB0000148	-0.814568013
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.718119832
## X5.Aminopentanoic.acid_HMDB0003355	0.255515964
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.530496019
## L.Phenylalanine_HMDB0000159	-0.855294236
## Dodecanoic.acid_HMDB0000638	-0.388582382
## Lyxose_HMDB0003402_1	0.968284513
## D.Xylose_HMDB0000098	0.055113247
## Lyxose_HMDB0003402_2	-0.111517957
## D.Arabinose_HMDB0029942	1.000000000
## L.Asparagine_HMDB0000168	-0.715640786
## D.Ribulose_HMDB0000621	0.770075812
## D.Ribose_HMDB0000283	0.994004059
## D.Xylulose_HMDB0001644	0.753301330
## X3.Sulfinoalanine_HMDB0000996	-0.557731090
## Suberic.acid_HMDB0000893	-0.386592333
## L.Lysine_HMDB0000182	-0.684185583
## Levoglucosan_HMDB0000640	-0.125320145
## D.Arabitol_HMDB0000568	-0.131335081
## Ribitol_HMDB0000508	-0.011174741
## cis.Aconitic.acid_HMDB0000072	-0.143503706
## Quinolinic.acid_HMDB0000232	0.141383413
## Putrescine_HMDB0001414	0.142669963
## Glycerol.3.phosphate_HMDB0000126	0.666899602
## Vanillic.acid_HMDB0000484	-0.438977764
## L.Glutamine_HMDB0000641	-0.505868234
## X2.Phosphoglyceric.acid_HMDB0000362	0.217111506
## Azelaic.acid_HMDB0000784	0.088699847
## L.Dihydroorotic.acid_HMDB0003349	0.990338458
## O.Phosphoethanolamine_HMDB0000224	-0.591539909
## X3.Phosphoglyceric.acid_HMDB0000807	0.210388484
## Isocitric.acid_HMDB0000193	-0.085849960
## Hypoxanthine_HMDB0000157	-0.323073323
## Citric.acid_HMDB0000094	0.593278249
## L.Arginine_HMDB0000517	0.313770292
## Ornithine_HMDB0000214.1	-0.837849626
## Dopamine_HMDB0000073	-0.831198280
## Myristic.acid_HMDB0000806	-0.736432263
## X1.5.Anhydrosorbitol_HMDB0002712	0.374113463
## D.Tagatose_HMDB0003418	0.984722260
## Psicose_1	-0.162440846
## Sebacic.acid_HMDB0000792	-0.415480074
## D.Fructose_HMDB0000660	0.932472379
## Gluconolactone_HMDB0000150	0.801726798
## L.Sorbose_HMDB0001266	0.931415704
## D.Mannose_HMDB0000169	-0.907774934
## Hydroxyphenyllactic.acid_HMDB0000755	-0.005877613
## D.Glucose_HMDB0000122	-0.894581253
## N.Acetylglutamine_HMDB0006029	-0.888211322
## L.Lysine_HMDB0000182.1	-0.894413340
## D.Mannose_HMDB0000169.1	-0.935358252
## Tyramine_HMDB0000306	-0.890360104

## L.Histidine_HMDB0000177	-0.909541422
## D.Glucose_HMDB0000122.1	-0.909192229
## X1.Hexadecanol_HMDB0003424	0.206760608
## L.Tyrosine_HMDB0000158	-0.848846882
## Mannitol_HMDB0000765	-0.598713507
## Sorbitol_HMDB0000247	0.105360158
## ITSD_Sorbitol	-0.568535275
## Galacturonic.acid_HMDB0002545	0.080089279
## Pantothenic.acid_HMDB0000210	0.358281149
## Palmitoleic.acid_HMDB0003229	-0.598658416
## Xanthine_HMDB0000292	-0.442510595
## Gluconic.acid_HMDB0000625	0.566739275
## Palmitic.acid_HMDB0000220	-0.460452329
## Glucaric.acid_HMDB0000663	-0.587451465
## N.Acetylmannosamine_HMDB0001129	-0.587467344
## N.Acetyl.D.glucosamine_HMDB0000215	-0.791337810
## D.Ribulose.5.phosphate_HMDB0000618	0.884848948
## Uric.acid_HMDB0000289	-0.775218130
## D.Ribose.5.phosphate_HMDB0001548	0.928486451
## myo.Inositol_HMDB0000211	-0.385910420
## D.Ribose.5.phosphate_HMDB0001548.1	0.926941705
## Heptadecanoic.acid_HMDB0002259	0.449397115
## Octadecanol_HMDB0002350	0.363359963
## Glutathione_HMDB0000125	-0.090718556
## Linoleic.acid_HMDB0000673	-0.356458427
## Oleic.acid_HMDB0000207	-0.541488462
## Elaidic.acid_HMDB0000573	-0.532892602
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.862881262
## Stearic.acid_HMDB0000827	-0.034078512
## L.Tryptophan_HMDB0000929	-0.052319953
## Fructose.1.phosphate_HMDB0001076	0.840463406
## Mannose.6.phosphate_HMDB0001078	0.260981604
## Arachidonic.acid_HMDB0001043	-0.478575366
## Glucose.6.phosphate_HMDB0001401	0.833571722
## X6.Phosphogluconic.acid_HMDB0001316	0.309137661
## Inositol.phosphate_HMDB0002985	0.222898784
## Uridine_HMDB0000296	-0.021889107
## Stigmasterol_HMDB0000937	-0.191035596
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.024077532
## Sucrose_HMDB0000258	-0.681715076
## MG.18.Oe.0.0.0.0._HMDB0011143	0.117391847
## Trehalose_HMDB0000975	0.088958183
## D.Maltose_HMDB0000163	0.086311133
## Lactitol_HMDB00040937	0.124705887
## Xanthylic.acid_HMDB0001554	0.454604016
## Adenosine.monophosphate_HMDB0000045	0.878432913
## Cholesterol_HMDB0000067	-0.132960239
## Lathosterol_HMDB0001170	-0.336470973
## X7b.Hydroxycholesterol_.HMDB0006119	0.608025449
## L.Asparagine_HMDB0000168	
## Dimethylglycine_HMDB0000092	-0.608232658
## Glyoxylic.acid_HMDB0000119	-0.607710026
## Pyruvic.acid_HMDB0000243	0.071975505
## L.Lactic.acid_HMDB0000190	0.356591694

## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.267934406
## Glycolic.acid_HMDB0000115	-0.471826299
## Caproic.acid_HMDB0000535	-0.621326394
## L.Alanine_HMDB0000161	0.521172666
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.093886961
## Glycine_HMDB0000123	0.239388041
## Oxalic.acid_HMDB0002329	-0.589363351
## Hydroxylamine_HMDB0003338	-0.066599424
## X2.Hydroxybutyric.acid_HMDB0000008	-0.460432801
## Acetoacetic.acid_HMDB0000060	-0.592651720
## Hydroxypropionic.acid_HMDB0000700	0.088591422
## Pyruvic.acid_HMDB0000243.1	-0.164790572
## X3.Hydroxybutyric.acid_HMDB0000357	-0.632996730
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.492867059
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.626149832
## D.Alpha.aminobutyric.acid_HMDB0000650	0.426995394
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.225375799
## Beta.Alanine_HMDB0000056	0.537174533
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.071750659
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.138644210
## Malonic.acid_HMDB0000691	0.139056206
## X3.Aminoisobutanoic.acid_HMDB0003911	0.604781164
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.096835417
## Ketoleucine_HMDB0000695	-0.510442702
## L.Valine_HMDB0000883	0.430649780
## ITSD_Valine	0.416380059
## Urea_HMDB0000294	0.138579017
## Benzoic.acid_HMDB0001870	-0.253312619
## Caprylic.acid_HMDB0000482	-0.749877179
## Glycerol_HMDB0000131	0.477965619
## Ethanolamine_HMDB0000149	0.563457246
## L.Leucine_HMDB0000687	0.420585780
## Acetyl glycine_HMDB0000532	-0.336553860
## L.Isoleucine_HMDB0000172	0.447686976
## Nicotinic.acid_HMDB0001488	-0.272335082
## Maleic.acid_HMDB0000176	-0.750636836
## L.Proline_HMDB0000162	0.211002269
## Phenylacetic.acid_HMDB0000209	-0.830261511
## Succinic.acid_HMDB0000254	0.162249895
## Glycine_HMDB0000123.1	0.399098408
## Methylsuccinic.acid_HMDB0001844	-0.044923665
## Glyceric.acid_HMDB0000139	-0.755345917
## Fumaric.acid_HMDB0000134	0.067215084
## Uracil_HMDB0000300	0.050050225
## Pelargonic.acid_HMDB0000847	-0.690652703
## L.Serine_HMDB0000187	0.451773381
## L.Threonine_HMDB0000167	0.444363989
## Mesaconic.acid_HMDB0000749	-0.010888254
## Glutaric.acid_HMDB0000661	-0.054380136
## Thymine_HMDB0000262	0.153330117
## Beta.Alanine_HMDB0000056.1	0.587199760
## L.Homoserine_HMDB0000719	-0.124103664
## Capric.acid_HMDB0000511	-0.276309863
## Citramalic.acid_HMDB0000426	0.371112872

## Malic.acid_HMDB0000744	-0.572994478
## Niacinamide_HMDB0001406	0.428340471
## Adipic.acid_HMDB0000448	0.669232169
## D.Threitol_HMDB0004136	-0.160726661
## Dihydrouracil_HMDB0000076	0.142303941
## Erythritol_HMDB0002994	-0.138181922
## N.Acetylserine_HMDB0002931	0.351072977
## L.Aspartic.acid_HMDB0000191	0.513673391
## L.Methionine_HMDB0000696	0.707828372
## X4.Hydroxyproline_HMDB0000725	0.380877405
## Pyroglutamic.acid_HMDB0000267	0.359781862
## Cytosine_HMDB0000630	0.587848732
## Gamma.Aminobutyric.acid_HMDB0000112	-0.051989769
## Threonic.acid_HMDB0000943	-0.675481502
## L.Cysteine_HMDB0000574	-0.524327242
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.665700626
## Creatinine_HMDB0000562	0.667663459
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.411320337
## Oxoglutaric.acid_HMDB0000208	-0.498455910
## Phenylpyruvic.acid_HMDB0000205	-0.421362543
## Pimelic.acid_HMDB0000857	0.251184027
## Phenyllactic.acid_HMDB0000779	-0.414911842
## Phosphoenolpyruvic.acid_HMDB0000263	-0.456400019
## Ornithine_HMDB0000214	0.874907165
## Hypotaurine_HMDB0000965	0.445197828
## Triethanolamine_HMDB0032538	0.512115456
## X2.Aminobenzoic.acid_HMDB0001123	0.581523147
## L.Glutamic.acid_HMDB0000148	0.807455323
## X4.Hydroxybenzoic.acid_HMDB0000500	0.541793934
## X5.Aminopentanoic.acid_HMDB0003355	-0.366047767
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.446537813
## L.Phenylalanine_HMDB0000159	0.727214193
## Dodecanoic.acid_HMDB0000638	-0.005402894
## Lyxose_HMDB0003402_1	-0.720654799
## D.Xylose_HMDB0000098	-0.109422986
## Lyxose_HMDB0003402_2	0.052524636
## D.Arabinose_HMDB0029942	-0.715640786
## L.Asparagine_HMDB0000168	1.000000000
## D.Ribulose_HMDB0000621	-0.636271620
## D.Ribose_HMDB0000283	-0.697819290
## D.Xylulose_HMDB0001644	-0.615478863
## X3.Sulfinioalanine_HMDB0000996	0.807310548
## Suberic.acid_HMDB0000893	0.365846107
## L.Lysine_HMDB0000182	0.914026842
## Levoglucosan_HMDB0000640	0.061268430
## D.Arabitol_HMDB0000568	-0.012051304
## Ribitol_HMDB0000508	-0.035557804
## cis.Aconitic.acid_HMDB0000072	-0.041012626
## Quinolinic.acid_HMDB0000232	-0.087755776
## Putrescine_HMDB0001414	-0.239966925
## Glycerol.3.phosphate_HMDB0000126	-0.416609475
## Vanillic.acid_HMDB0000484	0.188689734
## L.Glutamine_HMDB0000641	0.904995376
## X2.Phosphoglyceric.acid_HMDB0000362	-0.018924652

## Azelaic.acid_HMDB0000784	0.089324350
## L.Dihydroorotic.acid_HMDB0003349	-0.734466902
## O.Phosphoethanolamine_HMDB0000224	0.219962904
## X3.Phosphoglyceric.acid_HMDB0000807	-0.089794867
## Isocitric.acid_HMDB0000193	0.264186628
## Hypoxanthine_HMDB0000157	0.644992211
## Citric.acid_HMDB0000094	-0.320883432
## L.Arginine_HMDB0000517	0.211310420
## Ornithine_HMDB0000214.1	0.753661972
## Dopamine_HMDB0000073	0.775873915
## Myristic.acid_HMDB0000806	0.396618374
## X1.5.Anhydrosorbitol_HMDB0002712	-0.396322452
## D.Tagatose_HMDB0003418	-0.685058545
## Psicose_1	0.048451916
## Sebacic.acid_HMDB0000792	0.340994797
## D.Fructose_HMDB0000660	-0.706615879
## Gluconolactone_HMDB0000150	-0.607380918
## L.Sorbose_HMDB0001266	-0.692104368
## D.Mannose_HMDB0000169	0.567466643
## Hydroxyphenyllactic.acid_HMDB0000755	-0.482423943
## D.Glucose_HMDB0000122	0.566259930
## N.Acetylglutamine_HMDB0006029	0.545744736
## L.Lysine_HMDB0000182.1	0.824888538
## D.Mannose_HMDB0000169.1	0.705267817
## Tyramine_HMDB0000306	0.827351763
## L.Histidine_HMDB0000177	0.829627963
## D.Glucose_HMDB0000122.1	0.558227024
## X1.Hexadecanol_HMDB0003424	-0.410487965
## L.Tyrosine_HMDB0000158	0.913814016
## Mannitol_HMDB0000765	0.421590167
## Sorbitol_HMDB0000247	0.103029009
## ITSD_Sorbitol	0.242966560
## Galacturonic.acid_HMDB0002545	-0.261160704
## Pantothenic.acid_HMDB0000210	-0.471400414
## Palmitoleic.acid_HMDB0003229	0.162124240
## Xanthine_HMDB0000292	0.726029239
## Gluconic.acid_HMDB0000625	-0.383269359
## Palmitic.acid_HMDB0000220	-0.080318012
## Glucaric.acid_HMDB0000663	0.391456211
## N.Acetylmannosamine_HMDB0001129	0.244471610
## N.Acetyl.D.glucosamine_HMDB0000215	0.405364052
## D.Ribulose.5.phosphate_HMDB0000618	-0.670978972
## Uric.acid_HMDB0000289	0.936271296
## D.Ribose.5.phosphate_HMDB0001548	-0.665183816
## myo.Inositol_HMDB0000211	0.294549948
## D.Ribose.5.phosphate_HMDB0001548.1	-0.702481197
## Heptadecanoic.acid_HMDB0002259	-0.205323580
## Octadecanol_HMDB0002350	-0.651392593
## Glutathione_HMDB0000125	0.504004564
## Linoleic.acid_HMDB0000673	-0.129788132
## Oleic.acid_HMDB0000207	0.122743488
## Elaidic.acid_HMDB0000573	0.109663943
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.606045700
## Stearic.acid_HMDB0000827	-0.448217284

## L.Tryptophan_HMDB0000929	-0.417877264
## Fructose.1.phosphate_HMDB0001076	-0.591732633
## Mannose.6.phosphate_HMDB0001078	-0.131456919
## Arachidonic.acid_HMDB0001043	0.184730807
## Glucose.6.phosphate_HMDB0001401	-0.712153868
## X6.Phosphogluconic.acid_HMDB0001316	-0.689853293
## Inositol.phosphate_HMDB0002985	-0.410174655
## Uridine_HMDB0000296	-0.168519266
## Stigmasterol_HMDB0000937	-0.324772213
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.374145785
## Sucrose_HMDB0000258	0.290808999
## MG.18.0e.0.0.0.0._HMDB0011143	-0.577615194
## Trehalose_HMDB0000975	0.051755678
## D.Maltose_HMDB0000163	0.049983181
## Lactitol_HMDB00040937	-0.236224278
## Xanthylic.acid_HMDB0001554	-0.015388660
## Adenosine.monophosphate_HMDB0000045	-0.681964359
## Cholesterol_HMDB0000067	-0.060060204
## Lathosterol_HMDB0001170	-0.126219445
## X7b.Hydroxycholesterol_.HMDB0006119	-0.240802095
## D.Ribulose_HMDB0000621	
## Dimethylglycine_HMDB0000092	0.800158372
## Glyoxylic.acid_HMDB0000119	0.798718690
## Pyruvic.acid_HMDB0000243	-0.324825321
## L.Lactic.acid_HMDB0000190	-0.629418712
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.176952817
## Glycolic.acid_HMDB0000115	0.461238314
## Caproic.acid_HMDB0000535	0.829409990
## L.Alanine_HMDB0000161	-0.704519781
## Alpha.ketoisovaleric.acid_HMDB0000019	0.012579987
## Glycine_HMDB0000123	-0.497634241
## Oxalic.acid_HMDB0002329	0.392022745
## Hydroxylamine_HMDB0003338	-0.025144669
## X2.Hydroxybutyric.acid_HMDB0000008	0.040632350
## Acetoacetic.acid_HMDB0000060	0.323587073
## Hydroxypropionic.acid_HMDB0000700	-0.575507217
## Pyruvic.acid_HMDB0000243.1	-0.145689550
## X3.Hydroxybutyric.acid_HMDB0000357	0.059854087
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.025042576
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.354641319
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.773519392
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.075996449
## Beta.Alanine_HMDB0000056	-0.833833011
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.122573758
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.201496783
## Malonic.acid_HMDB0000691	-0.204138560
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.794772088
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.631347334
## Ketoleucine_HMDB0000695	0.320541460
## L.Valine_HMDB0000883	-0.747491883
## ITSD_Valine	-0.782905080
## Urea_HMDB0000294	-0.452073319
## Benzoic.acid_HMDB0001870	0.094278904
## Caprylic.acid_HMDB0000482	0.743128803

## Glycerol_HMDB0000131	-0.755665253
## Ethanolamine_HMDB0000149	-0.631898542
## L.Leucine_HMDB0000687	-0.776034282
## Acetylglycine_HMDB0000532	0.237013558
## L.Isoleucine_HMDB0000172	-0.730661815
## Nicotinic.acid_HMDB0001488	0.023930623
## Maleic.acid_HMDB0000176	0.515078826
## L.Proline_HMDB0000162	-0.579273787
## Phenylacetic.acid_HMDB0000209	0.707880144
## Succinic.acid_HMDB0000254	-0.499698475
## Glycine_HMDB0000123.1	-0.638381109
## Methylsuccinic.acid_HMDB0001844	-0.017708658
## Glyceric.acid_HMDB0000139	0.628936486
## Fumaric.acid_HMDB0000134	-0.403235078
## Uracil_HMDB0000300	-0.247904039
## Pelargonic.acid_HMDB0000847	0.739077100
## L.Serine_HMDB0000187	-0.623711127
## L.Threonine_HMDB0000167	-0.626800328
## Mesaconic.acid_HMDB0000749	-0.103879041
## Glutaric.acid_HMDB0000661	0.134672117
## Thymine_HMDB0000262	-0.394019061
## Beta.Alanine_HMDB0000056.1	-0.877807810
## L.Homoserine_HMDB0000719	0.255437427
## Capric.acid_HMDB0000511	0.353175036
## Citramalic.acid_HMDB0000426	-0.348060151
## Malic.acid_HMDB0000744	0.529213179
## Niacinamide_HMDB0001406	-0.679064188
## Adipic.acid_HMDB0000448	-0.519907728
## D.Threitol_HMDB00004136	0.028956659
## Dihydrouracil_HMDB0000076	-0.243209385
## Erythritol_HMDB0002994	-0.248424152
## N.Acetylserine_HMDB0002931	-0.473031597
## L.Aspartic.acid_HMDB0000191	-0.675321997
## L.Methionine_HMDB0000696	-0.824874970
## X4.Hydroxyproline_HMDB0000725	-0.616840982
## Pyroglutamic.acid_HMDB0000267	-0.648172393
## Cytosine_HMDB0000630	-0.089652012
## Gamma.Aminobutyric.acid_HMDB0000112	-0.437889881
## Threonic.acid_HMDB0000943	0.494455455
## L.Cysteine_HMDB0000574	0.405063963
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.567973115
## Creatinine_HMDB0000562	-0.770633465
## X3.Hydroxyglutaric.acid_HMDB0000428	0.708218625
## Oxoglutaric.acid_HMDB0000208	-0.060096230
## Phenylpyruvic.acid_HMDB0000205	0.532201303
## Pimelic.acid_HMDB0000857	-0.597481308
## Phenyllactic.acid_HMDB0000779	0.558975186
## Phosphoenolpyruvic.acid_HMDB0000263	0.766722048
## Ornithine_HMDB0000214	-0.615420961
## Hypotaurine_HMDB0000965	-0.626989280
## Triethanolamine_HMDB0032538	-0.536604018
## X2.Aminobenzoic.acid_HMDB0001123	-0.793453665
## L.Glutamic.acid_HMDB0000148	-0.828961870
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.741493000

## X5.Aminopentanoic.acid_HMDB0003355	0.331492892
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.685984764
## L.Phenylalanine_HMDB0000159	-0.842858636
## Dodecanoic.acid_HMDB0000638	-0.373872124
## Lyxose_HMDB0003402_1	0.706363371
## D.Xylose_HMDB0000098	0.594441648
## Lyxose_HMDB0003402_2	0.460305922
## D.Arabinose_HMDB0029942	0.770075812
## L.Asparagine_HMDB0000168	-0.636271620
## D.Ribulose_HMDB0000621	1.000000000
## D.Ribose_HMDB0000283	0.763582352
## D.Xylulose_HMDB0001644	0.996690873
## X3.Sulfinioalanine_HMDB0000996	-0.521006739
## Suberic.acid_HMDB0000893	-0.336843618
## L.Lysine_HMDB0000182	-0.550569793
## Levoglucosan_HMDB0000640	0.453562433
## D.Arabitol_HMDB0000568	-0.207744594
## Ribitol_HMDB0000508	0.211352201
## cis.Aconitic.acid_HMDB0000072	0.361099101
## Quinolinic.acid_HMDB0000232	0.081364675
## Putrescine_HMDB0001414	-0.100675722
## Glycerol.3.phosphate_HMDB0000126	0.442480198
## Vanillic.acid_HMDB0000484	-0.202080273
## L.Glutamine_HMDB0000641	-0.397383895
## X2.Phosphoglyceric.acid_HMDB0000362	0.217593293
## Azelaic.acid_HMDB0000784	-0.128463712
## L.Dihydroorotic.acid_HMDB0003349	0.816419737
## O.Phosphoethanolamine_HMDB0000224	-0.600033996
## X3.Phosphoglyceric.acid_HMDB0000807	0.158100769
## Isocitric.acid_HMDB0000193	-0.039606218
## Hypoxanthine_HMDB0000157	-0.184291819
## Citric.acid_HMDB0000094	0.550319237
## L.Arginine_HMDB0000517	0.379947111
## Ornithine_HMDB0000214.1	-0.760382863
## Dopamine_HMDB0000073	-0.750639757
## Myristic.acid_HMDB0000806	-0.700879788
## X1.5.Anhydrosorbitol_HMDB0002712	0.240671622
## D.Tagatose_HMDB0003418	0.767310470
## Psicose_1	0.353418023
## Sebacic.acid_HMDB0000792	-0.434186339
## D.Fructose_HMDB0000660	0.795508418
## Gluconolactone_HMDB0000150	0.936654195
## L.Sorbose_HMDB0001266	0.790751249
## D.Mannose_HMDB0000169	-0.740337054
## Hydroxyphenyllactic.acid_HMDB0000755	-0.103349279
## D.Glucose_HMDB0000122	-0.658483302
## N.Acetylglutamine_HMDB0006029	-0.721070738
## L.Lysine_HMDB0000182.1	-0.824866334
## D.Mannose_HMDB0000169.1	-0.793882829
## Tyramine_HMDB0000306	-0.823891343
## L.Histidine_HMDB0000177	-0.837883241
## D.Glucose_HMDB0000122.1	-0.723061383
## X1.Hexadecanol_HMDB0003424	0.365967150
## L.Tyrosine_HMDB0000158	-0.778497572

## Mannitol_HMDB0000765	-0.622337141
## Sorbitol_HMDB0000247	0.021859651
## ITSD_Sorbitol	-0.524376766
## Galacturonic.acid_HMDB0002545	0.089567286
## Pantothenic.acid_HMDB0000210	0.332769602
## Palmitoleic.acid_HMDB0003229	-0.606097356
## Xanthine_HMDB0000292	-0.382770303
## Gluconic.acid_HMDB0000625	0.695617863
## Palmitic.acid_HMDB0000220	-0.397446963
## Glucaric.acid_HMDB0000663	-0.448586063
## N.Acetylmannosamine_HMDB0001129	-0.488610442
## N.Acetyl.D.glucosamine_HMDB0000215	-0.650243065
## D.Ribulose.5.phosphate_HMDB0000618	0.782910223
## Uric.acid_HMDB0000289	-0.591585354
## D.Ribose.5.phosphate_HMDB0001548	0.707942236
## myo.Inositol_HMDB0000211	-0.350494675
## D.Ribose.5.phosphate_HMDB0001548.1	0.857760702
## Heptadecanoic.acid_HMDB0002259	0.334314596
## Octadecanol_HMDB0002350	0.311734820
## Glutathione_HMDB0000125	-0.109250287
## Linoleic.acid_HMDB0000673	-0.381961639
## Oleic.acid_HMDB0000207	-0.547145950
## Elaidic.acid_HMDB0000573	-0.543457242
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.818681653
## Stearic.acid_HMDB0000827	0.007651123
## L.Tryptophan_HMDB0000929	-0.008796500
## Fructose.1.phosphate_HMDB0001076	0.627750075
## Mannose.6.phosphate_HMDB0001078	0.333180472
## Arachidonic.acid_HMDB0001043	-0.455698100
## Glucose.6.phosphate_HMDB0001401	0.706058662
## X6.Phosphogluconic.acid_HMDB0001316	0.298626584
## Inositol.phosphate_HMDB0002985	0.179218636
## Uridine_HMDB0000296	-0.020297116
## Stigmasterol_HMDB0000937	-0.159751494
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.197892000
## Sucrose_HMDB0000258	-0.510651646
## MG.18.0e.0.0.0.0._HMDB0011143	0.008852528
## Trehalose_HMDB0000975	-0.110645321
## D.Maltose_HMDB0000163	-0.111146474
## Lactitol_HMDB0040937	-0.027494217
## Xanthylic.acid_HMDB0001554	0.511763976
## Adenosine.monophosphate_HMDB0000045	0.753040301
## Cholesterol_HMDB0000067	0.013457379
## Lathosterol_HMDB0001170	-0.265924951
## X7b.Hydroxycholesterol_.HMDB0006119	0.533793434
##	D.Ribose_HMDB0000283
## Dimethylglycine_HMDB0000092	0.82975210
## Glyoxylic.acid_HMDB0000119	0.82785494
## Pyruvic.acid_HMDB0000243	-0.33298585
## L.Lactic.acid_HMDB0000190	-0.61962809
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.07576058
## Glycolic.acid_HMDB0000115	0.50670006
## Caproic.acid_HMDB0000535	0.87231752
## L.Alanine_HMDB0000161	-0.65029037

## Alpha.ketoisovaleric.acid_HMDB0000019	-0.07546904
## Glycine_HMDB0000123	-0.51420370
## Oxalic.acid_HMDB0002329	0.70066841
## Hydroxylamine_HMDB0003338	-0.17248700
## X2.Hydroxybutyric.acid_HMDB0000008	0.30177269
## Acetoacetic.acid_HMDB0000060	0.31625757
## Hydroxypropionic.acid_HMDB0000700	-0.44117236
## Pyruvic.acid_HMDB0000243.1	-0.16226464
## X3.Hydroxybutyric.acid_HMDB0000357	0.25199936
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.23664659
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.51340716
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.61434146
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.27017076
## Beta.Alanine_HMDB0000056	-0.71615173
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.04168045
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.02873653
## Malonic.acid_HMDB0000691	-0.30054830
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.83118839
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.42896898
## Ketoleucine_HMDB0000695	0.37860475
## L.Valine_HMDB0000883	-0.61781108
## ITSD_Valine	-0.64112725
## Urea_HMDB0000294	-0.34818037
## Benzoic.acid_HMDB0001870	0.18651167
## Caprylic.acid_HMDB0000482	0.77854014
## Glycerol_HMDB0000131	-0.76744224
## Ethanolamine_HMDB0000149	-0.67475035
## L.Leucine_HMDB0000687	-0.66764534
## Acetylglycine_HMDB0000532	0.37826548
## L.Isoleucine_HMDB0000172	-0.67844192
## Nicotinic.acid_HMDB0001488	0.28204151
## Maleic.acid_HMDB0000176	0.59420592
## L.Proline_HMDB0000162	-0.34062418
## Phenylacetic.acid_HMDB0000209	0.78310247
## Succinic.acid_HMDB0000254	-0.34949680
## Glycine_HMDB0000123.1	-0.68122337
## Methylsuccinic.acid_HMDB0001844	0.06776478
## Glyceric.acid_HMDB0000139	0.61778051
## Fumaric.acid_HMDB0000134	-0.36259795
## Uracil_HMDB0000300	-0.27845025
## Pelargonic.acid_HMDB0000847	0.85148690
## L.Serine_HMDB0000187	-0.65962883
## L.Threonine_HMDB0000167	-0.60529106
## Mesaconic.acid_HMDB0000749	0.10334581
## Glutaric.acid_HMDB0000661	0.34860161
## Thymine_HMDB0000262	-0.36576077
## Beta.Alanine_HMDB0000056.1	-0.83986217
## L.Homoserine_HMDB0000719	0.18296562
## Capric.acid_HMDB0000511	0.31330666
## Citramalic.acid_HMDB0000426	-0.41185562
## Malic.acid_HMDB0000744	0.63463162
## Niacinamide_HMDB0001406	-0.62261548
## Adipic.acid_HMDB0000448	-0.57514439
## D.Threitol_HMDB0004136	-0.10984104

## Dihydrouracil_HMDB0000076	-0.16425332
## Erythritol_HMDB0002994	-0.08206948
## N.Acetylserine_HMDB0002931	-0.49985969
## L.Aspartic.acid_HMDB0000191	-0.68012300
## L.Methionine_HMDB0000696	-0.89873475
## X4.Hydroxyproline_HMDB0000725	-0.55347138
## Pyroglutamic.acid_HMDB0000267	-0.61987120
## Cytosine_HMDB0000630	-0.18130026
## Gamma.Aminobutyric.acid_HMDB0000112	-0.16794727
## Threonic.acid_HMDB0000943	0.64262303
## L.Cysteine_HMDB0000574	0.49758701
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.83871622
## Creatinine_HMDB0000562	-0.80316253
## X3.Hydroxyglutaric.acid_HMDB0000428	0.78659590
## Oxoglutaric.acid_HMDB0000208	0.10986596
## Phenylpyruvic.acid_HMDB0000205	0.37921101
## Pimelic.acid_HMDB0000857	-0.44637034
## Phenyllactic.acid_HMDB0000779	0.56757794
## Phosphoenolpyruvic.acid_HMDB0000263	0.84330893
## Ornithine_HMDB0000214	-0.73023155
## Hypotaurine_HMDB0000965	-0.60449811
## Triethanolamine_HMDB0032538	-0.57859545
## X2.Aminobenzoic.acid_HMDB0001123	-0.85503856
## L.Glutamic.acid_HMDB0000148	-0.80397019
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.72744512
## X5.Aminopentanoic.acid_HMDB0003355	0.24287966
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.50390873
## L.Phenylalanine_HMDB0000159	-0.85328895
## Dodecanoic.acid_HMDB0000638	-0.39115042
## Lyxose_HMDB0003402_1	0.95144106
## D.Xylose_HMDB0000098	0.04678831
## Lyxose_HMDB0003402_2	-0.11111320
## D.Arabinose_HMDB0029942	0.99400406
## L.Asparagine_HMDB0000168	-0.69781929
## D.Ribulose_HMDB0000621	0.76358235
## D.Ribose_HMDB0000283	1.00000000
## D.Xylulose_HMDB0001644	0.74652817
## X3.Sulfinoalanine_HMDB0000996	-0.51985161
## Suberic.acid_HMDB0000893	-0.41066869
## L.Lysine_HMDB0000182	-0.67214761
## Levoglucosan_HMDB0000640	-0.12615845
## D.Arabitol_HMDB0000568	-0.11621615
## Ribitol_HMDB0000508	-0.03727126
## cis.Aconitic.acid_HMDB0000072	-0.15974815
## Quinolinic.acid_HMDB0000232	0.10617435
## Putrescine_HMDB0001414	0.14723972
## Glycerol.3.phosphate_HMDB0000126	0.68655844
## Vanillic.acid_HMDB0000484	-0.44558293
## L.Glutamine_HMDB0000641	-0.47570208
## X2.Phosphoglyceric.acid_HMDB0000362	0.20420337
## Azelaic.acid_HMDB0000784	0.08483632
## L.Dihydroorotic.acid_HMDB0003349	0.98107429
## O.Phosphoethanolamine_HMDB0000224	-0.60624165
## X3.Phosphoglyceric.acid_HMDB0000807	0.18801077

## Isocitric.acid_HMDB0000193	-0.08599725
## Hypoxanthine_HMDB0000157	-0.31405806
## Citric.acid_HMDB0000094	0.56402138
## L.Arginine_HMDB0000517	0.33341480
## Ornithine_HMDB0000214.1	-0.83708448
## Dopamine_HMDB0000073	-0.82866651
## Myristic.acid_HMDB0000806	-0.75073179
## X1.5.Anhydrosorbitol_HMDB0002712	0.36725293
## D.Tagatose_HMDB0003418	0.97431883
## Psicose_1	-0.16787957
## Sebacic.acid_HMDB0000792	-0.40329015
## D.Fructose_HMDB0000660	0.93236589
## Gluconolactone_HMDB0000150	0.79059038
## L.Sorbose_HMDB0001266	0.93445085
## D.Mannose_HMDB0000169	-0.90279606
## Hydroxyphenyllactic.acid_HMDB0000755	-0.02154453
## D.Glucose_HMDB0000122	-0.89159931
## N.Acetylglutamine_HMDB0006029	-0.88372890
## L.Lysine_HMDB0000182.1	-0.88834674
## D.Mannose_HMDB0000169.1	-0.93092678
## Tyramine_HMDB0000306	-0.88514225
## L.Histidine_HMDB0000177	-0.90255333
## D.Glucose_HMDB0000122.1	-0.90668918
## X1.Hexadecanol_HMDB0003424	0.21035518
## L.Tyrosine_HMDB0000158	-0.83783882
## Mannitol_HMDB0000765	-0.59753668
## Sorbitol_HMDB0000247	0.13895059
## ITSD_Sorbitol	-0.58783839
## Galacturonic.acid_HMDB0002545	0.04387066
## Pantothenic.acid_HMDB0000210	0.35503519
## Palmitoleic.acid_HMDB0003229	-0.60359656
## Xanthine_HMDB0000292	-0.44072798
## Gluconic.acid_HMDB0000625	0.55872106
## Palmitic.acid_HMDB0000220	-0.46587534
## Glucaric.acid_HMDB0000663	-0.62854166
## N.Acetylmannosamine_HMDB0001129	-0.54640425
## N.Acetyl.D.glucosamine_HMDB0000215	-0.78037520
## D.Ribulose.5.phosphate_HMDB0000618	0.89579603
## Uric.acid_HMDB0000289	-0.76048809
## D.Ribose.5.phosphate_HMDB0001548	0.93342878
## myo.Inositol_HMDB0000211	-0.39029986
## D.Ribose.5.phosphate_HMDB0001548.1	0.92346118
## Heptadecanoic.acid_HMDB0002259	0.41280697
## Octadecanol_HMDB0002350	0.32493270
## Glutathione_HMDB0000125	-0.09434121
## Linoleic.acid_HMDB0000673	-0.36439798
## Oleic.acid_HMDB0000207	-0.54587928
## Elaidic.acid_HMDB0000573	-0.53059058
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.85399969
## Stearic.acid_HMDB0000827	-0.04646769
## L.Tryptophan_HMDB0000929	-0.05549292
## Fructose.1.phosphate_HMDB0001076	0.82818351
## Mannose.6.phosphate_HMDB0001078	0.24385712
## Arachidonic.acid_HMDB0001043	-0.47336625

## Glucose.6.phosphate_HMDB0001401	0.80505280
## X6.Phosphogluconic.acid_HMDB0001316	0.26780557
## Inositol.phosphate_HMDB0002985	0.24737258
## Uridine_HMDB0000296	-0.01968520
## Stigmasterol_HMDB0000937	-0.19315780
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.05062699
## Sucrose_HMDB0000258	-0.67953503
## MG.18.0e.0.0.0.0._HMDB0011143	0.11127881
## Trehalose_HMDB0000975	0.10855618
## D.Maltose_HMDB0000163	0.10540630
## Lactitol_HMDB0040937	0.13996800
## Xanthylic.acid_HMDB0001554	0.46419888
## Adenosine.monophosphate_HMDB0000045	0.86058728
## Cholesterol_HMDB0000067	-0.12138100
## Lathosterol_HMDB0001170	-0.31652964
## X7b.Hydroxycholesterol_.HMDB0006119	0.59983372
##	D.Xylulose_HMDB0001644
## Dimethylglycine_HMDB0000092	0.790228188
## Glyoxylic.acid_HMDB0000119	0.788924293
## Pyruvic.acid_HMDB0000243	-0.330452948
## L.Lactic.acid_HMDB0000190	-0.626672664
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.201994860
## Glycolic.acid_HMDB0000115	0.441448274
## Caproic.acid_HMDB0000535	0.802187027
## L.Alanine_HMDB0000161	-0.697328702
## Alpha.ketoisovaleric.acid_HMDB0000019	0.020667978
## Glycine_HMDB0000123	-0.482634665
## Oxalic.acid_HMDB0002329	0.369361323
## Hydroxylamine_HMDB0003338	-0.053390413
## X2.Hydroxybutyric.acid_HMDB0000008	0.035502295
## Acetoacetic.acid_HMDB0000060	0.291783265
## Hydroxypropionic.acid_HMDB0000700	-0.597228959
## Pyruvic.acid_HMDB0000243.1	-0.162268957
## X3.Hydroxybutyric.acid_HMDB0000357	0.044978151
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.040649550
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.339879517
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.772695588
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.083387711
## Beta.Alanine_HMDB0000056	-0.820672310
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.103727605
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.197023635
## Malonic.acid_HMDB0000691	-0.220654054
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.783516091
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.644710715
## Ketoleucine_HMDB0000695	0.318333648
## L.Valine_HMDB0000883	-0.752732330
## ITSD_Valine	-0.785048895
## Urea_HMDB0000294	-0.437031109
## Benzoic.acid_HMDB0001870	0.062028537
## Caprylic.acid_HMDB0000482	0.725006348
## Glycerol_HMDB0000131	-0.753668492
## Ethanolamine_HMDB0000149	-0.625002680
## L.Leucine_HMDB0000687	-0.782178383
## Acetyl glycine_HMDB0000532	0.221992935

## L.Isoleucine_HMDB0000172	-0.727074884
## Nicotinic.acid_HMDB0001488	0.001972343
## Maleic.acid_HMDB0000176	0.495920315
## L.Proline_HMDB0000162	-0.595303886
## Phenylacetic.acid_HMDB0000209	0.686156028
## Succinic.acid_HMDB0000254	-0.522469533
## Glycine_HMDB0000123.1	-0.646513204
## Methylsuccinic.acid_HMDB0001844	-0.051174980
## Glyceric.acid_HMDB0000139	0.601975925
## Fumaric.acid_HMDB0000134	-0.392090494
## Uracil_HMDB0000300	-0.262374662
## Pelargonic.acid_HMDB0000847	0.728971509
## L.Serine_HMDB0000187	-0.632877049
## L.Threonine_HMDB0000167	-0.621453992
## Mesaconic.acid_HMDB0000749	-0.094444918
## Glutaric.acid_HMDB0000661	0.119710877
## Thymine_HMDB0000262	-0.407525015
## Beta.Alanine_HMDB0000056.1	-0.873405262
## L.Homoserine_HMDB0000719	0.249194087
## Capric.acid_HMDB0000511	0.339278040
## Citramalic.acid_HMDB0000426	-0.356317210
## Malic.acid_HMDB0000744	0.506451810
## Niacinamide_HMDB0001406	-0.664245905
## Adipic.acid_HMDB0000448	-0.511954254
## D.Threitol_HMDB0004136	0.012290216
## Dihydrouracil_HMDB0000076	-0.244247446
## Erythritol_HMDB0002994	-0.240709336
## N.Acetylserine_HMDB0002931	-0.475547771
## L.Aspartic.acid_HMDB0000191	-0.675384561
## L.Methionine_HMDB0000696	-0.813207397
## X4.Hydroxyproline_HMDB0000725	-0.607870261
## Pyroglutamic.acid_HMDB0000267	-0.641841539
## Cytosine_HMDB0000630	-0.058857480
## Gamma.Aminobutyric.acid_HMDB0000112	-0.449325578
## Threonic.acid_HMDB0000943	0.489661621
## L.Cysteine_HMDB0000574	0.404487581
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.542848009
## Creatinine_HMDB0000562	-0.770600219
## X3.Hydroxyglutaric.acid_HMDB0000428	0.702993591
## Oxoglutaric.acid_HMDB0000208	-0.080412191
## Phenylpyruvic.acid_HMDB0000205	0.533378912
## Pimelic.acid_HMDB0000857	-0.591775561
## Phenyllactic.acid_HMDB0000779	0.562912855
## Phosphoenolpyruvic.acid_HMDB0000263	0.774820697
## Ornithine_HMDB0000214	-0.608110050
## Hypotaurine_HMDB0000965	-0.615763734
## Triethanolamine_HMDB0032538	-0.520558280
## X2.Aminobenzoic.acid_HMDB0001123	-0.792503589
## L.Glutamic.acid_HMDB0000148	-0.808557251
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.739736269
## X5.Aminopentanoic.acid_HMDB0003355	0.353975420
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.662100506
## L.Phenylalanine_HMDB0000159	-0.831876424
## Dodecanoic.acid_HMDB0000638	-0.380747732

## Lyxose_HMDB0003402_1	0.686977400
## D.Xylose_HMDB0000098	0.626382207
## Lyxose_HMDB0003402_2	0.490436606
## D.Arabinose_HMDB0029942	0.753301330
## L.Asparagine_HMDB0000168	-0.615478863
## D.Ribulose_HMDB0000621	0.996690873
## D.Ribose_HMDB00000283	0.746528171
## D.Xylulose_HMDB0001644	1.000000000
## X3.Sulfinioalanine_HMDB0000996	-0.512259938
## Suberic.acid_HMDB0000893	-0.327204276
## L.Lysine_HMDB0000182	-0.543156308
## Levoglucosan_HMDB0000640	0.490593067
## D.Arabitol_HMDB0000568	-0.202188198
## Ribitol_HMDB00000508	0.191871426
## cis.Aconitic.acid_HMDB0000072	0.400542885
## Quinolinic.acid_HMDB0000232	0.089555197
## Putrescine_HMDB0001414	-0.128417876
## Glycerol.3.phosphate_HMDB0000126	0.427716220
## Vanillic.acid_HMDB0000484	-0.183617282
## L.Glutamine_HMDB0000641	-0.376614378
## X2.Phosphoglyceric.acid_HMDB0000362	0.235928050
## Azelaic.acid_HMDB0000784	-0.118527718
## L.Dihydroorotic.acid_HMDB0003349	0.797124471
## O.Phosphoethanolamine_HMDB0000224	-0.620327696
## X3.Phosphoglyceric.acid_HMDB0000807	0.176759850
## Isocitric.acid_HMDB0000193	-0.045053863
## Hypoxanthine_HMDB0000157	-0.166978576
## Citric.acid_HMDB0000094	0.551927552
## L.Arginine_HMDB0000517	0.366192901
## Ornithine_HMDB0000214.1	-0.748055771
## Dopamine_HMDB0000073	-0.740897460
## Myristic.acid_HMDB0000806	-0.702322268
## X1.5.Anhydrosorbitol_HMDB0002712	0.267655967
## D.Tagatose_HMDB0003418	0.750619901
## Psicose_1	0.395506532
## Sebacic.acid_HMDB0000792	-0.419296258
## D.Fructose_HMDB0000660	0.771166860
## Gluconolactone_HMDB0000150	0.921619275
## L.Sorbose_HMDB0001266	0.766032548
## D.Mannose_HMDB0000169	-0.713083365
## Hydroxyphenyllactic.acid_HMDB0000755	-0.110134577
## D.Glucose_HMDB0000122	-0.625011952
## N.Acetylglutamine_HMDB0006029	-0.688419615
## L.Lysine_HMDB0000182.1	-0.812771311
## D.Mannose_HMDB0000169.1	-0.770063001
## Tyramine_HMDB0000306	-0.812058149
## L.Histidine_HMDB0000177	-0.825179830
## D.Glucose_HMDB0000122.1	-0.691071418
## X1.Hexadecanol_HMDB0003424	0.353001714
## L.Tyrosine_HMDB0000158	-0.759090678
## Mannitol_HMDB0000765	-0.603192142
## Sorbitol_HMDB0000247	-0.015709972
## ITSD_Sorbitol	-0.508737532
## Galacturonic.acid_HMDB0002545	0.116181718

## Pantothenic.acid_HMDB0000210	0.332171143
## Palmitoleic.acid_HMDB0003229	-0.618566355
## Xanthine_HMDB0000292	-0.371745114
## Gluconic.acid_HMDB0000625	0.693792479
## Palmitic.acid_HMDB0000220	-0.407967655
## Glucaric.acid_HMDB0000663	-0.426273388
## N.Acetylmannosamine_HMDB0001129	-0.482107652
## N.Acetyl.D.glucosamine_HMDB0000215	-0.638723867
## D.Ribulose.5.phosphate_HMDB0000618	0.777439352
## Uric.acid_HMDB0000289	-0.571117503
## D.Ribose.5.phosphate_HMDB0001548	0.706441648
## myo.Inositol_HMDB0000211	-0.355162558
## D.Ribose.5.phosphate_HMDB0001548.1	0.853166493
## Heptadecanoic.acid_HMDB0002259	0.318753805
## Octadecanol_HMDB0002350	0.295683505
## Glutathione_HMDB0000125	-0.081553725
## Linoleic.acid_HMDB0000673	-0.401329085
## Oleic.acid_HMDB0000207	-0.561264710
## Elaidic.acid_HMDB0000573	-0.553287883
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.822142177
## Stearic.acid_HMDB0000827	-0.007880552
## L.Tryptophan_HMDB0000929	-0.014641564
## Fructose.1.phosphate_HMDB0001076	0.605613538
## Mannose.6.phosphate_HMDB0001078	0.346779465
## Arachidonic.acid_HMDB0001043	-0.463513903
## Glucose.6.phosphate_HMDB0001401	0.685741707
## X6.Phosphogluconic.acid_HMDB0001316	0.276509370
## Inositol.phosphate_HMDB0002985	0.171126480
## Uridine_HMDB0000296	-0.044430244
## Stigmasterol_HMDB0000937	-0.172895533
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.200815690
## Sucrose_HMDB0000258	-0.513736004
## MG.18.0e.0.0.0.0._HMDB0011143	-0.011730853
## Trehalose_HMDB0000975	-0.099987614
## D.Maltose_HMDB0000163	-0.100706776
## Lactitol_HMDB00040937	-0.010882271
## Xanthylic.acid_HMDB0001554	0.526746535
## Adenosine.monophosphate_HMDB0000045	0.745754199
## Cholesterol_HMDB0000067	0.035437960
## Lathosterol_HMDB0001170	-0.262224139
## X7b.Hydroxycholesterol_.HMDB0006119	0.535447697
##	X3.Sulfinioalanine_HMDB0000996
## Dimethylglycine_HMDB0000092	-3.890576e-01
## Glyoxylic.acid_HMDB0000119	-3.943596e-01
## Pyruvic.acid_HMDB0000243	-1.417701e-01
## L.Lactic.acid_HMDB0000190	3.089735e-02
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-2.307768e-01
## Glycolic.acid_HMDB0000115	-3.271519e-01
## Caproic.acid_HMDB0000535	-4.982252e-01
## L.Alanine_HMDB0000161	2.063021e-01
## Alpha.ketoisovaleric.acid_HMDB0000019	-3.484959e-01
## Glycine_HMDB0000123	-4.065613e-02
## Oxalic.acid_HMDB0002329	-4.672551e-01
## Hydroxylamine_HMDB0003338	-1.739453e-01

## X2.Hydroxybutyric.acid_HMDB0000008	-4.220324e-01
## Acetoacetic.acid_HMDB0000060	-5.967692e-01
## Hydroxypropionic.acid_HMDB0000700	-4.932432e-02
## Pyruvic.acid_HMDB0000243.1	-2.242132e-01
## X3.Hydroxybutyric.acid_HMDB0000357	-5.690440e-01
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-4.738133e-01
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-4.083598e-01
## D.Alpha.aminobutyric.acid_HMDB0000650	1.897625e-01
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-1.567278e-01
## Beta.Alanine_HMDB0000056	4.282869e-01
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-3.100434e-01
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-2.331401e-01
## Malonic.acid_HMDB0000691	-1.302508e-01
## X3.Aminoisobutanoic.acid_HMDB0003911	4.743225e-01
## X3.Hydroxyisovaleric.acid_HMDB0000754	-3.217697e-02
## Ketoleucine_HMDB0000695	-5.815440e-01
## L.Valine_HMDB0000883	1.975933e-01
## ITSD_Valine	2.193439e-01
## Urea_HMDB0000294	-8.395623e-02
## Benzoic.acid_HMDB0001870	4.445927e-02
## Caprylic.acid_HMDB0000482	-5.228531e-01
## Glycerol_HMDB0000131	1.778697e-01
## Ethanolamine_HMDB0000149	1.842290e-01
## L.Leucine_HMDB0000687	2.017672e-01
## Acetyl glycine_HMDB0000532	-2.962810e-01
## L.Isoleucine_HMDB0000172	1.689771e-01
## Nicotinic.acid_HMDB0001488	4.001456e-02
## Maleic.acid_HMDB0000176	-7.015324e-01
## L.Proline_HMDB0000162	3.655477e-02
## Phenylacetic.acid_HMDB0000209	-7.415493e-01
## Succinic.acid_HMDB0000254	-8.778601e-02
## Glycine_HMDB0000123.1	8.630009e-02
## Methylsuccinic.acid_HMDB0001844	3.533353e-02
## Glyceric.acid_HMDB0000139	-6.560897e-01
## Fumaric.acid_HMDB0000134	-1.373822e-01
## Uracil_HMDB0000300	-1.667145e-01
## Pelargonic.acid_HMDB0000847	-4.313618e-01
## L.Serine_HMDB0000187	1.482417e-01
## L.Threonine_HMDB0000167	8.997288e-02
## Mesaconic.acid_HMDB0000749	2.316190e-01
## Glutaric.acid_HMDB0000661	-1.973864e-01
## Thymine_HMDB0000262	-8.592505e-02
## Beta.Alanine_HMDB0000056.1	3.894840e-01
## L.Homoserine_HMDB0000719	4.036370e-02
## Capric.acid_HMDB0000511	-1.353315e-02
## Citramalic.acid_HMDB0000426	7.875885e-02
## Malic.acid_HMDB0000744	-6.200435e-01
## Niacinamide_HMDB0001406	2.282059e-01
## Adipic.acid_HMDB0000448	3.543450e-01
## D.Threitol_HMDB0004136	8.433032e-02
## Dihydrouracil_HMDB0000076	-9.237154e-02
## Erythritol_HMDB0002994	-2.404882e-01
## N.Acetylserine_HMDB0002931	-4.419311e-02
## L.Aspartic.acid_HMDB0000191	2.174012e-01

## L.Methionine_HMDB0000696	4.455816e-01
## X4.Hydroxyproline_HMDB0000725	1.014276e-01
## Pyroglutamic.acid_HMDB0000267	1.313678e-01
## Cytosine_HMDB0000630	5.577495e-01
## Gamma.Aminobutyric.acid_HMDB0000112	-6.088060e-02
## Threonic.acid_HMDB0000943	-5.382143e-01
## L.Cysteine_HMDB0000574	-4.216825e-01
## L.2.Hydroxyglutaric.acid_HMDB0000694	-5.250859e-01
## Creatinine_HMDB0000562	5.256824e-01
## X3.Hydroxyglutaric.acid_HMDB0000428	-1.921803e-01
## Oxoglutaric.acid_HMDB0000208	-4.225298e-01
## Phenylpyruvic.acid_HMDB0000205	-2.328209e-01
## Pimelic.acid_HMDB0000857	-4.208247e-02
## Phenyllactic.acid_HMDB0000779	-2.699699e-01
## Phosphoenolpyruvic.acid_HMDB0000263	-3.274123e-01
## Ornithine_HMDB0000214	5.755687e-01
## Hypotaurine_HMDB0000965	1.444213e-01
## Triethanolamine_HMDB0032538	7.848761e-02
## X2.Aminobenzoic.acid_HMDB0001123	2.839167e-01
## L.Glutamic.acid_HMDB0000148	6.492372e-01
## X4.Hydroxybenzoic.acid_HMDB0000500	2.039519e-01
## X5.Aminopentanoic.acid_HMDB0003355	-6.070635e-01
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-3.671385e-01
## L.Phenylalanine_HMDB0000159	4.529426e-01
## Dodecanoic.acid_HMDB0000638	4.813721e-02
## Lyxose_HMDB0003402_1	-5.187431e-01
## D.Xylose_HMDB0000098	-1.620593e-02
## Lyxose_HMDB0003402_2	4.873391e-02
## D.Arabinose_HMDB0029942	-5.577311e-01
## L.Asparagine_HMDB0000168	8.073105e-01
## D.Ribulose_HMDB0000621	-5.210067e-01
## D.Ribose_HMDB0000283	-5.198516e-01
## D.Xylulose_HMDB0001644	-5.122599e-01
## X3.Sulfinoalanine_HMDB0000996	1.000000e+00
## Suberic.acid_HMDB0000893	4.982059e-02
## L.Lysine_HMDB0000182	7.453194e-01
## Levoglucosan_HMDB0000640	8.985672e-02
## D.Arabitol_HMDB0000568	6.372404e-02
## Ribitol_HMDB0000508	8.494194e-02
## cis.Aconitic.acid_HMDB0000072	9.167688e-05
## Quinolinic.acid_HMDB0000232	-1.146595e-01
## Putrescine_HMDB0001414	-1.732639e-01
## Glycerol.3.phosphate_HMDB0000126	3.126818e-02
## Vanillic.acid_HMDB0000484	1.645701e-02
## L.Glutamine_HMDB0000641	8.045387e-01
## X2.Phosphoglyceric.acid_HMDB0000362	-2.183794e-01
## Azelaic.acid_HMDB0000784	1.592207e-01
## L.Dihydroorotic.acid_HMDB0003349	-5.763797e-01
## O.Phosphoethanolamine_HMDB0000224	2.752292e-01
## X3.Phosphoglyceric.acid_HMDB0000807	-3.431844e-01
## Isocitric.acid_HMDB0000193	1.966272e-01
## Hypoxanthine_HMDB0000157	7.439867e-01
## Citric.acid_HMDB0000094	-3.404300e-01
## L.Arginine_HMDB0000517	3.359604e-01

## Ornithine_HMDB0000214.1	4.109025e-01
## Dopamine_HMDB0000073	4.393070e-01
## Myristic.acid_HMDB0000806	2.524049e-01
## X1.5.Anhydrosorbitol_HMDB0002712	-3.318331e-01
## D.Tagatose_HMDB0003418	-5.063556e-01
## Psicose_1	2.337037e-02
## Sebacic.acid_HMDB0000792	1.227891e-01
## D.Fructose_HMDB0000660	-5.826556e-01
## Gluconolactone_HMDB0000150	-5.129551e-01
## L.Sorbose_HMDB0001266	-5.534669e-01
## D.Mannose_HMDB0000169	4.038221e-01
## Hydroxyphenyllactic.acid_HMDB0000755	-5.604242e-01
## D.Glucose_HMDB0000122	4.154939e-01
## N.Acetylglutamine_HMDB0006029	3.860414e-01
## L.Lysine_HMDB0000182.1	5.831245e-01
## D.Mannose_HMDB0000169.1	5.027114e-01
## Tyramine_HMDB0000306	5.880762e-01
## L.Histidine_HMDB0000177	6.019158e-01
## D.Glucose_HMDB0000122.1	4.337054e-01
## X1.Hexadecanol_HMDB0003424	-1.986673e-02
## L.Tyrosine_HMDB0000158	6.649276e-01
## Mannitol_HMDB0000765	2.343840e-01
## Sorbitol_HMDB0000247	2.956360e-01
## ITSD_Sorbitol	3.878533e-02
## Galacturonic.acid_HMDB0002545	-3.499590e-01
## Pantothenic.acid_HMDB0000210	-5.012171e-01
## Palmitoleic.acid_HMDB0003229	2.486672e-01
## Xanthine_HMDB0000292	4.551902e-01
## Gluconic.acid_HMDB0000625	-4.377264e-01
## Palmitic.acid_HMDB0000220	-1.370611e-02
## Glucaric.acid_HMDB0000663	3.812208e-02
## N.Acetylmannosamine_HMDB0001129	4.112809e-01
## N.Acetyl.D.glucosamine_HMDB0000215	2.862389e-01
## D.Ribulose.5.phosphate_HMDB0000618	-3.826328e-01
## Uric.acid_HMDB0000289	8.260746e-01
## D.Ribose.5.phosphate_HMDB0001548	-4.041326e-01
## myo.Inositol_HMDB0000211	2.642398e-01
## D.Ribose.5.phosphate_HMDB0001548.1	-4.918544e-01
## Heptadecanoic.acid_HMDB0002259	-3.281625e-01
## Octadecanol_HMDB0002350	-5.496412e-01
## Glutathione_HMDB0000125	5.805492e-01
## Linoleic.acid_HMDB0000673	6.227105e-02
## Oleic.acid_HMDB0000207	2.586004e-01
## Elaidic.acid_HMDB0000573	2.378136e-01
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-4.759584e-01
## Stearic.acid_HMDB0000827	-3.202569e-01
## L.Tryptophan_HMDB0000929	-3.182869e-01
## Fructose.1.phosphate_HMDB0001076	-4.534596e-01
## Mannose.6.phosphate_HMDB0001078	2.148707e-01
## Arachidonic.acid_HMDB0001043	3.877942e-01
## Glucose.6.phosphate_HMDB0001401	-6.024907e-01
## X6.Phosphogluconic.acid_HMDB0001316	-4.036583e-01
## Inositol.phosphate_HMDB0002985	-3.800687e-02
## Uridine_HMDB0000296	-1.618388e-01

## Stigmasterol_HMDB0000937	-3.604174e-01
## D.Sedoheptulose.7.phosphate_HMDB0001068	-3.957457e-01
## Sucrose_HMDB0000258	3.194193e-01
## MG.18.0e.0.0.0.0._HMDB0011143	-3.624998e-01
## Trehalose_HMDB0000975	2.914704e-01
## D.Maltose_HMDB0000163	2.889335e-01
## Lactitol_HMDB0040937	-1.195398e-01
## Xanthylic.acid_HMDB0001554	1.217249e-01
## Adenosine.monophosphate_HMDB0000045	-4.548020e-01
## Cholesterol_HMDB0000067	2.407652e-01
## Lathosterol_HMDB0001170	1.987285e-01
## X7b.Hydroxycholesterol._HMDB0006119	-3.871536e-01
##	Suberic.acid_HMDB0000893
## Dimethylglycine_HMDB0000092	-0.2894367112
## Glyoxylic.acid_HMDB0000119	-0.2801908460
## Pyruvic.acid_HMDB0000243	0.6675823519
## L.Lactic.acid_HMDB0000190	0.6606665642
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.3470382062
## Glycolic.acid_HMDB0000115	-0.1985987136
## Caproic.acid_HMDB0000535	-0.1436425899
## L.Alanine_HMDB0000161	0.6702347197
## Alpha.ketoisovaleric.acid_HMDB0000019	0.6335720696
## Glycine_HMDB0000123	0.7830623417
## Oxalic.acid_HMDB0002329	-0.2389346613
## Hydroxylamine_HMDB0003338	0.0865159712
## X2.Hydroxybutyric.acid_HMDB0000008	0.1692778770
## Acetoacetic.acid_HMDB0000060	-0.0217186922
## Hydroxypropionic.acid_HMDB0000700	0.3472415823
## Pyruvic.acid_HMDB0000243.1	0.1871737677
## X3.Hydroxybutyric.acid_HMDB0000357	0.1154698409
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.1870541386
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.2277180786
## D.Alpha.aminobutyric.acid_HMDB0000650	0.3721949022
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.1776834392
## Beta.Alanine_HMDB0000056	0.5795452800
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.6429745176
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.3314657649
## Malonic.acid_HMDB0000691	0.7615252030
## X3.Aminoisobutanoic.acid_HMDB0003911	0.3056036737
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.4101141141
## Ketoleucine_HMDB0000695	0.3006824804
## L.Valine_HMDB0000883	0.5177919158
## ITSD_Valine	0.4224674915
## Urea_HMDB0000294	0.6280315285
## Benzoic.acid_HMDB0001870	-0.1056562033
## Caprylic.acid_HMDB0000482	-0.1413228587
## Glycerol_HMDB0000131	0.6108779758
## Ethanolamine_HMDB0000149	0.6795000416
## L.Leucine_HMDB0000687	0.5212609979
## Acetyl glycine_HMDB0000532	0.0357991786
## L.Isoleucine_HMDB0000172	0.5930554670
## Nicotinic.acid_HMDB0001488	0.2272647419
## Maleic.acid_HMDB0000176	0.0086926289
## L.Proline_HMDB0000162	0.4831607019

## Phenylacetic.acid_HMDB0000209	-0.1176832868
## Succinic.acid_HMDB0000254	0.5525347836
## Glycine_HMDB0000123.1	0.6045770715
## Methylsuccinic.acid_HMDB0001844	0.0294192444
## Glyceric.acid_HMDB0000139	-0.2492333855
## Fumaric.acid_HMDB0000134	0.6391344072
## Uracil_HMDB0000300	0.6392815203
## Pelargonic.acid_HMDB0000847	-0.2180739613
## L.Serine_HMDB0000187	0.6941261773
## L.Threonine_HMDB0000167	0.7242609685
## Mesaconic.acid_HMDB0000749	0.2830297060
## Glutaric.acid_HMDB0000661	0.6120585916
## Thymine_HMDB0000262	0.5147467141
## Beta.Alanine_HMDB0000056.1	0.4509033479
## L.Homoserine_HMDB0000719	-0.1562635796
## Capric.acid_HMDB0000511	-0.2515867896
## Citramalic.acid_HMDB0000426	0.8845103263
## Malic.acid_HMDB0000744	0.1052142015
## Niacinamide_HMDB0001406	0.7385532456
## Adipic.acid_HMDB0000448	0.8340622849
## D.Threitol_HMDB0004136	0.2583176213
## Dihydrouracil_HMDB0000076	0.5953190849
## Erythritol_HMDB0002994	0.4242234573
## N.Acetylserine_HMDB0002931	0.7516522015
## L.Aspartic.acid_HMDB0000191	0.7200684939
## L.Methionine_HMDB0000696	0.4970183752
## X4.Hydroxyproline_HMDB0000725	0.7583082119
## Pyroglutamic.acid_HMDB0000267	0.7234198313
## Cytosine_HMDB0000630	0.3218313558
## Gamma.Aminobutyric.acid_HMDB0000112	0.5797710869
## Threonic.acid_HMDB0000943	-0.1145495250
## L.Cysteine_HMDB0000574	-0.0663504817
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.0624367015
## Creatinine_HMDB0000562	0.2053802033
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.0332081048
## Oxoglutaric.acid_HMDB0000208	0.1828787348
## Phenylpyruvic.acid_HMDB0000205	0.0256802868
## Pimelic.acid_HMDB0000857	0.5121672116
## Phenyllactic.acid_HMDB0000779	0.0027843780
## Phosphoenolpyruvic.acid_HMDB0000263	-0.2288466128
## Ornithine_HMDB0000214	0.5482707398
## Hypotaurine_HMDB0000965	0.5807029834
## Triethanolamine_HMDB0032538	0.7616394438
## X2.Aminobenzoic.acid_HMDB0001123	0.4646907002
## L.Glutamic.acid_HMDB0000148	0.5565187349
## X4.Hydroxybenzoic.acid_HMDB0000500	0.5896489036
## X5.Aminopentanoic.acid_HMDB0003355	0.4307305750
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.0388179300
## L.Phenylalanine_HMDB0000159	0.5204475074
## Dodecanoic.acid_HMDB0000638	0.1565582060
## Lyxose_HMDB0003402_1	-0.3689654741
## D.Xylose_HMDB0000098	-0.1177803625
## Lyxose_HMDB0003402_2	0.0622491477
## D.Arabinose_HMDB0029942	-0.3865923330

## L.Asparagine_HMDB0000168	0.3658461065
## D.Ribulose_HMDB0000621	-0.3368436177
## D.Ribose_HMDB0000283	-0.4106686913
## D.Xylulose_HMDB0001644	-0.3272042760
## X3.Sulfinioalanine_HMDB0000996	0.0498205929
## Suberic.acid_HMDB0000893	1.0000000000
## L.Lysine_HMDB0000182	0.3647313243
## Levoglucosan_HMDB0000640	-0.0697126970
## D.Arabitol_HMDB0000568	0.3965212156
## Ribitol_HMDB0000508	0.0855959483
## cis.Aconitic.acid_HMDB0000072	0.0897608516
## Quinolinic.acid_HMDB0000232	0.6260558853
## Putrescine_HMDB0001414	0.4007121511
## Glycerol.3.phosphate_HMDB0000126	-0.2949269052
## Vanillic.acid_HMDB0000484	0.4085816639
## L.Glutamine_HMDB0000641	0.1025823091
## X2.Phosphoglyceric.acid_HMDB0000362	0.5412999014
## Azelaic.acid_HMDB0000784	0.4761546033
## L.Dihydroorotic.acid_HMDB0003349	-0.3458148842
## O.Phosphoethanolamine_HMDB0000224	0.1934707172
## X3.Phosphoglyceric.acid_HMDB0000807	0.5978907706
## Isocitric.acid_HMDB0000193	0.5403453360
## Hypoxanthine_HMDB0000157	-0.3009135312
## Citric.acid_HMDB0000094	0.1986688780
## L.Arginine_HMDB0000517	-0.2436530919
## Ornithine_HMDB0000214.1	0.5760513055
## Dopamine_HMDB0000073	0.5704140395
## Myristic.acid_HMDB0000806	0.4336245183
## X1.5.Anhydrosorbitol_HMDB0002712	0.1436754992
## D.Tagatose_HMDB0003418	-0.3143238908
## Psicose_1	-0.0394137411
## Sebacic.acid_HMDB0000792	0.6031127991
## D.Fructose_HMDB0000660	-0.1991039968
## Gluconolactone_HMDB0000150	-0.2171089430
## L.Sorbose_HMDB0001266	-0.2278460824
## D.Mannose_HMDB0000169	0.4109050461
## Hydroxyphenyllactic.acid_HMDB0000755	0.2742639633
## D.Glucose_HMDB0000122	0.4376823810
## N.Acetylglutamine_HMDB0006029	0.4000420907
## L.Lysine_HMDB0000182.1	0.4396128895
## D.Mannose_HMDB0000169.1	0.3739791165
## Tyramine_HMDB0000306	0.4205824102
## L.Histidine_HMDB0000177	0.4222141521
## D.Glucose_HMDB0000122.1	0.3966922363
## X1.Hexadecanol_HMDB0003424	-0.2606662905
## L.Tyrosine_HMDB0000158	0.4661884627
## Mannitol_HMDB0000765	0.5424630853
## Sorbitol_HMDB0000247	-0.0449217113
## ITSD_Sorbitol	0.3149795202
## Galacturonic.acid_HMDB0002545	0.1629699525
## Pantothenic.acid_HMDB0000210	0.1271745845
## Palmitoleic.acid_HMDB0003229	-0.0001618882
## Xanthine_HMDB0000292	0.2655909229
## Gluconic.acid_HMDB0000625	0.0665947482

## Palmitic.acid_HMDB0000220	0.1954829634
## Glucaric.acid_HMDB0000663	0.3866415711
## N.Acetylmannosamine_HMDB0001129	0.1023555966
## N.Acetyl.D.glucosamine_HMDB0000215	0.3698681814
## D.Ribulose.5.phosphate_HMDB0000618	-0.3223812797
## Uric.acid_HMDB0000289	0.1416425193
## D.Ribose.5.phosphate_HMDB0001548	-0.4249250832
## myo.Inositol_HMDB0000211	0.7456896907
## D.Ribose.5.phosphate_HMDB0001548.1	-0.3885957264
## Heptadecanoic.acid_HMDB0002259	0.3643631892
## Octadecanol_HMDB0002350	0.1793574259
## Glutathione_HMDB0000125	0.3042954337
## Linoleic.acid_HMDB0000673	-0.1318656282
## Oleic.acid_HMDB0000207	-0.1027859652
## Elaidic.acid_HMDB0000573	-0.0226500316
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.1327708054
## Stearic.acid_HMDB0000827	0.2421959522
## L.Tryptophan_HMDB0000929	0.2996711421
## Fructose.1.phosphate_HMDB0001076	0.0302472898
## Mannose.6.phosphate_HMDB0001078	-0.0234117186
## Arachidonic.acid_HMDB0001043	-0.3014645169
## Glucose.6.phosphate_HMDB0001401	-0.0768566891
## X6.Phosphogluconic.acid_HMDB0001316	-0.1582532077
## Inositol.phosphate_HMDB0002985	-0.3624185671
## Uridine_HMDB0000296	0.0327469916
## Stigmasterol_HMDB0000937	0.3604068211
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.2386791032
## Sucrose_HMDB0000258	0.3943291363
## MG.18.Oe.0.0.0.0._HMDB0011143	-0.0397482476
## Trehalose_HMDB0000975	0.1463134834
## D.Maltose_HMDB0000163	0.1540812155
## Lactitol_HMDB00040937	0.1006031720
## Xanthylic.acid_HMDB0001554	-0.3356907370
## Adenosine.monophosphate_HMDB0000045	-0.1575024646
## Cholesterol_HMDB0000067	-0.2453539768
## Lathosterol_HMDB0001170	-0.3143576901
## X7b.Hydroxycholesterol_.HMDB0006119	0.2457749320
##	L.Lysine_HMDB0000182
## Dimethylglycine_HMDB0000092	-0.547336511
## Glyoxylic.acid_HMDB0000119	-0.546657183
## Pyruvic.acid_HMDB0000243	0.115683902
## L.Lactic.acid_HMDB0000190	0.288203452
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.276819369
## Glycolic.acid_HMDB0000115	-0.399317301
## Caproic.acid_HMDB0000535	-0.556544738
## L.Alanine_HMDB0000161	0.461775825
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.109779727
## Glycine_HMDB0000123	0.226330906
## Oxalic.acid_HMDB0002329	-0.553490226
## Hydroxylamine_HMDB0003338	-0.097507955
## X2.Hydroxybutyric.acid_HMDB0000008	-0.474635047
## Acetoacetic.acid_HMDB0000060	-0.526124301
## Hydroxypropionic.acid_HMDB0000700	0.077680053
## Pyruvic.acid_HMDB0000243.1	-0.229904120

## X3.Hydroxybutyric.acid_HMDB0000357	-0.598182531
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.508796305
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.637505063
## D.Alpha.aminobutyric.acid_HMDB0000650	0.355357096
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.366587002
## Beta.Alanine_HMDB0000056	0.528709651
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.017126589
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.228156080
## Malonic.acid_HMDB0000691	0.243464802
## X3.Aminoisobutanoic.acid_HMDB0003911	0.596495132
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.040251864
## Ketoleucine_HMDB0000695	-0.544620889
## L.Valine_HMDB0000883	0.399898925
## ITSD_Valine	0.368111993
## Urea_HMDB0000294	0.089392223
## Benzoic.acid_HMDB0001870	-0.177715775
## Caprylic.acid_HMDB0000482	-0.709538569
## Glycerol_HMDB0000131	0.453006340
## Ethanolamine_HMDB0000149	0.538211525
## L.Leucine_HMDB0000687	0.399790413
## Acetyl glycine_HMDB0000532	-0.324907252
## L.Isoleucine_HMDB0000172	0.391424162
## Nicotinic.acid_HMDB0001488	-0.347838667
## Maleic.acid_HMDB0000176	-0.692841951
## L.Proline_HMDB0000162	0.212556199
## Phenylacetic.acid_HMDB0000209	-0.714379618
## Succinic.acid_HMDB0000254	0.132103583
## Glycine_HMDB0000123.1	0.419099322
## Methylsuccinic.acid_HMDB0001844	0.046171692
## Glyceric.acid_HMDB0000139	-0.609167172
## Fumaric.acid_HMDB0000134	0.011177631
## Uracil_HMDB0000300	0.021390618
## Pelargonic.acid_HMDB0000847	-0.678200927
## L.Serine_HMDB0000187	0.434816335
## L.Threonine_HMDB0000167	0.402127918
## Mesaconic.acid_HMDB0000749	-0.114792014
## Glutaric.acid_HMDB0000661	-0.078200676
## Thymine_HMDB0000262	0.040387665
## Beta.Alanine_HMDB0000056.1	0.518747270
## L.Homoserine_HMDB0000719	-0.044988968
## Capric.acid_HMDB0000511	-0.193116920
## Citramalic.acid_HMDB0000426	0.399612673
## Malic.acid_HMDB0000744	-0.510262567
## Niacinamide_HMDB0001406	0.322464631
## Adipic.acid_HMDB0000448	0.611780900
## D.Threitol_HMDB0004136	-0.045851879
## Dihydrouracil_HMDB0000076	0.029198234
## Erythritol_HMDB0002994	-0.195829777
## N.Acetylserine_HMDB0002931	0.331581000
## L.Aspartic.acid_HMDB0000191	0.474472815
## L.Methionine_HMDB0000696	0.708131689
## X4.Hydroxyproline_HMDB0000725	0.325439859
## Pyroglutamic.acid_HMDB0000267	0.342952872
## Cytosine_HMDB0000630	0.489939889

## Gamma.Aminobutyric.acid_HMDB0000112	-0.102751968
## Threonic.acid_HMDB0000943	-0.684534412
## L.Cysteine_HMDB0000574	-0.518159669
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.699858920
## Creatinine_HMDB0000562	0.732014166
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.363093807
## Oxoglutaric.acid_HMDB0000208	-0.555890054
## Phenylpyruvic.acid_HMDB0000205	-0.304357634
## Pimelic.acid_HMDB0000857	0.073709883
## Phenyllactic.acid_HMDB0000779	-0.455523331
## Phosphoenolpyruvic.acid_HMDB0000263	-0.515372484
## Ornithine_HMDB0000214	0.938007150
## Hypotaurine_HMDB0000965	0.418400641
## Triethanolamine_HMDB0032538	0.435800698
## X2.Aminobenzoic.acid_HMDB0001123	0.542291798
## L.Glutamic.acid_HMDB0000148	0.708325607
## X4.Hydroxybenzoic.acid_HMDB0000500	0.475587582
## X5.Aminopentanoic.acid_HMDB0003355	-0.499925989
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.308691213
## L.Phenylalanine_HMDB0000159	0.686377963
## Dodecanoic.acid_HMDB0000638	0.036839563
## Lyxose_HMDB0003402_1	-0.694613624
## D.Xylose_HMDB0000098	-0.120367710
## Lyxose_HMDB0003402_2	0.048889923
## D.Arabinose_HMDB0029942	-0.684185583
## L.Asparagine_HMDB0000168	0.914026842
## D.Ribulose_HMDB0000621	-0.550569793
## D.Ribose_HMDB0000283	-0.672147608
## D.Xylulose_HMDB0001644	-0.543156308
## X3.Sulfinoalanine_HMDB0000996	0.745319392
## Suberic.acid_HMDB0000893	0.364731324
## L.Lysine_HMDB0000182	1.000000000
## Levoglucosan_HMDB0000640	0.037359663
## D.Arabitol_HMDB0000568	0.050378928
## Ribitol_HMDB0000508	0.118345744
## cis.Aconitic.acid_HMDB0000072	-0.108020243
## Quinolinic.acid_HMDB0000232	-0.113107286
## Putrescine_HMDB0001414	-0.328960287
## Glycerol.3.phosphate_HMDB0000126	-0.436887789
## Vanillic.acid_HMDB0000484	0.256130605
## L.Glutamine_HMDB0000641	0.770163213
## X2.Phosphoglyceric.acid_HMDB0000362	-0.141933260
## Azelaic.acid_HMDB0000784	0.017042389
## L.Dihydroorotic.acid_HMDB0003349	-0.685099220
## O.Phosphoethanolamine_HMDB0000224	0.248182058
## X3.Phosphoglyceric.acid_HMDB0000807	-0.235596643
## Isocitric.acid_HMDB0000193	0.309853285
## Hypoxanthine_HMDB0000157	0.634674490
## Citric.acid_HMDB0000094	-0.363400722
## L.Arginine_HMDB0000517	0.193723019
## Ornithine_HMDB0000214.1	0.722196590
## Dopamine_HMDB0000073	0.741870331
## Myristic.acid_HMDB0000806	0.398697949
## X1.5.Anhydrosorbitol_HMDB0002712	-0.528537816

## D.Tagatose_HMDB0003418	-0.647410940
## Psicose_1	-0.097700511
## Sebacic.acid_HMDB0000792	0.239121222
## D.Fructose_HMDB0000660	-0.607276809
## Gluconolactone_HMDB0000150	-0.476463466
## L.Sorbose_HMDB0001266	-0.587761109
## D.Mannose_HMDB0000169	0.497023758
## Hydroxyphenyllactic.acid_HMDB0000755	-0.494042942
## D.Glucose_HMDB0000122	0.514748737
## N.Acetylglutamine_HMDB0006029	0.459460845
## L.Lysine_HMDB0000182.1	0.790717126
## D.Mannose_HMDB0000169.1	0.638273650
## Tyramine_HMDB0000306	0.794075756
## L.Histidine_HMDB0000177	0.791752393
## D.Glucose_HMDB0000122.1	0.511694519
## X1.Hexadecanol_HMDB0003424	-0.292289979
## L.Tyrosine_HMDB0000158	0.839381276
## Mannitol_HMDB0000765	0.220733616
## Sorbitol_HMDB0000247	0.036524686
## ITSD_Sorbitol	0.182270905
## Galacturonic.acid_HMDB0002545	-0.309192423
## Pantothenic.acid_HMDB0000210	-0.315083910
## Palmitoleic.acid_HMDB0003229	0.201117793
## Xanthine_HMDB0000292	0.734450962
## Gluconic.acid_HMDB0000625	-0.329008770
## Palmitic.acid_HMDB0000220	-0.044624491
## Glucaric.acid_HMDB0000663	0.409971196
## N.Acetylmannosamine_HMDB0001129	0.207490456
## N.Acetyl.D.glucosamine_HMDB0000215	0.299358629
## D.Ribulose.5.phosphate_HMDB0000618	-0.605573288
## Uric.acid_HMDB0000289	0.885387328
## D.Ribose.5.phosphate_HMDB0001548	-0.646435246
## myo.Inositol_HMDB0000211	0.303083786
## D.Ribose.5.phosphate_HMDB0001548.1	-0.625475618
## Heptadecanoic.acid_HMDB0002259	-0.325993233
## Octadecanol_HMDB0002350	-0.617779264
## Glutathione_HMDB0000125	0.357380116
## Linoleic.acid_HMDB0000673	-0.070357308
## Oleic.acid_HMDB0000207	0.164755369
## Elaidic.acid_HMDB0000573	0.122066302
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.625486587
## Stearic.acid_HMDB0000827	-0.394253416
## L.Tryptophan_HMDB0000929	-0.368768190
## Fructose.1.phosphate_HMDB0001076	-0.574850399
## Mannose.6.phosphate_HMDB0001078	-0.128807250
## Arachidonic.acid_HMDB0001043	0.233307923
## Glucose.6.phosphate_HMDB0001401	-0.585534277
## X6.Phosphogluconic.acid_HMDB0001316	-0.526479711
## Inositol.phosphate_HMDB0002985	-0.374111226
## Uridine_HMDB0000296	-0.274605134
## Stigmasterol_HMDB0000937	-0.327081518
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.334855139
## Sucrose_HMDB0000258	0.286857974
## MG.18.Oe.0.0.0.0._HMDB0011143	-0.549519106

## Trehalose_HMDB0000975	-0.002693883
## D.Maltose_HMDB0000163	-0.002169138
## Lactitol_HMDB00040937	-0.227602017
## Xanthylic.acid_HMDB0001554	-0.120950926
## Adenosine.monophosphate_HMDB0000045	-0.577326477
## Cholesterol_HMDB0000067	-0.058280385
## Lathosterol_HMDB0001170	-0.108562952
## X7b.Hydroxycholesterol_.HMDB0006119	-0.330484148
## Levoglucosan_HMDB0000640	
## Dimethylglycine_HMDB0000092	0.227396154
## Glyoxylic.acid_HMDB0000119	0.230341667
## Pyruvic.acid_HMDB0000243	-0.336640898
## L.Lactic.acid_HMDB0000190	-0.353519755
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.355450277
## Glycolic.acid_HMDB0000115	-0.207164966
## Caproic.acid_HMDB0000535	0.035695126
## L.Alanine_HMDB0000161	-0.331825496
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.056563140
## Glycine_HMDB0000123	-0.264995690
## Oxalic.acid_HMDB0002329	-0.403083920
## Hydroxylamine_HMDB0003338	-0.014291888
## X2.Hydroxybutyric.acid_HMDB0000008	-0.484653568
## Acetoacetic.acid_HMDB0000060	-0.190121159
## Hydroxypropionic.acid_HMDB0000700	-0.571720633
## Pyruvic.acid_HMDB0000243.1	-0.201257411
## X3.Hydroxybutyric.acid_HMDB0000357	-0.461802112
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.552998013
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.267398384
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.453324093
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.409118431
## Beta.Alanine_HMDB0000056	-0.356674237
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.288098572
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.409035965
## Malonic.acid_HMDB0000691	-0.187339876
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.229827748
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.595685375
## Ketoleucine_HMDB0000695	-0.170910350
## L.Valine_HMDB0000883	-0.471917358
## ITSD_Valine	-0.503034407
## Urea_HMDB0000294	-0.360930460
## Benzoic.acid_HMDB0001870	-0.246255461
## Caprylic.acid_HMDB0000482	0.058438970
## Glycerol_HMDB0000131	-0.349290752
## Ethanolamine_HMDB0000149	-0.259322184
## L.Leucine_HMDB0000687	-0.485058308
## Acetyl glycine_HMDB0000532	-0.376779530
## L.Isoleucine_HMDB0000172	-0.390739653
## Nicotinic.acid_HMDB0001488	-0.216385158
## Maleic.acid_HMDB0000176	-0.243682923
## L.Proline_HMDB0000162	-0.626058403
## Phenylacetic.acid_HMDB0000209	-0.145368822
## Succinic.acid_HMDB0000254	-0.578879994
## Glycine_HMDB0000123.1	-0.338720769
## Methylsuccinic.acid_HMDB0001844	-0.288828458

## Glyceric.acid_HMDB0000139	-0.180219080
## Fumaric.acid_HMDB0000134	-0.320131091
## Uracil_HMDB0000300	-0.251955755
## Pelargonic.acid_HMDB0000847	0.072945337
## L.Serine_HMDB0000187	-0.296954367
## L.Threonine_HMDB0000167	-0.343090262
## Mesaconic.acid_HMDB0000749	-0.146067436
## Glutaric.acid_HMDB0000661	-0.306524340
## Thymine_HMDB0000262	-0.175882317
## Beta.Alanine_HMDB0000056.1	-0.300231257
## L.Homoserine_HMDB0000719	-0.037033863
## Capric.acid_HMDB0000511	-0.028567286
## Citramalic.acid_HMDB0000426	-0.082770816
## Malic.acid_HMDB0000744	-0.308996471
## Niacinamide_HMDB0001406	-0.245967461
## Adipic.acid_HMDB0000448	-0.111372989
## D.Threitol_HMDB0004136	-0.002146063
## Dihydrouracil_HMDB0000076	-0.218243423
## Erythritol_HMDB0002994	-0.413161404
## N.Acetylserine_HMDB0002931	-0.298681235
## L.Aspartic.acid_HMDB0000191	-0.287431235
## L.Methionine_HMDB0000696	-0.169628108
## X4.Hydroxyproline_HMDB0000725	-0.356495299
## Pyroglutamic.acid_HMDB0000267	-0.312202457
## Cytosine_HMDB0000630	0.262088792
## Gamma.Aminobutyric.acid_HMDB0000112	-0.489766859
## Threonic.acid_HMDB0000943	-0.190521572
## L.Cysteine_HMDB0000574	-0.156664147
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.301464227
## Creatinine_HMDB0000562	-0.248428618
## X3.Hydroxyglutaric.acid_HMDB0000428	0.044424350
## Oxoglutaric.acid_HMDB0000208	-0.389987478
## Phenylpyruvic.acid_HMDB0000205	0.178121835
## Pimelic.acid_HMDB0000857	-0.293150983
## Phenyllactic.acid_HMDB0000779	0.112526699
## Phosphoenolpyruvic.acid_HMDB0000263	0.233923130
## Ornithine_HMDB0000214	-0.022772996
## Hypotaurine_HMDB0000965	-0.209853918
## Triethanolamine_HMDB0032538	-0.162643574
## X2.Aminobenzoic.acid_HMDB0001123	-0.252074471
## L.Glutamic.acid_HMDB0000148	-0.155109883
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.352008708
## X5.Aminopentanoic.acid_HMDB0003355	0.101722920
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.135747917
## L.Phenylalanine_HMDB0000159	-0.262116794
## Dodecanoic.acid_HMDB0000638	-0.266483111
## Lyxose_HMDB0003402_1	-0.192670282
## D.Xylose_HMDB0000098	0.975503676
## Lyxose_HMDB0003402_2	0.972451765
## D.Arabinose_HMDB0029942	-0.125320145
## L.Asparagine_HMDB0000168	0.061268430
## D.Ribulose_HMDB0000621	0.453562433
## D.Ribose_HMDB0000283	-0.126158455
## D.Xylulose_HMDB0001644	0.490593067

## X3.Sulfinioalanine_HMDB0000996	0.089856717
## Suberic.acid_HMDB0000893	-0.069712697
## L.Lysine_HMDB0000182	0.037359663
## Levoglucosan_HMDB0000640	1.000000000
## D.Arabit01_HMDB0000568	-0.281412112
## Ribitol_HMDB0000508	0.157099723
## cis.Aconitic.acid_HMDB0000072	0.918924252
## Quinolinic.acid_HMDB0000232	-0.057576641
## Putrescine_HMDB0001414	-0.454248190
## Glycerol.3.phosphate_HMDB0000126	-0.046286136
## Vanillic.acid_HMDB0000484	0.084916432
## L.Glutamine_HMDB0000641	0.219703011
## X2.Phosphoglyceric.acid_HMDB0000362	-0.018396804
## Azelaic.acid_HMDB0000784	-0.132441647
## L.Dihydroorotic.acid_HMDB0003349	-0.074873316
## O.Phosphoethanolamine_HMDB0000224	-0.299382718
## X3.Phosphoglyceric.acid_HMDB0000807	-0.062408825
## Isocitric.acid_HMDB0000193	-0.081463789
## Hypoxanthine_HMDB0000157	0.328902269
## Citric.acid_HMDB0000094	0.052038286
## L.Arginine_HMDB0000517	0.153281703
## Ornithine_HMDB0000214.1	-0.157644502
## Dopamine_HMDB0000073	-0.157727147
## Myristic.acid_HMDB0000806	-0.291373197
## X1.5.Anhydrosorbitol_HMDB0002712	-0.068858306
## D.Tagatose_HMDB0003418	-0.082089111
## Psicose_1	0.894229230
## Sebacic.acid_HMDB0000792	-0.235757152
## D.Fructose_HMDB0000660	-0.133437703
## Gluconolactone_HMDB0000150	0.252126007
## L.Sorbose_HMDB0001266	-0.139791866
## D.Mannose_HMDB0000169	0.031985160
## Hydroxyphenyllactic.acid_HMDB0000755	-0.332244673
## D.Glucose_HMDB0000122	0.161542959
## N.Acetylglutamine_HMDB0006029	0.066527515
## L.Lysine_HMDB0000182.1	-0.154559952
## D.Mannose_HMDB0000169.1	-0.023907177
## Tyramine_HMDB0000306	-0.154087060
## L.Histidine_HMDB0000177	-0.145675489
## D.Glucose_HMDB0000122.1	0.127320823
## X1.Hexadecanol_HMDB0003424	0.102490175
## L.Tyrosine_HMDB0000158	-0.071527033
## Mannitol_HMDB0000765	-0.202468000
## Sorbitol_HMDB0000247	-0.062191668
## ITSD_Sorbitol	-0.204077218
## Galacturonic.acid_HMDB0002545	0.001228058
## Pantothenic.acid_HMDB0000210	-0.210540056
## Palmitoleic.acid_HMDB0003229	-0.290093339
## Xanthine_HMDB0000292	0.035971775
## Gluconic.acid_HMDB0000625	0.299147827
## Palmitic.acid_HMDB0000220	-0.214857152
## Glucaric.acid_HMDB0000663	-0.086685554
## N.Acetylmannosamine_HMDB0001129	0.047789050
## N.Acetyl.D.glucosamine_HMDB0000215	-0.052924141

## D.Ribulose.5.phosphate_HMDB0000618	0.116805117
## Uric.acid_HMDB0000289	0.206750108
## D.Ribose.5.phosphate_HMDB0001548	-0.023198708
## myo.Inositol_HMDB0000211	-0.142536703
## D.Ribose.5.phosphate_HMDB0001548.1	0.167732823
## Heptadecanoic.acid_HMDB0002259	-0.127029554
## Octadecanol_HMDB0002350	-0.192825421
## Glutathione_HMDB0000125	0.230914815
## Linoleic.acid_HMDB0000673	-0.275462016
## Oleic.acid_HMDB0000207	-0.253990198
## Elaidic.acid_HMDB0000573	-0.249315956
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.211794872
## Stearic.acid_HMDB0000827	-0.146987303
## L.Tryptophan_HMDB0000929	-0.129458584
## Fructose.1.phosphate_HMDB0001076	-0.094391064
## Mannose.6.phosphate_HMDB0001078	0.386266922
## Arachidonic.acid_HMDB0001043	-0.113462904
## Glucose.6.phosphate_HMDB0001401	-0.073921969
## X6.Phosphogluconic.acid_HMDB0001316	-0.130372256
## Inositol.phosphate_HMDB0002985	-0.059809179
## Uridine_HMDB0000296	-0.197482567
## Stigmasterol_HMDB0000937	-0.245118035
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.273497111
## Sucrose_HMDB0000258	0.067721807
## MG.18.0e.0.0.0.0._HMDB0011143	-0.323185068
## Trehalose_HMDB0000975	-0.073446791
## D.Maltose_HMDB0000163	-0.075041907
## Lactitol_HMDB00040937	-0.023953321
## Xanthylic.acid_HMDB0001554	0.477007095
## Adenosine.monophosphate_HMDB0000045	-0.006666917
## Cholesterol_HMDB0000067	0.239418153
## Lathosterol_HMDB0001170	-0.006192035
## X7b.Hydroxycholesterol_.HMDB0006119	0.080755073
##	D.Arabitol_HMDB0000568
## Dimethylglycine_HMDB0000092	-0.26096136
## Glyoxylic.acid_HMDB0000119	-0.26771415
## Pyruvic.acid_HMDB0000243	0.70359932
## L.Lactic.acid_HMDB0000190	0.30093465
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.49286426
## Glycolic.acid_HMDB0000115	0.21892767
## Caproic.acid_HMDB0000535	-0.19175341
## L.Alanine_HMDB0000161	0.32563898
## Alpha.ketoisovaleric.acid_HMDB0000019	0.19815210
## Glycine_HMDB0000123	0.57752489
## Oxalic.acid_HMDB0002329	0.25819557
## Hydroxylamine_HMDB0003338	-0.19288345
## X2.Hydroxybutyric.acid_HMDB0000008	0.29973346
## Acetoacetic.acid_HMDB0000060	-0.01764771
## Hydroxypropionic.acid_HMDB0000700	0.31657267
## Pyruvic.acid_HMDB0000243.1	0.20026979
## X3.Hydroxybutyric.acid_HMDB0000357	0.38191649
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.35943416
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.14715105
## D.Alpha.aminobutyric.acid_HMDB0000650	0.29872811

## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.06564008
## Beta.Alanine_HMDB0000056	0.59619167
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.46737987
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.37969818
## Malonic.acid_HMDB0000691	0.61923668
## X3.Aminoisobutanoic.acid_HMDB0003911	0.25427309
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.40214207
## Ketoleucine_HMDB0000695	0.11721410
## L.Valine_HMDB0000883	0.29420855
## ITSD_Valine	0.39812182
## Urea_HMDB0000294	0.52168070
## Benzoic.acid_HMDB0001870	0.11360987
## Caprylic.acid_HMDB0000482	0.03675410
## Glycerol_HMDB0000131	0.27682076
## Ethanolamine_HMDB0000149	0.23068301
## L.Leucine_HMDB0000687	0.27786179
## Acetylglycine_HMDB0000532	0.40827918
## L.Isoleucine_HMDB0000172	0.26703197
## Nicotinic.acid_HMDB0001488	0.25331626
## Maleic.acid_HMDB0000176	0.22558019
## L.Proline_HMDB0000162	0.25809384
## Phenylacetic.acid_HMDB0000209	0.09327112
## Succinic.acid_HMDB0000254	0.35775625
## Glycine_HMDB0000123.1	0.26548132
## Methylsuccinic.acid_HMDB0001844	0.46643885
## Glyceric.acid_HMDB0000139	-0.01191926
## Fumaric.acid_HMDB0000134	0.54540109
## Uracil_HMDB0000300	0.27887230
## Pelargonic.acid_HMDB0000847	-0.03311181
## L.Serine_HMDB0000187	0.17132483
## L.Threonine_HMDB0000167	0.30544215
## Mesaconic.acid_HMDB0000749	0.58515794
## Glutaric.acid_HMDB0000661	0.29489817
## Thymine_HMDB0000262	0.01696040
## Beta.Alanine_HMDB0000056.1	0.26625663
## L.Homoserine_HMDB0000719	0.12637636
## Capric.acid_HMDB0000511	0.11059072
## Citramalic.acid_HMDB0000426	0.46172039
## Malic.acid_HMDB0000744	0.14240102
## Niacinamide_HMDB0001406	0.45264982
## Adipic.acid_HMDB0000448	0.12910996
## D.Threitol_HMDB0004136	0.51569155
## Dihydrouracil_HMDB0000076	0.10242871
## Erythritol_HMDB0002994	0.47286123
## N.Acetylserine_HMDB0002931	0.18594767
## L.Aspartic.acid_HMDB0000191	0.19892830
## L.Methionine_HMDB0000696	0.25439775
## X4.Hydroxyproline_HMDB0000725	0.39156481
## Pyroglutamic.acid_HMDB0000267	0.38563902
## Cytosine_HMDB0000630	0.23507267
## Gamma.Aminobutyric.acid_HMDB0000112	0.63802124
## Threonic.acid_HMDB0000943	0.09788381
## L.Cysteine_HMDB0000574	0.10340024
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.04605226

## Creatinine_HMDB0000562	0.22184901
## X3.Hydroxyglutaric.acid_HMDB0000428	0.24959342
## Oxoglutaric.acid_HMDB0000208	0.33932697
## Phenylpyruvic.acid_HMDB0000205	0.04603525
## Pimelic.acid_HMDB0000857	0.29114814
## Phenyllactic.acid_HMDB0000779	0.05141245
## Phosphoenolpyruvic.acid_HMDB0000263	-0.22427792
## Ornithine_HMDB0000214	0.08883532
## Hypotaurine_HMDB0000965	0.26134173
## Triethanolamine_HMDB0032538	0.27768119
## X2.Aminobenzoic.acid_HMDB0001123	0.21519319
## L.Glutamic.acid_HMDB0000148	0.27932009
## X4.Hydroxybenzoic.acid_HMDB0000500	0.24489943
## X5.Aminopentanoic.acid_HMDB0003355	0.14906371
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.01319620
## L.Phenylalanine_HMDB0000159	0.24750315
## Dodecanoic.acid_HMDB0000638	0.32492525
## Lyxose_HMDB0003402_1	-0.10838286
## D.Xylose_HMDB0000098	-0.26584719
## Lyxose_HMDB0003402_2	-0.19091753
## D.Arabinose_HMDB0029942	-0.13133508
## L.Asparagine_HMDB0000168	-0.01205130
## D.Ribulose_HMDB0000621	-0.20774459
## D.Ribose_HMDB0000283	-0.11621615
## D.Xylulose_HMDB0001644	-0.20218820
## X3.Sulfinoalanine_HMDB0000996	0.06372404
## Suberic.acid_HMDB0000893	0.39652122
## L.Lysine_HMDB0000182	0.05037893
## Levoglucosan_HMDB0000640	-0.28141211
## D.Arabitol_HMDB0000568	1.00000000
## Ribitol_HMDB0000508	-0.04080589
## cis.Aconitic.acid_HMDB0000072	-0.18530982
## Quinolinic.acid_HMDB0000232	0.59305827
## Putrescine_HMDB0001414	0.27656287
## Glycerol.3.phosphate_HMDB0000126	0.02512070
## Vanillic.acid_HMDB0000484	0.28114492
## L.Glutamine_HMDB0000641	-0.32099753
## X2.Phosphoglyceric.acid_HMDB0000362	0.17287093
## Azelaic.acid_HMDB0000784	0.50296059
## L.Dihydroorotic.acid_HMDB0003349	-0.15235534
## O.Phosphoethanolamine_HMDB0000224	0.21613702
## X3.Phosphoglyceric.acid_HMDB0000807	0.24977874
## Isocitric.acid_HMDB0000193	0.29696223
## Hypoxanthine_HMDB0000157	-0.31442647
## Citric.acid_HMDB0000094	-0.09589846
## L.Arginine_HMDB0000517	-0.36356572
## Ornithine_HMDB0000214.1	0.17776514
## Dopamine_HMDB0000073	0.15500027
## Myristic.acid_HMDB0000806	0.33701972
## X1.5.Anhydrosorbitol_HMDB0002712	0.41779185
## D.Tagatose_HMDB0003418	-0.10596631
## Psicose_1	-0.19646236
## Sebacic.acid_HMDB0000792	0.45506415
## D.Fructose_HMDB0000660	0.07794306

## Gluconolactone_HMDB0000150	-0.16778192
## L.Sorbose_HMDB0001266	0.08556612
## D.Mannose_HMDB0000169	0.31628284
## Hydroxyphenyllactic.acid_HMDB0000755	0.39877572
## D.Glucose_HMDB0000122	0.37797979
## N.Acetylglutamine_HMDB0006029	0.32456734
## L.Lysine_HMDB0000182.1	0.17638817
## D.Mannose_HMDB0000169.1	0.23152867
## Tyramine_HMDB0000306	0.16097470
## L.Histidine_HMDB0000177	0.18399932
## D.Glucose_HMDB0000122.1	0.31107142
## X1.Hexadecanol_HMDB0003424	0.37596719
## L.Tyrosine_HMDB0000158	0.09645543
## Mannitol_HMDB0000765	0.50183923
## Sorbitol_HMDB0000247	-0.46978477
## ITSD_Sorbitol	0.28721233
## Galacturonic.acid_HMDB0002545	0.16963840
## Pantothenic.acid_HMDB0000210	0.49030209
## Palmitoleic.acid_HMDB0003229	0.26043321
## Xanthine_HMDB0000292	-0.29251266
## Gluconic.acid_HMDB0000625	-0.37135556
## Palmitic.acid_HMDB0000220	0.39918879
## Glucaric.acid_HMDB0000663	0.11411560
## N.Acetylmannosamine_HMDB0001129	0.12928807
## N.Acetyl.D.glucosamine_HMDB0000215	0.30978969
## D.Ribulose.5.phosphate_HMDB0000618	-0.02194423
## Uric.acid_HMDB0000289	-0.15891357
## D.Ribose.5.phosphate_HMDB0001548	0.01791189
## myo.Inositol_HMDB0000211	0.57606699
## D.Ribose.5.phosphate_HMDB0001548.1	-0.13731388
## Heptadecanoic.acid_HMDB0002259	-0.15813883
## Octadecanol_HMDB0002350	0.36650081
## Glutathione_HMDB0000125	-0.16009765
## Linoleic.acid_HMDB0000673	0.20504080
## Oleic.acid_HMDB0000207	0.17556644
## Elaidic.acid_HMDB0000573	0.27369166
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.19149573
## Stearic.acid_HMDB0000827	0.45681312
## L.Tryptophan_HMDB0000929	0.50740343
## Fructose.1.phosphate_HMDB0001076	-0.05082281
## Mannose.6.phosphate_HMDB0001078	0.01120351
## Arachidonic.acid_HMDB0001043	0.08870359
## Glucose.6.phosphate_HMDB0001401	-0.05570058
## X6.Phosphogluconic.acid_HMDB0001316	0.19017345
## Inositol.phosphate_HMDB0002985	0.22177145
## Uridine_HMDB0000296	0.28347560
## Stigmasterol_HMDB0000937	0.49893895
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.10617749
## Sucrose_HMDB0000258	0.36846224
## MG.18.0e.0.0.0.0._HMDB0011143	0.40665525
## Trehalose_HMDB0000975	0.43115156
## D.Maltose_HMDB0000163	0.44023324
## Lactitol_HMDB00040937	0.30167901
## Xanthylic.acid_HMDB0001554	-0.50614535

## Adenosine.monophosphate_HMDB0000045	0.01345844
## Cholesterol_HMDB0000067	0.16276084
## Lathosterol_HMDB0001170	0.25699971
## X7b.Hydroxycholesterol_.HMDB0006119	-0.16745693
## Ribitol_HMDB0000508	
## Dimethylglycine_HMDB0000092	0.2973592403
## Glyoxylic.acid_HMDB0000119	0.2877316629
## Pyruvic.acid_HMDB0000243	0.1966716221
## L.Lactic.acid_HMDB0000190	0.1501132352
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.3309279865
## Glycolic.acid_HMDB0000115	0.4526316293
## Caproic.acid_HMDB0000535	0.3079934182
## L.Alanine_HMDB0000161	0.1150621853
## Alpha.ketoisovaleric.acid_HMDB0000019	0.2930467451
## Glycine_HMDB0000123	-0.0450184177
## Oxalic.acid_HMDB0002329	-0.2748072088
## Hydroxylamine_HMDB0003338	0.3916723030
## X2.Hydroxybutyric.acid_HMDB0000008	0.3553646484
## Acetoacetic.acid_HMDB0000060	0.3200870088
## Hydroxypropionic.acid_HMDB0000700	0.2534686722
## Pyruvic.acid_HMDB0000243.1	0.2223742162
## X3.Hydroxybutyric.acid_HMDB0000357	0.2515094562
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.2891579711
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.4064105143
## D.Alpha.aminobutyric.acid_HMDB0000650	0.0901247553
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.2150024752
## Beta.Alanine_HMDB0000056	-0.1240823125
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.0837656299
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.1538132048
## Malonic.acid_HMDB0000691	0.1284473346
## X3.Aminoisobutanoic.acid_HMDB0003911	0.1267893844
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.1749120777
## Ketoleucine_HMDB0000695	0.3798466643
## L.Valine_HMDB0000883	0.2359183505
## ITSD_Valine	0.1236296830
## Urea_HMDB0000294	0.1115147968
## Benzoic.acid_HMDB0001870	0.6466530463
## Caprylic.acid_HMDB0000482	0.3837403394
## Glycerol_HMDB0000131	0.1405155738
## Ethanolamine_HMDB0000149	0.1976804912
## L.Leucine_HMDB0000687	0.2245591823
## Acetylglucine_HMDB0000532	0.4294849449
## L.Isoleucine_HMDB0000172	0.1677119674
## Nicotinic.acid_HMDB0001488	-0.1016141599
## Maleic.acid_HMDB0000176	0.3205680484
## L.Proline_HMDB0000162	0.2680511907
## Phenylacetic.acid_HMDB0000209	0.3101782701
## Succinic.acid_HMDB0000254	0.2468153969
## Glycine_HMDB0000123.1	0.2781836094
## Methylsuccinic.acid_HMDB0001844	0.2489302434
## Glyceric.acid_HMDB0000139	0.4379229171
## Fumaric.acid_HMDB0000134	0.2395085928
## Uracil_HMDB0000300	0.3552414827
## Pelargonic.acid_HMDB0000847	0.2733923709

## L.Serine_HMDB0000187	0.2642474654
## L.Threonine_HMDB0000167	0.1818328641
## Mesaconic.acid_HMDB0000749	0.2686758656
## Glutaric.acid_HMDB0000661	0.1298484567
## Thymine_HMDB0000262	-0.0695363499
## Beta.Alanine_HMDB0000056.1	0.0432670665
## L.Homoserine_HMDB0000719	0.5487671885
## Capric.acid_HMDB0000511	0.5970030350
## Citramalic.acid_HMDB0000426	-0.0521812119
## Malic.acid_HMDB0000744	0.3782840806
## Niacinamide_HMDB0001406	0.1030109774
## Adipic.acid_HMDB0000448	0.2331954893
## D.Threitol_HMDB0004136	0.7045119852
## Dihydrouracil_HMDB0000076	0.2391621504
## Erythritol_HMDB0002994	0.2662738874
## N.Acetylserine_HMDB0002931	0.2021077194
## L.Aspartic.acid_HMDB0000191	0.2798244757
## L.Methionine_HMDB0000696	0.0785516005
## X4.Hydroxyproline_HMDB0000725	0.2335458957
## Pyroglutamic.acid_HMDB0000267	0.2420281604
## Cytosine_HMDB0000630	0.2285709046
## Gamma.Aminobutyric.acid_HMDB0000112	-0.2592641546
## Threonic.acid_HMDB0000943	0.3693646251
## L.Cysteine_HMDB0000574	0.5073725391
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.2003342931
## Creatinine_HMDB0000562	0.1755880732
## X3.Hydroxyglutaric.acid_HMDB0000428	0.1345535293
## Oxoglutaric.acid_HMDB0000208	0.0190830015
## Phenylpyruvic.acid_HMDB0000205	0.2768375317
## Pimelic.acid_HMDB0000857	-0.4511045579
## Phenyllactic.acid_HMDB0000779	0.2262064017
## Phosphoenolpyruvic.acid_HMDB0000263	-0.1284839542
## Ornithine_HMDB0000214	0.1123335079
## Hypotaurine_HMDB0000965	0.1746256249
## Triethanolamine_HMDB0032538	-0.0271661268
## X2.Aminobenzoic.acid_HMDB0001123	0.0434281905
## L.Glutamic.acid_HMDB0000148	0.0960278337
## X4.Hydroxybenzoic.acid_HMDB0000500	0.1415334581
## X5.Aminopentanoic.acid_HMDB0003355	0.0595994269
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.4879932929
## L.Phenylalanine_HMDB0000159	0.0777097187
## Dodecanoic.acid_HMDB0000638	0.3319124274
## Lyxose_HMDB0003402_1	0.1553864502
## D.Xylose_HMDB0000098	0.1734456812
## Lyxose_HMDB0003402_2	0.1027654923
## D.Arabinose_HMDB0029942	-0.0111747406
## L.Asparagine_HMDB0000168	-0.0355578044
## D.Ribulose_HMDB0000621	0.2113522015
## D.Ribose_HMDB0000283	-0.0372712606
## D.Xylulose_HMDB0001644	0.1918714260
## X3.Sulfinioalanine_HMDB0000996	0.0849419433
## Suberic.acid_HMDB0000893	0.0855959483
## L.Lysine_HMDB0000182	0.1183457439
## Levoglucosan_HMDB0000640	0.1570997232

## D.Arabitol_HMDB0000568	-0.0408058891
## Ribitol_HMDB0000508	1.0000000000
## cis.Aconitic.acid_HMDB0000072	0.0699160964
## Quinolinic.acid_HMDB0000232	0.1467719298
## Putrescine_HMDB0001414	-0.0003193524
## Glycerol.3.phosphate_HMDB0000126	-0.0848990202
## Vanillic.acid_HMDB0000484	0.5892783200
## L.Glutamine_HMDB0000641	-0.0419471715
## X2.Phosphoglyceric.acid_HMDB0000362	0.2767884290
## Azelaic.acid_HMDB0000784	-0.2702471536
## L.Dihydroorotic.acid_HMDB0003349	0.0834958861
## O.Phosphoethanolamine_HMDB0000224	0.1490414793
## X3.Phosphoglyceric.acid_HMDB0000807	0.0973815582
## Isocitric.acid_HMDB0000193	0.6510164132
## Hypoxanthine_HMDB0000157	-0.0791971630
## Citric.acid_HMDB0000094	0.4555953785
## L.Arginine_HMDB0000517	0.4506492474
## Ornithine_HMDB0000214.1	0.0737876954
## Dopamine_HMDB0000073	0.1002924251
## Myristic.acid_HMDB0000806	0.2404700070
## X1.5.Anhydrosorbitol_HMDB0002712	0.1972485969
## D.Tagatose_HMDB0003418	0.0782468020
## Psicose_1	0.0330617212
## Sebacic.acid_HMDB0000792	0.3078888405
## D.Fructose_HMDB0000660	0.0749411595
## Gluconolactone_HMDB0000150	0.4228231258
## L.Sorbose_HMDB0001266	0.0786101742
## D.Mannose_HMDB0000169	0.0468366930
## Hydroxyphenyllactic.acid_HMDB0000755	0.1400492164
## D.Glucose_HMDB0000122	0.0310770159
## N.Acetylglutamine_HMDB0006029	0.0229451989
## L.Lysine_HMDB0000182.1	0.0800896470
## D.Mannose_HMDB0000169.1	0.0362572267
## Tyramine_HMDB0000306	0.0776214050
## L.Histidine_HMDB0000177	0.0431396352
## D.Glucose_HMDB0000122.1	0.0315190664
## X1.Hexadecanol_HMDB0003424	0.5853726573
## L.Tyrosine_HMDB0000158	0.0473632720
## Mannitol_HMDB0000765	-0.0115776385
## Sorbitol_HMDB0000247	0.0478580712
## ITSD_Sorbitol	0.2756276637
## Galacturonic.acid_HMDB0002545	0.4113776850
## Pantothenic.acid_HMDB0000210	0.3583605921
## Palmitoleic.acid_HMDB0003229	0.1383645034
## Xanthine_HMDB0000292	0.0912874955
## Gluconic.acid_HMDB0000625	0.4123577442
## Palmitic.acid_HMDB0000220	0.1898248127
## Glucaric.acid_HMDB0000663	0.3246589655
## N.Acetylmannosamine_HMDB0001129	0.2678436513
## N.Acetyl.D.glucosamine_HMDB0000215	0.1774585229
## D.Ribulose.5.phosphate_HMDB0000618	0.1084934817
## Uric.acid_HMDB0000289	0.0611959072
## D.Ribose.5.phosphate_HMDB0001548	-0.1420631785
## myo.Inositol_HMDB0000211	0.4184832567

## D.Ribose.5.phosphate_HMDB0001548.1	-0.0203976997
## Heptadecanoic.acid_HMDB0002259	0.3236698779
## Octadecanol_HMDB0002350	0.3916339863
## Glutathione_HMDB0000125	0.1211480852
## Linoleic.acid_HMDB0000673	0.1252402944
## Oleic.acid_HMDB0000207	0.1149000802
## Elaidic.acid_HMDB0000573	0.1403460188
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.0034535727
## Stearic.acid_HMDB0000827	0.1789759818
## L.Tryptophan_HMDB0000929	0.0763745861
## Fructose.1.phosphate_HMDB0001076	0.1311016626
## Mannose.6.phosphate_HMDB0001078	-0.0190508712
## Arachidonic.acid_HMDB0001043	0.0215875793
## Glucose.6.phosphate_HMDB0001401	0.3339387770
## X6.Phosphogluconic.acid_HMDB0001316	0.4747177084
## Inositol.phosphate_HMDB0002985	0.3049250016
## Uridine_HMDB0000296	0.3875028737
## Stigmasterol_HMDB0000937	0.1775372983
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.1455542845
## Sucrose_HMDB0000258	0.0753465941
## MG.18.0e.0.0.0.0._HMDB0011143	0.1753420336
## Trehalose_HMDB0000975	-0.3994395698
## D.Maltose_HMDB0000163	-0.3933576909
## Lactitol_HMDB0040937	0.1256900932
## Xanthylic.acid_HMDB0001554	-0.2302679214
## Adenosine.monophosphate_HMDB0000045	0.2269978925
## Cholesterol_HMDB0000067	0.4848012873
## Lathosterol_HMDB0001170	0.1931823107
## X7b.Hydroxycholesterol_.HMDB0006119	0.0640535989
##	cis.Aconitic.acid_HMDB0000072
## Dimethylglycine_HMDB0000092	1.916824e-01
## Glyoxylic.acid_HMDB0000119	1.969931e-01
## Pyruvic.acid_HMDB0000243	-2.239899e-01
## L.Lactic.acid_HMDB0000190	-2.398075e-01
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-2.246526e-01
## Glycolic.acid_HMDB0000115	-2.100698e-01
## Caproic.acid_HMDB0000535	-9.879412e-04
## L.Alanine_HMDB0000161	-2.766299e-01
## Alpha.ketoisovaleric.acid_HMDB0000019	1.334643e-01
## Glycine_HMDB0000123	-1.247429e-01
## Oxalic.acid_HMDB0002329	-3.916090e-01
## Hydroxylamine_HMDB0003338	-3.583844e-02
## X2.Hydroxybutyric.acid_HMDB0000008	-3.066758e-01
## Acetoacetic.acid_HMDB0000060	-1.444070e-01
## Hydroxypropionic.acid_HMDB0000700	-4.390165e-01
## Pyruvic.acid_HMDB0000243.1	-1.328773e-01
## X3.Hydroxybutyric.acid_HMDB0000357	-2.703357e-01
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-3.630582e-01
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-1.737031e-01
## D.Alpha.aminobutyric.acid_HMDB0000650	-3.960206e-01
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-2.335350e-01
## Beta.Alanine_HMDB0000056	-2.735521e-01
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-1.547810e-01
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-2.068846e-01

## Malonic.acid_HMDB0000691	-1.220107e-01
## X3.Aminoisobutanoic.acid_HMDB0003911	-2.332275e-01
## X3.Hydroxyisovaleric.acid_HMDB0000754	-4.300980e-01
## Ketoleucine_HMDB0000695	1.094610e-02
## L.Valine_HMDB0000883	-4.153731e-01
## ITSD_Valine	-4.437133e-01
## Urea_HMDB0000294	-2.010566e-01
## Benzoic.acid_HMDB0001870	-2.240590e-01
## Caprylic.acid_HMDB0000482	1.039082e-01
## Glycerol_HMDB0000131	-2.567285e-01
## Ethanolamine_HMDB0000149	-2.372802e-01
## L.Leucine_HMDB0000687	-3.814907e-01
## Acetylglycine_HMDB0000532	-3.628252e-01
## L.Isoleucine_HMDB0000172	-2.823365e-01
## Nicotinic.acid_HMDB0001488	1.893990e-02
## Maleic.acid_HMDB0000176	-1.590629e-01
## L.Proline_HMDB0000162	-5.003045e-01
## Phenylacetic.acid_HMDB0000209	-9.236266e-02
## Succinic.acid_HMDB0000254	-4.840728e-01
## Glycine_HMDB0000123.1	-2.631262e-01
## Methylsuccinic.acid_HMDB0001844	-3.842960e-01
## Glyceric.acid_HMDB0000139	-1.643553e-01
## Fumaric.acid_HMDB0000134	-1.745073e-01
## Uracil_HMDB0000300	-1.261393e-01
## Pelargonic.acid_HMDB0000847	1.029442e-01
## L.Serine_HMDB0000187	-2.108624e-01
## L.Threonine_HMDB0000167	-2.552191e-01
## Mesaconic.acid_HMDB0000749	-1.998844e-02
## Glutaric.acid_HMDB0000661	-2.179320e-01
## Thymine_HMDB0000262	-5.608301e-02
## Beta.Alanine_HMDB0000056.1	-2.077232e-01
## L.Homoserine_HMDB0000719	-6.842038e-02
## Capric.acid_HMDB0000511	-6.593692e-02
## Citramalic.acid_HMDB0000426	-5.047740e-03
## Malic.acid_HMDB0000744	-2.620208e-01
## Niacinamide_HMDB0001406	-8.041874e-02
## Adipic.acid_HMDB0000448	-5.261880e-02
## D.Threitol_HMDB0004136	3.107593e-02
## Dihydrouracil_HMDB0000076	-1.185102e-01
## Erythritol_HMDB0002994	-2.334495e-01
## N.Acetylserine_HMDB0002931	-2.184856e-01
## L.Aspartic.acid_HMDB0000191	-1.817232e-01
## L.Methionine_HMDB0000696	-1.476898e-01
## X4.Hydroxyproline_HMDB0000725	-2.218483e-01
## Pyroglutamic.acid_HMDB0000267	-1.768403e-01
## Cytosine_HMDB0000630	1.263859e-01
## Gamma.Aminobutyric.acid_HMDB0000112	-2.455922e-01
## Threonic.acid_HMDB0000943	-8.150647e-02
## L.Cysteine_HMDB0000574	-7.282642e-02
## L.2.Hydroxyglutaric.acid_HMDB0000694	-2.159166e-01
## Creatinine_HMDB0000562	-3.125009e-01
## X3.Hydroxyglutaric.acid_HMDB0000428	2.940908e-02
## Oxoglutaric.acid_HMDB0000208	-1.828877e-01
## Phenylpyruvic.acid_HMDB0000205	2.947087e-01

## Pimelic.acid_HMDB0000857	-1.030241e-01
## Phenyllactic.acid_HMDB0000779	1.049435e-01
## Phosphoenolpyruvic.acid_HMDB0000263	2.272102e-01
## Ornithine_HMDB0000214	-1.384175e-01
## Hypotaurine_HMDB0000965	-1.610448e-01
## Triethanolamine_HMDB0032538	-1.044685e-01
## X2.Aminobenzoic.acid_HMDB0001123	-2.030878e-01
## L.Glutamic.acid_HMDB0000148	-1.106433e-01
## X4.Hydroxybenzoic.acid_HMDB0000500	-2.936044e-01
## X5.Aminopentanoic.acid_HMDB0003355	2.382050e-01
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	1.846087e-01
## L.Phenylalanine_HMDB0000159	-2.406774e-01
## Dodecanoic.acid_HMDB0000638	-1.625629e-01
## Lyxose_HMDB0003402_1	-1.933610e-01
## D.Xylose_HMDB0000098	9.268759e-01
## Lyxose_HMDB0003402_2	9.056951e-01
## D.Arabinose_HMDB0029942	-1.435037e-01
## L.Asparagine_HMDB0000168	-4.101263e-02
## D.Ribulose_HMDB0000621	3.610991e-01
## D.Ribose_HMDB0000283	-1.597482e-01
## D.Xylulose_HMDB0001644	4.005429e-01
## X3.Sulfinioalanine_HMDB0000996	9.167688e-05
## Suberic.acid_HMDB0000893	8.976085e-02
## L.Lysine_HMDB0000182	-1.080202e-01
## Levoglucosan_HMDB0000640	9.189243e-01
## D.Arabitol_HMDB0000568	-1.853098e-01
## Ribitol_HMDB0000508	6.991610e-02
## cis.Aconitic.acid_HMDB0000072	1.000000e+00
## Quinolinic.acid_HMDB0000232	1.395304e-01
## Putrescine_HMDB0001414	-2.200260e-01
## Glycerol.3.phosphate_HMDB0000126	1.940737e-02
## Vanillic.acid_HMDB0000484	5.847396e-02
## L.Glutamine_HMDB0000641	6.341573e-02
## X2.Phosphoglyceric.acid_HMDB0000362	7.029349e-02
## Azelaic.acid_HMDB0000784	5.674180e-03
## L.Dihydroorotic.acid_HMDB0003349	-8.731576e-02
## O.Phosphoethanolamine_HMDB0000224	-1.846386e-01
## X3.Phosphoglyceric.acid_HMDB0000807	7.963893e-02
## Isocitric.acid_HMDB0000193	-1.149862e-01
## Hypoxanthine_HMDB0000157	1.536208e-01
## Citric.acid_HMDB0000094	1.202386e-01
## L.Arginine_HMDB0000517	-5.437718e-02
## Ornithine_HMDB0000214.1	-1.611700e-01
## Dopamine_HMDB0000073	-1.700437e-01
## Myristic.acid_HMDB0000806	-1.800851e-01
## X1.5.Anhydrosorbitol_HMDB0002712	8.810931e-02
## D.Tagatose_HMDB0003418	-1.017419e-01
## Psicose_1	8.988033e-01
## Sebacic.acid_HMDB0000792	-1.826137e-01
## D.Fructose_HMDB0000660	-1.647850e-01
## Gluconolactone_HMDB0000150	1.516519e-01
## L.Sorbose_HMDB0001266	-1.856351e-01
## D.Mannose_HMDB0000169	1.191066e-01
## Hydroxyphenyllactic.acid_HMDB0000755	-1.147699e-01

## D.Glucose_HMDB0000122	2.400967e-01
## N.Acetylglutamine_HMDB0006029	1.588426e-01
## L.Lysine_HMDB0000182.1	-1.730775e-01
## D.Mannose_HMDB0000169.1	4.287916e-03
## Tyramine_HMDB0000306	-1.742845e-01
## L.Histidine_HMDB0000177	-1.580980e-01
## D.Glucose_HMDB0000122.1	2.081610e-01
## X1.Hexadecanol_HMDB0003424	8.195419e-02
## L.Tyrosine_HMDB0000158	-1.109337e-01
## Mannitol_HMDB0000765	-5.350133e-02
## Sorbitol_HMDB0000247	-2.935773e-02
## ITSD_Sorbitol	-1.071129e-01
## Galacturonic.acid_HMDB0002545	1.365940e-01
## Pantothenic.acid_HMDB0000210	-1.921392e-01
## Palmitoleic.acid_HMDB0003229	-2.165208e-01
## Xanthine_HMDB0000292	-8.639001e-02
## Gluconic.acid_HMDB0000625	2.713652e-01
## Palmitic.acid_HMDB0000220	-6.175935e-02
## Glucaric.acid_HMDB0000663	-5.990880e-02
## N.Acetylmannosamine_HMDB0001129	1.270598e-01
## N.Acetyl.D.glucosamine_HMDB0000215	4.659237e-02
## D.Ribulose.5.phosphate_HMDB0000618	1.224396e-01
## Uric.acid_HMDB0000289	8.109388e-02
## D.Ribose.5.phosphate_HMDB0001548	-3.696235e-02
## myo.Inositol_HMDB0000211	-4.990685e-03
## D.Ribose.5.phosphate_HMDB0001548.1	1.442427e-01
## Heptadecanoic.acid_HMDB0002259	-3.116595e-02
## Octadecanol_HMDB0002350	-1.080084e-02
## Glutathione_HMDB0000125	2.954742e-01
## Linoleic.acid_HMDB0000673	-1.548517e-01
## Oleic.acid_HMDB0000207	-1.850281e-01
## Elaidic.acid_HMDB0000573	-1.658118e-01
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	2.788747e-01
## Stearic.acid_HMDB0000827	5.594621e-02
## L.Tryptophan_HMDB0000929	8.212655e-02
## Fructose.1.phosphate_HMDB0001076	-2.669425e-02
## Mannose.6.phosphate_HMDB0001078	4.995247e-01
## Arachidonic.acid_HMDB0001043	-1.225020e-01
## Glucose.6.phosphate_HMDB0001401	-6.115206e-02
## X6.Phosphogluconic.acid_HMDB0001316	1.902587e-02
## Inositol.phosphate_HMDB0002985	7.545763e-03
## Uridine_HMDB0000296	-1.685667e-01
## Stigmasterol_HMDB0000937	-8.366755e-02
## D.Sedoheptulose.7.phosphate_HMDB0001068	4.877613e-01
## Sucrose_HMDB0000258	1.747197e-01
## MG.18.0e.0.0.0.0._HMDB0011143	-1.511969e-01
## Trehalose_HMDB0000975	2.546362e-02
## D.Maltose_HMDB0000163	2.575828e-02
## Lactitol_HMDB0040937	7.891058e-02
## Xanthylic.acid_HMDB0001554	3.865265e-01
## Adenosine.monophosphate_HMDB0000045	4.796535e-02
## Cholesterol_HMDB0000067	2.589613e-01
## Lathosterol_HMDB0001170	6.362933e-02
## X7b.Hydroxycholesterol_.HMDB0006119	9.050255e-02

##	Quinolinic.acid_HMDB0000232	
## Dimethylglycine_HMDB0000092		0.155527781
## Glyoxylic.acid_HMDB0000119		0.157092123
## Pyruvic.acid_HMDB0000243		0.435878241
## L.Lactic.acid_HMDB0000190		0.255779122
## Alpha.Hydroxyisobutyric.acid_HMDB0000729		0.302316852
## Glycolic.acid_HMDB0000115		0.115753645
## Caproic.acid_HMDB0000535		0.211913622
## L.Alanine_HMDB0000161		0.282946133
## Alpha.ketoisovaleric.acid_HMDB0000019		0.605379729
## Glycine_HMDB0000123		0.438046010
## Oxalic.acid_HMDB0002329		0.062611192
## Hydroxylamine_HMDB0003338		-0.208319065
## X2.Hydroxybutyric.acid_HMDB0000008		0.383873927
## Acetoacetic.acid_HMDB0000060		-0.104810876
## Hydroxypropionic.acid_HMDB0000700		0.076700208
## Pyruvic.acid_HMDB0000243.1		0.096525145
## X3.Hydroxybutyric.acid_HMDB0000357		0.276796176
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023		0.343046697
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407		0.155274269
## D.Alpha.aminobutyric.acid_HMDB0000650		0.101228616
## X3.Methyl.2.oxovaleric.acid_HMDB0000491		0.354958342
## Beta.Alanine_HMDB0000056		0.197356341
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354		0.569800284
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1		0.486700485
## Malonic.acid_HMDB0000691		0.475540320
## X3.Aminoisobutanoic.acid_HMDB0003911		-0.106283114
## X3.Hydroxyisovaleric.acid_HMDB0000754		0.191258933
## Ketoleucine_HMDB0000695		0.553511918
## L.Valine_HMDB0000883		0.141683135
## ITSD_Valine		0.046980253
## Urea_HMDB0000294		0.506499167
## Benzoic.acid_HMDB0001870		0.210358212
## Caprylic.acid_HMDB0000482		0.372670620
## Glycerol_HMDB0000131		0.135135355
## Ethanolamine_HMDB0000149		0.187982159
## L.Leucine_HMDB0000687		0.131275885
## Acetyl glycine_HMDB0000532		0.281343297
## L.Isoleucine_HMDB0000172		0.191810613
## Nicotinic.acid_HMDB0001488		0.519510424
## Maleic.acid_HMDB0000176		0.246707730
## L.Proline_HMDB0000162		0.267006479
## Phenylacetic.acid_HMDB0000209		0.271833619
## Succinic.acid_HMDB0000254		0.223976567
## Glycine_HMDB0000123.1		0.175080655
## Methylsuccinic.acid_HMDB0001844		-0.016129795
## Glyceric.acid_HMDB0000139		0.067559342
## Fumaric.acid_HMDB0000134		0.429642432
## Uracil_HMDB0000300		0.478610197
## Pelargonic.acid_HMDB0000847		0.349827246
## L.Serine_HMDB0000187		0.295298443
## L.Threonine_HMDB0000167		0.328810740
## Mesaconic.acid_HMDB0000749		0.611564347
## Glutaric.acid_HMDB0000661		0.770303831

## Thymine_HMDB0000262	0.042481546
## Beta.Alanine_HMDB0000056.1	0.024538033
## L.Homoserine_HMDB0000719	0.066142672
## Capric.acid_HMDB0000511	0.006932534
## Citramalic.acid_HMDB0000426	0.484323529
## Malic.acid_HMDB0000744	0.364708013
## Niacinamide_HMDB0001406	0.404382584
## Adipic.acid_HMDB0000448	0.379884978
## D.Threitol_HMDB0004136	0.418933525
## Dihydrouracil_HMDB0000076	0.320126102
## Erythritol_HMDB0002994	0.379312425
## N.Acetylserine_HMDB0002931	0.362015759
## L.Aspartic.acid_HMDB0000191	0.328430439
## L.Methionine_HMDB0000696	0.018056317
## X4.Hydroxyproline_HMDB0000725	0.450020182
## Pyroglutamic.acid_HMDB0000267	0.460996385
## Cytosine_HMDB0000630	0.172562965
## Gamma.Aminobutyric.acid_HMDB0000112	0.600535056
## Threonic.acid_HMDB0000943	0.289073049
## L.Cysteine_HMDB0000574	0.278465551
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.385078794
## Creatinine_HMDB0000562	-0.237749623
## X3.Hydroxyglutaric.acid_HMDB0000428	0.479880472
## Oxoglutaric.acid_HMDB0000208	0.361823661
## Phenylpyruvic.acid_HMDB0000205	0.437047974
## Pimelic.acid_HMDB0000857	0.404815588
## Phenyllactic.acid_HMDB0000779	0.471622463
## Phosphoenolpyruvic.acid_HMDB0000263	0.266719164
## Ornithine_HMDB0000214	-0.004440291
## Hypotaurine_HMDB0000965	0.259083424
## Triethanolamine_HMDB0032538	0.361906397
## X2.Aminobenzoic.acid_HMDB0001123	-0.036166791
## L.Glutamic.acid_HMDB0000148	0.170297133
## X4.Hydroxybenzoic.acid_HMDB0000500	0.111857752
## X5.Aminopentanoic.acid_HMDB0003355	0.513566335
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.279085714
## L.Phenylalanine_HMDB0000159	0.019898326
## Dodecanoic.acid_HMDB0000638	-0.145724687
## Lyxose_HMDB0003402_1	0.192676859
## D.Xylose_HMDB0000098	0.028164361
## Lyxose_HMDB0003402_2	0.033250295
## D.Arabinose_HMDB0029942	0.141383413
## L.Asparagine_HMDB0000168	-0.087755776
## D.Ribulose_HMDB0000621	0.081364675
## D.Ribose_HMDB0000283	0.106174349
## D.Xylulose_HMDB0001644	0.089555197
## X3.Sulfinioalanine_HMDB0000996	-0.114659546
## Suberic.acid_HMDB0000893	0.626055885
## L.Lysine_HMDB0000182	-0.113107286
## Levoglucosan_HMDB0000640	-0.057576641
## D.Arabitol_HMDB0000568	0.593058265
## Ribitol_HMDB0000508	0.146771930
## cis.Aconitic.acid_HMDB0000072	0.139530445
## Quinolinic.acid_HMDB0000232	1.000000000

## Putrescine_HMDB0001414	0.509601744
## Glycerol.3.phosphate_HMDB0000126	0.193692224
## Vanillic.acid_HMDB0000484	0.174663711
## L.Glutamine_HMDB0000641	-0.276624991
## X2.Phosphoglyceric.acid_HMDB0000362	0.647102044
## Azelaic.acid_HMDB0000784	0.709895339
## L.Dihydroorotic.acid_HMDB0003349	0.156806408
## O.Phosphoethanolamine_HMDB0000224	-0.200891536
## X3.Phosphoglyceric.acid_HMDB0000807	0.737989276
## Isocitric.acid_HMDB0000193	0.322790781
## Hypoxanthine_HMDB0000157	-0.390067165
## Citric.acid_HMDB0000094	0.561731231
## L.Arginine_HMDB0000517	-0.187944279
## Ornithine_HMDB0000214.1	0.062811038
## Dopamine_HMDB0000073	0.048142796
## Myristic.acid_HMDB0000806	-0.008647444
## X1.5.Anhydrosorbitol_HMDB0002712	0.542907054
## D.Tagatose_HMDB0003418	0.225297549
## Psicose_1	0.094123573
## Sebacic.acid_HMDB0000792	0.318569166
## D.Fructose_HMDB0000660	0.273224324
## Gluconolactone_HMDB0000150	0.142428039
## L.Sorbose_HMDB0001266	0.253067023
## D.Mannose_HMDB0000169	0.022365303
## Hydroxyphenyllactic.acid_HMDB0000755	0.267390427
## D.Glucose_HMDB0000122	0.126346249
## N.Acetylglutamine_HMDB0006029	0.043294286
## L.Lysine_HMDB0000182.1	-0.068156836
## D.Mannose_HMDB0000169.1	-0.065665296
## Tyramine_HMDB0000306	-0.077511390
## L.Histidine_HMDB0000177	-0.092470795
## D.Glucose_HMDB0000122.1	0.026369937
## X1.Hexadecanol_HMDB0003424	0.124625552
## L.Tyrosine_HMDB0000158	-0.016918201
## Mannitol_HMDB0000765	0.407078179
## Sorbitol_HMDB0000247	-0.150669403
## ITSD_Sorbitol	0.016340410
## Galacturonic.acid_HMDB0002545	0.364064938
## Pantothenic.acid_HMDB0000210	0.309824878
## Palmitoleic.acid_HMDB0003229	-0.310853955
## Xanthine_HMDB0000292	-0.041613014
## Gluconic.acid_HMDB0000625	0.211492364
## Palmitic.acid_HMDB0000220	-0.077238520
## Glucaric.acid_HMDB0000663	0.114873262
## N.Acetylmannosamine_HMDB0001129	-0.139159470
## N.Acetyl.D.glucosamine_HMDB0000215	0.050977027
## D.Ribulose.5.phosphate_HMDB0000618	0.209211435
## Uric.acid_HMDB0000289	-0.310340701
## D.Ribose.5.phosphate_HMDB0001548	0.188711723
## myo.Inositol_HMDB0000211	0.513170771
## D.Ribose.5.phosphate_HMDB0001548.1	0.110664676
## Heptadecanoic.acid_HMDB0002259	0.476919035
## Octadecanol_HMDB0002350	0.419498260
## Glutathione_HMDB0000125	0.232432610

## Linoleic.acid_HMDB0000673	-0.318166475
## Oleic.acid_HMDB0000207	-0.391750421
## Elaidic.acid_HMDB0000573	-0.309123625
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.291356165
## Stearic.acid_HMDB0000827	0.173990779
## L.Tryptophan_HMDB0000929	0.190673293
## Fructose.1.phosphate_HMDB0001076	0.349368372
## Mannose.6.phosphate_HMDB0001078	0.378207729
## Arachidonic.acid_HMDB0001043	-0.538146825
## Glucose.6.phosphate_HMDB0001401	0.227849959
## X6.Phosphogluconic.acid_HMDB0001316	0.132251466
## Inositol.phosphate_HMDB0002985	-0.127789332
## Uridine_HMDB0000296	0.175288573
## Stigmasterol_HMDB0000937	0.246814200
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.358795760
## Sucrose_HMDB0000258	0.102099716
## MG.18.Oe.0.0.0.0._HMDB0011143	0.065960795
## Trehalose_HMDB0000975	0.469654653
## D.Maltose_HMDB0000163	0.478067530
## Lactitol_HMDB00040937	0.291336580
## Xanthylic.acid_HMDB0001554	-0.077294596
## Adenosine.monophosphate_HMDB0000045	0.353548566
## Cholesterol_HMDB0000067	-0.112448593
## Lathosterol_HMDB0001170	-0.306174625
## X7b.Hydroxycholesterol._HMDB0006119	0.499851462
## Putrescine_HMDB0001414	
## Dimethylglycine_HMDB0000092	-0.0052742695
## Glyoxylic.acid_HMDB0000119	-0.0012311717
## Pyruvic.acid_HMDB0000243	0.3996282048
## L.Lactic.acid_HMDB0000190	0.3499804234
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.4537801477
## Glycolic.acid_HMDB0000115	0.0580582290
## Caproic.acid_HMDB0000535	0.2483647819
## L.Alanine_HMDB0000161	0.2499654536
## Alpha.ketoisovaleric.acid_HMDB0000019	0.4191509982
## Glycine_HMDB0000123	0.4352623495
## Oxalic.acid_HMDB0002329	0.1295977817
## Hydroxylamine_HMDB0003338	0.0963574368
## X2.Hydroxybutyric.acid_HMDB0000008	0.4666854022
## Acetoacetic.acid_HMDB0000060	0.2114157978
## Hydroxypropionic.acid_HMDB0000700	0.3210285296
## Pyruvic.acid_HMDB0000243.1	0.3941034115
## X3.Hydroxybutyric.acid_HMDB0000357	0.4988390297
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.5435289241
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.2549686561
## D.Alpha.aminobutyric.acid_HMDB0000650	0.0575784862
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.4617856788
## Beta.Alanine_HMDB0000056	0.1984018246
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.2562636661
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.4768236656
## Malonic.acid_HMDB0000691	0.2877247865
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.0076911326
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.3859090038
## Ketoleucine_HMDB0000695	0.5037151173

## L.Valine_HMDB0000883	0.2287239857
## ITSD_Valine	0.1925064366
## Urea_HMDB0000294	0.4055677205
## Benzoic.acid_HMDB0001870	0.1826858159
## Caprylic.acid_HMDB0000482	0.2355910909
## Glycerol_HMDB0000131	0.2362517405
## Ethanolamine_HMDB0000149	0.1969175063
## L.Leucine_HMDB0000687	0.2815359852
## Acetylglycine_HMDB0000532	0.2195265295
## L.Isoleucine_HMDB0000172	0.3047698484
## Nicotinic.acid_HMDB0001488	0.7979071443
## Maleic.acid_HMDB0000176	0.4002324655
## L.Proline_HMDB0000162	0.4467974252
## Phenylacetic.acid_HMDB0000209	0.2630275102
## Succinic.acid_HMDB0000254	0.4625645653
## Glycine_HMDB0000123.1	0.2146589561
## Methylsuccinic.acid_HMDB0001844	-0.0922883807
## Glyceric.acid_HMDB0000139	0.2719961775
## Fumaric.acid_HMDB0000134	0.4215609610
## Uracil_HMDB0000300	0.5981888976
## Pelargonic.acid_HMDB0000847	0.1757310326
## L.Serine_HMDB0000187	0.3834740679
## L.Threonine_HMDB0000167	0.3317776306
## Mesaconic.acid_HMDB0000749	0.4003881296
## Glutaric.acid_HMDB0000661	0.5956178488
## Thymine_HMDB0000262	0.4697184295
## Beta.Alanine_HMDB0000056.1	0.0899211370
## L.Homoserine_HMDB0000719	-0.2103807304
## Capric.acid_HMDB0000511	-0.1418344515
## Citramalic.acid_HMDB0000426	0.2875292209
## Malic.acid_HMDB0000744	0.3894591793
## Niacinamide_HMDB0001406	0.3455901201
## Adipic.acid_HMDB0000448	0.3299794495
## D.Threitol_HMDB0004136	0.3568002974
## Dihydrouracil_HMDB0000076	0.3044183595
## Erythritol_HMDB0002994	0.3517399806
## N.Acetylserine_HMDB0002931	0.4096741113
## L.Aspartic.acid_HMDB0000191	0.3291549545
## L.Methionine_HMDB0000696	-0.0435307517
## X4.Hydroxyproline_HMDB0000725	0.3975213433
## Pyroglutamic.acid_HMDB0000267	0.4113596835
## Cytosine_HMDB0000630	-0.0882576036
## Gamma.Aminobutyric.acid_HMDB0000112	0.7751648134
## Threonic.acid_HMDB0000943	0.2889438933
## L.Cysteine_HMDB0000574	0.2089461894
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.5203046047
## Creatinine_HMDB0000562	-0.2369705357
## X3.Hydroxyglutaric.acid_HMDB0000428	0.1980450026
## Oxoglutaric.acid_HMDB0000208	0.5484332597
## Phenylpyruvic.acid_HMDB0000205	0.2037559762
## Pimelic.acid_HMDB0000857	0.3562677339
## Phenyllactic.acid_HMDB0000779	0.2522744774
## Phosphoenolpyruvic.acid_HMDB0000263	0.1057316168
## Ornithine_HMDB0000214	-0.1940696691

## Hypotaurine_HMDB0000965	0.0927356820
## Triethanolamine_HMDB0032538	0.2474194729
## X2.Aminobenzoic.acid_HMDB0001123	0.0672985950
## L.Glutamic.acid_HMDB0000148	0.0689307981
## X4.Hydroxybenzoic.acid_HMDB0000500	0.2075796482
## X5.Aminopentanoic.acid_HMDB0003355	0.4955528461
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.1535645526
## L.Phenylalanine_HMDB0000159	0.0380509884
## Dodecanoic.acid_HMDB0000638	0.1045944201
## Lyxose_HMDB0003402_1	0.2072458644
## D.Xylose_HMDB0000098	-0.3701997720
## Lyxose_HMDB0003402_2	-0.3985302202
## D.Arabinose_HMDB0029942	0.1426699631
## L.Asparagine_HMDB0000168	-0.2399669249
## D.Ribulose_HMDB0000621	-0.1006757215
## D.Ribose_HMDB0000283	0.1472397164
## D.Xylulose_HMDB0001644	-0.1284178759
## X3.Sulfinoalanine_HMDB0000996	-0.1732638730
## Suberic.acid_HMDB0000893	0.4007121511
## L.Lysine_HMDB0000182	-0.3289602874
## Levoglucosan_HMDB0000640	-0.4542481903
## D.Arabitol_HMDB0000568	0.2765628726
## Ribitol_HMDB0000508	-0.0003193524
## cis.Aconitic.acid_HMDB0000072	-0.2200260039
## Quinolinic.acid_HMDB0000232	0.5096017438
## Putrescine_HMDB0001414	1.0000000000
## Glycerol.3.phosphate_HMDB0000126	0.3528205624
## Vanillic.acid_HMDB0000484	-0.0861208397
## L.Glutamine_HMDB0000641	-0.3053364111
## X2.Phosphoglyceric.acid_HMDB0000362	0.4647182656
## Azelaic.acid_HMDB0000784	0.4593775747
## L.Dihydroorotic.acid_HMDB0003349	0.1641355002
## O.Phosphoethanolamine_HMDB0000224	0.1257631789
## X3.Phosphoglyceric.acid_HMDB0000807	0.4862319978
## Isocitric.acid_HMDB0000193	0.1330851968
## Hypoxanthine_HMDB0000157	-0.6387617003
## Citric.acid_HMDB0000094	0.3624914123
## L.Arginine_HMDB0000517	-0.1972386790
## Ornithine_HMDB0000214.1	0.0080288774
## Dopamine_HMDB0000073	0.0137535031
## Myristic.acid_HMDB0000806	0.1294888250
## X1.5.Anhydrosorbitol_HMDB0002712	0.2783909842
## D.Tagatose_HMDB0003418	0.1471968620
## Psicose_1	-0.2748296270
## Sebacic.acid_HMDB0000792	0.3095182257
## D.Fructose_HMDB0000660	0.2777269438
## Gluconolactone_HMDB0000150	0.0056792179
## L.Sorbose_HMDB0001266	0.2571205691
## D.Mannose_HMDB0000169	-0.0636785671
## Hydroxyphenyllactic.acid_HMDB0000755	0.4231814546
## D.Glucose_HMDB0000122	-0.1180874727
## N.Acetylglutamine_HMDB0006029	-0.0860177266
## L.Lysine_HMDB0000182.1	-0.0963343806
## D.Mannose_HMDB0000169.1	-0.1343780455

## Tyramine_HMDB0000306	-0.1133361383
## L.Histidine_HMDB0000177	-0.1094413922
## D.Glucose_HMDB0000122.1	-0.1747402272
## X1.Hexadecanol_HMDB0003424	0.1214219887
## L.Tyrosine_HMDB0000158	-0.0859188455
## Mannitol_HMDB0000765	0.3315111100
## Sorbitol_HMDB0000247	0.4634082867
## ITSD_Sorbitol	0.0139672659
## Galacturonic.acid_HMDB0002545	0.0309426717
## Pantothenic.acid_HMDB0000210	0.1899020140
## Palmitoleic.acid_HMDB0003229	-0.0311920443
## Xanthine_HMDB0000292	-0.1211959195
## Gluconic.acid_HMDB0000625	0.1059665165
## Palmitic.acid_HMDB0000220	0.2116736773
## Glucaric.acid_HMDB0000663	-0.0592746249
## N.Acetylmannosamine_HMDB0001129	0.0479059168
## N.Acetyl.D.glucosamine_HMDB0000215	0.1377431207
## D.Ribulose.5.phosphate_HMDB0000618	0.0983486295
## Uric.acid_HMDB0000289	-0.4142682968
## D.Ribose.5.phosphate_HMDB0001548	0.0614794833
## myo.Inositol_HMDB0000211	0.3844208839
## D.Ribose.5.phosphate_HMDB0001548.1	-0.0534245029
## Heptadecanoic.acid_HMDB0002259	0.5452911272
## Octadecanol_HMDB0002350	0.4748532454
## Glutathione_HMDB0000125	-0.0155672051
## Linoleic.acid_HMDB0000673	0.0820241717
## Oleic.acid_HMDB0000207	-0.0590116696
## Elaidic.acid_HMDB0000573	-0.0119793195
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.2194323368
## Stearic.acid_HMDB0000827	0.4111432502
## L.Tryptophan_HMDB0000929	0.4066914134
## Fructose.1.phosphate_HMDB0001076	0.3511287065
## Mannose.6.phosphate_HMDB0001078	0.1393983909
## Arachidonic.acid_HMDB0001043	-0.3013290105
## Glucose.6.phosphate_HMDB0001401	0.1371159698
## X6.Phosphogluconic.acid_HMDB0001316	0.2233498642
## Inositol.phosphate_HMDB0002985	0.0448297438
## Uridine_HMDB0000296	0.2548018245
## Stigmasterol_HMDB0000937	0.4604520320
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.0515172237
## Sucrose_HMDB0000258	0.2473895540
## MG.18.0e.0.0.0.0._HMDB0011143	0.3625146437
## Trehalose_HMDB0000975	0.3520512046
## D.Maltose_HMDB0000163	0.3574481237
## Lactitol_HMDB00040937	-0.0468430331
## Xanthylic.acid_HMDB0001554	-0.1696541667
## Adenosine.monophosphate_HMDB0000045	0.2159069272
## Cholesterol_HMDB0000067	-0.2711739366
## Lathosterol_HMDB0001170	-0.1033647998
## X7b.Hydroxycholesterol_.HMDB0006119	0.3359477303
##	Glycerol.3.phosphate_HMDB0000126
## Dimethylglycine_HMDB0000092	0.593263565
## Glyoxylic.acid_HMDB0000119	0.592868413
## Pyruvic.acid_HMDB0000243	-0.397920489

## L.Lactic.acid_HMDB0000190	-0.665828742
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.157759147
## Glycolic.acid_HMDB0000115	0.195167870
## Caproic.acid_HMDB0000535	0.595941191
## L.Alanine_HMDB0000161	-0.659913307
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.321880197
## Glycine_HMDB0000123	-0.453692829
## Oxalic.acid_HMDB0002329	0.426880594
## Hydroxylamine_HMDB0003338	-0.447101440
## X2.Hydroxybutyric.acid_HMDB0000008	0.070606385
## Acetoacetic.acid_HMDB0000060	-0.056381993
## Hydroxypropionic.acid_HMDB0000700	-0.493933877
## Pyruvic.acid_HMDB0000243.1	-0.366069040
## X3.Hydroxybutyric.acid_HMDB0000357	0.039756646
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.009860840
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.261941623
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.701328691
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.156814376
## Beta.Alanine_HMDB0000056	-0.386283366
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.237073902
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.227620927
## Malonic.acid_HMDB0000691	-0.356623556
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.655420731
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.452294094
## Ketoleucine_HMDB0000695	0.058360668
## L.Valine_HMDB0000883	-0.648136975
## ITSD_Valine	-0.640482913
## Urea_HMDB0000294	-0.454173993
## Benzoic.acid_HMDB0001870	0.322447071
## Caprylic.acid_HMDB0000482	0.584324374
## Glycerol_HMDB0000131	-0.707516950
## Ethanolamine_HMDB0000149	-0.743756747
## L.Leucine_HMDB0000687	-0.632213907
## Acetylglycine_HMDB0000532	0.089637478
## L.Isoleucine_HMDB0000172	-0.666373463
## Nicotinic.acid_HMDB0001488	0.708992049
## Maleic.acid_HMDB0000176	0.220484796
## L.Proline_HMDB0000162	-0.425855894
## Phenylacetic.acid_HMDB0000209	0.354100413
## Succinic.acid_HMDB0000254	-0.491513295
## Glycine_HMDB0000123.1	-0.756549253
## Methylsuccinic.acid_HMDB0001844	-0.039409093
## Glyceric.acid_HMDB0000139	0.247051350
## Fumaric.acid_HMDB0000134	-0.447259818
## Uracil_HMDB0000300	-0.403114384
## Pelargonic.acid_HMDB0000847	0.696254520
## L.Serine_HMDB0000187	-0.608748223
## L.Threonine_HMDB0000167	-0.663891923
## Mesaconic.acid_HMDB0000749	0.364910825
## Glutaric.acid_HMDB0000661	0.231115531
## Thymine_HMDB0000262	-0.413033346
## Beta.Alanine_HMDB0000056.1	-0.694510656
## L.Homoserine_HMDB0000719	0.102362676
## Capric.acid_HMDB0000511	0.244171521

## Citramalic.acid_HMDB0000426	-0.337619210
## Malic.acid_HMDB0000744	0.185898153
## Niacinamide_HMDB0001406	-0.488943594
## Adipic.acid_HMDB0000448	-0.438856408
## D.Threitol_HMDB0004136	0.040826709
## Dihydrouracil_HMDB0000076	-0.349290308
## Erythritol_HMDB0002994	-0.263715802
## N.Acetylserine_HMDB0002931	-0.611293396
## L.Aspartic.acid_HMDB0000191	-0.615272338
## L.Methionine_HMDB0000696	-0.766954603
## X4.Hydroxyproline_HMDB0000725	-0.536813358
## Pyroglutamic.acid_HMDB0000267	-0.499156101
## Cytosine_HMDB0000630	-0.029738826
## Gamma.Aminobutyric.acid_HMDB0000112	0.099853269
## Threonic.acid_HMDB0000943	0.316173777
## L.Cysteine_HMDB0000574	0.158217896
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.590223611
## Creatinine_HMDB0000562	-0.699250458
## X3.Hydroxyglutaric.acid_HMDB0000428	0.719200859
## Oxoglutaric.acid_HMDB0000208	0.106148410
## Phenylpyruvic.acid_HMDB0000205	0.488683671
## Pimelic.acid_HMDB0000857	-0.377598620
## Phenyllactic.acid_HMDB0000779	0.518217335
## Phosphoenolpyruvic.acid_HMDB0000263	0.725011924
## Ornithine_HMDB0000214	-0.607703502
## Hypotaurine_HMDB0000965	-0.706096369
## Triethanolamine_HMDB0032538	-0.676780442
## X2.Aminobenzoic.acid_HMDB0001123	-0.807706083
## L.Glutamic.acid_HMDB0000148	-0.516493467
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.749972149
## X5.Aminopentanoic.acid_HMDB0003355	-0.057935126
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.272382277
## L.Phenylalanine_HMDB0000159	-0.731652244
## Dodecanoic.acid_HMDB0000638	-0.310897072
## Lyxose_HMDB0003402_1	0.664856457
## D.Xylose_HMDB0000098	0.122236826
## Lyxose_HMDB0003402_2	-0.034799347
## D.Arabinose_HMDB0029942	0.666899602
## L.Asparagine_HMDB0000168	-0.416609475
## D.Ribulose_HMDB0000621	0.442480198
## D.Ribose_HMDB0000283	0.686558443
## D.Xylulose_HMDB0001644	0.427716220
## X3.Sulfinioalanine_HMDB0000996	0.031268179
## Suberic.acid_HMDB0000893	-0.294926905
## L.Lysine_HMDB0000182	-0.436887789
## Levoglucosan_HMDB0000640	-0.046286136
## D.Arabitol_HMDB0000568	0.025120704
## Ribitol_HMDB0000508	-0.084899020
## cis.Aconitic.acid_HMDB0000072	0.019407367
## Quinolinic.acid_HMDB0000232	0.193692224
## Putrescine_HMDB0001414	0.352820562
## Glycerol.3.phosphate_HMDB0000126	1.000000000
## Vanillic.acid_HMDB0000484	-0.638859778
## L.Glutamine_HMDB0000641	-0.215161799

## X2.Phosphoglyceric.acid_HMDB0000362	-0.013594131
## Azelaic.acid_HMDB0000784	0.463584296
## L.Dihydroorotic.acid_HMDB00003349	0.649627281
## O.Phosphoethanolamine_HMDB0000224	-0.297172670
## X3.Phosphoglyceric.acid_HMDB0000807	-0.060953436
## Isocitric.acid_HMDB0000193	-0.117361848
## Hypoxanthine_HMDB0000157	-0.032505163
## Citric.acid_HMDB0000094	0.308372284
## L.Arginine_HMDB0000517	0.261087948
## Ornithine_HMDB0000214.1	-0.777989008
## Dopamine_HMDB0000073	-0.763949539
## Myristic.acid_HMDB0000806	-0.607927507
## X1.5.Anhydrosorbitol_HMDB0002712	0.186102315
## D.Tagatose_HMDB0003418	0.694785098
## Psicose_1	-0.136652627
## Sebacic.acid_HMDB0000792	-0.446974797
## D.Fructose_HMDB0000660	0.617987913
## Gluconolactone_HMDB0000150	0.426636669
## L.Sorbose_HMDB0001266	0.626461898
## D.Mannose_HMDB0000169	-0.704544290
## Hydroxyphenyllactic.acid_HMDB0000755	-0.255585985
## D.Glucose_HMDB0000122	-0.670936510
## N.Acetylglutamine_HMDB0006029	-0.691140645
## L.Lysine_HMDB0000182.1	-0.717067117
## D.Mannose_HMDB0000169.1	-0.746424203
## Tyramine_HMDB0000306	-0.718523629
## L.Histidine_HMDB0000177	-0.700522614
## D.Glucose_HMDB0000122.1	-0.662205714
## X1.Hexadecanol_HMDB0003424	0.342007287
## L.Tyrosine_HMDB0000158	-0.626914253
## Mannitol_HMDB0000765	-0.487818109
## Sorbitol_HMDB0000247	0.454571212
## ITSD_Sorbitol	-0.685403407
## Galacturonic.acid_HMDB0002545	-0.288647196
## Pantothenic.acid_HMDB0000210	0.017669274
## Palmitoleic.acid_HMDB0003229	-0.374256721
## Xanthine_HMDB0000292	-0.397516803
## Gluconic.acid_HMDB0000625	0.199736126
## Palmitic.acid_HMDB0000220	-0.296168343
## Glucaric.acid_HMDB0000663	-0.796712476
## N.Acetylmannosamine_HMDB0001129	-0.276125149
## N.Acetyl.D.glucosamine_HMDB0000215	-0.648504332
## D.Ribulose.5.phosphate_HMDB0000618	0.760218833
## Uric.acid_HMDB0000289	-0.453665706
## D.Ribose.5.phosphate_HMDB0001548	0.775764357
## myo.Inositol_HMDB0000211	-0.145946048
## D.Ribose.5.phosphate_HMDB0001548.1	0.689906158
## Heptadecanoic.acid_HMDB0002259	0.223971180
## Octadecanol_HMDB0002350	0.205688206
## Glutathione_HMDB0000125	0.259681772
## Linoleic.acid_HMDB0000673	-0.129837753
## Oleic.acid_HMDB0000207	-0.280132343
## Elaidic.acid_HMDB0000573	-0.283898851
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.696450312

## Stearic.acid_HMDB0000827	0.069769142
## L.Tryptophan_HMDB0000929	0.063404469
## Fructose.1.phosphate_HMDB0001076	0.687490249
## Mannose.6.phosphate_HMDB0001078	0.727155981
## Arachidonic.acid_HMDB0001043	-0.165645858
## Glucose.6.phosphate_HMDB0001401	0.491145824
## X6.Phosphogluconic.acid_HMDB0001316	0.267023921
## Inositol.phosphate_HMDB0002985	0.325983600
## Uridine_HMDB0000296	-0.244648672
## Stigmasterol_HMDB0000937	-0.267900859
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.097394359
## Sucrose_HMDB0000258	-0.207778654
## MG.18.Oe.0.0.0.0._HMDB0011143	0.119554490
## Trehalose_HMDB0000975	0.607238625
## D.Maltose_HMDB0000163	0.604497608
## Lactitol_HMDB0040937	0.056362978
## Xanthylic.acid_HMDB0001554	0.593035862
## Adenosine.monophosphate_HMDB0000045	0.700836601
## Cholesterol_HMDB0000067	0.003015851
## Lathosterol_HMDB0001170	-0.062181169
## X7b.Hydroxycholesterol_.HMDB0006119	0.296163083
##	Vanillic.acid_HMDB0000484
## Dimethylglycine_HMDB0000092	-0.173402456
## Glyoxylic.acid_HMDB0000119	-0.180043018
## Pyruvic.acid_HMDB0000243	0.560108977
## L.Lactic.acid_HMDB0000190	0.674625688
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.553980786
## Glycolic.acid_HMDB0000115	0.212281971
## Caproic.acid_HMDB0000535	-0.241651902
## L.Alanine_HMDB0000161	0.673048971
## Alpha.ketoisovaleric.acid_HMDB0000019	0.618869476
## Glycine_HMDB0000123	0.565327068
## Oxalic.acid_HMDB0002329	-0.283293312
## Hydroxylamine_HMDB0003338	0.543446351
## X2.Hydroxybutyric.acid_HMDB0000008	0.444921200
## Acetoacetic.acid_HMDB0000060	0.321519144
## Hydroxypropionic.acid_HMDB0000700	0.529683784
## Pyruvic.acid_HMDB0000243.1	0.610487869
## X3.Hydroxybutyric.acid_HMDB0000357	0.387536853
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.413007991
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.261323049
## D.Alpha.aminobutyric.acid_HMDB0000650	0.610414383
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.291410293
## Beta.Alanine_HMDB0000056	0.411896280
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.555644624
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.548862908
## Malonic.acid_HMDB0000691	0.364611892
## X3.Aminoisobutanoic.acid_HMDB0003911	0.626064473
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.549560111
## Ketoleucine_HMDB0000695	0.410479206
## L.Valine_HMDB0000883	0.696994186
## ITSD_Valine	0.642828911
## Urea_HMDB0000294	0.716270755
## Benzoic.acid_HMDB0001870	0.091494596

## Caprylic.acid_HMDB0000482	-0.090977734
## Glycerol_HMDB0000131	0.624310155
## Ethanolamine_HMDB0000149	0.712777909
## L.Leucine_HMDB0000687	0.651282303
## Acetylglycine_HMDB0000532	0.306161119
## L.Isoleucine_HMDB0000172	0.679072710
## Nicotinic.acid_HMDB0001488	-0.327763182
## Maleic.acid_HMDB0000176	0.227151841
## L.Proline_HMDB0000162	0.597473835
## Phenylacetic.acid_HMDB0000209	0.070066530
## Succinic.acid_HMDB0000254	0.564023119
## Glycine_HMDB0000123.1	0.720089794
## Methylsuccinic.acid_HMDB0001844	0.178393004
## Glyceric.acid_HMDB0000139	0.100522152
## Fumaric.acid_HMDB0000134	0.755868805
## Uracil_HMDB0000300	0.654853571
## Pelargonic.acid_HMDB0000847	-0.216436454
## L.Serine_HMDB0000187	0.581936564
## L.Threonine_HMDB0000167	0.693089852
## Mesaconic.acid_HMDB0000749	0.207862112
## Glutaric.acid_HMDB0000661	0.059920335
## Thymine_HMDB0000262	0.375380603
## Beta.Alanine_HMDB0000056.1	0.564265392
## L.Homoserine_HMDB0000719	0.239092591
## Capric.acid_HMDB0000511	0.200693087
## Citramalic.acid_HMDB0000426	0.300875151
## Malic.acid_HMDB0000744	0.215987782
## Niacinamide_HMDB0001406	0.663983220
## Adipic.acid_HMDB0000448	0.505734264
## D.Threitol_HMDB0004136	0.637339234
## Dihydrouracil_HMDB0000076	0.604933875
## Erythritol_HMDB0002994	0.658957182
## N.Acetylserine_HMDB0002931	0.609728843
## L.Aspartic.acid_HMDB0000191	0.639512251
## L.Methionine_HMDB0000696	0.590588173
## X4.Hydroxyproline_HMDB0000725	0.699998862
## Pyroglutamic.acid_HMDB0000267	0.631310031
## Cytosine_HMDB0000630	0.312836546
## Gamma.Aminobutyric.acid_HMDB0000112	0.037530701
## Threonic.acid_HMDB0000943	0.232295941
## L.Cysteine_HMDB0000574	0.414670900
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.157130933
## Creatinine_HMDB0000562	0.530677362
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.236488616
## Oxoglutaric.acid_HMDB0000208	0.135725368
## Phenylpyruvic.acid_HMDB0000205	-0.123994792
## Pimelic.acid_HMDB0000857	0.007765748
## Phenyllactic.acid_HMDB0000779	-0.068357811
## Phosphoenolpyruvic.acid_HMDB0000263	-0.538419843
## Ornithine_HMDB0000214	0.411632287
## Hypotaurine_HMDB0000965	0.731074823
## Triethanolamine_HMDB0032538	0.584532948
## X2.Aminobenzoic.acid_HMDB0001123	0.562552353
## L.Glutamic.acid_HMDB0000148	0.536416289

## X4.Hydroxybenzoic.acid_HMDB0000500	0.641177933
## X5.Aminopentanoic.acid_HMDB0003355	0.315203612
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.087337755
## L.Phenylalanine_HMDB0000159	0.591331487
## Dodecanoic.acid_HMDB0000638	0.544483190
## Lyxose_HMDB0003402_1	-0.328546809
## D.Xylose_HMDB0000098	-0.011715663
## Lyxose_HMDB0003402_2	0.057687037
## D.Arabinose_HMDB0029942	-0.438977764
## L.Asparagine_HMDB0000168	0.188689734
## D.Ribulose_HMDB0000621	-0.202080273
## D.Ribose_HMDB0000283	-0.445582928
## D.Xylulose_HMDB0001644	-0.183617282
## X3.Sulfinioalanine_HMDB0000996	0.016457011
## Suberic.acid_HMDB0000893	0.408581664
## L.Lysine_HMDB0000182	0.256130605
## Levoglucosan_HMDB0000640	0.084916432
## D.Arabitol_HMDB0000568	0.281144924
## Ribitol_HMDB0000508	0.589278320
## cis.Aconitic.acid_HMDB0000072	0.058473960
## Quinolinic.acid_HMDB0000232	0.174663711
## Putrescine_HMDB0001414	-0.086120840
## Glycerol.3.phosphate_HMDB0000126	-0.638859778
## Vanillic.acid_HMDB0000484	1.000000000
## L.Glutamine_HMDB0000641	0.018390077
## X2.Phosphoglyceric.acid_HMDB0000362	0.434040778
## Azelaic.acid_HMDB0000784	-0.303191783
## L.Dihydroorotic.acid_HMDB0003349	-0.373107799
## O.Phosphoethanolamine_HMDB0000224	0.263330522
## X3.Phosphoglyceric.acid_HMDB0000807	0.360508331
## Isocitric.acid_HMDB0000193	0.588773289
## Hypoxanthine_HMDB0000157	-0.213941018
## Citric.acid_HMDB0000094	0.165850994
## L.Arginine_HMDB0000517	-0.032125905
## Ornithine_HMDB0000214.1	0.593137075
## Dopamine_HMDB0000073	0.581634005
## Myristic.acid_HMDB0000806	0.596583194
## X1.5.Anhydrosorbitol_HMDB0002712	0.343966874
## D.Tagatose_HMDB0003418	-0.396023106
## Psicose_1	0.120972059
## Sebacic.acid_HMDB0000792	0.704285068
## D.Fructose_HMDB0000660	-0.323512332
## Gluconolactone_HMDB0000150	-0.069981252
## L.Sorbose_HMDB0001266	-0.329681293
## D.Mannose_HMDB0000169	0.632656532
## Hydroxyphenyllactic.acid_HMDB0000755	0.503757579
## D.Glucose_HMDB0000122	0.623565502
## N.Acetylglutamine_HMDB0006029	0.634464134
## L.Lysine_HMDB0000182.1	0.526671466
## D.Mannose_HMDB0000169.1	0.581678281
## Tyramine_HMDB0000306	0.517114553
## L.Histidine_HMDB0000177	0.487955174
## D.Glucose_HMDB0000122.1	0.609570144
## X1.Hexadecanol_HMDB0003424	0.193984588

## L.Tyrosine_HMDB0000158	0.450636304
## Mannitol_HMDB0000765	0.520786190
## Sorbitol_HMDB0000247	-0.391436389
## ITSD_Sorbitol	0.724626422
## Galacturonic.acid_HMDB0002545	0.683119019
## Pantothenic.acid_HMDB0000210	0.377612929
## Palmitoleic.acid_HMDB0003229	0.329967030
## Xanthine_HMDB0000292	0.147308287
## Gluconic.acid_HMDB0000625	0.164439383
## Palmitic.acid_HMDB0000220	0.441825874
## Glucaric.acid_HMDB0000663	0.700538361
## N.Acetylmannosamine_HMDB0001129	0.578293262
## N.Acetyl.D.glucosamine_HMDB0000215	0.677623381
## D.Ribulose.5.phosphate_HMDB0000618	-0.336179801
## Uric.acid_HMDB0000289	0.193966829
## D.Ribose.5.phosphate_HMDB0001548	-0.498187812
## myo.Inositol_HMDB0000211	0.529755068
## D.Ribose.5.phosphate_HMDB0001548.1	-0.432035437
## Heptadecanoic.acid_HMDB0002259	0.051288230
## Octadecanol_HMDB0002350	0.251856403
## Glutathione_HMDB0000125	0.007150156
## Linoleic.acid_HMDB0000673	0.162529097
## Oleic.acid_HMDB0000207	0.212621287
## Elaidic.acid_HMDB0000573	0.300826092
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.386351048
## Stearic.acid_HMDB0000827	0.246413557
## L.Tryptophan_HMDB0000929	0.267518543
## Fructose.1.phosphate_HMDB0001076	-0.320350094
## Mannose.6.phosphate_HMDB0001078	-0.435024745
## Arachidonic.acid_HMDB0001043	0.026372972
## Glucose.6.phosphate_HMDB0001401	-0.076475116
## X6.Phosphogluconic.acid_HMDB0001316	0.173289094
## Inositol.phosphate_HMDB0002985	0.078421781
## Uridine_HMDB0000296	0.433989664
## Stigmasterol_HMDB0000937	0.547597343
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.167479236
## Sucrose_HMDB0000258	0.147029347
## MG.18.0e.0.0.0.0._HMDB0011143	0.235348649
## Trehalose_HMDB0000975	-0.476409656
## D.Maltose_HMDB0000163	-0.469853704
## Lactitol_HMDB00040937	0.342795503
## Xanthylic.acid_HMDB0001554	-0.675915515
## Adenosine.monophosphate_HMDB0000045	-0.202769068
## Cholesterol_HMDB0000067	0.463569227
## Lathosterol_HMDB0001170	0.292033381
## X7b.Hydroxycholesterol_.HMDB0006119	-0.080816631
## L.Glutamine_HMDB0000641	
## Dimethylglycine_HMDB0000092	-0.3596304810
## Glyoxylic.acid_HMDB0000119	-0.3592369795
## Pyruvic.acid_HMDB0000243	-0.2786761523
## L.Lactic.acid_HMDB0000190	0.0996875704
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.4364912898
## Glycolic.acid_HMDB0000115	-0.4415724494
## Caproic.acid_HMDB0000535	-0.4108260958

## L.Alanine_HMDB0000161	0.2627107673
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.2192684453
## Glycine_HMDB0000123	-0.0580034568
## Oxalic.acid_HMDB0002329	-0.5167030741
## Hydroxylamine_HMDB0003338	-0.0158949958
## X2.Hydroxybutyric.acid_HMDB0000008	-0.5411179450
## Acetoacetic.acid_HMDB0000060	-0.5472959425
## Hydroxypropionic.acid_HMDB0000700	-0.1637121280
## Pyruvic.acid_HMDB0000243.1	-0.2096212407
## X3.Hydroxybutyric.acid_HMDB0000357	-0.7500553171
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.6131416656
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.5551985442
## D.Alpha.aminobutyric.acid_HMDB0000650	0.1600527807
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.1891018801
## Beta.Alanine_HMDB0000056	0.2217140217
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.2730398481
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.2736777548
## Malonic.acid_HMDB0000691	-0.2009608545
## X3.Aminoisobutanoic.acid_HMDB0003911	0.3938571365
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.1667295425
## Ketoleucine_HMDB0000695	-0.5189210451
## L.Valine_HMDB0000883	0.1703009305
## ITSD_Valine	0.1382970856
## Urea_HMDB0000294	-0.1139758404
## Benzoic.acid_HMDB0001870	-0.2693378986
## Caprylic.acid_HMDB0000482	-0.6177588008
## Glycerol_HMDB0000131	0.1912921592
## Ethanolamine_HMDB0000149	0.3150119832
## L.Leucine_HMDB0000687	0.1489109319
## Acetyl glycine_HMDB0000532	-0.4206730447
## L.Isoleucine_HMDB0000172	0.1929623163
## Nicotinic.acid_HMDB0001488	-0.2371763695
## Maleic.acid_HMDB0000176	-0.7400533171
## L.Proline_HMDB0000162	-0.0022293041
## Phenylacetic.acid_HMDB0000209	-0.7573473383
## Succinic.acid_HMDB0000254	-0.0908561746
## Glycine_HMDB0000123.1	0.1150842986
## Methylsuccinic.acid_HMDB0001844	-0.1840538110
## Glyceric.acid_HMDB0000139	-0.6803691096
## Fumaric.acid_HMDB0000134	-0.1965488653
## Uracil_HMDB0000300	-0.1217009884
## Pelargonic.acid_HMDB0000847	-0.5113743643
## L.Serine_HMDB0000187	0.2094191659
## L.Threonine_HMDB0000167	0.1753661316
## Mesaconic.acid_HMDB0000749	-0.1292012810
## Glutaric.acid_HMDB0000661	-0.1391705850
## Thymine_HMDB0000262	0.0731160145
## Beta.Alanine_HMDB0000056.1	0.3223935058
## L.Homoserine_HMDB0000719	-0.1107960028
## Capric.acid_HMDB0000511	-0.2189121036
## Citramalic.acid_HMDB0000426	0.1016073104
## Malic.acid_HMDB0000744	-0.5486828009
## Niacinamide_HMDB0001406	0.1652117464
## Adipic.acid_HMDB0000448	0.4903012570

## D.Threitol_HMDB0004136	-0.2777119767
## Dihydrouracil_HMDB0000076	0.0724893000
## Erythritol_HMDB0002994	-0.3353647920
## N.Acetylserine_HMDB0002931	0.1240448511
## L.Aspartic.acid_HMDB0000191	0.2591375806
## L.Methionine_HMDB0000696	0.4245983289
## X4.Hydroxyproline_HMDB0000725	0.1018112586
## Pyroglutamic.acid_HMDB0000267	0.0616764303
## Cytosine_HMDB0000630	0.5661074960
## Gamma.Aminobutyric.acid_HMDB0000112	-0.3023444952
## Threonic.acid_HMDB0000943	-0.5887875008
## L.Cysteine_HMDB0000574	-0.4700447608
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.5377908939
## Creatinine_HMDB0000562	0.4211494840
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.2814297323
## Oxoglutaric.acid_HMDB0000208	-0.5834691094
## Phenylpyruvic.acid_HMDB0000205	-0.3498837887
## Pimelic.acid_HMDB0000857	0.0052490085
## Phenyllactic.acid_HMDB0000779	-0.2636216390
## Phosphoenolpyruvic.acid_HMDB0000263	-0.1994293387
## Ornithine_HMDB0000214	0.6771317423
## Hypotaurine_HMDB0000965	0.1919056426
## Triethanolamine_HMDB0032538	0.2731295064
## X2.Aminobenzoic.acid_HMDB0001123	0.3115645275
## L.Glutamic.acid_HMDB0000148	0.5905313161
## X4.Hydroxybenzoic.acid_HMDB0000500	0.2744301388
## X5.Aminopentanoic.acid_HMDB0003355	-0.3858885324
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.3625734946
## L.Phenylalanine_HMDB0000159	0.4643977655
## Dodecanoic.acid_HMDB0000638	-0.1795434620
## Lyxose_HMDB0003402_1	-0.5272616697
## D.Xylose_HMDB0000098	0.0738956169
## Lyxose_HMDB0003402_2	0.1757201150
## D.Arabinose_HMDB0029942	-0.5058682335
## L.Asparagine_HMDB0000168	0.9049953764
## D.Ribulose_HMDB0000621	-0.3973838952
## D.Ribose_HMDB0000283	-0.4757020801
## D.Xylulose_HMDB0001644	-0.3766143778
## X3.Sulfinioalanine_HMDB0000996	0.8045387204
## Suberic.acid_HMDB0000893	0.1025823091
## L.Lysine_HMDB0000182	0.7701632129
## Levoglucosan_HMDB0000640	0.2197030110
## D.Arabitol_HMDB0000568	-0.3209975294
## Ribitol_HMDB0000508	-0.0419471715
## cis.Aconitic.acid_HMDB0000072	0.0634157323
## Quinolinic.acid_HMDB0000232	-0.2766249906
## Putrescine_HMDB0001414	-0.3053364111
## Glycerol.3.phosphate_HMDB0000126	-0.2151617988
## Vanillic.acid_HMDB0000484	0.0183900770
## L.Glutamine_HMDB0000641	1.0000000000
## X2.Phosphoglyceric.acid_HMDB0000362	-0.0195023273
## Azelaic.acid_HMDB0000784	-0.0478111920
## L.Dihydroorotic.acid_HMDB0003349	-0.5183477404
## O.Phosphoethanolamine_HMDB0000224	0.0354100225

## X3.Phosphoglyceric.acid_HMDB0000807	-0.1457767241
## Isocitric.acid_HMDB0000193	0.1443804670
## Hypoxanthine_HMDB0000157	0.7691379852
## Citric.acid_HMDB0000094	-0.2051106509
## L.Arginine_HMDB0000517	0.4653996475
## Ornithine_HMDB0000214.1	0.5081049825
## Dopamine_HMDB0000073	0.5415019792
## Myristic.acid_HMDB0000806	0.1114181316
## X1.5.Anhydrosorbitol_HMDB0002712	-0.4401080583
## D.Tagatose_HMDB0003418	-0.4857773355
## Psicose_1	0.1821783838
## Sebacic.acid_HMDB0000792	0.1049363442
## D.Fructose_HMDB0000660	-0.5734306350
## Gluconolactone_HMDB0000150	-0.4150842525
## L.Sorbose_HMDB0001266	-0.5567748689
## D.Mannose_HMDB0000169	0.3173080046
## Hydroxyphenyllactic.acid_HMDB0000755	-0.6690265639
## D.Glucose_HMDB0000122	0.3133578497
## N.Acetylglutamine_HMDB0006029	0.3018441356
## L.Lysine_HMDB0000182.1	0.5941395560
## D.Mannose_HMDB0000169.1	0.4711118179
## Tyramine_HMDB0000306	0.6010155478
## L.Histidine_HMDB0000177	0.5975097260
## D.Glucose_HMDB0000122.1	0.3134358666
## X1.Hexadecanol_HMDB0003424	-0.4226179234
## L.Tyrosine_HMDB0000158	0.7344670286
## Mannitol_HMDB0000765	0.1720221324
## Sorbitol_HMDB0000247	0.3374831687
## ITSD_Sorbitol	-0.0005748170
## Galacturonic.acid_HMDB0002545	-0.3358561691
## Pantothenic.acid_HMDB0000210	-0.6353249960
## Palmitoleic.acid_HMDB0003229	-0.0342010366
## Xanthine_HMDB0000292	0.6831487413
## Gluconic.acid_HMDB0000625	-0.1787336803
## Palmitic.acid_HMDB0000220	-0.2853633771
## Glucaric.acid_HMDB0000663	0.1456821409
## N.Acetylmannosamine_HMDB0001129	0.1916642855
## N.Acetyl.D.glucosamine_HMDB0000215	0.1901193289
## D.Ribulose.5.phosphate_HMDB0000618	-0.4759768797
## Uric.acid_HMDB0000289	0.8828303240
## D.Ribose.5.phosphate_HMDB0001548	-0.4688425211
## myo.Inositol_HMDB0000211	0.0322207985
## D.Ribose.5.phosphate_HMDB0001548.1	-0.4764931118
## Heptadecanoic.acid_HMDB0002259	-0.1143190864
## Octadecanol_HMDB0002350	-0.7413372934
## Glutathione_HMDB0000125	0.6202241873
## Linoleic.acid_HMDB0000673	-0.2603271446
## Oleic.acid_HMDB0000207	-0.0309975666
## Elaidic.acid_HMDB0000573	-0.0642518265
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.3703941176
## Stearic.acid_HMDB0000827	-0.5975104358
## L.Tryptophan_HMDB0000929	-0.5717812595
## Fructose.1.phosphate_HMDB0001076	-0.4499798814
## Mannose.6.phosphate_HMDB0001078	-0.0009279813

## Arachidonic.acid_HMDB0001043	0.0976916804
## Glucose.6.phosphate_HMDB0001401	-0.5987522875
## X6.Phosphogluconic.acid_HMDB0001316	-0.7268349537
## Inositol.phosphate_HMDB0002985	-0.3946468765
## Uridine_HMDB0000296	-0.2502682144
## Stigmasterol_HMDB0000937	-0.5104987280
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.4628517032
## Sucrose_HMDB0000258	0.0377325020
## MG.18.0e.0.0.0.0._HMDB0011143	-0.6681582884
## Trehalose_HMDB0000975	-0.0006862762
## D.Maltose_HMDB0000163	-0.0068259942
## Lactitol_HMDB00040937	-0.3200277887
## Xanthylic.acid_HMDB0001554	0.2978074249
## Adenosine.monophosphate_HMDB0000045	-0.5270052194
## Cholesterol_HMDB0000067	-0.0500592482
## Lathosterol_HMDB0001170	-0.1902597806
## X7b.Hydroxycholesterol_.HMDB0006119	-0.0935321463
##	X2.Phosphoglyceric.acid_HMDB0000362
## Dimethylglycine_HMDB0000092	0.260431098
## Glyoxylic.acid_HMDB0000119	0.260042774
## Pyruvic.acid_HMDB0000243	0.350222920
## L.Lactic.acid_HMDB0000190	0.430176120
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.345052006
## Glycolic.acid_HMDB0000115	0.297566663
## Caproic.acid_HMDB0000535	0.384850723
## L.Alanine_HMDB0000161	0.400939837
## Alpha.ketoisovaleric.acid_HMDB0000019	0.802917290
## Glycine_HMDB0000123	0.433693001
## Oxalic.acid_HMDB0002329	0.082251785
## Hydroxylamine_HMDB0003338	0.267495906
## X2.Hydroxybutyric.acid_HMDB0000008	0.563575587
## Acetoacetic.acid_HMDB0000060	0.248208965
## Hydroxypropionic.acid_HMDB0000700	0.147996253
## Pyruvic.acid_HMDB0000243.1	0.430382556
## X3.Hydroxybutyric.acid_HMDB0000357	0.352626451
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.479487695
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.372932579
## D.Alpha.aminobutyric.acid_HMDB0000650	0.146263240
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.600301535
## Beta.Alanine_HMDB0000056	-0.001962564
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.624571218
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.659337123
## Malonic.acid_HMDB0000691	0.252045759
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.009906952
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.234881287
## Ketoleucine_HMDB0000695	0.789758757
## L.Valine_HMDB0000883	0.271812100
## ITSD_Valine	0.152944548
## Urea_HMDB0000294	0.605034792
## Benzoic.acid_HMDB0001870	0.040480245
## Caprylic.acid_HMDB0000482	0.351228233
## Glycerol_HMDB0000131	0.213000919
## Ethanolamine_HMDB0000149	0.410582962
## L.Leucine_HMDB0000687	0.229251634

## Acetylglycine_HMDB0000532	0.416757670
## L.Isoleucine_HMDB0000172	0.351918556
## Nicotinic.acid_HMDB0001488	0.253969684
## Maleic.acid_HMDB0000176	0.461769207
## L.Proline_HMDB0000162	0.432022814
## Phenylacetic.acid_HMDB0000209	0.403465067
## Succinic.acid_HMDB0000254	0.399585053
## Glycine_HMDB0000123.1	0.288960615
## Methylsuccinic.acid_HMDB0001844	-0.112874625
## Glyceric.acid_HMDB0000139	0.277297189
## Fumaric.acid_HMDB0000134	0.560705905
## Uracil_HMDB0000300	0.671330393
## Pelargonic.acid_HMDB0000847	0.318674631
## L.Serine_HMDB0000187	0.375224900
## L.Threonine_HMDB0000167	0.485927404
## Mesaconic.acid_HMDB0000749	0.379527288
## Glutaric.acid_HMDB0000661	0.741021521
## Thymine_HMDB0000262	0.339923482
## Beta.Alanine_HMDB0000056.1	0.031183827
## L.Homoserine_HMDB0000719	0.129992626
## Capric.acid_HMDB0000511	0.090661503
## Citramalic.acid_HMDB0000426	0.307937125
## Malic.acid_HMDB0000744	0.642104092
## Niacinamide_HMDB0001406	0.442553734
## Adipic.acid_HMDB0000448	0.541658239
## D.Threitol_HMDB0004136	0.334363188
## Dihydrouracil_HMDB0000076	0.684026756
## Erythritol_HMDB0002994	0.550822368
## N.Acetylserine_HMDB0002931	0.553043285
## L.Aspartic.acid_HMDB0000191	0.410566934
## L.Methionine_HMDB0000696	0.002612885
## X4.Hydroxyproline_HMDB0000725	0.536390815
## Pyroglutamic.acid_HMDB0000267	0.395050524
## Cytosine_HMDB0000630	0.340816760
## Gamma.Aminobutyric.acid_HMDB0000112	0.255732943
## Threonic.acid_HMDB0000943	0.535793918
## L.Cysteine_HMDB0000574	0.572674090
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.531009999
## Creatinine_HMDB0000562	-0.234814617
## X3.Hydroxyglutaric.acid_HMDB0000428	0.429147840
## Oxoglutaric.acid_HMDB0000208	0.266060331
## Phenylpyruvic.acid_HMDB0000205	0.267622155
## Pimelic.acid_HMDB0000857	0.135370921
## Phenyllactic.acid_HMDB0000779	0.501978543
## Phosphoenolpyruvic.acid_HMDB0000263	0.293982102
## Ornithine_HMDB0000214	0.021419480
## Hypotaurine_HMDB0000965	0.337925726
## Triethanolamine_HMDB0032538	0.511089686
## X2.Aminobenzoic.acid_HMDB0001123	0.031805934
## L.Glutamic.acid_HMDB0000148	0.188739330
## X4.Hydroxybenzoic.acid_HMDB0000500	0.278396590
## X5.Aminopentanoic.acid_HMDB0003355	0.790281451
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.407821246
## L.Phenylalanine_HMDB0000159	0.102343952

## Dodecanoic.acid_HMDB0000638	-0.037377580
## Lyxose_HMDB0003402_1	0.271911907
## D.Xylose_HMDB0000098	0.017070906
## Lyxose_HMDB0003402_2	0.006928193
## D.Arabinose_HMDB0029942	0.217111506
## L.Asparagine_HMDB0000168	-0.018924652
## D.Ribulose_HMDB0000621	0.217593293
## D.Ribose_HMDB0000283	0.204203366
## D.Xylulose_HMDB0001644	0.235928050
## X3.Sulfinoalanine_HMDB0000996	-0.218379390
## Suberic.acid_HMDB0000893	0.541299901
## L.Lysine_HMDB0000182	-0.141933260
## Levoglucosan_HMDB0000640	-0.018396804
## D.Arabitol_HMDB0000568	0.172870928
## Ribitol_HMDB0000508	0.276788429
## cis.Aconitic.acid_HMDB0000072	0.070293489
## Quinolinic.acid_HMDB0000232	0.647102044
## Putrescine_HMDB0001414	0.464718266
## Glycerol.3.phosphate_HMDB0000126	-0.013594131
## Vanillic.acid_HMDB0000484	0.434040778
## L.Glutamine_HMDB0000641	-0.019502327
## X2.Phosphoglyceric.acid_HMDB0000362	1.000000000
## Azelaic.acid_HMDB0000784	0.215977494
## L.Dihydroorotic.acid_HMDB0003349	0.267250244
## O.Phosphoethanolamine_HMDB0000224	-0.285570362
## X3.Phosphoglyceric.acid_HMDB0000807	0.951926988
## Isocitric.acid_HMDB0000193	0.521191327
## Hypoxanthine_HMDB0000157	-0.427260063
## Citric.acid_HMDB0000094	0.814995596
## L.Arginine_HMDB0000517	0.224802710
## Ornithine_HMDB0000214.1	0.170263636
## Dopamine_HMDB0000073	0.176401683
## Myristic.acid_HMDB0000806	0.010412344
## X1.5.Anhydrosorbitol_HMDB0002712	0.622069731
## D.Tagatose_HMDB0003418	0.252984620
## Psicose_1	0.166637139
## Sebacic.acid_HMDB0000792	0.527658837
## D.Fructose_HMDB0000660	0.303386258
## Gluconolactone_HMDB0000150	0.330816543
## L.Sorbose_HMDB0001266	0.278713199
## D.Mannose_HMDB0000169	0.003546786
## Hydroxyphenyllactic.acid_HMDB0000755	0.324729960
## D.Glucose_HMDB0000122	0.020312997
## N.Acetylglutamine_HMDB0006029	0.018068794
## L.Lysine_HMDB0000182.1	-0.002845092
## D.Mannose_HMDB0000169.1	-0.038158635
## Tyramine_HMDB0000306	-0.014586004
## L.Histidine_HMDB0000177	-0.052060589
## D.Glucose_HMDB0000122.1	-0.082533692
## X1.Hexadecanol_HMDB0003424	-0.022284153
## L.Tyrosine_HMDB0000158	0.084031106
## Mannitol_HMDB0000765	0.405587094
## Sorbitol_HMDB0000247	0.051766637
## ITSD_Sorbitol	0.185723593

## Galacturonic.acid_HMDB0002545	0.576911740
## Pantothenic.acid_HMDB0000210	0.321829668
## Palmitoleic.acid_HMDB0003229	-0.407465472
## Xanthine_HMDB0000292	0.088117650
## Gluconic.acid_HMDB0000625	0.588030441
## Palmitic.acid_HMDB0000220	-0.125684064
## Glucaric.acid_HMDB0000663	0.258319161
## N.Acetylmannosamine_HMDB0001129	-0.022779461
## N.Acetyl.D.glucosamine_HMDB0000215	0.134877574
## D.Ribulose.5.phosphate_HMDB0000618	0.168744778
## Uric.acid_HMDB0000289	-0.242519205
## D.Ribose.5.phosphate_HMDB0001548	0.095482742
## myo.Inositol_HMDB0000211	0.395268858
## D.Ribose.5.phosphate_HMDB0001548.1	0.092312231
## Heptadecanoic.acid_HMDB0002259	0.779833777
## Octadecanol_HMDB0002350	0.383261673
## Glutathione_HMDB0000125	0.353033357
## Linoleic.acid_HMDB0000673	-0.433130367
## Oleic.acid_HMDB0000207	-0.495777920
## Elaidic.acid_HMDB0000573	-0.389868795
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.392555503
## Stearic.acid_HMDB0000827	0.058005370
## L.Tryptophan_HMDB0000929	0.101887509
## Fructose.1.phosphate_HMDB0001076	0.362060138
## Mannose.6.phosphate_HMDB0001078	0.006879472
## Arachidonic.acid_HMDB0001043	-0.690455894
## Glucose.6.phosphate_HMDB0001401	0.303888182
## X6.Phosphogluconic.acid_HMDB0001316	-0.012281925
## Inositol.phosphate_HMDB0002985	-0.164113118
## Uridine_HMDB0000296	0.321652392
## Stigmasterol_HMDB0000937	0.297159222
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.094519402
## Sucrose_HMDB0000258	-0.272964361
## MG.18.0e.0.0.0.0._HMDB0011143	0.019292874
## Trehalose_HMDB0000975	-0.058896928
## D.Maltose_HMDB0000163	-0.054827537
## Lactitol_HMDB0040937	0.150413503
## Xanthylic.acid_HMDB0001554	-0.057755289
## Adenosine.monophosphate_HMDB0000045	0.352897054
## Cholesterol_HMDB0000067	-0.053057905
## Lathosterol_HMDB0001170	-0.398154892
## X7b.Hydroxycholesterol_.HMDB0006119	0.738779359
##	
## Dimethylglycine_HMDB0000092	Azelaic.acid_HMDB0000784 1.022783e-02
## Glyoxylic.acid_HMDB0000119	1.807017e-02
## Pyruvic.acid_HMDB0000243	1.735945e-01
## L.Lactic.acid_HMDB0000190	-2.194134e-02
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-1.857492e-02
## Glycolic.acid_HMDB0000115	-3.185189e-01
## Caproic.acid_HMDB0000535	5.256769e-02
## L.Alanine_HMDB0000161	9.780267e-02
## Alpha.ketoisovaleric.acid_HMDB0000019	1.540734e-02
## Glycine_HMDB0000123	2.989877e-01
## Oxalic.acid_HMDB0002329	5.934648e-02

## Hydroxylamine_HMDB0003338	-6.097821e-01
## X2.Hydroxybutyric.acid_HMDB0000008	-3.586141e-02
## Acetoacetic.acid_HMDB0000060	-4.682219e-01
## Hydroxypropionic.acid_HMDB0000700	-2.093661e-01
## Pyruvic.acid_HMDB0000243.1	-3.129633e-01
## X3.Hydroxybutyric.acid_HMDB0000357	-8.211541e-02
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-4.966564e-02
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-2.655353e-01
## D.Alpha.aminobutyric.acid_HMDB0000650	-1.085374e-01
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	5.199648e-02
## Beta.Alanine_HMDB0000056	3.446059e-01
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	2.583546e-01
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-3.145251e-02
## Malonic.acid_HMDB0000691	3.018921e-01
## X3.Aminoisobutanoic.acid_HMDB0003911	-1.829010e-01
## X3.Hydroxyisovaleric.acid_HMDB0000754	-6.903960e-02
## Ketoleucine_HMDB0000695	5.353282e-03
## L.Valine_HMDB0000883	-7.133307e-02
## ITSD_Valine	-1.153187e-01
## Urea_HMDB0000294	1.384876e-01
## Benzoic.acid_HMDB0001870	5.944337e-02
## Caprylic.acid_HMDB0000482	1.383624e-01
## Glycerol_HMDB0000131	-4.559467e-02
## Ethanolamine_HMDB0000149	-4.995504e-02
## L.Leucine_HMDB0000687	-9.791706e-02
## Acetyl glycine_HMDB0000532	-8.453634e-02
## L.Isoleucine_HMDB0000172	-6.308669e-02
## Nicotinic.acid_HMDB0001488	6.400679e-01
## Maleic.acid_HMDB0000176	-1.358643e-01
## L.Proline_HMDB0000162	-6.070213e-02
## Phenylacetic.acid_HMDB0000209	-1.097320e-01
## Succinic.acid_HMDB0000254	-6.332067e-02
## Glycine_HMDB0000123.1	-1.627631e-01
## Methylsuccinic.acid_HMDB0001844	-7.463706e-02
## Glyceric.acid_HMDB0000139	-3.264985e-01
## Fumaric.acid_HMDB0000134	9.452028e-02
## Uracil_HMDB0000300	3.349825e-02
## Pelargonic.acid_HMDB0000847	2.244435e-01
## L.Serine_HMDB0000187	6.208512e-02
## L.Threonine_HMDB0000167	5.548409e-02
## Mesaconic.acid_HMDB0000749	5.537772e-01
## Glutaric.acid_HMDB0000661	5.994305e-01
## Thymine_HMDB0000262	-8.710469e-02
## Beta.Alanine_HMDB0000056.1	-1.020744e-01
## L.Homoserine_HMDB0000719	-2.802715e-01
## Capric.acid_HMDB0000511	-2.946465e-01
## Citramalic.acid_HMDB0000426	4.405897e-01
## Malic.acid_HMDB0000744	-1.007838e-01
## Niacinamide_HMDB0001406	1.987195e-01
## Adipic.acid_HMDB0000448	2.324965e-01
## D.Threitol_HMDB0004136	7.684004e-02
## Dihydrouracil_HMDB0000076	-2.854661e-02
## Erythritol_HMDB0002994	-3.815732e-02
## N.Acetylserine_HMDB0002931	7.111849e-02

## L.Aspartic.acid_HMDB0000191	7.462618e-02
## L.Methionine_HMDB0000696	-8.067853e-02
## X4.Hydroxyproline_HMDB0000725	1.759357e-01
## Pyroglutamic.acid_HMDB0000267	2.672587e-01
## Cytosine_HMDB0000630	2.417789e-01
## Gamma.Aminobutyric.acid_HMDB0000112	6.713460e-01
## Threonic.acid_HMDB0000943	-1.467394e-01
## L.Cysteine_HMDB0000574	-2.454050e-01
## L.2.Hydroxyglutaric.acid_HMDB0000694	1.722251e-01
## Creatinine_HMDB0000562	-2.964126e-01
## X3.Hydroxyglutaric.acid_HMDB0000428	3.801907e-01
## Oxoglutaric.acid_HMDB0000208	1.859604e-01
## Phenylpyruvic.acid_HMDB0000205	2.056717e-01
## Pimelic.acid_HMDB0000857	4.413578e-01
## Phenyllactic.acid_HMDB0000779	3.838828e-01
## Phosphoenolpyruvic.acid_HMDB0000263	3.364889e-01
## Ornithine_HMDB0000214	5.347721e-02
## Hypotaurine_HMDB0000965	4.511929e-03
## Triethanolamine_HMDB0032538	1.525557e-01
## X2.Aminobenzoic.acid_HMDB0001123	-1.932530e-01
## L.Glutamic.acid_HMDB0000148	1.442605e-01
## X4.Hydroxybenzoic.acid_HMDB0000500	-9.695002e-02
## X5.Aminopentanoic.acid_HMDB0003355	1.786469e-01
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-2.221081e-01
## L.Phenylalanine_HMDB0000159	-6.874518e-02
## Dodecanoic.acid_HMDB0000638	-3.628907e-01
## Lyxose_HMDB0003402_1	8.370852e-02
## D.Xylose_HMDB0000098	-7.357637e-02
## Lyxose_HMDB0003402_2	-2.855875e-02
## D.Arabinose_HMDB0029942	8.869985e-02
## L.Asparagine_HMDB0000168	8.932435e-02
## D.Ribulose_HMDB0000621	-1.284637e-01
## D.Ribose_HMDB0000283	8.483632e-02
## D.Xylulose_HMDB0001644	-1.185277e-01
## X3.Sulfinoalanine_HMDB0000996	1.592207e-01
## Suberic.acid_HMDB0000893	4.761546e-01
## L.Lysine_HMDB0000182	1.704239e-02
## Levoglucosan_HMDB0000640	-1.324416e-01
## D.Arabitol_HMDB0000568	5.029606e-01
## Ribitol_HMDB0000508	-2.702472e-01
## cis.Aconitic.acid_HMDB0000072	5.674180e-03
## Quinolinic.acid_HMDB0000232	7.098953e-01
## Putrescine_HMDB0001414	4.593776e-01
## Glycerol.3.phosphate_HMDB0000126	4.635843e-01
## Vanillic.acid_HMDB0000484	-3.031918e-01
## L.Glutamine_HMDB0000641	-4.781119e-02
## X2.Phosphoglyceric.acid_HMDB0000362	2.159775e-01
## Azelaic.acid_HMDB0000784	1.000000e+00
## L.Dihydroorotic.acid_HMDB0003349	3.747697e-02
## O.Phosphoethanolamine_HMDB0000224	-2.127556e-01
## X3.Phosphoglyceric.acid_HMDB0000807	3.320240e-01
## Isocitric.acid_HMDB0000193	4.673363e-02
## Hypoxanthine_HMDB0000157	-1.418773e-01
## Citric.acid_HMDB0000094	1.295519e-01

## L.Arginine_HMDB0000517	-2.854225e-01
## Ornithine_HMDB0000214.1	-5.541713e-02
## Dopamine_HMDB0000073	-7.223585e-02
## Myristic.acid_HMDB0000806	-2.129281e-01
## X1.5.Anhydrosorbitol_HMDB0002712	1.847326e-01
## D.Tagatose_HMDB0003418	1.754223e-01
## Psicose_1	-1.201289e-01
## Sebacic.acid_HMDB0000792	8.258575e-02
## D.Fructose_HMDB0000660	1.691028e-01
## Gluconolactone_HMDB0000150	-1.257353e-01
## L.Sorbose_HMDB0001266	1.643383e-01
## D.Mannose_HMDB0000169	-1.265039e-01
## Hydroxyphenyllactic.acid_HMDB0000755	-1.260576e-01
## D.Glucose_HMDB0000122	-3.070551e-02
## N.Acetylglutamine_HMDB0006029	-1.008088e-01
## L.Lysine_HMDB0000182.1	-1.151337e-01
## D.Mannose_HMDB0000169.1	-1.602946e-01
## Tyramine_HMDB0000306	-1.285833e-01
## L.Histidine_HMDB0000177	-1.093850e-01
## D.Glucose_HMDB0000122.1	-6.266680e-02
## X1.Hexadecanol_HMDB0003424	-7.188219e-02
## L.Tyrosine_HMDB0000158	1.703665e-05
## Mannitol_HMDB0000765	1.787244e-01
## Sorbitol_HMDB0000247	2.237678e-02
## ITSD_Sorbitol	-3.434300e-01
## Galacturonic.acid_HMDB0002545	-2.401755e-01
## Pantothenic.acid_HMDB0000210	-1.042047e-02
## Palmitoleic.acid_HMDB0003229	-3.288039e-01
## Xanthine_HMDB0000292	2.293472e-02
## Gluconic.acid_HMDB0000625	-1.370815e-01
## Palmitic.acid_HMDB0000220	-2.409994e-01
## Glucaric.acid_HMDB0000663	-2.710181e-01
## N.Acetylmannosamine_HMDB0001129	-2.735093e-01
## N.Acetyl.D.glucosamine_HMDB0000215	-2.020111e-01
## D.Ribulose.5.phosphate_HMDB0000618	1.773551e-01
## Uric.acid_HMDB0000289	-1.445120e-01
## D.Ribose.5.phosphate_HMDB0001548	2.812537e-01
## myo.Inositol_HMDB0000211	2.971518e-01
## D.Ribose.5.phosphate_HMDB0001548.1	9.491787e-02
## Heptadecanoic.acid_HMDB0002259	1.769237e-01
## Octadecanol_HMDB0002350	5.390932e-02
## Glutathione_HMDB0000125	2.681664e-01
## Linoleic.acid_HMDB0000673	-3.339323e-01
## Oleic.acid_HMDB0000207	-3.555763e-01
## Elaidic.acid_HMDB0000573	-3.055495e-01
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	2.038576e-01
## Stearic.acid_HMDB0000827	-2.535394e-03
## L.Tryptophan_HMDB0000929	4.273419e-02
## Fructose.1.phosphate_HMDB0001076	3.186148e-01
## Mannose.6.phosphate_HMDB0001078	5.369953e-01
## Arachidonic.acid_HMDB0001043	-3.536359e-01
## Glucose.6.phosphate_HMDB0001401	4.384068e-02
## X6.Phosphogluconic.acid_HMDB0001316	-1.839800e-01
## Inositol.phosphate_HMDB0002985	-2.453685e-01

## Uridine_HMDB0000296	-2.525740e-01
## Stigmasterol_HMDB0000937	-7.101159e-02
## D.Sedoheptulose.7.phosphate_HMDB0001068	-1.502830e-02
## Sucrose_HMDB0000258	2.676771e-01
## MG.18.0e.0.0.0.0._HMDB0011143	-1.341042e-01
## Trehalose_HMDB0000975	8.982657e-01
## D.Maltose_HMDB0000163	9.010229e-01
## Lactitol_HMDB0040937	1.502694e-01
## Xanthylic.acid_HMDB0001554	2.420602e-01
## Adenosine.monophosphate_HMDB0000045	1.785689e-01
## Cholesterol_HMDB0000067	-3.512482e-01
## Lathosterol_HMDB0001170	-3.521231e-01
## X7b.Hydroxycholesterol_.HMDB0006119	3.168222e-01
##	L.Dihydroorotic.acid_HMDB0003349
## Dimethylglycine_HMDB0000092	0.8612310709
## Glyoxylic.acid_HMDB0000119	0.8594882350
## Pyruvic.acid_HMDB0000243	-0.2989341070
## L.Lactic.acid_HMDB0000190	-0.5704772371
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.0356943518
## Glycolic.acid_HMDB0000115	0.5710323539
## Caproic.acid_HMDB0000535	0.9278321123
## L.Alanine_HMDB0000161	-0.6392844581
## Alpha.ketoisovaleric.acid_HMDB0000019	0.0269289408
## Glycine_HMDB0000123	-0.4910021937
## Oxalic.acid_HMDB0002329	0.6678474022
## Hydroxylamine_HMDB0003338	-0.0983996091
## X2.Hydroxybutyric.acid_HMDB0000008	0.3560010483
## Acetoacetic.acid_HMDB0000060	0.3985448969
## Hydroxypropionic.acid_HMDB0000700	-0.3854030763
## Pyruvic.acid_HMDB0000243.1	-0.1327845369
## X3.Hydroxybutyric.acid_HMDB0000357	0.3037360466
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.2864134667
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.5669750874
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.6233267221
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.2928612399
## Beta.Alanine_HMDB0000056	-0.7569416020
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.0155051492
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.0072321801
## Malonic.acid_HMDB0000691	-0.2545800425
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.8372250389
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.3949881636
## Ketoleucine_HMDB0000695	0.4789411633
## L.Valine_HMDB0000883	-0.6038460677
## ITSD_Valine	-0.6489904534
## Urea_HMDB0000294	-0.3275646052
## Benzoic.acid_HMDB0001870	0.2705482297
## Caprylic.acid_HMDB0000482	0.8469044039
## Glycerol_HMDB0000131	-0.7233898132
## Ethanolamine_HMDB0000149	-0.6428087634
## L.Leucine_HMDB0000687	-0.6361838682
## Acetyl glycine_HMDB0000532	0.4217767943
## L.Isoleucine_HMDB0000172	-0.6443358436
## Nicotinic.acid_HMDB0001488	0.2705307054
## Maleic.acid_HMDB0000176	0.6583426784

## L.Proline_HMDB0000162	-0.3078720965
## Phenylacetic.acid_HMDB0000209	0.8475478201
## Succinic.acid_HMDB0000254	-0.3086732952
## Glycine_HMDB0000123.1	-0.6194790229
## Methylsuccinic.acid_HMDB0001844	0.0604708237
## Glyceric.acid_HMDB0000139	0.7044294856
## Fumaric.acid_HMDB0000134	-0.3215223441
## Uracil_HMDB0000300	-0.2072640247
## Pelargonic.acid_HMDB0000847	0.8870353476
## L.Serine_HMDB0000187	-0.5937891958
## L.Threonine_HMDB0000167	-0.5655691003
## Mesaconic.acid_HMDB0000749	0.0738332290
## Glutaric.acid_HMDB0000661	0.3725041936
## Thymine_HMDB0000262	-0.3588600266
## Beta.Alanine_HMDB0000056.1	-0.8394688247
## L.Homoserine_HMDB0000719	0.2754294579
## Capric.acid_HMDB0000511	0.3924631523
## Citramalic.acid_HMDB0000426	-0.3909855847
## Malic.acid_HMDB0000744	0.7150009345
## Niacinamide_HMDB0001406	-0.6051356366
## Adipic.acid_HMDB0000448	-0.5264963044
## D.Threitol_HMDB0004136	-0.0470981073
## Dihydrouracil_HMDB0000076	-0.1051135459
## Erythritol_HMDB0002994	-0.0381498482
## N.Acetylserine_HMDB0002931	-0.4351242287
## L.Aspartic.acid_HMDB0000191	-0.6207747744
## L.Methionine_HMDB0000696	-0.8965934519
## X4.Hydroxyproline_HMDB0000725	-0.5081857087
## Pyroglutamic.acid_HMDB0000267	-0.5742941259
## Cytosine_HMDB0000630	-0.2329879433
## Gamma.Aminobutyric.acid_HMDB0000112	-0.1966792823
## Threonic.acid_HMDB0000943	0.7028628241
## L.Cysteine_HMDB0000574	0.5663356901
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.8695935477
## Creatinine_HMDB0000562	-0.8154498362
## X3.Hydroxyglutaric.acid_HMDB0000428	0.7980678319
## Oxoglutaric.acid_HMDB0000208	0.1623760567
## Phenylpyruvic.acid_HMDB0000205	0.4943200979
## Pimelic.acid_HMDB0000857	-0.4712360363
## Phenyllactic.acid_HMDB0000779	0.6138442292
## Phosphoenolpyruvic.acid_HMDB0000263	0.8340859926
## Ornithine_HMDB0000214	-0.7357876694
## Hypotaurine_HMDB0000965	-0.5985844635
## Triethanolamine_HMDB0032538	-0.5655169459
## X2.Aminobenzoic.acid_HMDB0001123	-0.8392158893
## L.Glutamic.acid_HMDB0000148	-0.8193691631
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.7013733894
## X5.Aminopentanoic.acid_HMDB0003355	0.2938595278
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.6277150006
## L.Phenylalanine_HMDB0000159	-0.8538010256
## Dodecanoic.acid_HMDB0000638	-0.3382827205
## Lyxose_HMDB0003402_1	0.9677893513
## D.Xylose_HMDB0000098	0.1094450179
## Lyxose_HMDB0003402_2	-0.0584454925

## D.Arabinose_HMDB0029942	0.9903384575
## L.Asparagine_HMDB0000168	-0.7344669024
## D.Ribulose_HMDB0000621	0.8164197372
## D.Ribose_HMDB0000283	0.9810742920
## D.Xylulose_HMDB0001644	0.7971244709
## X3.Sulfinioalanine_HMDB0000996	-0.5763796884
## Suberic.acid_HMDB0000893	-0.3458148842
## L.Lysine_HMDB0000182	-0.6850992205
## Levoglucosan_HMDB0000640	-0.0748733164
## D.Arabitol_HMDB0000568	-0.1523553394
## Ribitol_HMDB0000508	0.0834958861
## cis.Aconitic.acid_HMDB0000072	-0.0873157561
## Quinolinic.acid_HMDB0000232	0.1568064078
## Putrescine_HMDB0001414	0.1641355002
## Glycerol.3.phosphate_HMDB0000126	0.6496272812
## Vanillic.acid_HMDB0000484	-0.3731077986
## L.Glutamine_HMDB0000641	-0.5183477404
## X2.Phosphoglyceric.acid_HMDB0000362	0.2672502440
## Azelaic.acid_HMDB0000784	0.0374769723
## L.Dihydroorotic.acid_HMDB0003349	1.0000000000
## O.Phosphoethanolamine_HMDB0000224	-0.5568407979
## X3.Phosphoglyceric.acid_HMDB0000807	0.2412940679
## Isocitric.acid_HMDB0000193	-0.0202174036
## Hypoxanthine_HMDB0000157	-0.3495627603
## Citric.acid_HMDB0000094	0.6491382112
## L.Arginine_HMDB0000517	0.3558656314
## Ornithine_HMDB0000214.1	-0.8307239693
## Dopamine_HMDB0000073	-0.8206367653
## Myristic.acid_HMDB0000806	-0.7018419237
## X1.5.Anhydrosorbitol_HMDB0002712	0.3819273964
## D.Tagatose_HMDB0003418	0.9799554155
## Psicose_1	-0.1216789071
## Sebacic.acid_HMDB0000792	-0.3942192775
## D.Fructose_HMDB0000660	0.9425423801
## Gluconolactone_HMDB0000150	0.8595707983
## L.Sorbose_HMDB0001266	0.9382994337
## D.Mannose_HMDB0000169	-0.8970610519
## Hydroxyphenyllactic.acid_HMDB0000755	0.0301279919
## D.Glucose_HMDB0000122	-0.8843338438
## N.Acetylglutamine_HMDB0006029	-0.8821801258
## L.Lysine_HMDB0000182.1	-0.8938087424
## D.Mannose_HMDB0000169.1	-0.9334303644
## Tyramine_HMDB0000306	-0.8907154621
## L.Histidine_HMDB0000177	-0.9117963103
## D.Glucose_HMDB0000122.1	-0.9041281088
## X1.Hexadecanol_HMDB0003424	0.2547310114
## L.Tyrosine_HMDB0000158	-0.8551967382
## Mannitol_HMDB0000765	-0.6016576894
## Sorbitol_HMDB0000247	0.1417253541
## ITSD_Sorbitol	-0.5397043082
## Galacturonic.acid_HMDB0002545	0.1236141380
## Pantothenic.acid_HMDB0000210	0.3825670134
## Palmitoleic.acid_HMDB0003229	-0.5841437135
## Xanthine_HMDB0000292	-0.4543416573

## Gluconic.acid_HMDB0000625	0.6386472845
## Palmitic.acid_HMDB0000220	-0.4136894415
## Glucaric.acid_HMDB0000663	-0.5602100828
## N.Acetylmannosamine_HMDB0001129	-0.5493309421
## N.Acetyl.D.glucosamine_HMDB0000215	-0.7623988991
## D.Ribulose.5.phosphate_HMDB0000618	0.8898496479
## Uric.acid_HMDB0000289	-0.7827509411
## D.Ribose.5.phosphate_HMDB0001548	0.8931419258
## myo.Inositol_HMDB0000211	-0.3305375057
## D.Ribose.5.phosphate_HMDB0001548.1	0.9280359249
## Heptadecanoic.acid_HMDB0002259	0.5059778271
## Octadecanol_HMDB0002350	0.4234343649
## Glutathione_HMDB0000125	-0.0695643610
## Linoleic.acid_HMDB0000673	-0.3313855523
## Oleic.acid_HMDB0000207	-0.5281971338
## Elaidic.acid_HMDB0000573	-0.5180869068
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.8862134822
## Stearic.acid_HMDB0000827	0.0247387396
## L.Tryptophan_HMDB0000929	0.0005894237
## Fructose.1.phosphate_HMDB0001076	0.8617698010
## Mannose.6.phosphate_HMDB0001078	0.2707742663
## Arachidonic.acid_HMDB0001043	-0.4865214479
## Glucose.6.phosphate_HMDB0001401	0.8730532078
## X6.Phosphogluconic.acid_HMDB0001316	0.3723105224
## Inositol.phosphate_HMDB0002985	0.2442423907
## Uridine_HMDB0000296	0.0147954967
## Stigmasterol_HMDB0000937	-0.1389703241
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.0842267785
## Sucrose_HMDB0000258	-0.6700997344
## MG.18.Oe.0.0.0.0._HMDB0011143	0.1536524598
## Trehalose_HMDB0000975	0.0202567890
## D.Maltose_HMDB0000163	0.0184975608
## Lactitol_HMDB00040937	0.1102553663
## Xanthylic.acid_HMDB0001554	0.4283647212
## Adenosine.monophosphate_HMDB0000045	0.9070493789
## Cholesterol_HMDB0000067	-0.0962534233
## Lathosterol_HMDB0001170	-0.3221685576
## X7b.Hydroxycholesterol_.HMDB0006119	0.6253945680
##	0.Phosphoethanolamine_HMDB0000224
## Dimethylglycine_HMDB0000092	-0.633504581
## Glyoxylic.acid_HMDB0000119	-0.639365136
## Pyruvic.acid_HMDB0000243	0.448248518
## L.Lactic.acid_HMDB0000190	0.524448624
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.466297665
## Glycolic.acid_HMDB0000115	0.127998221
## Caproic.acid_HMDB0000535	-0.479316702
## L.Alanine_HMDB0000161	0.354041549
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.039616365
## Glycine_HMDB0000123	0.378535531
## Oxalic.acid_HMDB0002329	-0.100522115
## Hydroxylamine_HMDB0003338	0.360969073
## X2.Hydroxybutyric.acid_HMDB0000008	0.145183923
## Acetoacetic.acid_HMDB0000060	0.281151871
## Hydroxypropionic.acid_HMDB0000700	0.775983222

## Pyruvic.acid_HMDB0000243.1	0.280379554
## X3.Hydroxybutyric.acid_HMDB0000357	0.286161878
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.274187041
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.104119272
## D.Alpha.aminobutyric.acid_HMDB0000650	0.463209378
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.014222914
## Beta.Alanine_HMDB0000056	0.560106834
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.060177615
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.132088333
## Malonic.acid_HMDB0000691	0.318815285
## X3.Aminoisobutanoic.acid_HMDB0003911	0.605212571
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.692916844
## Ketoleucine_HMDB0000695	-0.130853595
## L.Valine_HMDB0000883	0.511344993
## ITSD_Valine	0.629022349
## Urea_HMDB0000294	0.215403628
## Benzoic.acid_HMDB0001870	0.354559768
## Caprylic.acid_HMDB0000482	-0.312683281
## Glycerol_HMDB0000131	0.641332868
## Ethanolamine_HMDB0000149	0.368952104
## L.Leucine_HMDB0000687	0.618377331
## Acetylglycine_HMDB0000532	0.183799187
## L.Isoleucine_HMDB0000172	0.529162020
## Nicotinic.acid_HMDB0001488	-0.038015979
## Maleic.acid_HMDB0000176	-0.016561634
## L.Proline_HMDB0000162	0.390709961
## Phenylacetic.acid_HMDB0000209	-0.292061575
## Succinic.acid_HMDB0000254	0.552704625
## Glycine_HMDB0000123.1	0.564550698
## Methylsuccinic.acid_HMDB0001844	0.410401145
## Glyceric.acid_HMDB0000139	-0.066229372
## Fumaric.acid_HMDB0000134	0.411189595
## Uracil_HMDB0000300	0.207497994
## Pelargonic.acid_HMDB0000847	-0.481322308
## L.Serine_HMDB0000187	0.449806101
## L.Threonine_HMDB0000167	0.372846208
## Mesaconic.acid_HMDB0000749	-0.006433138
## Glutaric.acid_HMDB0000661	-0.361765298
## Thymine_HMDB0000262	0.260053448
## Beta.Alanine_HMDB0000056.1	0.632458010
## L.Homoserine_HMDB0000719	0.324584670
## Capric.acid_HMDB0000511	0.288712031
## Citramalic.acid_HMDB0000426	0.187800939
## Malic.acid_HMDB0000744	-0.148863307
## Niacinamide_HMDB0001406	0.443787853
## Adipic.acid_HMDB0000448	0.220839352
## D.Threitol_HMDB0004136	0.276025757
## Dihydrouracil_HMDB0000076	0.208455144
## Erythritol_HMDB0002994	0.365019572
## N.Acetylserine_HMDB0002931	0.273853279
## L.Aspartic.acid_HMDB0000191	0.435564974
## L.Methionine_HMDB0000696	0.509097511
## X4.Hydroxyproline_HMDB0000725	0.392481882
## Pyroglutamic.acid_HMDB0000267	0.386761109

## Cytosine_HMDB0000630	-0.171616901
## Gamma.Aminobutyric.acid_HMDB0000112	0.225859059
## Threonic.acid_HMDB0000943	-0.142243562
## L.Cysteine_HMDB0000574	-0.102122904
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.324096824
## Creatinine_HMDB0000562	0.616958794
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.480762561
## Oxoglutaric.acid_HMDB0000208	0.380156081
## Phenylpyruvic.acid_HMDB0000205	-0.107304256
## Pimelic.acid_HMDB0000857	0.164318929
## Phenyllactic.acid_HMDB0000779	-0.388063532
## Phosphoenolpyruvic.acid_HMDB0000263	-0.778642501
## Ornithine_HMDB0000214	0.216999912
## Hypotaurine_HMDB0000965	0.182957955
## Triethanolamine_HMDB0032538	0.126495370
## X2.Aminobenzoic.acid_HMDB0001123	0.623224473
## L.Glutamic.acid_HMDB0000148	0.427357272
## X4.Hydroxybenzoic.acid_HMDB0000500	0.549311522
## X5.Aminopentanoic.acid_HMDB0003355	-0.312134190
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.102344240
## L.Phenylalanine_HMDB0000159	0.543391560
## Dodecanoic.acid_HMDB0000638	0.843465789
## Lyxose_HMDB0003402_1	-0.474894654
## D.Xylose_HMDB0000098	-0.354916955
## Lyxose_HMDB0003402_2	-0.295142608
## D.Arabinose_HMDB0029942	-0.591539909
## L.Asparagine_HMDB0000168	0.219962904
## D.Ribulose_HMDB0000621	-0.600033996
## D.Ribose_HMDB0000283	-0.606241651
## D.Xylulose_HMDB0001644	-0.620327696
## X3.Sulfinoalanine_HMDB0000996	0.275229166
## Suberic.acid_HMDB0000893	0.193470717
## L.Lysine_HMDB0000182	0.248182058
## Levoglucosan_HMDB0000640	-0.299382718
## D.Arabitol_HMDB0000568	0.216137020
## Ribitol_HMDB0000508	0.149041479
## cis.Aconitic.acid_HMDB0000072	-0.184638633
## Quinolinic.acid_HMDB0000232	-0.200891536
## Putrescine_HMDB0001414	0.125763179
## Glycerol.3.phosphate_HMDB0000126	-0.297172670
## Vanillic.acid_HMDB0000484	0.263330522
## L.Glutamine_HMDB0000641	0.035410022
## X2.Phosphoglyceric.acid_HMDB0000362	-0.285570362
## Azelaic.acid_HMDB0000784	-0.212755626
## L.Dihydroorotic.acid_HMDB0003349	-0.556840798
## O.Phosphoethanolamine_HMDB0000224	1.000000000
## X3.Phosphoglyceric.acid_HMDB0000807	-0.304561849
## Isocitric.acid_HMDB0000193	0.233035727
## Hypoxanthine_HMDB0000157	0.021360528
## Citric.acid_HMDB0000094	-0.490261221
## L.Arginine_HMDB0000517	-0.174210119
## Ornithine_HMDB0000214.1	0.392250224
## Dopamine_HMDB0000073	0.399988706
## Myristic.acid_HMDB0000806	0.848635228

## X1.5.Anhydrosorbitol_HMDB0002712	-0.171168412
## D.Tagatose_HMDB0003418	-0.599813677
## Psicose_1	-0.279040050
## Sebacic.acid_HMDB0000792	0.323647817
## D.Fructose_HMDB0000660	-0.531150833
## Gluconolactone_HMDB0000150	-0.526854915
## L.Sorbose_HMDB0001266	-0.534821994
## D.Mannose_HMDB0000169	0.569092038
## Hydroxyphenyllactic.acid_HMDB0000755	0.358522538
## D.Glucose_HMDB0000122	0.458488453
## N.Acetylglutamine_HMDB0006029	0.526447807
## L.Lysine_HMDB0000182.1	0.530133994
## D.Mannose_HMDB0000169.1	0.566071543
## Tyramine_HMDB0000306	0.523280292
## L.Histidine_HMDB0000177	0.561232444
## D.Glucose_HMDB0000122.1	0.520279145
## X1.Hexadecanol_HMDB0003424	0.220095494
## L.Tyrosine_HMDB0000158	0.357561285
## Mannitol_HMDB0000765	0.407597324
## Sorbitol_HMDB0000247	-0.005268581
## ITSD_Sorbitol	0.632446474
## Galacturonic.acid_HMDB0002545	-0.007270943
## Pantothenic.acid_HMDB0000210	-0.091583361
## Palmitoleic.acid_HMDB0003229	0.942000674
## Xanthine_HMDB0000292	-0.207292482
## Gluconic.acid_HMDB0000625	-0.613484974
## Palmitic.acid_HMDB0000220	0.884214384
## Glucaric.acid_HMDB0000663	0.308592582
## N.Acetylmannosamine_HMDB0001129	0.476910865
## N.Acetyl.D.glucosamine_HMDB0000215	0.607591602
## D.Ribulose.5.phosphate_HMDB0000618	-0.605072902
## Uric.acid_HMDB0000289	0.313446109
## D.Ribose.5.phosphate_HMDB0001548	-0.632886407
## myo.Inositol_HMDB0000211	0.509593299
## D.Ribose.5.phosphate_HMDB0001548.1	-0.628661452
## Heptadecanoic.acid_HMDB0002259	-0.180354797
## Octadecanol_HMDB0002350	0.272849818
## Glutathione_HMDB0000125	-0.036880304
## Linoleic.acid_HMDB0000673	0.894054063
## Oleic.acid_HMDB0000207	0.930665910
## Elaidic.acid_HMDB0000573	0.919264801
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.629681804
## Stearic.acid_HMDB0000827	0.625991988
## L.Tryptophan_HMDB0000929	0.570630660
## Fructose.1.phosphate_HMDB0001076	-0.399698136
## Mannose.6.phosphate_HMDB0001078	-0.245536702
## Arachidonic.acid_HMDB0001043	0.802777085
## Glucose.6.phosphate_HMDB0001401	-0.320940565
## X6.Phosphogluconic.acid_HMDB0001316	0.362050824
## Inositol.phosphate_HMDB0002985	0.266443923
## Uridine_HMDB0000296	0.313722336
## Stigmasterol_HMDB0000937	0.533838779
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.251223771
## Sucrose_HMDB0000258	0.592405655

## MG.18.0e.0.0.0.0._HMDB0011143	0.570748028
## Trehalose_HMDB0000975	-0.232292335
## D.Maltose_HMDB0000163	-0.227265506
## Lactitol_HMDB0040937	-0.201803863
## Xanthylic.acid_HMDB0001554	-0.658954142
## Adenosine.monophosphate_HMDB0000045	-0.478100966
## Cholesterol_HMDB0000067	0.309424219
## Lathosterol_HMDB0001170	0.641168005
## X7b.Hydroxycholesterol_.HMDB0006119	-0.736574623
## X3.Phosphoglyceric.acid_HMDB0000807	
## Dimethylglycine_HMDB0000092	0.207401209
## Glyoxylic.acid_HMDB0000119	0.209901997
## Pyruvic.acid_HMDB0000243	0.396854842
## L.Lactic.acid_HMDB0000190	0.465387043
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.386478583
## Glycolic.acid_HMDB0000115	0.199616070
## Caproic.acid_HMDB0000535	0.315636010
## L.Alanine_HMDB0000161	0.438116461
## Alpha.ketoisovaleric.acid_HMDB0000019	0.827814861
## Glycine_HMDB0000123	0.500083974
## Oxalic.acid_HMDB0002329	0.145091384
## Hydroxylamine_HMDB0003338	0.218509784
## X2.Hydroxybutyric.acid_HMDB0000008	0.546843946
## Acetoacetic.acid_HMDB0000060	0.222475533
## Hydroxypropionic.acid_HMDB0000700	0.172705161
## Pyruvic.acid_HMDB0000243.1	0.433850546
## X3.Hydroxybutyric.acid_HMDB0000357	0.382176982
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.496318143
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.313004922
## D.Alpha.aminobutyric.acid_HMDB0000650	0.215524627
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.599428571
## Beta.Alanine_HMDB0000056	0.047363460
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.684334483
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.687431920
## Malonic.acid_HMDB0000691	0.338298675
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.054156993
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.287487764
## Ketoleucine_HMDB0000695	0.793055576
## L.Valine_HMDB0000883	0.285152265
## ITSD_Valine	0.169428187
## Urea_HMDB0000294	0.656750550
## Benzoic.acid_HMDB0001870	-0.034776060
## Caprylic.acid_HMDB0000482	0.340727965
## Glycerol_HMDB0000131	0.237311135
## Ethanolamine_HMDB0000149	0.400339094
## L.Leucine_HMDB0000687	0.233989342
## Acetylglucose_HMDB0000532	0.358790675
## L.Isoleucine_HMDB0000172	0.361521996
## Nicotinic.acid_HMDB0001488	0.289500449
## Maleic.acid_HMDB0000176	0.437975763
## L.Proline_HMDB0000162	0.421550462
## Phenylacetic.acid_HMDB0000209	0.388288289
## Succinic.acid_HMDB0000254	0.417128940
## Glycine_HMDB0000123.1	0.305647999

## Methylsuccinic.acid_HMDB0001844	-0.118130501
## Glyceric.acid_HMDB0000139	0.187060858
## Fumaric.acid_HMDB0000134	0.593059419
## Uracil_HMDB0000300	0.680881853
## Pelargonic.acid_HMDB0000847	0.306017754
## L.Serine_HMDB0000187	0.390810917
## L.Threonine_HMDB0000167	0.508634232
## Mesaconic.acid_HMDB0000749	0.371439469
## Glutaric.acid_HMDB0000661	0.782578390
## Thymine_HMDB0000262	0.388601674
## Beta.Alanine_HMDB0000056.1	0.067700929
## L.Homoserine_HMDB0000719	0.003064694
## Capric.acid_HMDB0000511	-0.050406367
## Citramalic.acid_HMDB0000426	0.414246705
## Malic.acid_HMDB0000744	0.592680681
## Niacinamide_HMDB0001406	0.488977603
## Adipic.acid_HMDB0000448	0.496968510
## D.Threitol_HMDB0004136	0.243765012
## Dihydrouracil_HMDB0000076	0.696997345
## Erythritol_HMDB0002994	0.567323744
## N.Acetylserine_HMDB0002931	0.576540033
## L.Aspartic.acid_HMDB0000191	0.420076322
## L.Methionine_HMDB0000696	0.012298558
## X4.Hydroxyproline_HMDB0000725	0.561994134
## Pyroglutamic.acid_HMDB0000267	0.438300462
## Cytosine_HMDB0000630	0.208309984
## Gamma.Aminobutyric.acid_HMDB0000112	0.400161326
## Threonic.acid_HMDB0000943	0.486321672
## L.Cysteine_HMDB0000574	0.487617979
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.513087929
## Creatinine_HMDB0000562	-0.284162872
## X3.Hydroxyglutaric.acid_HMDB0000428	0.371045012
## Oxoglutaric.acid_HMDB0000208	0.384497765
## Phenylpyruvic.acid_HMDB0000205	0.212218166
## Pimelic.acid_HMDB0000857	0.367612450
## Phenyllactic.acid_HMDB0000779	0.485310313
## Phosphoenolpyruvic.acid_HMDB0000263	0.289291634
## Ornithine_HMDB0000214	-0.022731995
## Hypotaurine_HMDB0000965	0.390896981
## Triethanolamine_HMDB0032538	0.573384243
## X2.Aminobenzoic.acid_HMDB0001123	0.062652795
## L.Glutamic.acid_HMDB0000148	0.164963965
## X4.Hydroxybenzoic.acid_HMDB0000500	0.293650509
## X5.Aminopentanoic.acid_HMDB0003355	0.839517940
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.302447579
## L.Phenylalanine_HMDB0000159	0.093179650
## Dodecanoic.acid_HMDB0000638	-0.102466136
## Lyxose_HMDB0003402_1	0.244163874
## D.Xylose_HMDB0000098	-0.021698862
## Lyxose_HMDB0003402_2	-0.002481921
## D.Arabinose_HMDB0029942	0.210388484
## L.Asparagine_HMDB0000168	-0.089794867
## D.Ribulose_HMDB0000621	0.158100769
## D.Ribose_HMDB0000283	0.188010766

## D.Xylulose_HMDB0001644	0.176759850
## X3.Sulfinioalanine_HMDB0000996	-0.343184373
## Suberic.acid_HMDB0000893	0.597890771
## L.Lysine_HMDB0000182	-0.235596643
## Levoglucosan_HMDB0000640	-0.062408825
## D.Arabitol_HMDB0000568	0.249778736
## Ribitol_HMDB0000508	0.097381558
## cis.Aconitic.acid_HMDB0000072	0.079638929
## Quinolinic.acid_HMDB0000232	0.737989276
## Putrescine_HMDB0001414	0.486231998
## Glycerol.3.phosphate_HMDB0000126	-0.060953436
## Vanillic.acid_HMDB0000484	0.360508331
## L.Glutamine_HMDB0000641	-0.145776724
## X2.Phosphoglyceric.acid_HMDB0000362	0.951926988
## Azelaic.acid_HMDB0000784	0.332024006
## L.Dihydroorotic.acid_HMDB0003349	0.241294068
## O.Phosphoethanolamine_HMDB0000224	-0.304561849
## X3.Phosphoglyceric.acid_HMDB0000807	1.000000000
## Isocitric.acid_HMDB0000193	0.385793015
## Hypoxanthine_HMDB0000157	-0.524526077
## Citric.acid_HMDB0000094	0.738406977
## L.Arginine_HMDB0000517	-0.003227780
## Ornithine_HMDB0000214.1	0.169037565
## Dopamine_HMDB0000073	0.161232202
## Myristic.acid_HMDB0000806	-0.009141006
## X1.5.Anhydrosorbitol_HMDB0002712	0.641683140
## D.Tagatose_HMDB0003418	0.245419631
## Psicose_1	0.172871613
## Sebacic.acid_HMDB0000792	0.493142645
## D.Fructose_HMDB0000660	0.284807219
## Gluconolactone_HMDB0000150	0.231411571
## L.Sorbose_HMDB0001266	0.253335765
## D.Mannose_HMDB0000169	0.024047935
## Hydroxyphenyllactic.acid_HMDB0000755	0.418343063
## D.Glucose_HMDB0000122	0.055699790
## N.Acetylglutamine_HMDB0006029	0.048961689
## L.Lysine_HMDB0000182.1	-0.034584045
## D.Mannose_HMDB0000169.1	-0.039590403
## Tyramine_HMDB0000306	-0.046068714
## L.Histidine_HMDB0000177	-0.079828788
## D.Glucose_HMDB0000122.1	-0.042731629
## X1.Hexadecanol_HMDB0003424	-0.148857321
## L.Tyrosine_HMDB0000158	0.036470057
## Mannitol_HMDB0000765	0.473276217
## Sorbitol_HMDB0000247	-0.070696688
## ITSD_Sorbitol	0.177632398
## Galacturonic.acid_HMDB0002545	0.576397165
## Pantothenic.acid_HMDB0000210	0.286740231
## Palmitoleic.acid_HMDB0003229	-0.421044741
## Xanthine_HMDB0000292	0.012898061
## Gluconic.acid_HMDB0000625	0.497426900
## Palmitic.acid_HMDB0000220	-0.125243894
## Glucaric.acid_HMDB0000663	0.233199488
## N.Acetylmannosamine_HMDB0001129	-0.094355865

## N.Acetyl.D.glucosamine_HMDB0000215	0.140921881
## D.Ribulose.5.phosphate_HMDB0000618	0.129075779
## Uric.acid_HMDB0000289	-0.343191621
## D.Ribose.5.phosphate_HMDB0001548	0.112774402
## myo.Inositol_HMDB0000211	0.362031020
## D.Ribose.5.phosphate_HMDB0001548.1	0.085722250
## Heptadecanoic.acid_HMDB0002259	0.745558166
## Octadecanol_HMDB0002350	0.398075354
## Glutathione_HMDB0000125	0.244104810
## Linoleic.acid_HMDB0000673	-0.451378759
## Oleic.acid_HMDB0000207	-0.522965373
## Elaidic.acid_HMDB0000573	-0.411019884
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.366715226
## Stearic.acid_HMDB0000827	0.084863397
## L.Tryptophan_HMDB0000929	0.132362965
## Fructose.1.phosphate_HMDB0001076	0.364996353
## Mannose.6.phosphate_HMDB0001078	-0.016717050
## Arachidonic.acid_HMDB0001043	-0.732503232
## Glucose.6.phosphate_HMDB0001401	0.278091524
## X6.Phosphogluconic.acid_HMDB0001316	-0.050363255
## Inositol.phosphate_HMDB0002985	-0.255811504
## Uridine_HMDB0000296	0.330776416
## Stigmasterol_HMDB0000937	0.359362992
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.227072353
## Sucrose_HMDB0000258	-0.230153866
## MG.18.0e.0.0.0.0._HMDB0011143	0.045439068
## Trehalose_HMDB0000975	0.025490648
## D.Maltose_HMDB0000163	0.029892628
## Lactitol_HMDB00040937	0.222438854
## Xanthylic.acid_HMDB0001554	-0.097476111
## Adenosine.monophosphate_HMDB0000045	0.296303560
## Cholesterol_HMDB0000067	-0.180416123
## Lathosterol_HMDB0001170	-0.450902752
## X7b.Hydroxycholesterol_.HMDB0006119	0.750340141
## Isocitric.acid_HMDB0000193	
## Dimethylglycine_HMDB0000092	0.1015927171
## Glyoxylic.acid_HMDB0000119	0.0942395181
## Pyruvic.acid_HMDB0000243	0.5846228268
## L.Lactic.acid_HMDB0000190	0.3905605680
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.5193924973
## Glycolic.acid_HMDB0000115	0.4610905488
## Caproic.acid_HMDB0000535	0.2233853076
## L.Alanine_HMDB0000161	0.3820763580
## Alpha.ketoisovaleric.acid_HMDB0000019	0.3959688947
## Glycine_HMDB0000123	0.3106254687
## Oxalic.acid_HMDB0002329	-0.0591897270
## Hydroxylamine_HMDB0003338	0.3462891118
## X2.Hydroxybutyric.acid_HMDB0000008	0.4257548167
## Acetoacetic.acid_HMDB0000060	0.3227170605
## Hydroxypropionic.acid_HMDB0000700	0.3941037179
## Pyruvic.acid_HMDB0000243.1	0.2294556950
## X3.Hydroxybutyric.acid_HMDB0000357	0.2687256441
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.3858238654
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.3193386924

## D.Alpha.aminobutyric.acid_HMDB0000650	0.2859623153
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.3697591782
## Beta.Alanine_HMDB0000056	0.2416788066
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.3661724462
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.2775215763
## Malonic.acid_HMDB0000691	0.5417606332
## X3.Aminoisobutanoic.acid_HMDB0003911	0.1838025141
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.3861662910
## Ketoleucine_HMDB0000695	0.3647763818
## L.Valine_HMDB0000883	0.4387766989
## ITSD_Valine	0.3888901990
## Urea_HMDB0000294	0.3770913138
## Benzoic.acid_HMDB0001870	0.3809023000
## Caprylic.acid_HMDB0000482	0.2362673979
## Glycerol_HMDB0000131	0.3235244775
## Ethanolamine_HMDB0000149	0.4505862288
## L.Leucine_HMDB0000687	0.3878605623
## Acetylglycine_HMDB0000532	0.6098853886
## L.Isoleucine_HMDB0000172	0.3613298870
## Nicotinic.acid_HMDB0001488	-0.0121707360
## Maleic.acid_HMDB0000176	0.3521674084
## L.Proline_HMDB0000162	0.4179816656
## Phenylacetic.acid_HMDB0000209	0.2150463711
## Succinic.acid_HMDB0000254	0.5567095228
## Glycine_HMDB0000123.1	0.4197329200
## Methylsuccinic.acid_HMDB0001844	0.5532919762
## Glyceric.acid_HMDB0000139	0.1496707542
## Fumaric.acid_HMDB0000134	0.5444795243
## Uracil_HMDB0000300	0.4517571560
## Pelargonic.acid_HMDB0000847	0.1453368031
## L.Serine_HMDB0000187	0.3594046896
## L.Threonine_HMDB0000167	0.4366404116
## Mesaconic.acid_HMDB0000749	0.5296400040
## Glutaric.acid_HMDB0000661	0.4578759347
## Thymine_HMDB0000262	0.2175644669
## Beta.Alanine_HMDB0000056.1	0.2371751598
## L.Homoserine_HMDB0000719	0.4682259513
## Capric.acid_HMDB0000511	0.4959709949
## Citramalic.acid_HMDB0000426	0.4451995663
## Malic.acid_HMDB0000744	0.4349195752
## Niacinamide_HMDB0001406	0.4803593546
## Adipic.acid_HMDB0000448	0.5505584211
## D.Threitol_HMDB0004136	0.5499273015
## Dihydrouracil_HMDB0000076	0.5853405139
## Erythritol_HMDB0002994	0.5683651741
## N.Acetylserine_HMDB0002931	0.3872058861
## L.Aspartic.acid_HMDB0000191	0.4380255703
## L.Methionine_HMDB0000696	0.2327905471
## X4.Hydroxyproline_HMDB0000725	0.5061942680
## Pyroglutamic.acid_HMDB0000267	0.3620708600
## Cytosine_HMDB0000630	0.6252502372
## Gamma.Aminobutyric.acid_HMDB0000112	0.0369274976
## Threonic.acid_HMDB0000943	0.3253967531
## L.Cysteine_HMDB0000574	0.4426482005

## L.2.Hydroxyglutaric.acid_HMDB0000694	0.2469769276
## Creatinine_HMDB0000562	0.2649397105
## X3.Hydroxyglutaric.acid_HMDB0000428	0.2496874686
## Oxoglutaric.acid_HMDB0000208	0.0233303022
## Phenylpyruvic.acid_HMDB0000205	-0.0190130900
## Pimelic.acid_HMDB0000857	-0.1889634735
## Phenyllactic.acid_HMDB0000779	0.0986857737
## Phosphoenolpyruvic.acid_HMDB0000263	-0.1629535523
## Ornithine_HMDB0000214	0.3472641199
## Hypotaurine_HMDB0000965	0.3536261735
## Triethanolamine_HMDB0032538	0.3082495040
## X2.Aminobenzoic.acid_HMDB0001123	0.2096919406
## L.Glutamic.acid_HMDB0000148	0.3787163324
## X4.Hydroxybenzoic.acid_HMDB0000500	0.3978047544
## X5.Aminopentanoic.acid_HMDB0003355	0.2248892761
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.3948864287
## L.Phenylalanine_HMDB0000159	0.3089580114
## Dodecanoic.acid_HMDB0000638	0.4572822066
## Lyxose_HMDB0003402_1	0.0175558911
## D.Xylose_HMDB0000098	-0.1070951435
## Lyxose_HMDB0003402_2	-0.0304718753
## D.Arabinose_HMDB0029942	-0.0858499599
## L.Asparagine_HMDB0000168	0.2641866282
## D.Ribulose_HMDB0000621	-0.0396062175
## D.Ribose_HMDB0000283	-0.0859972503
## D.Xylulose_HMDB0001644	-0.0450538634
## X3.Sulfinioalanine_HMDB0000996	0.1966272001
## Suberic.acid_HMDB0000893	0.5403453360
## L.Lysine_HMDB0000182	0.3098532851
## Levoglucosan_HMDB0000640	-0.0814637889
## D.Arabitol_HMDB0000568	0.2969622251
## Ribitol_HMDB0000508	0.6510164132
## cis.Aconitic.acid_HMDB0000072	-0.1149862359
## Quinolinic.acid_HMDB0000232	0.3227907813
## Putrescine_HMDB0001414	0.1330851968
## Glycerol.3.phosphate_HMDB0000126	-0.1173618483
## Vanillic.acid_HMDB0000484	0.5887732893
## L.Glutamine_HMDB0000641	0.1443804670
## X2.Phosphoglyceric.acid_HMDB0000362	0.5211913266
## Azelaic.acid_HMDB0000784	0.0467336280
## L.Dihydroorotic.acid_HMDB0003349	-0.0202174036
## O.Phosphoethanolamine_HMDB0000224	0.2330357270
## X3.Phosphoglyceric.acid_HMDB0000807	0.3857930146
## Isocitric.acid_HMDB0000193	1.0000000000
## Hypoxanthine_HMDB0000157	-0.1784050043
## Citric.acid_HMDB0000094	0.4130606063
## L.Arginine_HMDB0000517	0.4567771234
## Ornithine_HMDB0000214.1	0.2858604023
## Dopamine_HMDB0000073	0.3195360256
## Myristic.acid_HMDB0000806	0.4193206480
## X1.5.Anhydrosorbitol_HMDB0002712	0.3974494165
## D.Tagatose_HMDB0003418	0.0001346555
## Psicose_1	-0.1733293697
## Sebacic.acid_HMDB0000792	0.7160929872

## D.Fructose_HMDB0000660	0.0474463252
## Gluconolactone_HMDB0000150	0.2238214926
## L.Sorbose_HMDB0001266	0.0460599263
## D.Mannose_HMDB0000169	0.1859897691
## Hydroxyphenyllactic.acid_HMDB0000755	0.2390265222
## D.Glucose_HMDB0000122	0.1407866730
## N.Acetylglutamine_HMDB0006029	0.1650219751
## L.Lysine_HMDB0000182.1	0.2810980014
## D.Mannose_HMDB0000169.1	0.1775305373
## Tyramine_HMDB0000306	0.2658835864
## L.Histidine_HMDB0000177	0.2555687048
## D.Glucose_HMDB0000122.1	0.1416823802
## X1.Hexadecanol_HMDB0003424	0.3040554716
## L.Tyrosine_HMDB0000158	0.2736701169
## Mannitol_HMDB0000765	0.3143845340
## Sorbitol_HMDB0000247	-0.0128249120
## ITSD_Sorbitol	0.4251295824
## Galacturonic.acid_HMDB0002545	0.3595515732
## Pantothenic.acid_HMDB0000210	0.4449524932
## Palmitoleic.acid_HMDB0003229	0.1386117382
## Xanthine_HMDB0000292	0.0528115326
## Gluconic.acid_HMDB0000625	0.2595504607
## Palmitic.acid_HMDB0000220	0.2626419459
## Glucaric.acid_HMDB0000663	0.2630804059
## N.Acetylmannosamine_HMDB0001129	0.2412342362
## N.Acetyl.D.glucosamine_HMDB0000215	0.2833608139
## D.Ribulose.5.phosphate_HMDB0000618	0.0212197607
## Uric.acid_HMDB0000289	0.1557396249
## D.Ribose.5.phosphate_HMDB0001548	-0.2063796959
## myo.Inositol_HMDB0000211	0.8159789868
## D.Ribose.5.phosphate_HMDB0001548.1	-0.1359098011
## Heptadecanoic.acid_HMDB0002259	0.4543960816
## Octadecanol_HMDB0002350	0.3930744455
## Glutathione_HMDB0000125	0.3804046840
## Linoleic.acid_HMDB0000673	0.0396730978
## Oleic.acid_HMDB0000207	0.0699231706
## Elaidic.acid_HMDB0000573	0.1923726499
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.0232908592
## Stearic.acid_HMDB0000827	0.2935611280
## L.Tryptophan_HMDB0000929	0.2726255267
## Fructose.1.phosphate_HMDB0001076	0.2496375993
## Mannose.6.phosphate_HMDB0001078	-0.1977242867
## Arachidonic.acid_HMDB0001043	-0.0436942952
## Glucose.6.phosphate_HMDB0001401	0.2830369349
## X6.Phosphogluconic.acid_HMDB0001316	0.1440155835
## Inositol.phosphate_HMDB0002985	0.2516360415
## Uridine_HMDB0000296	0.4283756698
## Stigmasterol_HMDB0000937	0.3007584634
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.0344100561
## Sucrose_HMDB0000258	0.1469418388
## MG.18.Oe.0.0.0.0._HMDB0011143	0.1823114058
## Trehalose_HMDB0000975	-0.2459714716
## D.Maltose_HMDB0000163	-0.2396968862
## Lactitol_HMDB0040937	0.2447583518

## Xanthylic.acid_HMDB0001554	-0.3321987306
## Adenosine.monophosphate_HMDB0000045	0.1087301355
## Cholesterol_HMDB0000067	0.3544179867
## Lathosterol_HMDB0001170	0.0276592639
## X7b.Hydroxycholesterol_.HMDB0006119	0.1753895598
## Hypoxanthine_HMDB0000157	
## Dimethylglycine_HMDB0000092	-0.220164465
## Glyoxylic.acid_HMDB0000119	-0.223522014
## Pyruvic.acid_HMDB0000243	-0.582982059
## L.Lactic.acid_HMDB0000190	-0.318085883
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.669803406
## Glycolic.acid_HMDB0000115	-0.307475915
## Caproic.acid_HMDB0000535	-0.380068713
## L.Alanine_HMDB0000161	-0.171587201
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.534723543
## Glycine_HMDB0000123	-0.424209853
## Oxalic.acid_HMDB0002329	-0.328749317
## Hydroxylamine_HMDB0003338	-0.280874162
## X2.Hydroxybutyric.acid_HMDB0000008	-0.677454372
## Acetoacetic.acid_HMDB0000060	-0.614551334
## Hydroxypropionic.acid_HMDB0000700	-0.369333851
## Pyruvic.acid_HMDB0000243.1	-0.521119227
## X3.Hydroxybutyric.acid_HMDB0000357	-0.815923345
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.770604399
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.492554500
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.109992846
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.439520532
## Beta.Alanine_HMDB0000056	-0.014938818
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.444388572
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.514825917
## Malonic.acid_HMDB0000691	-0.446345095
## X3.Aminoisobutanoic.acid_HMDB0003911	0.179287099
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.422644210
## Ketoleucine_HMDB0000695	-0.708739757
## L.Valine_HMDB0000883	-0.208205544
## ITSD_Valine	-0.189948712
## Urea_HMDB0000294	-0.472071442
## Benzoic.acid_HMDB0001870	-0.087692909
## Caprylic.acid_HMDB0000482	-0.475577477
## Glycerol_HMDB0000131	-0.146298407
## Ethanolamine_HMDB0000149	-0.146398579
## L.Leucine_HMDB0000687	-0.191311417
## Acetylglutamine_HMDB0000532	-0.464407238
## L.Isoleucine_HMDB0000172	-0.203944498
## Nicotinic.acid_HMDB0001488	-0.348947173
## Maleic.acid_HMDB0000176	-0.788149604
## L.Proline_HMDB0000162	-0.355414569
## Phenylacetic.acid_HMDB0000209	-0.665431101
## Succinic.acid_HMDB0000254	-0.503868749
## Glycine_HMDB0000123.1	-0.222622098
## Methylsuccinic.acid_HMDB0001844	-0.145804126
## Glyceric.acid_HMDB0000139	-0.556670909
## Fumaric.acid_HMDB0000134	-0.581699637
## Uracil_HMDB0000300	-0.577722105

## Pelargonic.acid_HMDB0000847	-0.353627281
## L.Serine_HMDB0000187	-0.197313952
## L.Threonine_HMDB0000167	-0.277757009
## Mesaconic.acid_HMDB0000749	-0.297107040
## Glutaric.acid_HMDB0000661	-0.475575011
## Thymine_HMDB0000262	-0.453834211
## Beta.Alanine_HMDB0000056.1	0.039489457
## L.Homoserine_HMDB0000719	0.143713410
## Capric.acid_HMDB0000511	0.019698237
## Citramalic.acid_HMDB0000426	-0.257528745
## Malic.acid_HMDB0000744	-0.638546651
## Niacinamide_HMDB0001406	-0.261596150
## Adipic.acid_HMDB0000448	-0.023405275
## D.Threitol_HMDB0004136	-0.368377755
## Dihydrouracil_HMDB0000076	-0.369483196
## Erythritol_HMDB0002994	-0.594443129
## N.Acetylserine_HMDB0002931	-0.339443090
## L.Aspartic.acid_HMDB0000191	-0.159814899
## L.Methionine_HMDB0000696	0.162370645
## X4.Hydroxyproline_HMDB0000725	-0.329564901
## Pyroglutamic.acid_HMDB0000267	-0.296663320
## Cytosine_HMDB0000630	0.216713096
## Gamma.Aminobutyric.acid_HMDB0000112	-0.550097525
## Threonic.acid_HMDB0000943	-0.577148065
## L.Cysteine_HMDB0000574	-0.499817770
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.600078728
## Creatinine_HMDB0000562	0.308398849
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.157782633
## Oxoglutaric.acid_HMDB0000208	-0.602173199
## Phenylpyruvic.acid_HMDB0000205	-0.055538087
## Pimelic.acid_HMDB0000857	-0.235708792
## Phenyllactic.acid_HMDB0000779	-0.212477114
## Phosphoenolpyruvic.acid_HMDB0000263	-0.088897872
## Ornithine_HMDB0000214	0.393530651
## Hypotaurine_HMDB0000965	-0.187152439
## Triethanolamine_HMDB0032538	-0.208184138
## X2.Aminobenzoic.acid_HMDB0001123	0.012011507
## L.Glutamic.acid_HMDB0000148	0.241242978
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.142170378
## X5.Aminopentanoic.acid_HMDB0003355	-0.752950480
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.262164018
## L.Phenylalanine_HMDB0000159	0.130888164
## Dodecanoic.acid_HMDB0000638	-0.248700852
## Lyxose_HMDB0003402_1	-0.355117203
## D.Xylose_HMDB0000098	0.247741835
## Lyxose_HMDB0003402_2	0.258857082
## D.Arabinose_HMDB0029942	-0.323073323
## L.Asparagine_HMDB0000168	0.644992211
## D.Ribulose_HMDB0000621	-0.184291819
## D.Ribose_HMDB0000283	-0.314058062
## D.Xylulose_HMDB0001644	-0.166978576
## X3.Sulfinioalanine_HMDB0000996	0.743986739
## Suberic.acid_HMDB0000893	-0.300913531
## L.Lysine_HMDB0000182	0.634674490

## Levoglucosan_HMDB0000640	0.328902269
## D.Arabitool_HMDB0000568	-0.314426467
## Ribitol_HMDB0000508	-0.079197163
## cis.Aconitic.acid_HMDB0000072	0.153620829
## Quinolinic.acid_HMDB0000232	-0.390067165
## Putrescine_HMDB0001414	-0.638761700
## Glycerol.3.phosphate_HMDB0000126	-0.032505163
## Vanillic.acid_HMDB0000484	-0.213941018
## L.Glutamine_HMDB0000641	0.769137985
## X2.Phosphoglyceric.acid_HMDB0000362	-0.427260063
## Azelaic.acid_HMDB0000784	-0.141877342
## L.Dihydroorotic.acid_HMDB0003349	-0.349562760
## O.Phosphoethanolamine_HMDB0000224	0.021360528
## X3.Phosphoglyceric.acid_HMDB0000807	-0.524526077
## Isocitric.acid_HMDB0000193	-0.178405004
## Hypoxanthine_HMDB0000157	1.000000000
## Citric.acid_HMDB0000094	-0.379392238
## L.Arginine_HMDB0000517	0.410409204
## Ornithine_HMDB0000214.1	0.142878001
## Dopamine_HMDB0000073	0.163173843
## Myristic.acid_HMDB0000806	-0.095217353
## X1.5.Anhydrosorbitol_HMDB0002712	-0.553462386
## D.Tagatose_HMDB0003418	-0.314529036
## Psicose_1	0.215359371
## Sebacic.acid_HMDB0000792	-0.389313885
## D.Fructose_HMDB0000660	-0.454605188
## Gluconolactone_HMDB0000150	-0.294929854
## L.Sorbose_HMDB0001266	-0.427295624
## D.Mannose_HMDB0000169	0.107261835
## Hydroxyphenyllactic.acid_HMDB0000755	-0.823009016
## D.Glucose_HMDB0000122	0.159567338
## N.Acetylglutamine_HMDB0006029	0.101482103
## L.Lysine_HMDB0000182.1	0.316596666
## D.Mannose_HMDB0000169.1	0.254981111
## Tyramine_HMDB0000306	0.336656636
## L.Histidine_HMDB0000177	0.340456039
## D.Glucose_HMDB0000122.1	0.177924064
## X1.Hexadecanol_HMDB0003424	-0.206750462
## L.Tyrosine_HMDB0000158	0.402083235
## Mannitol_HMDB0000765	-0.195274860
## Sorbitol_HMDB0000247	0.122788012
## ITSD_Sorbitol	-0.214134993
## Galacturonic.acid_HMDB0002545	-0.407722569
## Pantothenic.acid_HMDB0000210	-0.663641334
## Palmitoleic.acid_HMDB0003229	0.028967412
## Xanthine_HMDB0000292	0.420954994
## Gluconic.acid_HMDB0000625	-0.316889640
## Palmitic.acid_HMDB0000220	-0.317489043
## Glucaric.acid_HMDB0000663	-0.052693938
## N.Acetylmannosamine_HMDB0001129	0.021128957
## N.Acetyl.D.glucosamine_HMDB0000215	-0.105495681
## D.Ribulose.5.phosphate_HMDB0000618	-0.276938205
## Uric.acid_HMDB0000289	0.755474203
## D.Ribose.5.phosphate_HMDB0001548	-0.195811400

## myo.Inositol_HMDB0000211	-0.280979090
## D.Ribose.5.phosphate_HMDB0001548.1	-0.184957422
## Heptadecanoic.acid_HMDB0002259	-0.439099279
## Octadecanol_HMDB0002350	-0.739095212
## Glutathione_HMDB0000125	0.468531754
## Linoleic.acid_HMDB0000673	-0.107553237
## Oleic.acid_HMDB0000207	0.086811034
## Elaidic.acid_HMDB0000573	-0.018080416
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.291113244
## Stearic.acid_HMDB0000827	-0.596305547
## L.Tryptophan_HMDB0000929	-0.600974562
## Fructose.1.phosphate_HMDB0001076	-0.453753049
## Mannose.6.phosphate_HMDB0001078	0.262141188
## Arachidonic.acid_HMDB0001043	0.342861781
## Glucose.6.phosphate_HMDB0001401	-0.477109652
## X6.Phosphogluconic.acid_HMDB0001316	-0.438325470
## Inositol.phosphate_HMDB0002985	-0.231755711
## Uridine_HMDB0000296	-0.433831463
## Stigmasterol_HMDB0000937	-0.702418519
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.219231980
## Sucrose_HMDB0000258	-0.098145932
## MG.18.0e.0.0.0.0._HMDB0011143	-0.591339768
## Trehalose_HMDB0000975	0.062933703
## D.Maltose_HMDB0000163	0.056217125
## Lactitol_HMDB00040937	-0.330194176
## Xanthylic.acid_HMDB0001554	0.416485749
## Adenosine.monophosphate_HMDB0000045	-0.331934451
## Cholesterol_HMDB0000067	0.095261458
## Lathosterol_HMDB0001170	0.001841892
## X7b.Hydroxycholesterol_.HMDB0006119	-0.354381700
## Citric.acid_HMDB0000094	
## Dimethylglycine_HMDB0000092	0.690432911
## Glyoxylic.acid_HMDB0000119	0.689064763
## Pyruvic.acid_HMDB0000243	0.009135488
## L.Lactic.acid_HMDB0000190	-0.025001330
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.149455341
## Glycolic.acid_HMDB0000115	0.458836963
## Caproic.acid_HMDB0000535	0.734065271
## L.Alanine_HMDB0000161	-0.059696916
## Alpha.ketoisovaleric.acid_HMDB0000019	0.613900068
## Glycine_HMDB0000123	-0.074082052
## Oxalic.acid_HMDB0002329	0.143890249
## Hydroxylamine_HMDB0003338	0.122489629
## X2.Hydroxybutyric.acid_HMDB0000008	0.564685303
## Acetoacetic.acid_HMDB0000060	0.274666314
## Hydroxypropionic.acid_HMDB0000700	-0.113005909
## Pyruvic.acid_HMDB0000243.1	0.147172211
## X3.Hydroxybutyric.acid_HMDB0000357	0.327186006
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.430789412
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.530255958
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.198626045
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.593183825
## Beta.Alanine_HMDB0000056	-0.463202573
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.339931265

## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.441167955
## Malonic.acid_HMDB0000691	-0.032298187
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.425832359
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.069962236
## Ketoleucine_HMDB0000695	0.813329279
## L.Valine_HMDB0000883	-0.099546385
## ITSD_Valine	-0.258792113
## Urea_HMDB0000294	0.207122726
## Benzoic.acid_HMDB0001870	0.286158908
## Caprylic.acid_HMDB0000482	0.689562096
## Glycerol_HMDB0000131	-0.222373571
## Ethanolamine_HMDB0000149	-0.037549993
## L.Leucine_HMDB0000687	-0.129581183
## Acetyl glycine_HMDB0000532	0.443272022
## L.Isoleucine_HMDB0000172	-0.070633563
## Nicotinic.acid_HMDB0001488	0.304696619
## Maleic.acid_HMDB0000176	0.558570808
## L.Proline_HMDB0000162	0.177476339
## Phenylacetic.acid_HMDB0000209	0.664607382
## Succinic.acid_HMDB0000254	0.067925977
## Glycine_HMDB0000123.1	-0.087060608
## Methylsuccinic.acid_HMDB0001844	-0.153819491
## Glyceric.acid_HMDB0000139	0.532199902
## Fumaric.acid_HMDB0000134	0.159861551
## Uracil_HMDB0000300	0.371160819
## Pelargonic.acid_HMDB0000847	0.700571097
## L.Serine_HMDB0000187	0.011214729
## L.Threonine_HMDB0000167	0.050327657
## Mesaconic.acid_HMDB0000749	0.361347658
## Glutaric.acid_HMDB0000661	0.689479279
## Thymine_HMDB0000262	-0.007453446
## Beta.Alanine_HMDB0000056.1	-0.368931017
## L.Homoserine_HMDB0000719	0.280646590
## Capric.acid_HMDB0000511	0.310491271
## Citramalic.acid_HMDB0000426	-0.053618049
## Malic.acid_HMDB0000744	0.745193375
## Niacinamide_HMDB0001406	-0.001893096
## Adipic.acid_HMDB0000448	0.180044360
## D.Threitol_HMDB0004136	0.268220953
## Dihydrouracil_HMDB0000076	0.390188200
## Erythritol_HMDB0002994	0.319202602
## N.Acetylserine_HMDB0002931	0.161048976
## L.Aspartic.acid_HMDB0000191	0.051459692
## L.Methionine_HMDB0000696	-0.399424894
## X4.Hydroxyproline_HMDB0000725	0.131667926
## Pyroglutamic.acid_HMDB0000267	0.035668810
## Cytosine_HMDB0000630	0.152389905
## Gamma.Aminobutyric.acid_HMDB0000112	-0.031680153
## Threonic.acid_HMDB0000943	0.721744742
## L.Cysteine_HMDB0000574	0.729474853
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.765651751
## Creatinine_HMDB0000562	-0.523250186
## X3.Hydroxyglutaric.acid_HMDB0000428	0.633254672
## Oxoglutaric.acid_HMDB0000208	0.140520715

## Phenylpyruvic.acid_HMDB0000205	0.494030041
## Pimelic.acid_HMDB0000857	-0.203236797
## Phenyllactic.acid_HMDB0000779	0.615940696
## Phosphoenolpyruvic.acid_HMDB0000263	0.612661772
## Ornithine_HMDB0000214	-0.296892208
## Hypotaurine_HMDB0000965	-0.009841543
## Triethanolamine_HMDB0032538	0.030008586
## X2.Aminobenzoic.acid_HMDB0001123	-0.396591895
## L.Glutamic.acid_HMDB0000148	-0.218239007
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.162766656
## X5.Aminopentanoic.acid_HMDB0003355	0.622534748
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.660046430
## L.Phenylalanine_HMDB0000159	-0.337872482
## Dodecanoic.acid_HMDB0000638	-0.220557127
## Lyxose_HMDB0003402_1	0.657793656
## D.Xylose_HMDB0000098	0.169733103
## Lyxose_HMDB0003402_2	0.043383605
## D.Arabinose_HMDB0029942	0.593278249
## L.Asparagine_HMDB0000168	-0.320883432
## D.Ribulose_HMDB0000621	0.550319237
## D.Ribose_HMDB0000283	0.564021380
## D.Xylulose_HMDB0001644	0.551927552
## X3.Sulfinioalanine_HMDB0000996	-0.340430037
## Suberic.acid_HMDB0000893	0.198668878
## L.Lysine_HMDB0000182	-0.363400722
## Levoglucosan_HMDB0000640	0.052038286
## D.Arabitol_HMDB0000568	-0.095898458
## Ribitol_HMDB0000508	0.455595379
## cis.Aconitic.acid_HMDB0000072	0.120238610
## Quinolinic.acid_HMDB0000232	0.561731231
## Putrescine_HMDB0001414	0.362491412
## Glycerol.3.phosphate_HMDB0000126	0.308372284
## Vanillic.acid_HMDB0000484	0.165850994
## L.Glutamine_HMDB0000641	-0.205110651
## X2.Phosphoglyceric.acid_HMDB0000362	0.814995596
## Azelaic.acid_HMDB0000784	0.129551914
## L.Dihydroorotic.acid_HMDB0003349	0.649138211
## O.Phosphoethanolamine_HMDB0000224	-0.490261221
## X3.Phosphoglyceric.acid_HMDB0000807	0.738406977
## Isocitric.acid_HMDB0000193	0.413060606
## Hypoxanthine_HMDB0000157	-0.379392238
## Citric.acid_HMDB0000094	1.000000000
## L.Arginine_HMDB0000517	0.416115868
## Ornithine_HMDB0000214.1	-0.268428486
## Dopamine_HMDB0000073	-0.252078394
## Myristic.acid_HMDB0000806	-0.321455446
## X1.5.Anhydrosorbitol_HMDB0002712	0.608834988
## D.Tagatose_HMDB0003418	0.641861078
## Psicose_1	0.131318433
## Sebacic.acid_HMDB0000792	0.155646547
## D.Fructose_HMDB0000660	0.589637674
## Gluconolactone_HMDB0000150	0.685175394
## L.Sorbose_HMDB0001266	0.570007192
## D.Mannose_HMDB0000169	-0.411437450

## Hydroxyphenyllactic.acid_HMDB0000755	0.167480484
## D.Glucose_HMDB0000122	-0.392054689
## N.Acetylglutamine_HMDB00006029	-0.396919375
## L.Lysine_HMDB0000182.1	-0.405823086
## D.Mannose_HMDB0000169.1	-0.459075869
## Tyramine_HMDB0000306	-0.407002825
## L.Histidine_HMDB0000177	-0.455072573
## D.Glucose_HMDB0000122.1	-0.459103843
## X1.Hexadecanol_HMDB0003424	0.157980890
## L.Tyrosine_HMDB0000158	-0.309797293
## Mannitol_HMDB0000765	-0.051885227
## Sorbitol_HMDB0000247	0.188569353
## ITSD_Sorbitol	-0.117076234
## Galacturonic.acid_HMDB0002545	0.544746772
## Pantothenic.acid_HMDB0000210	0.376987751
## Palmitoleic.acid_HMDB0003229	-0.587540505
## Xanthine_HMDB0000292	-0.010896137
## Gluconic.acid_HMDB0000625	0.826217049
## Palmitic.acid_HMDB0000220	-0.351673402
## Glucaric.acid_HMDB0000663	0.002204950
## N.Acetylmannosamine_HMDB0001129	-0.208500306
## N.Acetyl.D.glucosamine_HMDB0000215	-0.261161247
## D.Ribulose.5.phosphate_HMDB0000618	0.577128050
## Uric.acid_HMDB0000289	-0.445590884
## D.Ribose.5.phosphate_HMDB0001548	0.441982283
## myo.Inositol_HMDB0000211	0.151658177
## D.Ribose.5.phosphate_HMDB0001548.1	0.497916822
## Heptadecanoic.acid_HMDB0002259	0.830158304
## Octadecanol_HMDB0002350	0.446397050
## Glutathione_HMDB0000125	0.336452683
## Linoleic.acid_HMDB0000673	-0.487821016
## Oleic.acid_HMDB0000207	-0.610295616
## Elaidic.acid_HMDB0000573	-0.545995691
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.713204969
## Stearic.acid_HMDB0000827	-0.041103809
## L.Tryptophan_HMDB0000929	-0.058225611
## Fructose.1.phosphate_HMDB0001076	0.670873132
## Mannose.6.phosphate_HMDB0001078	0.232847346
## Arachidonic.acid_HMDB0001043	-0.723678131
## Glucose.6.phosphate_HMDB0001401	0.646067838
## X6.Phosphogluconic.acid_HMDB0001316	0.234678084
## Inositol.phosphate_HMDB0002985	0.054842211
## Uridine_HMDB0000296	0.215779436
## Stigmasterol_HMDB0000937	0.005258196
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.160130085
## Sucrose_HMDB0000258	-0.476534365
## MG.18.0e.0.0.0.0._HMDB0011143	-0.014690220
## Trehalose_HMDB0000975	-0.083737757
## D.Maltose_HMDB0000163	-0.081395793
## Lactitol_HMDB0040937	0.227873385
## Xanthylic.acid_HMDB0001554	0.229444821
## Adenosine.monophosphate_HMDB0000045	0.715055101
## Cholesterol_HMDB0000067	0.034780426
## Lathosterol_HMDB0001170	-0.418805164

## X7b.Hydroxycholesterol_HMDB0006119	0.829062600
##	L.Arginine_HMDB0000517
## Dimethylglycine_HMDB0000092	0.418067615
## Glyoxylic.acid_HMDB0000119	0.407951969
## Pyruvic.acid_HMDB0000243	-0.325711339
## L.Lactic.acid_HMDB0000190	-0.303568833
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.169629912
## Glycolic.acid_HMDB0000115	0.445524355
## Caproic.acid_HMDB0000535	0.484688830
## L.Alanine_HMDB0000161	-0.277283907
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.138696871
## Glycine_HMDB0000123	-0.513668962
## Oxalic.acid_HMDB0002329	0.077657278
## Hydroxylamine_HMDB0003338	0.211647967
## X2.Hydroxybutyric.acid_HMDB0000008	-0.043054062
## Acetoacetic.acid_HMDB0000060	0.109525088
## Hydroxypropionic.acid_HMDB0000700	-0.223702513
## Pyruvic.acid_HMDB0000243.1	-0.119784804
## X3.Hydroxybutyric.acid_HMDB0000357	-0.274915972
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.149090636
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.240324645
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.280807451
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.135131532
## Beta.Alanine_HMDB0000056	-0.468251276
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.299214897
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.169470165
## Malonic.acid_HMDB0000691	-0.272863252
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.232136219
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.304685983
## Ketoleucine_HMDB0000695	0.013021982
## L.Valine_HMDB0000883	-0.222098555
## ITSD_Valine	-0.263494360
## Urea_HMDB0000294	-0.368660976
## Benzoic.acid_HMDB0001870	0.290506175
## Caprylic.acid_HMDB0000482	0.270546649
## Glycerol_HMDB0000131	-0.343320756
## Ethanolamine_HMDB0000149	-0.175700923
## L.Leucine_HMDB0000687	-0.262137702
## Acetyl glycine_HMDB0000532	0.302221555
## L.Isoleucine_HMDB0000172	-0.279853869
## Nicotinic.acid_HMDB0001488	-0.120211753
## Maleic.acid_HMDB0000176	0.073798204
## L.Proline_HMDB0000162	-0.148058224
## Phenylacetic.acid_HMDB0000209	0.150004323
## Succinic.acid_HMDB0000254	-0.136819756
## Glycine_HMDB0000123.1	-0.250054732
## Methylsuccinic.acid_HMDB0001844	0.237510912
## Glyceric.acid_HMDB0000139	0.193339886
## Fumaric.acid_HMDB0000134	-0.324250637
## Uracil_HMDB0000300	-0.167117559
## Pelargonic.acid_HMDB0000847	0.309419952
## L.Serine_HMDB0000187	-0.239702083
## L.Threonine_HMDB0000167	-0.265948628
## Mesaconic.acid_HMDB0000749	0.041363321

## Glutaric.acid_HMDB0000661	0.102777797
## Thymine_HMDB0000262	-0.237566995
## Beta.Alanine_HMDB0000056.1	-0.317549623
## L.Homoserine_HMDB0000719	0.516296170
## Capric.acid_HMDB0000511	0.547369220
## Citramalic.acid_HMDB0000426	-0.266186671
## Malic.acid_HMDB0000744	0.284814927
## Niacinamide_HMDB0001406	-0.310537310
## Adipic.acid_HMDB0000448	0.024623898
## D.Threitol_HMDB0004136	0.028669531
## Dihydrouracil_HMDB0000076	0.082753557
## Erythritol_HMDB0002994	-0.157631661
## N.Acetylserine_HMDB0002931	-0.234566184
## L.Aspartic.acid_HMDB0000191	-0.212051629
## L.Methionine_HMDB0000696	-0.300355152
## X4.Hydroxyproline_HMDB0000725	-0.279310861
## Pyroglutamic.acid_HMDB0000267	-0.418517189
## Cytosine_HMDB0000630	0.425675905
## Gamma.Aminobutyric.acid_HMDB0000112	-0.613503974
## Threonic.acid_HMDB0000943	0.223718123
## L.Cysteine_HMDB0000574	0.283177108
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.294323289
## Creatinine_HMDB0000562	-0.099693837
## X3.Hydroxyglutaric.acid_HMDB0000428	0.438841984
## Oxoglutaric.acid_HMDB0000208	-0.365274445
## Phenylpyruvic.acid_HMDB0000205	0.112739501
## Pimelic.acid_HMDB0000857	-0.639162025
## Phenyllactic.acid_HMDB0000779	0.229007331
## Phosphoenolpyruvic.acid_HMDB0000263	0.320210962
## Ornithine_HMDB0000214	0.021867751
## Hypotaurine_HMDB0000965	-0.309096170
## Triethanolamine_HMDB0032538	-0.298456221
## X2.Aminobenzoic.acid_HMDB0001123	-0.312624506
## L.Glutamic.acid_HMDB0000148	-0.107356155
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.225044274
## X5.Aminopentanoic.acid_HMDB0003355	-0.186164961
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.472590478
## L.Phenylalanine_HMDB0000159	-0.216007052
## Dodecanoic.acid_HMDB0000638	-0.098890370
## Lyxose_HMDB0003402_1	0.341883607
## D.Xylose_HMDB0000098	0.171693920
## Lyxose_HMDB0003402_2	0.111256137
## D.Arabinose_HMDB0029942	0.313770292
## L.Asparagine_HMDB0000168	0.211310420
## D.Ribulose_HMDB0000621	0.379947111
## D.Ribose_HMDB0000283	0.333414803
## D.Xylulose_HMDB0001644	0.366192901
## X3.Sulfinioalanine_HMDB0000996	0.335960356
## Suberic.acid_HMDB0000893	-0.243653092
## L.Lysine_HMDB0000182	0.193723019
## Levoglucosan_HMDB0000640	0.153281703
## D.Arabitool_HMDB0000568	-0.363565724
## Ribitol_HMDB0000508	0.450649247
## cis.Aconitic.acid_HMDB0000072	-0.054377179

## Quinolinic.acid_HMDB0000232	-0.187944279
## Putrescine_HMDB0001414	-0.197238679
## Glycerol.3.phosphate_HMDB0000126	0.261087948
## Vanillic.acid_HMDB0000484	-0.032125905
## L.Glutamine_HMDB0000641	0.465399648
## X2.Phosphoglyceric.acid_HMDB0000362	0.224802710
## Azelaic.acid_HMDB0000784	-0.285422481
## L.Dihydroorotic.acid_HMDB0003349	0.355865631
## O.Phosphoethanolamine_HMDB0000224	-0.174210119
## X3.Phosphoglyceric.acid_HMDB0000807	-0.003227780
## Isocitric.acid_HMDB0000193	0.456777123
## Hypoxanthine_HMDB0000157	0.410409204
## Citric.acid_HMDB0000094	0.416115868
## L.Arginine_HMDB0000517	1.000000000
## Ornithine_HMDB0000214.1	-0.197800413
## Dopamine_HMDB0000073	-0.136678517
## Myristic.acid_HMDB0000806	-0.235332214
## X1.5.Anhydrosorbitol_HMDB0002712	-0.004662047
## D.Tagatose_HMDB0003418	0.335928285
## Psicose_1	0.047365207
## Sebacic.acid_HMDB0000792	-0.052090026
## D.Fructose_HMDB0000660	0.263806074
## Gluconolactone_HMDB0000150	0.486813316
## L.Sorbose_HMDB0001266	0.282020069
## D.Mannose_HMDB0000169	-0.371475540
## Hydroxyphenyllactic.acid_HMDB0000755	-0.458017954
## D.Glucose_HMDB0000122	-0.401862081
## N.Acetylglutamine_HMDB0006029	-0.395699200
## L.Lysine_HMDB0000182.1	-0.111843928
## D.Mannose_HMDB0000169.1	-0.262619337
## Tyramine_HMDB0000306	-0.103637255
## L.Histidine_HMDB0000177	-0.127245156
## D.Glucose_HMDB0000122.1	-0.419186797
## X1.Hexadecanol_HMDB0003424	0.188899943
## L.Tyrosine_HMDB0000158	-0.019945828
## Mannitol_HMDB0000765	-0.287781979
## Sorbitol_HMDB0000247	0.423870211
## ITSD_Sorbitol	-0.201056532
## Galacturonic.acid_HMDB0002545	-0.049043117
## Pantothenic.acid_HMDB0000210	-0.078569191
## Palmitoleic.acid_HMDB0003229	-0.251076533
## Xanthine_HMDB0000292	0.129393177
## Gluconic.acid_HMDB0000625	0.398314874
## Palmitic.acid_HMDB0000220	-0.331150589
## Glucaric.acid_HMDB0000663	-0.217481411
## N.Acetylmannosamine_HMDB0001129	-0.096371076
## N.Acetyl.D.glucosamine_HMDB0000215	-0.279710404
## D.Ribulose.5.phosphate_HMDB0000618	0.288020903
## Uric.acid_HMDB0000289	0.223220354
## D.Ribose.5.phosphate_HMDB0001548	0.182183790
## myo.Inositol_HMDB0000211	0.005170159
## D.Ribose.5.phosphate_HMDB0001548.1	0.270257901
## Heptadecanoic.acid_HMDB0002259	0.383027412
## Octadecanol_HMDB0002350	-0.094730994

## Glutathione_HMDB0000125	0.493160853
## Linoleic.acid_HMDB0000673	-0.252828290
## Oleic.acid_HMDB0000207	-0.205965479
## Elaidic.acid_HMDB0000573	-0.207671219
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.295763725
## Stearic.acid_HMDB0000827	-0.303499974
## L.Tryptophan_HMDB0000929	-0.360648969
## Fructose.1.phosphate_HMDB0001076	0.295663452
## Mannose.6.phosphate_HMDB0001078	0.076159260
## Arachidonic.acid_HMDB0001043	-0.085857610
## Glucose.6.phosphate_HMDB0001401	0.272631973
## X6.Phosphogluconic.acid_HMDB0001316	-0.090134782
## Inositol.phosphate_HMDB0002985	0.146999365
## Uridine_HMDB0000296	0.136500716
## Stigmasterol_HMDB0000937	-0.395780629
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.273733513
## Sucrose_HMDB0000258	-0.441775976
## MG.18.Oe.0.0.0.0._HMDB0011143	-0.246689309
## Trehalose_HMDB0000975	-0.291426308
## D.Maltose_HMDB0000163	-0.295387089
## Lactitol_HMDB00040937	-0.210502613
## Xanthylic.acid_HMDB0001554	0.404033045
## Adenosine.monophosphate_HMDB0000045	0.279302615
## Cholesterol_HMDB0000067	0.205767977
## Lathosterol_HMDB0001170	-0.177261933
## X7b.Hydroxycholesterol._HMDB0006119	0.282741597
##	Ornithine_HMDB0000214.1
## Dimethylglycine_HMDB0000092	-0.7522251529
## Glyoxylic.acid_HMDB0000119	-0.7507212653
## Pyruvic.acid_HMDB0000243	0.4833262865
## L.Lactic.acid_HMDB0000190	0.8221458565
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.1762406738
## Glycolic.acid_HMDB0000115	-0.3884827230
## Caproic.acid_HMDB0000535	-0.7197168825
## L.Alanine_HMDB0000161	0.9047813659
## Alpha.ketoisovaleric.acid_HMDB0000019	0.3675825269
## Glycine_HMDB0000123	0.6728146684
## Oxalic.acid_HMDB0002329	-0.5692839871
## Hydroxylamine_HMDB0003338	0.2745437340
## X2.Hydroxybutyric.acid_HMDB0000008	-0.0643098276
## Acetoacetic.acid_HMDB0000060	-0.2383930766
## Hydroxypropionic.acid_HMDB0000700	0.5368855847
## Pyruvic.acid_HMDB0000243.1	0.3454209422
## X3.Hydroxybutyric.acid_HMDB0000357	-0.1355822491
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.0294131769
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.4069775933
## D.Alpha.aminobutyric.acid_HMDB0000650	0.8052129490
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.0053562865
## Beta.Alanine_HMDB0000056	0.7407333561
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.3164240473
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.3326921955
## Malonic.acid_HMDB0000691	0.4206095393
## X3.Aminoisobutanoic.acid_HMDB0003911	0.8744815678
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.5590952410

## Ketoleucine_HMDB0000695	-0.1137902939
## L.Valine_HMDB0000883	0.8441015731
## ITSD_Valine	0.8062026939
## Urea_HMDB0000294	0.6407196702
## Benzoic.acid_HMDB0001870	-0.2627669003
## Caprylic.acid_HMDB0000482	-0.7480822501
## Glycerol_HMDB0000131	0.8852583144
## Ethanolamine_HMDB0000149	0.9377871747
## L.Leucine_HMDB0000687	0.8434891841
## Acetylglycine_HMDB0000532	-0.1829141758
## L.Isoleucine_HMDB0000172	0.8816114384
## Nicotinic.acid_HMDB0001488	-0.2897694866
## Maleic.acid_HMDB0000176	-0.4297996676
## L.Proline_HMDB0000162	0.6660676670
## Phenylacetic.acid_HMDB0000209	-0.6061234935
## Succinic.acid_HMDB0000254	0.6106866991
## Glycine_HMDB0000123.1	0.8681258775
## Methylsuccinic.acid_HMDB0001844	-0.0477961398
## Glyceric.acid_HMDB0000139	-0.5014245458
## Fumaric.acid_HMDB0000134	0.5615644005
## Uracil_HMDB0000300	0.5682051818
## Pelargonic.acid_HMDB0000847	-0.8039855090
## L.Serine_HMDB0000187	0.8514398986
## L.Threonine_HMDB0000167	0.8783876856
## Mesaconic.acid_HMDB0000749	-0.0405323709
## Glutaric.acid_HMDB0000661	0.0446719059
## Thymine_HMDB0000262	0.5337616955
## Beta.Alanine_HMDB0000056.1	0.8976233099
## L.Homoserine_HMDB0000719	-0.2164651976
## Capric.acid_HMDB0000511	-0.3744216426
## Citramalic.acid_HMDB0000426	0.5547035818
## Malic.acid_HMDB0000744	-0.3171367476
## Niacinamide_HMDB0001406	0.7752953675
## Adipic.acid_HMDB0000448	0.8178906557
## D.Threitol_HMDB0004136	0.1248061648
## Dihydrouracil_HMDB0000076	0.4515690879
## Erythritol_HMDB0002994	0.2938899138
## N.Acetylserine_HMDB0002931	0.7964308701
## L.Aspartic.acid_HMDB0000191	0.8818672537
## L.Methionine_HMDB0000696	0.9686315858
## X4.Hydroxyproline_HMDB0000725	0.7976797205
## Pyroglutamic.acid_HMDB0000267	0.7832478818
## Cytosine_HMDB0000630	0.3087053616
## Gamma.Aminobutyric.acid_HMDB0000112	0.2680991091
## Threonic.acid_HMDB0000943	-0.4647261505
## L.Cysteine_HMDB0000574	-0.2879368914
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.6043807748
## Creatinine_HMDB0000562	0.8260095417
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.6441698188
## Oxoglutaric.acid_HMDB0000208	-0.1095445679
## Phenylpyruvic.acid_HMDB0000205	-0.4649894277
## Pimelic.acid_HMDB0000857	0.5263535436
## Phenyllactic.acid_HMDB0000779	-0.4832925632
## Phosphoenolpyruvic.acid_HMDB0000263	-0.7660578104

## Ornithine_HMDB0000214	0.8694928163
## Hypotaurine_HMDB0000965	0.8503616514
## Triethanolamine_HMDB0032538	0.8716290698
## X2.Aminobenzoic.acid_HMDB0001123	0.9290173164
## L.Glutamic.acid_HMDB0000148	0.9026055814
## X4.Hydroxybenzoic.acid_HMDB0000500	0.9183716721
## X5.Aminopentanoic.acid_HMDB0003355	-0.0220602217
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.4152144450
## L.Phenylalanine_HMDB0000159	0.9748711138
## Dodecanoic.acid_HMDB0000638	0.2848745989
## Lyxose_HMDB0003402_1	-0.7984817946
## D.Xylose_HMDB0000098	-0.3373912903
## Lyxose_HMDB0003402_2	-0.1530755906
## D.Arabinose_HMDB0029942	-0.8378496260
## L.Asparagine_HMDB0000168	0.7536619724
## D.Ribulose_HMDB0000621	-0.7603828633
## D.Ribose_HMDB0000283	-0.8370844765
## D.Xylulose_HMDB0001644	-0.7480557709
## X3.Sulfinioalanine_HMDB0000996	0.4109025500
## Suberic.acid_HMDB0000893	0.5760513055
## L.Lysine_HMDB0000182	0.7221965899
## Levoglucosan_HMDB0000640	-0.1576445019
## D.Arabitol_HMDB0000568	0.1777651410
## Ribitol_HMDB0000508	0.0737876954
## cis.Aconitic.acid_HMDB0000072	-0.1611699642
## Quinolinic.acid_HMDB0000232	0.0628110379
## Putrescine_HMDB0001414	0.0080288774
## Glycerol.3.phosphate_HMDB0000126	-0.7779890078
## Vanillic.acid_HMDB0000484	0.5931370753
## L.Glutamine_HMDB0000641	0.5081049825
## X2.Phosphoglyceric.acid_HMDB0000362	0.1702636356
## Azelaic.acid_HMDB0000784	-0.0554171317
## L.Dihydroorotic.acid_HMDB0003349	-0.8307239693
## O.Phosphoethanolamine_HMDB0000224	0.3922502238
## X3.Phosphoglyceric.acid_HMDB0000807	0.1690375653
## Isocitric.acid_HMDB0000193	0.2858604023
## Hypoxanthine_HMDB0000157	0.1428780009
## Citric.acid_HMDB0000094	-0.2684284857
## L.Arginine_HMDB0000517	-0.1978004129
## Ornithine_HMDB0000214.1	1.0000000000
## Dopamine_HMDB0000073	0.9972743833
## Myristic.acid_HMDB0000806	0.7186980101
## X1.5.Anhydrosorbitol_HMDB0002712	-0.2163826503
## D.Tagatose_HMDB0003418	-0.8286319714
## Psicose_1	-0.0458919384
## Sebacic.acid_HMDB0000792	0.6286987996
## D.Fructose_HMDB0000660	-0.7415013776
## Gluconolactone_HMDB0000150	-0.6793028709
## L.Sorbose_HMDB0001266	-0.7439205830
## D.Mannose_HMDB0000169	0.8340876318
## Hydroxyphenyllactic.acid_HMDB0000755	0.1016058786
## D.Glucose_HMDB0000122	0.8018983968
## N.Acetylglutamine_HMDB0006029	0.8069831634
## L.Lysine_HMDB0000182.1	0.9592163603

## D.Mannose_HMDB0000169.1	0.9028379084
## Tyramine_HMDB0000306	0.9555968330
## L.Histidine_HMDB0000177	0.9417137821
## D.Glucose_HMDB0000122.1	0.7768676171
## X1.Hexadecanol_HMDB0003424	-0.3861418548
## L.Tyrosine_HMDB0000158	0.9430243523
## Mannitol_HMDB0000765	0.7166903559
## Sorbitol_HMDB0000247	-0.1192676987
## ITSD_Sorbitol	0.6286603441
## Galacturonic.acid_HMDB0002545	0.1182172492
## Pantothenic.acid_HMDB0000210	-0.1733984430
## Palmitoleic.acid_HMDB0003229	0.3740731907
## Xanthine_HMDB0000292	0.6448356121
## Gluconic.acid_HMDB0000625	-0.3300045260
## Palmitic.acid_HMDB0000220	0.2705568669
## Glucaric.acid_HMDB0000663	0.7707884791
## N.Acetylmannosamine_HMDB0001129	0.4440944503
## N.Acetyl.D.glucosamine_HMDB0000215	0.7605928469
## D.Ribulose.5.phosphate_HMDB0000618	-0.8562174863
## Uric.acid_HMDB0000289	0.6746568553
## D.Ribose.5.phosphate_HMDB0001548	-0.8766719440
## myo.Inositol_HMDB0000211	0.4430302242
## D.Ribose.5.phosphate_HMDB0001548.1	-0.9061405817
## Heptadecanoic.acid_HMDB0002259	-0.1386628841
## Octadecanol_HMDB0002350	-0.3290610863
## Glutathione_HMDB0000125	0.1055569277
## Linoleic.acid_HMDB0000673	0.0747418049
## Oleic.acid_HMDB0000207	0.2650522324
## Elaidic.acid_HMDB0000573	0.2780065983
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.7820080741
## Stearic.acid_HMDB0000827	-0.1336409456
## L.Tryptophan_HMDB0000929	-0.1002963916
## Fructose.1.phosphate_HMDB0001076	-0.7069808663
## Mannose.6.phosphate_HMDB0001078	-0.4853112424
## Arachidonic.acid_HMDB0001043	0.1188716133
## Glucose.6.phosphate_HMDB0001401	-0.6923639883
## X6.Phosphogluconic.acid_HMDB0001316	-0.4319120846
## Inositol.phosphate_HMDB0002985	-0.4165223459
## Uridine_HMDB0000296	0.1329652748
## Stigmasterol_HMDB0000937	0.2116977068
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.1664000474
## Sucrose_HMDB0000258	0.3962279040
## MG.18.0e.0.0.0.0._HMDB0011143	-0.2318235434
## Trehalose_HMDB0000975	-0.1904561971
## D.Maltose_HMDB0000163	-0.1869101515
## Lactitol_HMDB00040937	-0.0811306040
## Xanthylic.acid_HMDB0001554	-0.5605655900
## Adenosine.monophosphate_HMDB0000045	-0.7556804804
## Cholesterol_HMDB0000067	-0.0776304775
## Lathosterol_HMDB0001170	-0.0009910529
## X7b.Hydroxycholesterol_.HMDB0006119	-0.2559078350
## Dopamine_HMDB0000073	
## Dimethylglycine_HMDB0000092	-0.742474863
## Glyoxylic.acid_HMDB0000119	-0.741508712

## Pyruvic.acid_HMDB0000243	0.477794761
## L.Lactic.acid_HMDB0000190	0.811518214
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.172242093
## Glycolic.acid_HMDB0000115	-0.365152214
## Caproic.acid_HMDB0000535	-0.695575207
## L.Alanine_HMDB0000161	0.891805433
## Alpha.ketoisovaleric.acid_HMDB0000019	0.356037819
## Glycine_HMDB0000123	0.644151382
## Oxalic.acid_HMDB0002329	-0.576124541
## Hydroxylamine_HMDB0003338	0.294660387
## X2.Hydroxybutyric.acid_HMDB0000008	-0.074080597
## Acetoacetic.acid_HMDB0000060	-0.231202451
## Hydroxypropionic.acid_HMDB0000700	0.536863832
## Pyruvic.acid_HMDB0000243.1	0.340570833
## X3.Hydroxybutyric.acid_HMDB0000357	-0.155029873
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.038957418
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.400916412
## D.Alpha.aminobutyric.acid_HMDB0000650	0.793337090
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.002612646
## Beta.Alanine_HMDB0000056	0.717928731
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.280384214
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.318950756
## Malonic.acid_HMDB0000691	0.420650445
## X3.Aminoisobutanoic.acid_HMDB0003911	0.864130705
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.550780093
## Ketoleucine_HMDB0000695	-0.121652646
## L.Valine_HMDB0000883	0.837964317
## ITSD_Valine	0.800044137
## Urea_HMDB0000294	0.614640191
## Benzoic.acid_HMDB0001870	-0.246039212
## Caprylic.acid_HMDB0000482	-0.742809414
## Glycerol_HMDB0000131	0.874714565
## Ethanolamine_HMDB0000149	0.934843177
## L.Leucine_HMDB0000687	0.838470195
## Acetylglycine_HMDB0000532	-0.164481025
## L.Isoleucine_HMDB0000172	0.873016324
## Nicotinic.acid_HMDB0001488	-0.288248265
## Maleic.acid_HMDB0000176	-0.429344070
## L.Proline_HMDB0000162	0.664198526
## Phenylacetic.acid_HMDB0000209	-0.607018306
## Succinic.acid_HMDB0000254	0.618364297
## Glycine_HMDB0000123.1	0.863997155
## Methylsuccinic.acid_HMDB0001844	-0.024348309
## Glyceric.acid_HMDB0000139	-0.493964059
## Fumaric.acid_HMDB0000134	0.542960800
## Uracil_HMDB0000300	0.566541088
## Pelargonic.acid_HMDB0000847	-0.800039752
## L.Serine_HMDB0000187	0.848665308
## L.Threonine_HMDB0000167	0.868945135
## Mesaconic.acid_HMDB0000749	-0.036428346
## Glutaric.acid_HMDB0000661	0.052776041
## Thymine_HMDB0000262	0.536576068
## Beta.Alanine_HMDB0000056.1	0.890918182
## L.Homoserine_HMDB0000719	-0.192904989

## Capric.acid_HMDB0000511	-0.347086773
## Citramalic.acid_HMDB0000426	0.552178140
## Malic.acid_HMDB0000744	-0.305051976
## Niacinamide_HMDB0001406	0.762841922
## Adipic.acid_HMDB0000448	0.830604552
## D.Threitol_HMDB0004136	0.125172465
## Dihydrouracil_HMDB0000076	0.454997230
## Erythritol_HMDB0002994	0.282246601
## N.Acetylserine_HMDB0002931	0.789251041
## L.Aspartic.acid_HMDB0000191	0.879278029
## L.Methionine_HMDB0000696	0.960576474
## X4.Hydroxyproline_HMDB0000725	0.785154433
## Pyroglutamic.acid_HMDB0000267	0.762272607
## Cytosine_HMDB0000630	0.336859077
## Gamma.Aminobutyric.acid_HMDB0000112	0.241435331
## Threonic.acid_HMDB0000943	-0.463765216
## L.Cysteine_HMDB0000574	-0.282729119
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.590520768
## Creatinine_HMDB0000562	0.830792830
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.630502939
## Oxoglutaric.acid_HMDB0000208	-0.135342536
## Phenylpyruvic.acid_HMDB0000205	-0.471100030
## Pimelic.acid_HMDB0000857	0.498179654
## Phenyllactic.acid_HMDB0000779	-0.491531099
## Phosphoenolpyruvic.acid_HMDB0000263	-0.760261517
## Ornithine_HMDB0000214	0.878854825
## Hypotaurine_HMDB0000965	0.832855653
## Triethanolamine_HMDB0032538	0.858179367
## X2.Aminobenzoic.acid_HMDB0001123	0.925326042
## L.Glutamic.acid_HMDB0000148	0.903373873
## X4.Hydroxybenzoic.acid_HMDB0000500	0.917492654
## X5.Aminopentanoic.acid_HMDB0003355	-0.038151024
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.384338630
## L.Phenylalanine_HMDB0000159	0.972248553
## Dodecanoic.acid_HMDB0000638	0.288931653
## Lyxose_HMDB0003402_1	-0.790864129
## D.Xylose_HMDB0000098	-0.337615467
## Lyxose_HMDB0003402_2	-0.153321679
## D.Arabinose_HMDB0029942	-0.831198280
## L.Asparagine_HMDB0000168	0.775873915
## D.Ribulose_HMDB0000621	-0.750639757
## D.Ribose_HMDB0000283	-0.828666505
## D.Xylulose_HMDB0001644	-0.740897460
## X3.Sulfinioalanine_HMDB0000996	0.439306996
## Suberic.acid_HMDB0000893	0.570414040
## L.Lysine_HMDB0000182	0.741870331
## Levoglucosan_HMDB0000640	-0.157727147
## D.Arabitol_HMDB0000568	0.155000268
## Ribitol_HMDB0000508	0.100292425
## cis.Aconitic.acid_HMDB0000072	-0.170043732
## Quinolinic.acid_HMDB0000232	0.048142796
## Putrescine_HMDB0001414	0.013753503
## Glycerol.3.phosphate_HMDB0000126	-0.763949539
## Vanillic.acid_HMDB0000484	0.581634005

## L.Glutamine_HMDB0000641	0.541501979
## X2.Phosphoglyceric.acid_HMDB0000362	0.176401683
## Azelaic.acid_HMDB0000784	-0.072235854
## L.Dihydroorotic.acid_HMDB0003349	-0.820636765
## O.Phosphoethanolamine_HMDB0000224	0.399988706
## X3.Phosphoglyceric.acid_HMDB0000807	0.161232202
## Isocitric.acid_HMDB0000193	0.319536026
## Hypoxanthine_HMDB0000157	0.163173843
## Citric.acid_HMDB0000094	-0.252078394
## L.Arginine_HMDB0000517	-0.136678517
## Ornithine_HMDB0000214.1	0.997274383
## Dopamine_HMDB0000073	1.000000000
## Myristic.acid_HMDB0000806	0.721275117
## X1.5.Anhydrosorbitol_HMDB0002712	-0.228784660
## D.Tagatose_HMDB0003418	-0.821825851
## Psicose_1	-0.050348931
## Sebacic.acid_HMDB0000792	0.634835553
## D.Fructose_HMDB0000660	-0.733628030
## Gluconolactone_HMDB0000150	-0.659979077
## L.Sorbose_HMDB0001266	-0.735116369
## D.Mannose_HMDB0000169	0.819062950
## Hydroxyphenyllactic.acid_HMDB0000755	0.076055333
## D.Glucose_HMDB0000122	0.780663729
## N.Acetylglutamine_HMDB0006029	0.787856090
## L.Lysine_HMDB0000182.1	0.963812446
## D.Mannose_HMDB0000169.1	0.895036219
## Tyramine_HMDB0000306	0.960471163
## L.Histidine_HMDB0000177	0.946383957
## D.Glucose_HMDB0000122.1	0.754049683
## X1.Hexadecanol_HMDB0003424	-0.374497513
## L.Tyrosine_HMDB0000158	0.951195542
## Mannitol_HMDB0000765	0.709195881
## Sorbitol_HMDB0000247	-0.073675119
## ITSD_Sorbitol	0.623798602
## Galacturonic.acid_HMDB0002545	0.099458996
## Pantothenic.acid_HMDB0000210	-0.181305038
## Palmitoleic.acid_HMDB0003229	0.372422308
## Xanthine_HMDB0000292	0.657931702
## Gluconic.acid_HMDB0000625	-0.317528480
## Palmitic.acid_HMDB0000220	0.263420059
## Glucaric.acid_HMDB0000663	0.759644854
## N.Acetylmannosamine_HMDB0001129	0.442567358
## N.Acetyl.D.glucosamine_HMDB0000215	0.755962252
## D.Ribulose.5.phosphate_HMDB0000618	-0.851109084
## Uric.acid_HMDB0000289	0.697708463
## D.Ribose.5.phosphate_HMDB0001548	-0.884298663
## myo.Inositol_HMDB0000211	0.459091967
## D.Ribose.5.phosphate_HMDB0001548.1	-0.906579921
## Heptadecanoic.acid_HMDB0002259	-0.111915263
## Octadecanol_HMDB0002350	-0.333781977
## Glutathione_HMDB0000125	0.131874801
## Linoleic.acid_HMDB0000673	0.073023012
## Oleic.acid_HMDB0000207	0.267143166
## Elaidic.acid_HMDB0000573	0.279902637

## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.774690950
## Stearic.acid_HMDB0000827	-0.142203389
## L.Tryptophan_HMDB0000929	-0.115357411
## Fructose.1.phosphate_HMDB0001076	-0.692927546
## Mannose.6.phosphate_HMDB0001078	-0.489082694
## Arachidonic.acid_HMDB0001043	0.124563106
## Glucose.6.phosphate_HMDB0001401	-0.688397103
## X6.Phosphogluconic.acid_HMDB0001316	-0.440569365
## Inositol.phosphate_HMDB0002985	-0.401422118
## Uridine_HMDB0000296	0.152350478
## Stigmasterol_HMDB0000937	0.192442919
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.188989419
## Sucrose_HMDB0000258	0.393790104
## MG.18.0e.0.0.0.0._HMDB0011143	-0.244115572
## Trehalose_HMDB0000975	-0.210238811
## D.Maltose_HMDB0000163	-0.206787136
## Lactitol_HMDB00040937	-0.107202141
## Xanthylic.acid_HMDB0001554	-0.542744215
## Adenosine.monophosphate_HMDB0000045	-0.754647033
## Cholesterol_HMDB0000067	-0.072037320
## Lathosterol_HMDB0001170	-0.008837488
## X7b.Hydroxycholesterol._HMDB0006119	-0.247972743
##	Myristic.acid_HMDB0000806
## Dimethylglycine_HMDB0000092	-0.724059735
## Glyoxylic.acid_HMDB0000119	-0.730113350
## Pyruvic.acid_HMDB0000243	0.701546752
## L.Lactic.acid_HMDB0000190	0.791996433
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.525362234
## Glycolic.acid_HMDB0000115	0.083033620
## Caproic.acid_HMDB0000535	-0.608341005
## L.Alanine_HMDB0000161	0.677929227
## Alpha.ketoisovaleric.acid_HMDB0000019	0.288687143
## Glycine_HMDB0000123	0.616469675
## Oxalic.acid_HMDB0002329	-0.337780697
## Hydroxylamine_HMDB0003338	0.400102977
## X2.Hydroxybutyric.acid_HMDB0000008	0.275216296
## Acetoacetic.acid_HMDB0000060	0.182773411
## Hydroxypropionic.acid_HMDB0000700	0.871771034
## Pyruvic.acid_HMDB0000243.1	0.425013199
## X3.Hydroxybutyric.acid_HMDB0000357	0.325101215
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.371221752
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.059812947
## D.Alpha.aminobutyric.acid_HMDB0000650	0.749125897
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.106311924
## Beta.Alanine_HMDB0000056	0.700367078
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.262725758
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.411824926
## Malonic.acid_HMDB0000691	0.497206560
## X3.Aminoisobutanoic.acid_HMDB0003911	0.799966197
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.832862978
## Ketoleucine_HMDB0000695	0.037868739
## L.Valine_HMDB0000883	0.791537285
## ITSD_Valine	0.872117558
## Urea_HMDB0000294	0.569372293

## Benzoic.acid_HMDB0001870	0.153755861
## Caprylic.acid_HMDB0000482	-0.458037636
## Glycerol_HMDB0000131	0.869617284
## Ethanolamine_HMDB0000149	0.725842220
## L.Leucine_HMDB0000687	0.867732296
## Acetylglycine_HMDB0000532	0.247242855
## L.Isoleucine_HMDB0000172	0.821263256
## Nicotinic.acid_HMDB0001488	-0.201386844
## Maleic.acid_HMDB0000176	-0.017072450
## L.Proline_HMDB0000162	0.656131653
## Phenylacetic.acid_HMDB0000209	-0.316951567
## Succinic.acid_HMDB0000254	0.763358177
## Glycine_HMDB0000123.1	0.845068700
## Methylsuccinic.acid_HMDB0001844	0.319642778
## Glyceric.acid_HMDB0000139	-0.120910235
## Fumaric.acid_HMDB0000134	0.695951869
## Uracil_HMDB0000300	0.498063998
## Pelargonic.acid_HMDB0000847	-0.622224905
## L.Serine_HMDB0000187	0.697812809
## L.Threonine_HMDB0000167	0.718784438
## Mesaconic.acid_HMDB0000749	0.130233285
## Glutaric.acid_HMDB0000661	-0.177758110
## Thymine_HMDB0000262	0.434640586
## Beta.Alanine_HMDB0000056.1	0.864856008
## L.Homoserine_HMDB0000719	0.212665725
## Capric.acid_HMDB0000511	0.133248192
## Citramalic.acid_HMDB0000426	0.362906254
## Malic.acid_HMDB0000744	-0.087299633
## Niacinamide_HMDB0001406	0.732152386
## Adipic.acid_HMDB0000448	0.524188681
## D.Threitol_HMDB0004136	0.348782325
## Dihydrouracil_HMDB0000076	0.398945930
## Erythritol_HMDB0002994	0.594547896
## N.Acetylserine_HMDB0002931	0.583930827
## L.Aspartic.acid_HMDB0000191	0.735588148
## L.Methionine_HMDB0000696	0.800358805
## X4.Hydroxyproline_HMDB0000725	0.717372413
## Pyroglutamic.acid_HMDB0000267	0.674184633
## Cytosine_HMDB0000630	0.091600195
## Gamma.Aminobutyric.acid_HMDB0000112	0.286918128
## Threonic.acid_HMDB0000943	-0.114975593
## L.Cysteine_HMDB0000574	0.022075209
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.391974194
## Creatinine_HMDB0000562	0.812074361
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.586965782
## Oxoglutaric.acid_HMDB0000208	0.224766027
## Phenylpyruvic.acid_HMDB0000205	-0.279543523
## Pimelic.acid_HMDB0000857	0.330118140
## Phenyllactic.acid_HMDB0000779	-0.513357997
## Phosphoenolpyruvic.acid_HMDB0000263	-0.886980196
## Ornithine_HMDB0000214	0.468710536
## Hypotaurine_HMDB0000965	0.587423048
## Triethanolamine_HMDB0032538	0.515950832
## X2.Aminobenzoic.acid_HMDB0001123	0.869651518

## L.Glutamic.acid_HMDB0000148	0.697680836
## X4.Hydroxybenzoic.acid_HMDB0000500	0.846657388
## X5.Aminopentanoic.acid_HMDB0003355	-0.051712767
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.137406185
## L.Phenylalanine_HMDB0000159	0.824924585
## Dodecanoic.acid_HMDB0000638	0.837062117
## Lyxose_HMDB0003402_1	-0.622595342
## D.Xylose_HMDB0000098	-0.401251376
## Lyxose_HMDB0003402_2	-0.303431178
## D.Arabinose_HMDB0029942	-0.736432263
## L.Asparagine_HMDB0000168	0.396618374
## D.Ribulose_HMDB0000621	-0.700879788
## D.Ribose_HMDB0000283	-0.750731791
## D.Xylulose_HMDB0001644	-0.702322268
## X3.Sulfinioalanine_HMDB0000996	0.252404853
## Suberic.acid_HMDB0000893	0.433624518
## L.Lysine_HMDB0000182	0.398697949
## Levoglucosan_HMDB0000640	-0.291373197
## D.Arabitol_HMDB0000568	0.337019718
## Ribitol_HMDB0000508	0.240470007
## cis.Aconitic.acid_HMDB0000072	-0.180085055
## Quinolinic.acid_HMDB0000232	-0.008647444
## Putrescine_HMDB0001414	0.129488825
## Glycerol.3.phosphate_HMDB0000126	-0.607927507
## Vanillic.acid_HMDB0000484	0.596583194
## L.Glutamine_HMDB0000641	0.111418132
## X2.Phosphoglyceric.acid_HMDB0000362	0.010412344
## Azelaic.acid_HMDB0000784	-0.212928088
## L.Dihydroorotic.acid_HMDB0003349	-0.701841924
## O.Phosphoethanolamine_HMDB0000224	0.848635228
## X3.Phosphoglyceric.acid_HMDB0000807	-0.009141006
## Isocitric.acid_HMDB0000193	0.419320648
## Hypoxanthine_HMDB0000157	-0.095217353
## Citric.acid_HMDB0000094	-0.321455446
## L.Arginine_HMDB0000517	-0.235332214
## Ornithine_HMDB0000214.1	0.718698010
## Dopamine_HMDB0000073	0.721275117
## Myristic.acid_HMDB0000806	1.000000000
## X1.5.Anhydrosorbitol_HMDB0002712	0.031436138
## D.Tagatose_HMDB0003418	-0.743987571
## Psicose_1	-0.186694182
## Sebacic.acid_HMDB0000792	0.688215865
## D.Fructose_HMDB0000660	-0.638823636
## Gluconolactone_HMDB0000150	-0.578007860
## L.Sorbose_HMDB0001266	-0.644945789
## D.Mannose_HMDB0000169	0.829001313
## Hydroxyphenyllactic.acid_HMDB0000755	0.490629910
## D.Glucose_HMDB0000122	0.725658792
## N.Acetylglutamine_HMDB0006029	0.793398707
## L.Lysine_HMDB0000182.1	0.782884951
## D.Mannose_HMDB0000169.1	0.817284229
## Tyramine_HMDB0000306	0.774345308
## L.Histidine_HMDB0000177	0.791557805
## D.Glucose_HMDB0000122.1	0.744402534

## X1.Hexadecanol_HMDB0003424	0.115303248
## L.Tyrosine_HMDB0000158	0.632217049
## Mannitol_HMDB0000765	0.706569200
## Sorbitol_HMDB0000247	-0.199347268
## ITSD_Sorbitol	0.900042427
## Galacturonic.acid_HMDB0002545	0.285887565
## Pantothenic.acid_HMDB0000210	0.123606871
## Palmitoleic.acid_HMDB0003229	0.845576300
## Xanthine_HMDB0000292	0.085132424
## Gluconic.acid_HMDB0000625	-0.492973245
## Palmitic.acid_HMDB0000220	0.820949019
## Glucaric.acid_HMDB0000663	0.700904164
## N.Acetylmannosamine_HMDB0001129	0.573544286
## N.Acetyl.D.glucosamine_HMDB0000215	0.854569816
## D.Ribulose.5.phosphate_HMDB0000618	-0.720338364
## Uric.acid_HMDB0000289	0.429574484
## D.Ribose.5.phosphate_HMDB0001548	-0.810839255
## myo.Inositol_HMDB0000211	0.670096196
## D.Ribose.5.phosphate_HMDB0001548.1	-0.811987347
## Heptadecanoic.acid_HMDB0002259	-0.127144121
## Octadecanol_HMDB0002350	0.220648623
## Glutathione_HMDB0000125	-0.033878869
## Linoleic.acid_HMDB0000673	0.689262468
## Oleic.acid_HMDB0000207	0.774317581
## Elaidic.acid_HMDB0000573	0.811321827
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.731472409
## Stearic.acid_HMDB0000827	0.485497691
## L.Tryptophan_HMDB0000929	0.462649074
## Fructose.1.phosphate_HMDB0001076	-0.551719430
## Mannose.6.phosphate_HMDB0001078	-0.479884249
## Arachidonic.acid_HMDB0001043	0.576705374
## Glucose.6.phosphate_HMDB0001401	-0.449609353
## X6.Phosphogluconic.acid_HMDB0001316	0.182423884
## Inositol.phosphate_HMDB0002985	0.181167143
## Uridine_HMDB0000296	0.432485220
## Stigmasterol_HMDB0000937	0.577317044
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.148591741
## Sucrose_HMDB0000258	0.607931612
## MG.18.0e.0.0.0.0._HMDB0011143	0.404909390
## Trehalose_HMDB0000975	-0.341034640
## D.Maltose_HMDB0000163	-0.333853605
## Lactitol_HMDB0040937	-0.023861826
## Xanthylic.acid_HMDB0001554	-0.830264087
## Adenosine.monophosphate_HMDB0000045	-0.590264984
## Cholesterol_HMDB0000067	0.342184931
## Lathosterol_HMDB0001170	0.530588881
## X7b.Hydroxycholesterol_.HMDB0006119	-0.589977330
##	
	X1.5.Anhydrosorbitol_HMDB0002712
## Dimethylglycine_HMDB0000092	0.3947986883
## Glyoxylic.acid_HMDB0000119	0.3865265270
## Pyruvic.acid_HMDB0000243	0.3684166176
## L.Lactic.acid_HMDB0000190	0.1297157510
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.5272853556
## Glycolic.acid_HMDB0000115	0.5611557411

## Caproic.acid_HMDB0000535	0.3244981570
## L.Alanine_HMDB0000161	0.0630223224
## Alpha.ketoisovaleric.acid_HMDB0000019	0.5045575847
## Glycine_HMDB0000123	0.1718757120
## Oxalic.acid_HMDB0002329	0.2987878535
## Hydroxylamine_HMDB0003338	0.0838222498
## X2.Hydroxybutyric.acid_HMDB0000008	0.7788815807
## Acetoacetic.acid_HMDB0000060	0.3495668176
## Hydroxypropionic.acid_HMDB0000700	0.1868242421
## Pyruvic.acid_HMDB0000243.1	0.3275169611
## X3.Hydroxybutyric.acid_HMDB0000357	0.6641152134
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.7113846480
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.7235859022
## D.Alpha.aminobutyric.acid_HMDB0000650	0.1307058652
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.6684556248
## Beta.Alanine_HMDB0000056	-0.0584315582
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.4420765510
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.6455157420
## Malonic.acid_HMDB0000691	0.1073435671
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.1821423313
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.3090101035
## Ketoleucine_HMDB0000695	0.7344860329
## L.Valine_HMDB0000883	0.1027195239
## ITSD_Valine	0.1196854636
## Urea_HMDB0000294	0.4737639799
## Benzoic.acid_HMDB0001870	0.2330445309
## Caprylic.acid_HMDB0000482	0.5749205219
## Glycerol_HMDB0000131	-0.0614186286
## Ethanolamine_HMDB0000149	-0.0101110625
## L.Leucine_HMDB0000687	0.0561364594
## Acetyl glycine_HMDB0000532	0.6681794325
## L.Isoleucine_HMDB0000172	0.0813239208
## Nicotinic.acid_HMDB0001488	0.2429982163
## Maleic.acid_HMDB0000176	0.6619095905
## L.Proline_HMDB0000162	0.2229317275
## Phenylacetic.acid_HMDB0000209	0.5855237730
## Succinic.acid_HMDB0000254	0.2412416303
## Glycine_HMDB0000123.1	0.0042369667
## Methylsuccinic.acid_HMDB0001844	0.1824452568
## Glyceric.acid_HMDB0000139	0.3784387629
## Fumaric.acid_HMDB0000134	0.5293157909
## Uracil_HMDB0000300	0.3065119901
## Pelargonic.acid_HMDB0000847	0.5588573958
## L.Serine_HMDB0000187	-0.0928713085
## L.Threonine_HMDB0000167	0.1154367685
## Mesaconic.acid_HMDB0000749	0.7183939150
## Glutaric.acid_HMDB0000661	0.3948253442
## Thymine_HMDB0000262	0.0455777077
## Beta.Alanine_HMDB0000056.1	-0.0663085837
## L.Homoserine_HMDB0000719	0.3179072109
## Capric.acid_HMDB0000511	0.3929297558
## Citramalic.acid_HMDB0000426	-0.0374092364
## Malic.acid_HMDB0000744	0.5842952366
## Niacinamide_HMDB0001406	0.3057819502

## Adipic.acid_HMDB0000448	-0.0364102668
## D.Threitol_HMDB0004136	0.3987935164
## Dihydrouracil_HMDB0000076	0.4062465056
## Erythritol_HMDB0002994	0.7379139692
## N.Acetylserine_HMDB0002931	0.0290435977
## L.Aspartic.acid_HMDB0000191	0.0211056826
## L.Methionine_HMDB0000696	-0.2151236986
## X4.Hydroxyproline_HMDB0000725	0.2658971583
## Pyroglutamic.acid_HMDB0000267	0.1314731003
## Cytosine_HMDB0000630	0.2324574670
## Gamma.Aminobutyric.acid_HMDB0000112	0.2161434348
## Threonic.acid_HMDB0000943	0.8004357634
## L.Cysteine_HMDB0000574	0.8023531490
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.6133978479
## Creatinine_HMDB0000562	-0.2835298207
## X3.Hydroxyglutaric.acid_HMDB0000428	0.4421870706
## Oxoglutaric.acid_HMDB0000208	0.3831328818
## Phenylpyruvic.acid_HMDB0000205	0.1725115152
## Pimelic.acid_HMDB0000857	0.0045955949
## Phenyllactic.acid_HMDB0000779	0.3805365824
## Phosphoenolpyruvic.acid_HMDB0000263	0.2814147371
## Ornithine_HMDB0000214	-0.4477744963
## Hypotaurine_HMDB0000965	0.1452249224
## Triethanolamine_HMDB0032538	0.0485919237
## X2.Aminobenzoic.acid_HMDB0001123	-0.1865289170
## L.Glutamic.acid_HMDB0000148	-0.0401328079
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.0016539929
## X5.Aminopentanoic.acid_HMDB0003355	0.6430161280
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.3327586731
## L.Phenylalanine_HMDB0000159	-0.1600977303
## Dodecanoic.acid_HMDB0000638	0.2505018779
## Lyxose_HMDB0003402_1	0.4532870464
## D.Xylose_HMDB0000098	0.0142606167
## Lyxose_HMDB0003402_2	-0.0863402555
## D.Arabinose_HMDB0029942	0.3741134630
## L.Asparagine_HMDB0000168	-0.3963224519
## D.Ribulose_HMDB0000621	0.2406716218
## D.Ribose_HMDB0000283	0.3672529271
## D.Xylulose_HMDB0001644	0.2676559671
## X3.Sulfinioalanine_HMDB0000996	-0.3318331494
## Suberic.acid_HMDB0000893	0.1436754992
## L.Lysine_HMDB0000182	-0.5285378165
## Levoglucosan_HMDB0000640	-0.0688583059
## D.Arabitool_HMDB0000568	0.4177918476
## Ribitol_HMDB0000508	0.1972485969
## cis.Aconitic.acid_HMDB0000072	0.0881093126
## Quinolinic.acid_HMDB0000232	0.5429070535
## Putrescine_HMDB0001414	0.2783909842
## Glycerol.3.phosphate_HMDB0000126	0.1861023148
## Vanillic.acid_HMDB0000484	0.3439668738
## L.Glutamine_HMDB0000641	-0.4401080583
## X2.Phosphoglyceric.acid_HMDB0000362	0.6220697309
## Azelaic.acid_HMDB0000784	0.1847325905
## L.Dihydroorotic.acid_HMDB0003349	0.3819273964

## O.Phosphoethanolamine_HMDB0000224	-0.1711684123
## X3.Phosphoglyceric.acid_HMDB0000807	0.6416831396
## Isocitric.acid_HMDB0000193	0.3974494165
## Hypoxanthine_HMDB0000157	-0.5534623865
## Citric.acid_HMDB0000094	0.6088349880
## L.Arginine_HMDB0000517	-0.0046620469
## Ornithine_HMDB0000214.1	-0.2163826503
## Dopamine_HMDB0000073	-0.2287846600
## Myristic.acid_HMDB0000806	0.0314361381
## X1.5.Anhydrosorbitol_HMDB0002712	1.0000000000
## D.Tagatose_HMDB0003418	0.4000725001
## Psicose_1	0.1111408335
## Sebacic.acid_HMDB0000792	0.4807656644
## D.Fructose_HMDB0000660	0.3463341688
## Gluconolactone_HMDB0000150	0.3128857010
## L.Sorbose_HMDB0001266	0.3332798297
## D.Mannose_HMDB0000169	0.0031501459
## Hydroxyphenyllactic.acid_HMDB0000755	0.6109776925
## D.Glucose_HMDB0000122	-0.0009199234
## N.Acetylglutamine_HMDB0006029	0.0528875964
## L.Lysine_HMDB0000182.1	-0.2698492424
## D.Mannose_HMDB0000169.1	-0.1463919529
## Tyramine_HMDB0000306	-0.2792888053
## L.Histidine_HMDB0000177	-0.2892193601
## D.Glucose_HMDB0000122.1	-0.0243438932
## X1.Hexadecanol_HMDB0003424	0.3725309673
## L.Tyrosine_HMDB0000158	-0.2845000266
## Mannitol_HMDB0000765	0.3488366677
## Sorbitol_HMDB0000247	-0.3259031680
## ITSD_Sorbitol	0.3302885372
## Galacturonic.acid_HMDB0002545	0.7811585340
## Pantothenic.acid_HMDB0000210	0.6127133410
## Palmitoleic.acid_HMDB0003229	-0.1035650856
## Xanthine_HMDB0000292	-0.4542314196
## Gluconic.acid_HMDB0000625	0.3233725110
## Palmitic.acid_HMDB0000220	0.1552335297
## Glucaric.acid_HMDB0000663	0.0607872945
## N.Acetylmannosamine_HMDB0001129	0.1373990866
## N.Acetyl.D.glucosamine_HMDB0000215	0.1430322941
## D.Ribulose.5.phosphate_HMDB0000618	0.4579725270
## Uric.acid_HMDB0000289	-0.4906969500
## D.Ribose.5.phosphate_HMDB0001548	0.3802515966
## myo.Inositol_HMDB0000211	0.3644748082
## D.Ribose.5.phosphate_HMDB0001548.1	0.3118069347
## Heptadecanoic.acid_HMDB0002259	0.4238085830
## Octadecanol_HMDB0002350	0.6589139642
## Glutathione_HMDB0000125	0.1296893555
## Linoleic.acid_HMDB0000673	-0.0340756970
## Oleic.acid_HMDB0000207	-0.1581214951
## Elaidic.acid_HMDB0000573	0.0004379648
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.4174655962
## Stearic.acid_HMDB0000827	0.3736569428
## L.Tryptophan_HMDB0000929	0.3972465351
## Fructose.1.phosphate_HMDB0001076	0.4354147777

## Mannose.6.phosphate_HMDB0001078	0.0143529934
## Arachidonic.acid_HMDB0001043	-0.2815213160
## Glucose.6.phosphate_HMDB0001401	0.4464096810
## X6.Phosphogluconic.acid_HMDB0001316	0.3829022146
## Inositol.phosphate_HMDB0002985	0.4914872197
## Uridine_HMDB0000296	0.4972316776
## Stigmasterol_HMDB0000937	0.4187504898
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.2703677204
## Sucrose_HMDB0000258	-0.1600955153
## MG.18.0e.0.0.0.0._HMDB0011143	0.4694138959
## Trehalose_HMDB0000975	0.0135404581
## D.Maltose_HMDB0000163	0.0173634618
## Lactitol_HMDB0040937	0.6300319231
## Xanthylic.acid_HMDB0001554	-0.1806447687
## Adenosine.monophosphate_HMDB0000045	0.4775716143
## Cholesterol_HMDB0000067	0.4770738111
## Lathosterol_HMDB0001170	0.1857503864
## X7b.Hydroxycholesterol_.HMDB0006119	0.3746856857
##	
## Dimethylglycine_HMDB0000092	D.Tagatose_HMDB0003418 Psicose_1
## Glyoxylic.acid_HMDB0000119	0.8772591944 0.095802092
## Pyruvic.acid_HMDB0000243	0.8760717510 0.096560310
## L.Lactic.acid_HMDB0000190	-0.3146326375 -0.239990292
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.5924343769 -0.150526351
## Glycolic.acid_HMDB0000115	-0.0497832816 -0.232330694
## Caproic.acid_HMDB0000535	0.5001636703 -0.167998093
## L.Alanine_HMDB0000161	0.9086703518 -0.066357508
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.6159775001 -0.168399465
## Glycine_HMDB0000123	-0.0244217571 0.146755847
## Oxalic.acid_HMDB0002329	-0.4933860196 -0.134575640
## Hydroxylamine_HMDB0003338	0.6470124553 -0.378114737
## X2.Hydroxybutyric.acid_HMDB0000008	-0.1942995906 0.089104559
## Acetoacetic.acid_HMDB0000060	0.3294734015 -0.332774311
## Hydroxypropionic.acid_HMDB0000700	0.2953251056 -0.175990207
## Pyruvic.acid_HMDB0000243.1	-0.4271413780 -0.398218260
## X3.Hydroxybutyric.acid_HMDB0000357	-0.2101875041 0.031541093
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.2527594679 -0.332282901
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.2472010308 -0.376212847
## D.Alpha.aminobutyric.acid_HMDB0000650	0.5131826000 -0.150987532
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.6012390474 -0.247522461
## Beta.Alanine_HMDB0000056	0.3039830638 -0.218058369
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.6999069467 -0.311847359
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.0292665874 -0.212191855
## Malonic.acid_HMDB0000691	-0.0397865064 -0.085141497
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.2474155678 -0.187921974
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.8483563903 -0.128022389
## Ketoleucine_HMDB0000695	-0.4107066973 -0.385641119
## L.Valine_HMDB0000883	0.4361928726 0.007211222
## ITSD_Valine	-0.5929514421 -0.325131539
## Urea_HMDB0000294	-0.6541610459 -0.335088366
## Benzoic.acid_HMDB0001870	-0.3311808690 -0.130530221
## Caprylic.acid_HMDB0000482	0.3159574544 -0.303142730
## Glycerol_HMDB0000131	0.8623850779 0.010344997
## Ethanolamine_HMDB0000149	-0.7381681773 -0.202762835
	-0.6553692644 -0.130568322

## L.Leucine_HMDB0000687	-0.6480766400	-0.324059641
## Acetylglycine_HMDB0000532	0.3966990820	-0.294259159
## L.Isoleucine_HMDB0000172	-0.6628436572	-0.195936932
## Nicotinic.acid_HMDB0001488	0.3103766610	-0.142595969
## Maleic.acid_HMDB0000176	0.5873594481	-0.194984221
## L.Proline_HMDB0000162	-0.3290777653	-0.445262956
## Phenylacetic.acid_HMDB0000209	0.7919978923	-0.152121924
## Succinic.acid_HMDB0000254	-0.3403981563	-0.408429221
## Glycine_HMDB0000123.1	-0.6520102918	-0.188246850
## Methylsuccinic.acid_HMDB0001844	0.0761709261	-0.369547352
## Glyceric.acid_HMDB0000139	0.6021439259	-0.181280108
## Fumaric.acid_HMDB0000134	-0.3281554005	-0.142856120
## Uracil_HMDB0000300	-0.2449789671	-0.046285808
## Pelargonic.acid_HMDB0000847	0.9285132105	0.007219486
## L.Serine_HMDB0000187	-0.5966200198	-0.154511967
## L.Threonine_HMDB0000167	-0.5695147307	-0.169860453
## Mesaconic.acid_HMDB0000749	0.1754633548	-0.077946736
## Glutaric.acid_HMDB0000661	0.4310090153	-0.234338089
## Thymine_HMDB0000262	-0.4117168889	-0.020493927
## Beta.Alanine_HMDB0000056.1	-0.8400550599	-0.127244984
## L.Homoserine_HMDB0000719	0.2469563883	-0.066918949
## Capric.acid_HMDB0000511	0.3648790530	-0.099114554
## Citramalic.acid_HMDB0000426	-0.3509216707	-0.079758122
## Malic.acid_HMDB0000744	0.6487780027	-0.235543667
## Niacinamide_HMDB0001406	-0.5800260597	-0.067264870
## Adipic.acid_HMDB0000448	-0.5066734051	-0.042691211
## D.Threitol_HMDB0004136	-0.0383737983	-0.012756562
## Dihydrouracil_HMDB0000076	-0.1095704004	-0.070562332
## Erythritol_HMDB0002994	-0.0598099305	-0.227901517
## N.Acetylserine_HMDB0002931	-0.4519668689	-0.143947501
## L.Aspartic.acid_HMDB0000191	-0.6110179315	-0.139561717
## L.Methionine_HMDB0000696	-0.8922449346	-0.073655056
## X4.Hydroxyproline_HMDB0000725	-0.4894166754	-0.186793582
## Pyroglutamic.acid_HMDB0000267	-0.5350636577	-0.178030577
## Cytosine_HMDB0000630	-0.1660970493	0.189552465
## Gamma.Aminobutyric.acid_HMDB0000112	-0.1504338730	-0.322949652
## Threonic.acid_HMDB0000943	0.6577421838	-0.095190099
## L.Cysteine_HMDB0000574	0.5166162411	-0.058336085
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.8598808606	-0.235353767
## Creatinine_HMDB0000562	-0.8246190538	-0.228526607
## X3.Hydroxyglutaric.acid_HMDB0000428	0.8221614936	-0.019012703
## Oxoglutaric.acid_HMDB0000208	0.1594471852	-0.206298056
## Phenylpyruvic.acid_HMDB0000205	0.4705309897	0.138207857
## Pimelic.acid_HMDB0000857	-0.4190646953	-0.011980258
## Phenyllactic.acid_HMDB0000779	0.6718701098	0.112133910
## Phosphoenolpyruvic.acid_HMDB0000263	0.8650173553	0.190147412
## Ornithine_HMDB0000214	-0.6961441790	-0.102731152
## Hypotaurine_HMDB0000965	-0.5680176533	-0.073531255
## Triethanolamine_HMDB0032538	-0.5606630795	0.018158088
## X2.Aminobenzoic.acid_HMDB0001123	-0.8698976410	-0.086385872
## L.Glutamic.acid_HMDB0000148	-0.7706237992	-0.045641069
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.7173503181	-0.175401960
## X5.Aminopentanoic.acid_HMDB0003355	0.2592497249	0.287308314
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.5297747031	0.108041865

## L.Phenylalanine_HMDB0000159	-0.8514993704	-0.142546245
## Dodecanoic.acid_HMDB0000638	-0.4057367456	-0.240913237
## Lyxose_HMDB0003402_1	0.9724369427	-0.215733918
## D.Xylose_HMDB0000098	0.1002617733	0.871408230
## Lyxose_HMDB0003402_2	-0.0582611603	0.851212882
## D.Arabinose_HMDB0029942	0.9847222600	-0.162440846
## L.Asparagine_HMDB0000168	-0.6850585447	0.048451916
## D.Ribulose_HMDB0000621	0.7673104696	0.353418023
## D.Ribose_HMDB0000283	0.9743188336	-0.167879573
## D.Xylulose_HMDB0001644	0.7506199009	0.395506532
## X3.Sulfinoalanine_HMDB0000996	-0.5063556330	0.023370374
## Suberic.acid_HMDB0000893	-0.3143238908	-0.039413741
## L.Lysine_HMDB0000182	-0.6474109396	-0.097700511
## Levoglucosan_HMDB0000640	-0.0820891105	0.894229230
## D.Arabitol_HMDB0000568	-0.1059663057	-0.196462357
## Ribitol_HMDB0000508	0.0782468020	0.033061721
## cis.Aconitic.acid_HMDB0000072	-0.1017418724	0.898803298
## Quinolinic.acid_HMDB0000232	0.2252975489	0.094123573
## Putrescine_HMDB0001414	0.1471968620	-0.274829627
## Glycerol.3.phosphate_HMDB0000126	0.6947850976	-0.136652627
## Vanillic.acid_HMDB0000484	-0.3960231062	0.120972059
## L.Glutamine_HMDB0000641	-0.4857773355	0.182178384
## X2.Phosphoglyceric.acid_HMDB0000362	0.2529846204	0.166637139
## Azelaic.acid_HMDB0000784	0.1754223206	-0.120128930
## L.Dihydroorotic.acid_HMDB0003349	0.9799554155	-0.121678907
## O.Phosphoethanolamine_HMDB0000224	-0.5998136770	-0.279040050
## X3.Phosphoglyceric.acid_HMDB0000807	0.2454196310	0.172871613
## Isocitric.acid_HMDB0000193	0.0001346555	-0.173329370
## Hypoxanthine_HMDB0000157	-0.3145290362	0.215359371
## Citric.acid_HMDB0000094	0.6418610784	0.131318433
## L.Arginine_HMDB0000517	0.3359282848	0.047365207
## Ornithine_HMDB0000214.1	-0.8286319714	-0.045891938
## Dopamine_HMDB0000073	-0.8218258508	-0.050348931
## Myristic.acid_HMDB0000806	-0.7439875712	-0.186694182
## X1.5.Anhydrosorbitol_HMDB0002712	0.4000725001	0.111140834
## D.Tagatose_HMDB0003418	1.0000000000	-0.148819044
## Psicose_1	-0.1488190445	1.0000000000
## Sebacic.acid_HMDB0000792	-0.3827644405	-0.105626607
## D.Fructose_HMDB0000660	0.9232631070	-0.192523663
## Gluconolactone_HMDB0000150	0.8186732914	0.113813637
## L.Sorbose_HMDB0001266	0.9216038005	-0.206654489
## D.Mannose_HMDB0000169	-0.9074105225	0.181463246
## Hydroxyphenyllactic.acid_HMDB0000755	-0.0265731699	-0.144971294
## D.Glucose_HMDB0000122	-0.8802151568	0.298060154
## N.Acetylglutamine_HMDB0006029	-0.8844043624	0.222420946
## L.Lysine_HMDB0000182.1	-0.8900711639	-0.069313577
## D.Mannose_HMDB0000169.1	-0.9395657052	0.109103103
## Tyramine_HMDB0000306	-0.8875769728	-0.066458053
## L.Histidine_HMDB0000177	-0.9087699415	-0.064251000
## D.Glucose_HMDB0000122.1	-0.8865757279	0.218917416
## X1.Hexadecanol_HMDB0003424	0.2340020881	0.033758047
## L.Tyrosine_HMDB0000158	-0.8302372895	0.003299947
## Mannitol_HMDB0000765	-0.5899754184	0.112571578
## Sorbitol_HMDB0000247	0.1062304181	-0.093354961

## ITSD_Sorbitol	-0.5876977641	-0.024863621
## Galacturonic.acid_HMDB0002545	0.0936303461	0.192639639
## Pantothenic.acid_HMDB0000210	0.3503327269	-0.246249563
## Palmitoleic.acid_HMDB0003229	-0.6244423325	-0.260254285
## Xanthine_HMDB0000292	-0.4235008473	0.004537933
## Gluconic.acid_HMDB0000625	0.6010652792	0.225809246
## Palmitic.acid_HMDB0000220	-0.4801668533	-0.152986120
## Glucaric.acid_HMDB0000663	-0.5994187633	0.056608920
## N.Acetylmannosamine_HMDB0001129	-0.5696890234	0.098074019
## N.Acetyl.D.glucosamine_HMDB0000215	-0.7947086182	0.158378781
## D.Ribulose.5.phosphate_HMDB0000618	0.9042595876	-0.003866596
## Uric.acid_HMDB0000289	-0.7565153833	0.151561916
## D.Ribose.5.phosphate_HMDB0001548	0.9307080132	-0.085905333
## myo.Inositol_HMDB0000211	-0.3046215352	-0.128471915
## D.Ribose.5.phosphate_HMDB0001548.1	0.9294840237	0.041038482
## Heptadecanoic.acid_HMDB0002259	0.4956462580	-0.012641827
## Octadecanol_HMDB0002350	0.3860283819	-0.122220022
## Glutathione_HMDB0000125	-0.0126009915	0.202038038
## Linoleic.acid_HMDB0000673	-0.3955687734	-0.265698627
## Oleic.acid_HMDB0000207	-0.5741230351	-0.251663098
## Elaidic.acid_HMDB0000573	-0.5551694605	-0.229596327
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.8705805764	0.169454654
## Stearic.acid_HMDB0000827	-0.0337345726	-0.126772921
## L.Tryptophan_HMDB0000929	-0.0594187799	-0.111355000
## Fructose.1.phosphate_HMDB0001076	0.8905466100	-0.191689307
## Mannose.6.phosphate_HMDB0001078	0.3292581138	0.295669468
## Arachidonic.acid_HMDB0001043	-0.5111523078	-0.187309231
## Glucose.6.phosphate_HMDB0001401	0.8745285418	-0.222826358
## X6.Phosphogluconic.acid_HMDB0001316	0.3173020128	-0.167258302
## Inositol.phosphate_HMDB0002985	0.2040690997	-0.095976584
## Uridine_HMDB0000296	-0.0232434910	0.041602947
## Stigmasterol_HMDB0000937	-0.1948055157	-0.090239503
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.0659523434	0.333975965
## Sucrose_HMDB0000258	-0.6400788037	0.047770688
## MG.18.Oe.0.0.0.0._HMDB0011143	0.0998722770	-0.245101197
## Trehalose_HMDB0000975	0.1431451071	-0.086041355
## D.Maltose_HMDB0000163	0.1410376504	-0.086948818
## Lactitol_HMDB00040937	0.1853625060	-0.037209466
## Xanthylic.acid_HMDB0001554	0.4752266678	0.367007383
## Adenosine.monophosphate_HMDB0000045	0.9023644181	-0.098121693
## Cholesterol_HMDB0000067	-0.1103858140	0.213372605
## Lathosterol_HMDB0001170	-0.3599998111	0.008059730
## X7b.Hydroxycholesterol_.HMDB0006119	0.6498878739	0.144176255
##	Sebacic.acid_HMDB0000792	
## Dimethylglycine_HMDB0000092	-0.353391984	
## Glyoxylic.acid_HMDB0000119	-0.358733337	
## Pyruvic.acid_HMDB0000243	0.817311914	
## L.Lactic.acid_HMDB0000190	0.763617699	
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.634541902	
## Glycolic.acid_HMDB0000115	0.153577672	
## Caproic.acid_HMDB0000535	-0.246475237	
## L.Alanine_HMDB0000161	0.748173836	
## Alpha.ketoisovaleric.acid_HMDB0000019	0.510252520	
## Glycine_HMDB0000123	0.682884031	

## Oxalic.acid_HMDB0002329	-0.248269471
## Hydroxylamine_HMDB0003338	0.361700028
## X2.Hydroxybutyric.acid_HMDB0000008	0.478114445
## Acetoacetic.acid_HMDB0000060	0.184069281
## Hydroxypropionic.acid_HMDB0000700	0.642101662
## Pyruvic.acid_HMDB0000243.1	0.515435565
## X3.Hydroxybutyric.acid_HMDB0000357	0.398583000
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.512608401
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.183286697
## D.Alpha.aminobutyric.acid_HMDB0000650	0.683825269
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.383414390
## Beta.Alanine_HMDB0000056	0.591056241
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.437198872
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.565971178
## Malonic.acid_HMDB0000691	0.590362995
## X3.Aminoisobutanoic.acid_HMDB0003911	0.549714328
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.707738992
## Ketoleucine_HMDB0000695	0.347803094
## L.Valine_HMDB0000883	0.770886680
## ITSD_Valine	0.784335998
## Urea_HMDB0000294	0.750082748
## Benzoic.acid_HMDB0001870	0.043259892
## Caprylic.acid_HMDB0000482	-0.152352090
## Glycerol_HMDB0000131	0.688439401
## Ethanolamine_HMDB0000149	0.770884842
## L.Leucine_HMDB0000687	0.727746821
## Acetyl glycine_HMDB0000532	0.467812226
## L.Isoleucine_HMDB0000172	0.747776130
## Nicotinic.acid_HMDB0001488	-0.051092865
## Maleic.acid_HMDB0000176	0.234473826
## L.Proline_HMDB0000162	0.662013186
## Phenylacetic.acid_HMDB0000209	-0.050166659
## Succinic.acid_HMDB0000254	0.802498488
## Glycine_HMDB0000123.1	0.710487788
## Methylsuccinic.acid_HMDB0001844	0.330493213
## Glyceric.acid_HMDB0000139	-0.059645436
## Fumaric.acid_HMDB0000134	0.872608209
## Uracil_HMDB0000300	0.692170985
## Pelargonic.acid_HMDB0000847	-0.251141731
## L.Serine_HMDB0000187	0.633686675
## L.Threonine_HMDB0000167	0.782786483
## Mesaconic.acid_HMDB0000749	0.542637383
## Glutaric.acid_HMDB0000661	0.337965985
## Thymine_HMDB0000262	0.548005503
## Beta.Alanine_HMDB0000056.1	0.643301794
## L.Homoserine_HMDB0000719	0.057103464
## Capric.acid_HMDB0000511	0.053789439
## Citramalic.acid_HMDB0000426	0.509221336
## Malic.acid_HMDB0000744	0.210120254
## Niacinamide_HMDB0001406	0.819750773
## Adipic.acid_HMDB0000448	0.669463002
## D.Threitol_HMDB0004136	0.471005117
## Dihydrouracil_HMDB0000076	0.636847447
## Erythritol_HMDB0002994	0.760071397

## N.Acetylserine_HMDB0002931	0.665662544
## L.Aspartic.acid_HMDB0000191	0.712189842
## L.Methionine_HMDB0000696	0.597057576
## X4.Hydroxyproline_HMDB0000725	0.817607844
## Pyroglutamic.acid_HMDB0000267	0.701916714
## Cytosine_HMDB0000630	0.569573379
## Gamma.Aminobutyric.acid_HMDB0000112	0.384894729
## Threonic.acid_HMDB0000943	0.161380558
## L.Cysteine_HMDB0000574	0.294208741
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.005996838
## Creatinine_HMDB0000562	0.495519663
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.202722283
## Oxoglutaric.acid_HMDB0000208	0.161185609
## Phenylpyruvic.acid_HMDB0000205	-0.381585098
## Pimelic.acid_HMDB0000857	0.322529093
## Phenyllactic.acid_HMDB0000779	-0.165612840
## Phosphoenolpyruvic.acid_HMDB0000263	-0.474629673
## Ornithine_HMDB0000214	0.417002191
## Hypotaurine_HMDB0000965	0.711679947
## Triethanolamine_HMDB0032538	0.689998331
## X2.Aminobenzoic.acid_HMDB0001123	0.625649265
## L.Glutamic.acid_HMDB0000148	0.664834021
## X4.Hydroxybenzoic.acid_HMDB0000500	0.777896749
## X5.Aminopentanoic.acid_HMDB0003355	0.451316476
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.080023665
## L.Phenylalanine_HMDB0000159	0.671486761
## Dodecanoic.acid_HMDB0000638	0.551914841
## Lyxose_HMDB0003402_1	-0.320578560
## D.Xylose_HMDB0000098	-0.332388643
## Lyxose_HMDB0003402_2	-0.223670972
## D.Arabinose_HMDB0029942	-0.415480074
## L.Asparagine_HMDB0000168	0.340994797
## D.Ribulose_HMDB0000621	-0.434186339
## D.Ribose_HMDB0000283	-0.403290147
## D.Xylulose_HMDB0001644	-0.419296258
## X3.Sulfinioalanine_HMDB0000996	0.122789111
## Suberic.acid_HMDB0000893	0.603112799
## L.Lysine_HMDB0000182	0.239121222
## Levoglucosan_HMDB0000640	-0.235757152
## D.Arabitol_HMDB0000568	0.455064146
## Ribitol_HMDB0000508	0.307888840
## cis.Aconitic.acid_HMDB0000072	-0.182613657
## Quinolinic.acid_HMDB0000232	0.318569166
## Putrescine_HMDB0001414	0.309518226
## Glycerol.3.phosphate_HMDB0000126	-0.446974797
## Vanillic.acid_HMDB0000484	0.704285068
## L.Glutamine_HMDB0000641	0.104936344
## X2.Phosphoglyceric.acid_HMDB0000362	0.527658837
## Azelaic.acid_HMDB0000784	0.082585748
## L.Dihydroorotic.acid_HMDB0003349	-0.394219278
## O.Phosphoethanolamine_HMDB0000224	0.323647817
## X3.Phosphoglyceric.acid_HMDB0000807	0.493142645
## Isocitric.acid_HMDB0000193	0.716092987
## Hypoxanthine_HMDB0000157	-0.389313885

## Citric.acid_HMDB0000094	0.155646547
## L.Arginine_HMDB0000517	-0.052090026
## Ornithine_HMDB0000214.1	0.628698800
## Dopamine_HMDB0000073	0.634835553
## Myristic.acid_HMDB0000806	0.688215865
## X1.5.Anhydrosorbitol_HMDB0002712	0.480765664
## D.Tagatose_HMDB0003418	-0.382764441
## Psicose_1	-0.105626607
## Sebacic.acid_HMDB0000792	1.000000000
## D.Fructose_HMDB0000660	-0.284670058
## Gluconolactone_HMDB0000150	-0.247819202
## L.Sorbose_HMDB0001266	-0.291041839
## D.Mannose_HMDB0000169	0.617284695
## Hydroxyphenyllactic.acid_HMDB0000755	0.532940664
## D.Glucose_HMDB0000122	0.541561192
## N.Acetylglutamine_HMDB0006029	0.611956796
## L.Lysine_HMDB0000182.1	0.577870861
## D.Mannose_HMDB0000169.1	0.576323526
## Tyramine_HMDB0000306	0.557989999
## L.Histidine_HMDB0000177	0.555599126
## D.Glucose_HMDB0000122.1	0.519847832
## X1.Hexadecanol_HMDB0003424	0.110765132
## L.Tyrosine_HMDB0000158	0.541691046
## Mannitol_HMDB0000765	0.789816996
## Sorbitol_HMDB0000247	-0.217300162
## ITSD_Sorbitol	0.765772409
## Galacturonic.acid_HMDB0002545	0.471203330
## Pantothenic.acid_HMDB0000210	0.427839701
## Palmitoleic.acid_HMDB0003229	0.331831706
## Xanthine_HMDB0000292	0.150887906
## Gluconic.acid_HMDB0000625	-0.069845446
## Palmitic.acid_HMDB0000220	0.457089064
## Glucaric.acid_HMDB0000663	0.593857308
## N.Acetylmannosamine_HMDB0001129	0.440219716
## N.Acetyl.D.glucosamine_HMDB0000215	0.722053026
## D.Ribulose.5.phosphate_HMDB0000618	-0.358437693
## Uric.acid_HMDB0000289	0.209945502
## D.Ribose.5.phosphate_HMDB0001548	-0.489337688
## myo.Inositol_HMDB0000211	0.775503679
## D.Ribose.5.phosphate_HMDB0001548.1	-0.550030729
## Heptadecanoic.acid_HMDB0002259	0.249840663
## Octadecanol_HMDB0002350	0.308370291
## Glutathione_HMDB0000125	0.088582360
## Linoleic.acid_HMDB0000673	0.155532379
## Oleic.acid_HMDB0000207	0.216647162
## Elaidic.acid_HMDB0000573	0.364599276
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.368137284
## Stearic.acid_HMDB0000827	0.319452641
## L.Tryptophan_HMDB0000929	0.339400128
## Fructose.1.phosphate_HMDB0001076	-0.170856330
## Mannose.6.phosphate_HMDB0001078	-0.505100571
## Arachidonic.acid_HMDB0001043	0.004825921
## Glucose.6.phosphate_HMDB0001401	-0.175970016
## X6.Phosphogluconic.acid_HMDB0001316	-0.052578731

## Inositol.phosphate_HMDB0002985	0.148540493
## Uridine_HMDB0000296	0.566837215
## Stigmasterol_HMDB0000937	0.556425433
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.107372779
## Sucrose_HMDB0000258	0.406816969
## MG.18.0e.0.0.0.0._HMDB0011143	0.247444880
## Trehalose_HMDB0000975	-0.184383692
## D.Maltose_HMDB0000163	-0.177858922
## Lactitol_HMDB0040937	0.278395769
## Xanthylic.acid_HMDB0001554	-0.618734163
## Adenosine.monophosphate_HMDB0000045	-0.315430725
## Cholesterol_HMDB0000067	0.274797752
## Lathosterol_HMDB0001170	0.180269530
## X7b.Hydroxycholesterol_.HMDB0006119	0.009603345
## D.Fructose_HMDB0000660	
## Dimethylglycine_HMDB0000092	0.746251661
## Glyoxylic.acid_HMDB0000119	0.744944216
## Pyruvic.acid_HMDB0000243	-0.083776502
## L.Lactic.acid_HMDB0000190	-0.478940254
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.040070346
## Glycolic.acid_HMDB0000115	0.551685070
## Caproic.acid_HMDB0000535	0.905370856
## L.Alanine_HMDB0000161	-0.538830455
## Alpha.ketoisovaleric.acid_HMDB0000019	0.050930579
## Glycine_HMDB0000123	-0.295722803
## Oxalic.acid_HMDB0002329	0.690673299
## Hydroxylamine_HMDB0003338	-0.141096957
## X2.Hydroxybutyric.acid_HMDB0000008	0.322533116
## Acetoacetic.acid_HMDB0000060	0.379291684
## Hydroxypropionic.acid_HMDB0000700	-0.342228879
## Pyruvic.acid_HMDB0000243.1	-0.087975527
## X3.Hydroxybutyric.acid_HMDB0000357	0.328857589
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.293262779
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.478942794
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.603611070
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.168972770
## Beta.Alanine_HMDB0000056	-0.599965045
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.099612503
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.009467341
## Malonic.acid_HMDB0000691	-0.010439884
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.768738478
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.354018395
## Ketoleucine_HMDB0000695	0.444276798
## L.Valine_HMDB0000883	-0.542006450
## ITSD_Valine	-0.569508297
## Urea_HMDB0000294	-0.235376869
## Benzoic.acid_HMDB0001870	0.230534372
## Caprylic.acid_HMDB0000482	0.801618563
## Glycerol_HMDB0000131	-0.629175199
## Ethanolamine_HMDB0000149	-0.531937066
## L.Leucine_HMDB0000687	-0.579367494
## Acetyl glycine_HMDB0000532	0.466998577
## L.Isoleucine_HMDB0000172	-0.577563539
## Nicotinic.acid_HMDB0001488	0.310529203

## Maleic.acid_HMDB0000176	0.693754270
## L.Proline_HMDB0000162	-0.268370055
## Phenylacetic.acid_HMDB0000209	0.843532098
## Succinic.acid_HMDB0000254	-0.199273574
## Glycine_HMDB0000123.1	-0.529244652
## Methylsuccinic.acid_HMDB0001844	0.163791093
## Glyceric.acid_HMDB0000139	0.717633651
## Fumaric.acid_HMDB0000134	-0.210226743
## Uracil_HMDB0000300	-0.096570969
## Pelargonic.acid_HMDB0000847	0.807601538
## L.Serine_HMDB0000187	-0.492487535
## L.Threonine_HMDB0000167	-0.459210323
## Mesaconic.acid_HMDB0000749	0.115504093
## Glutaric.acid_HMDB0000661	0.481275387
## Thymine_HMDB0000262	-0.305894527
## Beta.Alanine_HMDB0000056.1	-0.802906769
## L.Homoserine_HMDB0000719	0.206297969
## Capric.acid_HMDB0000511	0.319402174
## Citramalic.acid_HMDB0000426	-0.194454881
## Malic.acid_HMDB0000744	0.744332788
## Niacinamide_HMDB0001406	-0.535226057
## Adipic.acid_HMDB0000448	-0.435491937
## D.Threitol_HMDB0004136	0.074038254
## Dihydrouracil_HMDB0000076	-0.129568558
## Erythritol_HMDB0002994	-0.025346340
## N.Acetylserine_HMDB0002931	-0.316664338
## L.Aspartic.acid_HMDB0000191	-0.551992189
## L.Methionine_HMDB0000696	-0.813408059
## X4.Hydroxyproline_HMDB0000725	-0.416574438
## Pyroglutamic.acid_HMDB0000267	-0.462396506
## Cytosine_HMDB0000630	-0.156183345
## Gamma.Aminobutyric.acid_HMDB0000112	-0.017164936
## Threonic.acid_HMDB0000943	0.615887554
## L.Cysteine_HMDB0000574	0.476726916
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.841786779
## Creatinine_HMDB0000562	-0.754629611
## X3.Hydroxyglutaric.acid_HMDB0000428	0.841789469
## Oxoglutaric.acid_HMDB0000208	0.191306833
## Phenylpyruvic.acid_HMDB0000205	0.483548250
## Pimelic.acid_HMDB0000857	-0.396684841
## Phenyllactic.acid_HMDB0000779	0.611926407
## Phosphoenolpyruvic.acid_HMDB0000263	0.766829737
## Ornithine_HMDB0000214	-0.627267854
## Hypotaurine_HMDB0000965	-0.544779363
## Triethanolamine_HMDB0032538	-0.438803837
## X2.Aminobenzoic.acid_HMDB0001123	-0.758259241
## L.Glutamic.acid_HMDB0000148	-0.774938986
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.616685005
## X5.Aminopentanoic.acid_HMDB0003355	0.355867087
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.616398318
## L.Phenylalanine_HMDB0000159	-0.774321675
## Dodecanoic.acid_HMDB0000638	-0.320029098
## Lyxose_HMDB0003402_1	0.893620931
## D.Xylose_HMDB0000098	0.043085062

## Lyxose_HMDB0003402_2	-0.077752084
## D.Arabinose_HMDB0029942	0.932472379
## L.Asparagine_HMDB0000168	-0.706615879
## D.Ribulose_HMDB0000621	0.795508418
## D.Ribose_HMDB0000283	0.932365891
## D.Xylulose_HMDB0001644	0.771166860
## X3.Sulfinioalanine_HMDB0000996	-0.582655560
## Suberic.acid_HMDB0000893	-0.199103997
## L.Lysine_HMDB0000182	-0.607276809
## Levoglucosan_HMDB0000640	-0.133437703
## D.Arabitol_HMDB0000568	0.077943063
## Ribitol_HMDB0000508	0.074941160
## cis.Aconitic.acid_HMDB0000072	-0.164785033
## Quinolinic.acid_HMDB0000232	0.273224324
## Putrescine_HMDB0001414	0.277726944
## Glycerol.3.phosphate_HMDB0000126	0.617987913
## Vanillic.acid_HMDB0000484	-0.323512332
## L.Glutamine_HMDB0000641	-0.573430635
## X2.Phosphoglyceric.acid_HMDB0000362	0.303386258
## Azelaic.acid_HMDB0000784	0.169102757
## L.Dihydroorotic.acid_HMDB0003349	0.942542380
## O.Phosphoethanolamine_HMDB0000224	-0.531150833
## X3.Phosphoglyceric.acid_HMDB0000807	0.284807219
## Isocitric.acid_HMDB0000193	0.047446325
## Hypoxanthine_HMDB0000157	-0.454605188
## Citric.acid_HMDB0000094	0.589637674
## L.Arginine_HMDB0000517	0.263806074
## Ornithine_HMDB0000214.1	-0.741501378
## Dopamine_HMDB0000073	-0.733628030
## Myristic.acid_HMDB0000806	-0.638823636
## X1.5.Anhydrosorbitol_HMDB0002712	0.346334169
## D.Tagatose_HMDB0003418	0.923263107
## Psicose_1	-0.192523663
## Sebacic.acid_HMDB0000792	-0.284670058
## D.Fructose_HMDB0000660	1.000000000
## Gluconolactone_HMDB0000150	0.854188093
## L.Sorbose_HMDB0001266	0.998564042
## D.Mannose_HMDB0000169	-0.854358239
## Hydroxyphenyllactic.acid_HMDB0000755	0.066722121
## D.Glucose_HMDB0000122	-0.822226339
## N.Acetylglutamine_HMDB0006029	-0.849527261
## L.Lysine_HMDB0000182.1	-0.831505487
## D.Mannose_HMDB0000169.1	-0.890999003
## Tyramine_HMDB0000306	-0.835648229
## L.Histidine_HMDB0000177	-0.850176709
## D.Glucose_HMDB0000122.1	-0.879001595
## X1.Hexadecanol_HMDB0003424	0.328047465
## L.Tyrosine_HMDB0000158	-0.803613013
## Mannitol_HMDB0000765	-0.520807094
## Sorbitol_HMDB0000247	0.079612498
## ITSD_Sorbitol	-0.534403459
## Galacturonic.acid_HMDB0002545	0.023002859
## Pantothenic.acid_HMDB0000210	0.516629251
## Palmitoleic.acid_HMDB0003229	-0.568505245

## Xanthine_HMDB0000292	-0.434844207
## Gluconic.acid_HMDB0000625	0.564117763
## Palmitic.acid_HMDB0000220	-0.351997482
## Glucaric.acid_HMDB0000663	-0.519271321
## N.Acetylmannosamine_HMDB0001129	-0.601096835
## N.Acetyl.D.glucosamine_HMDB0000215	-0.717610837
## D.Ribulose.5.phosphate_HMDB0000618	0.838152333
## Uric.acid_HMDB0000289	-0.805309383
## D.Ribose.5.phosphate_HMDB0001548	0.848140574
## myo.Inositol_HMDB0000211	-0.204971966
## D.Ribose.5.phosphate_HMDB0001548.1	0.858943108
## Heptadecanoic.acid_HMDB0002259	0.470493217
## Octadecanol_HMDB0002350	0.464072391
## Glutathione_HMDB0000125	-0.208652455
## Linoleic.acid_HMDB0000673	-0.335015778
## Oleic.acid_HMDB0000207	-0.534436513
## Elaidic.acid_HMDB0000573	-0.513110474
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.813585525
## Stearic.acid_HMDB0000827	0.110748507
## L.Tryptophan_HMDB0000929	0.100552840
## Fructose.1.phosphate_HMDB0001076	0.824620687
## Mannose.6.phosphate_HMDB0001078	0.230727229
## Arachidonic.acid_HMDB0001043	-0.519222507
## Glucose.6.phosphate_HMDB0001401	0.830158215
## X6.Phosphogluconic.acid_HMDB0001316	0.344608182
## Inositol.phosphate_HMDB0002985	0.191297453
## Uridine_HMDB0000296	0.040194466
## Stigmasterol_HMDB0000937	-0.024323962
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.009057538
## Sucrose_HMDB0000258	-0.522572275
## MG.18.0e.0.0.0.0._HMDB0011143	0.177781778
## Trehalose_HMDB0000975	0.130251529
## D.Maltose_HMDB0000163	0.131355096
## Lactitol_HMDB00040937	0.038959622
## Xanthylic.acid_HMDB0001554	0.316985974
## Adenosine.monophosphate_HMDB0000045	0.864168322
## Cholesterol_HMDB0000067	-0.208123122
## Lathosterol_HMDB0001170	-0.364808158
## X7b.Hydroxycholesterol_.HMDB0006119	0.612860035
##	Gluconolactone_HMDB0000150
## Dimethylglycine_HMDB0000092	0.843417506
## Glyoxylic.acid_HMDB0000119	0.840471093
## Pyruvic.acid_HMDB0000243	-0.164509295
## L.Lactic.acid_HMDB0000190	-0.501742856
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.024548909
## Glycolic.acid_HMDB0000115	0.596660190
## Caproic.acid_HMDB0000535	0.925656112
## L.Alanine_HMDB0000161	-0.575076982
## Alpha.ketoisovaleric.acid_HMDB0000019	0.116807592
## Glycine_HMDB0000123	-0.427562883
## Oxalic.acid_HMDB0002329	0.394089633
## Hydroxylamine_HMDB0003338	0.054512829
## X2.Hydroxybutyric.acid_HMDB0000008	0.238079997
## Acetoacetic.acid_HMDB0000060	0.434767931

## Hydroxypropionic.acid_HMDB0000700	-0.399923315
## Pyruvic.acid_HMDB0000243.1	-0.090217998
## X3.Hydroxybutyric.acid_HMDB0000357	0.203122574
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.162349027
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.475381239
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.647952435
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.082829632
## Beta.Alanine_HMDB0000056	-0.765044123
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.007864173
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.096092574
## Malonic.acid_HMDB0000691	-0.074273403
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.734681140
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.464269667
## Ketoleucine_HMDB0000695	0.455079009
## L.Valine_HMDB0000883	-0.563798924
## ITSD_Valine	-0.633268931
## Urea_HMDB0000294	-0.332723760
## Benzoic.acid_HMDB0001870	0.271523285
## Caprylic.acid_HMDB0000482	0.817866180
## Glycerol_HMDB0000131	-0.635124442
## Ethanolamine_HMDB0000149	-0.485714298
## L.Leucine_HMDB0000687	-0.602132668
## Acetylglycine_HMDB0000532	0.431865762
## L.Isoleucine_HMDB0000172	-0.590964389
## Nicotinic.acid_HMDB0001488	0.042391169
## Maleic.acid_HMDB0000176	0.647875421
## L.Proline_HMDB0000162	-0.354872222
## Phenylacetic.acid_HMDB0000209	0.816412869
## Succinic.acid_HMDB0000254	-0.281212376
## Glycine_HMDB0000123.1	-0.483818001
## Methylsuccinic.acid_HMDB0001844	0.123486891
## Glyceric.acid_HMDB0000139	0.745758673
## Fumaric.acid_HMDB0000134	-0.254093469
## Uracil_HMDB0000300	-0.094914112
## Pelargonic.acid_HMDB0000847	0.794689296
## L.Serine_HMDB0000187	-0.475813682
## L.Threonine_HMDB0000167	-0.472692881
## Mesaconic.acid_HMDB0000749	0.024618461
## Glutaric.acid_HMDB0000661	0.309501599
## Thymine_HMDB0000262	-0.335129254
## Beta.Alanine_HMDB0000056.1	-0.801536067
## L.Homoserine_HMDB0000719	0.365850133
## Capric.acid_HMDB0000511	0.478426292
## Citramalic.acid_HMDB0000426	-0.268794812
## Malic.acid_HMDB0000744	0.705063823
## Niacinamide_HMDB0001406	-0.567147269
## Adipic.acid_HMDB0000448	-0.364922953
## D.Threitol_HMDB0004136	0.169254768
## Dihydrouracil_HMDB0000076	-0.090665687
## Erythritol_HMDB0002994	-0.073042196
## N.Acetylserine_HMDB0002931	-0.322314831
## L.Aspartic.acid_HMDB0000191	-0.512624439
## L.Methionine_HMDB0000696	-0.755404549
## X4.Hydroxyproline_HMDB0000725	-0.445804686

## Pyroglutamic.acid_HMDB0000267	-0.500673409
## Cytosine_HMDB0000630	-0.008674061
## Gamma.Aminobutyric.acid_HMDB0000112	-0.388478757
## Threonic.acid_HMDB0000943	0.618191195
## L.Cysteine_HMDB0000574	0.560182072
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.699178499
## Creatinine_HMDB0000562	-0.671200407
## X3.Hydroxyglutaric.acid_HMDB0000428	0.745174115
## Oxoglutaric.acid_HMDB0000208	-0.029040938
## Phenylpyruvic.acid_HMDB0000205	0.515790527
## Pimelic.acid_HMDB0000857	-0.646195427
## Phenyllactic.acid_HMDB0000779	0.566579891
## Phosphoenolpyruvic.acid_HMDB0000263	0.703982741
## Ornithine_HMDB0000214	-0.518217761
## Hypotaurine_HMDB0000965	-0.502041338
## Triethanolamine_HMDB0032538	-0.463030077
## X2.Aminobenzoic.acid_HMDB0001123	-0.728755806
## L.Glutamic.acid_HMDB0000148	-0.741911782
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.605746690
## X5.Aminopentanoic.acid_HMDB0003355	0.351813492
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.777025435
## L.Phenylalanine_HMDB0000159	-0.746103567
## Dodecanoic.acid_HMDB0000638	-0.246861657
## Lyxose_HMDB0003402_1	0.784931835
## D.Xylose_HMDB0000098	0.394735616
## Lyxose_HMDB0003402_2	0.264728329
## D.Arabinose_HMDB0029942	0.801726798
## L.Asparagine_HMDB0000168	-0.607380918
## D.Ribulose_HMDB0000621	0.936654195
## D.Ribose_HMDB0000283	0.790590378
## D.Xylulose_HMDB0001644	0.921619275
## X3.Sulfinoalanine_HMDB0000996	-0.512955109
## Suberic.acid_HMDB0000893	-0.217108943
## L.Lysine_HMDB0000182	-0.476463466
## Levoglucosan_HMDB0000640	0.252126007
## D.Arabitol_HMDB0000568	-0.167781917
## Ribitol_HMDB0000508	0.422823126
## cis.Aconitic.acid_HMDB0000072	0.151651930
## Quinolinic.acid_HMDB0000232	0.142428039
## Putrescine_HMDB0001414	0.005679218
## Glycerol.3.phosphate_HMDB0000126	0.426636669
## Vanillic.acid_HMDB0000484	-0.069981252
## L.Glutamine_HMDB0000641	-0.415084252
## X2.Phosphoglyceric.acid_HMDB0000362	0.330816543
## Azelaic.acid_HMDB0000784	-0.125735319
## L.Dihydroorotic.acid_HMDB0003349	0.859570798
## O.Phosphoethanolamine_HMDB0000224	-0.526854915
## X3.Phosphoglyceric.acid_HMDB0000807	0.231411571
## Isocitric.acid_HMDB0000193	0.223821493
## Hypoxanthine_HMDB0000157	-0.294929854
## Citric.acid_HMDB0000094	0.685175394
## L.Arginine_HMDB0000517	0.486813316
## Ornithine_HMDB0000214.1	-0.679302871
## Dopamine_HMDB0000073	-0.659979077

## Myristic.acid_HMDB0000806	-0.578007860
## X1.5.Anhydrosorbitol_HMDB0002712	0.312885701
## D.Tagatose_HMDB0003418	0.818673291
## Psicose_1	0.113813637
## Sebacic.acid_HMDB0000792	-0.247819202
## D.Fructose_HMDB0000660	0.854188093
## Gluconolactone_HMDB0000150	1.000000000
## L.Sorbose_HMDB0001266	0.850728343
## D.Mannose_HMDB0000169	-0.750820054
## Hydroxyphenyllactic.acid_HMDB0000755	-0.012030217
## D.Glucose_HMDB0000122	-0.708794727
## N.Acetylglutamine_HMDB0006029	-0.746266563
## L.Lysine_HMDB0000182.1	-0.753921477
## D.Mannose_HMDB0000169.1	-0.789756743
## Tyramine_HMDB0000306	-0.755599936
## L.Histidine_HMDB0000177	-0.780029000
## D.Glucose_HMDB0000122.1	-0.756933498
## X1.Hexadecanol_HMDB0003424	0.428253162
## L.Tyrosine_HMDB0000158	-0.718930005
## Mannitol_HMDB0000765	-0.590303348
## Sorbitol_HMDB0000247	0.066590913
## ITSD_Sorbitol	-0.416408888
## Galacturonic.acid_HMDB0002545	0.176569515
## Pantothenic.acid_HMDB0000210	0.500896213
## Palmitoleic.acid_HMDB0003229	-0.554056295
## Xanthine_HMDB0000292	-0.311986089
## Gluconic.acid_HMDB0000625	0.777590824
## Palmitic.acid_HMDB0000220	-0.342704372
## Glucaric.acid_HMDB0000663	-0.348028778
## N.Acetylmannosamine_HMDB0001129	-0.455477869
## N.Acetyl.D.glucosamine_HMDB0000215	-0.621320887
## D.Ribulose.5.phosphate_HMDB0000618	0.801375967
## Uric.acid_HMDB0000289	-0.597691742
## D.Ribose.5.phosphate_HMDB0001548	0.671800622
## myo.Inositol_HMDB0000211	-0.160554875
## D.Ribose.5.phosphate_HMDB0001548.1	0.820732606
## Heptadecanoic.acid_HMDB0002259	0.487175072
## Octadecanol_HMDB0002350	0.432804522
## Glutathione_HMDB0000125	-0.075357908
## Linoleic.acid_HMDB0000673	-0.348373009
## Oleic.acid_HMDB0000207	-0.512228053
## Elaidic.acid_HMDB0000573	-0.491212491
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.795976331
## Stearic.acid_HMDB0000827	0.060482972
## L.Tryptophan_HMDB0000929	0.024373018
## Fructose.1.phosphate_HMDB0001076	0.735102758
## Mannose.6.phosphate_HMDB0001078	0.216212829
## Arachidonic.acid_HMDB0001043	-0.474907770
## Glucose.6.phosphate_HMDB0001401	0.839546363
## X6.Phosphogluconic.acid_HMDB0001316	0.386355426
## Inositol.phosphate_HMDB0002985	0.247430185
## Uridine_HMDB0000296	0.078944897
## Stigmasterol_HMDB0000937	-0.096365768
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.130103505

## Sucrose_HMDB0000258	-0.506186632
## MG.18.0e.0.0.0.0._HMDB0011143	0.070462292
## Trehalose_HMDB0000975	-0.192242996
## D.Maltose_HMDB0000163	-0.191042413
## Lactitol_HMDB0040937	0.043822765
## Xanthylic.acid_HMDB0001554	0.367406685
## Adenosine.monophosphate_HMDB0000045	0.820154592
## Cholesterol_HMDB0000067	0.046512781
## Lathosterol_HMDB0001170	-0.289610640
## X7b.Hydroxycholesterol_.HMDB0006119	0.588394893
##	L.Sorbose_HMDB0001266
## Dimethylglycine_HMDB0000092	0.742681731
## Glyoxylic.acid_HMDB0000119	0.740733603
## Pyruvic.acid_HMDB0000243	-0.095893206
## L.Lactic.acid_HMDB0000190	-0.499345633
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.025205206
## Glycolic.acid_HMDB0000115	0.553711447
## Caproic.acid_HMDB0000535	0.896464452
## L.Alanine_HMDB0000161	-0.549529481
## Alpha.ketoisovaleric.acid_HMDB0000019	0.015598947
## Glycine_HMDB0000123	-0.315938270
## Oxalic.acid_HMDB0002329	0.690491683
## Hydroxylamine_HMDB0003338	-0.157401299
## X2.Hydroxybutyric.acid_HMDB0000008	0.306148011
## Acetoacetic.acid_HMDB0000060	0.359226576
## Hydroxypropionic.acid_HMDB0000700	-0.354608088
## Pyruvic.acid_HMDB0000243.1	-0.103082071
## X3.Hydroxybutyric.acid_HMDB0000357	0.310461517
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.275169569
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.472203706
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.605964846
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.151340091
## Beta.Alanine_HMDB0000056	-0.596659783
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.075376612
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.009510965
## Malonic.acid_HMDB0000691	-0.025141780
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.760923866
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.367652398
## Ketoleucine_HMDB0000695	0.412233974
## L.Valine_HMDB0000883	-0.547519266
## ITSD_Valine	-0.569978370
## Urea_HMDB0000294	-0.253084902
## Benzoic.acid_HMDB0001870	0.235085759
## Caprylic.acid_HMDB0000482	0.789478305
## Glycerol_HMDB0000131	-0.642723185
## Ethanolamine_HMDB0000149	-0.542914109
## L.Leucine_HMDB0000687	-0.587899008
## Acetyl glycine_HMDB0000532	0.467733558
## L.Isoleucine_HMDB0000172	-0.591010066
## Nicotinic.acid_HMDB0001488	0.297822689
## Maleic.acid_HMDB0000176	0.677105315
## L.Proline_HMDB0000162	-0.278952865
## Phenylacetic.acid_HMDB0000209	0.829802778
## Succinic.acid_HMDB0000254	-0.213838081

## Glycine_HMDB0000123.1	-0.543574577
## Methylsuccinic.acid_HMDB0001844	0.179151982
## Glyceric.acid_HMDB0000139	0.710022917
## Fumaric.acid_HMDB0000134	-0.229789398
## Uracil_HMDB0000300	-0.121426381
## Pelargonic.acid_HMDB0000847	0.800841867
## L.Serine_HMDB0000187	-0.510844738
## L.Threonine_HMDB0000167	-0.476036814
## Mesaconic.acid_HMDB0000749	0.120858315
## Glutaric.acid_HMDB0000661	0.463519447
## Thymine_HMDB0000262	-0.331012229
## Beta.Alanine_HMDB0000056.1	-0.806644531
## L.Homoserine_HMDB0000719	0.212667409
## Capric.acid_HMDB0000511	0.328217306
## Citramalic.acid_HMDB0000426	-0.213564316
## Malic.acid_HMDB0000744	0.727843688
## Niacinamide_HMDB0001406	-0.552347789
## Adipic.acid_HMDB0000448	-0.451253987
## D.Threitol_HMDB0004136	0.076444298
## Dihydrouracil_HMDB0000076	-0.156981531
## Erythritol_HMDB0002994	-0.043520399
## N.Acetylserine_HMDB0002931	-0.340260539
## L.Aspartic.acid_HMDB0000191	-0.569243276
## L.Methionine_HMDB0000696	-0.811872484
## X4.Hydroxyproline_HMDB0000725	-0.435015084
## Pyroglutamic.acid_HMDB0000267	-0.478599635
## Cytosine_HMDB0000630	-0.137782880
## Gamma.Aminobutyric.acid_HMDB0000112	-0.033249451
## Threonic.acid_HMDB0000943	0.602109183
## L.Cysteine_HMDB0000574	0.466592551
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.828825957
## Creatinine_HMDB0000562	-0.736822308
## X3.Hydroxyglutaric.acid_HMDB0000428	0.844402024
## Oxoglutaric.acid_HMDB0000208	0.165509412
## Phenylpyruvic.acid_HMDB0000205	0.468429414
## Pimelic.acid_HMDB0000857	-0.419175397
## Phenyllactic.acid_HMDB0000779	0.601720835
## Phosphoenolpyruvic.acid_HMDB0000263	0.761254403
## Ornithine_HMDB0000214	-0.618199086
## Hypotaurine_HMDB0000965	-0.553605682
## Triethanolamine_HMDB0032538	-0.457003549
## X2.Aminobenzoic.acid_HMDB0001123	-0.764028079
## L.Glutamic.acid_HMDB0000148	-0.771943507
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.627122490
## X5.Aminopentanoic.acid_HMDB0003355	0.321303939
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.601910039
## L.Phenylalanine_HMDB0000159	-0.773682620
## Dodecanoic.acid_HMDB0000638	-0.323502495
## Lyxose_HMDB0003402_1	0.892163844
## D.Xylose_HMDB0000098	0.034134529
## Lyxose_HMDB0003402_2	-0.088082271
## D.Arabinose_HMDB0029942	0.931415704
## L.Asparagine_HMDB0000168	-0.692104368
## D.Ribulose_HMDB0000621	0.790751249

## D.Ribose_HMDB0000283	0.934450851
## D.Xylulose_HMDB0001644	0.766032548
## X3.Sulfinioalanine_HMDB0000996	-0.553466877
## Suberic.acid_HMDB0000893	-0.227846082
## L.Lysine_HMDB0000182	-0.587761109
## Levoglucosan_HMDB0000640	-0.139791866
## D.Arabitol_HMDB0000568	0.085566118
## Ribitol_HMDB0000508	0.078610174
## cis.Aconitic.acid_HMDB0000072	-0.185635113
## Quinolinic.acid_HMDB0000232	0.253067023
## Putrescine_HMDB0001414	0.257120569
## Glycerol.3.phosphate_HMDB0000126	0.626461898
## Vanillic.acid_HMDB0000484	-0.329681293
## L.Glutamine_HMDB0000641	-0.556774869
## X2.Phosphoglyceric.acid_HMDB0000362	0.278713199
## Azelaic.acid_HMDB0000784	0.164338266
## L.Dihydroorotic.acid_HMDB0003349	0.938299434
## O.Phosphoethanolamine_HMDB0000224	-0.534821994
## X3.Phosphoglyceric.acid_HMDB0000807	0.253335765
## Isocitric.acid_HMDB0000193	0.046059926
## Hypoxanthine_HMDB0000157	-0.427295624
## Citric.acid_HMDB0000094	0.570007192
## L.Arginine_HMDB0000517	0.282020069
## Ornithine_HMDB0000214.1	-0.743920583
## Dopamine_HMDB0000073	-0.735116369
## Myristic.acid_HMDB0000806	-0.644945789
## X1.5.Anhydrosorbitol_HMDB0002712	0.333279830
## D.Tagatose_HMDB0003418	0.921603801
## Psicose_1	-0.206654489
## Sebacic.acid_HMDB0000792	-0.291041839
## D.Fructose_HMDB0000660	0.998564042
## Gluconolactone_HMDB0000150	0.850728343
## L.Sorbose_HMDB0001266	1.000000000
## D.Mannose_HMDB0000169	-0.857592563
## Hydroxyphenyllactic.acid_HMDB0000755	0.040471088
## D.Glucose_HMDB0000122	-0.825187142
## N.Acetylglutamine_HMDB0006029	-0.853433703
## L.Lysine_HMDB0000182.1	-0.825094189
## D.Mannose_HMDB0000169.1	-0.888589385
## Tyramine_HMDB0000306	-0.828781730
## L.Histidine_HMDB0000177	-0.843169968
## D.Glucose_HMDB0000122.1	-0.881312968
## X1.Hexadecanol_HMDB0003424	0.344033087
## L.Tyrosine_HMDB0000158	-0.796393257
## Mannitol_HMDB0000765	-0.532284901
## Sorbitol_HMDB0000247	0.077395505
## ITSD_Sorbitol	-0.543526407
## Galacturonic.acid_HMDB0002545	0.003347614
## Pantothenic.acid_HMDB0000210	0.517307951
## Palmitoleic.acid_HMDB0003229	-0.562485648
## Xanthine_HMDB0000292	-0.425237424
## Gluconic.acid_HMDB0000625	0.545570683
## Palmitic.acid_HMDB0000220	-0.361268896
## Glucaric.acid_HMDB0000663	-0.527501359

## N.Acetylmannosamine_HMDB0001129	-0.597647917
## N.Acetyl.D.glucosamine_HMDB0000215	-0.724232811
## D.Ribulose.5.phosphate_HMDB0000618	0.841036495
## Uric.acid_HMDB0000289	-0.786472692
## D.Ribose.5.phosphate_HMDB0001548	0.854301124
## myo.Inositol_HMDB0000211	-0.215778283
## D.Ribose.5.phosphate_HMDB0001548.1	0.857874012
## Heptadecanoic.acid_HMDB0002259	0.440644778
## Octadecanol_HMDB0002350	0.440954025
## Glutathione_HMDB0000125	-0.213816970
## Linoleic.acid_HMDB0000673	-0.333421352
## Oleic.acid_HMDB0000207	-0.526572174
## Elaidic.acid_HMDB0000573	-0.507041086
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.797993462
## Stearic.acid_HMDB0000827	0.090935330
## L.Tryptophan_HMDB0000929	0.080069467
## Fructose.1.phosphate_HMDB0001076	0.809718953
## Mannose.6.phosphate_HMDB0001078	0.227473608
## Arachidonic.acid_HMDB0001043	-0.499845331
## Glucose.6.phosphate_HMDB0001401	0.817816504
## X6.Phosphogluconic.acid_HMDB0001316	0.334697725
## Inositol.phosphate_HMDB0002985	0.204634546
## Uridine_HMDB0000296	0.035334016
## Stigmasterol_HMDB0000937	-0.046506644
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.026721588
## Sucrose_HMDB0000258	-0.524810899
## MG.18.Oe.0.0.0.0._HMD0011143	0.166476356
## Trehalose_HMDB0000975	0.139376329
## D.Maltose_HMDB0000163	0.140288184
## Lactitol_HMDB00040937	0.037153386
## Xanthylic.acid_HMDB0001554	0.322365410
## Adenosine.monophosphate_HMDB0000045	0.857653801
## Cholesterol_HMDB0000067	-0.194881138
## Lathosterol_HMDB0001170	-0.351219793
## X7b.Hydroxycholesterol_.HMD0006119	0.592149256
##	D.Mannose_HMDB0000169
## Dimethylglycine_HMDB0000092	-0.7599035356
## Glyoxylic.acid_HMDB0000119	-0.7626663034
## Pyruvic.acid_HMDB0000243	0.5027159561
## L.Lactic.acid_HMDB0000190	0.7207976418
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.3077227760
## Glycolic.acid_HMDB0000115	-0.2819845459
## Caproic.acid_HMDB0000535	-0.8516701522
## L.Alanine_HMDB0000161	0.7346292359
## Alpha.ketoisovaleric.acid_HMDB0000019	0.2943566893
## Glycine_HMDB0000123	0.6161432838
## Oxalic.acid_HMDB0002329	-0.5654301643
## Hydroxylamine_HMDB0003338	0.2684482296
## X2.Hydroxybutyric.acid_HMDB0000008	0.0155091284
## Acetoacetic.acid_HMDB0000060	-0.1607223650
## Hydroxypropionic.acid_HMDB0000700	0.5687716001
## Pyruvic.acid_HMDB0000243.1	0.3988053608
## X3.Hydroxybutyric.acid_HMDB0000357	0.0350908264
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.0656506805

## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.2193091468
## D.Alpha.aminobutyric.acid_HMDB0000650	0.7605626430
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.0005012906
## Beta.Alanine_HMDB0000056	0.7453613589
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.2118825605
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.3727280621
## Malonic.acid_HMDB0000691	0.3203341430
## X3.Aminoisobutanoic.acid_HMDB0003911	0.8715568129
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.6071531489
## Ketoleucine_HMDB0000695	-0.1218912767
## L.Valine_HMDB0000883	0.7339649553
## ITSD_Valine	0.7896258980
## Urea_HMDB0000294	0.6124051952
## Benzoic.acid_HMDB0001870	-0.2147220319
## Caprylic.acid_HMDB0000482	-0.6795789299
## Glycerol_HMDB0000131	0.7963344445
## Ethanolamine_HMDB0000149	0.7356993950
## L.Leucine_HMDB0000687	0.7675596615
## Acetylglycine_HMDB0000532	-0.1355813901
## L.Isoleucine_HMDB0000172	0.7872543406
## Nicotinic.acid_HMDB0001488	-0.2431358993
## Maleic.acid_HMDB0000176	-0.3496017788
## L.Proline_HMDB0000162	0.5135978919
## Phenylacetic.acid_HMDB0000209	-0.5816706849
## Succinic.acid_HMDB0000254	0.4910943636
## Glycine_HMDB0000123.1	0.7533149109
## Methylsuccinic.acid_HMDB0001844	0.0040608443
## Glyceric.acid_HMDB0000139	-0.4797173593
## Fumaric.acid_HMDB0000134	0.6027923421
## Uracil_HMDB0000300	0.4343038084
## Pelargonic.acid_HMDB0000847	-0.7583451434
## L.Serine_HMDB0000187	0.6395594825
## L.Threonine_HMDB0000167	0.7013477941
## Mesaconic.acid_HMDB0000749	0.1234727186
## Glutaric.acid_HMDB0000661	-0.2726829485
## Thymine_HMDB0000262	0.4604477051
## Beta.Alanine_HMDB0000056.1	0.9134631484
## L.Homoserine_HMDB0000719	-0.1053281986
## Capric.acid_HMDB0000511	-0.2097772361
## Citramalic.acid_HMDB0000426	0.3763506717
## Malic.acid_HMDB0000744	-0.4291720616
## Niacinamide_HMDB0001406	0.7866881632
## Adipic.acid_HMDB0000448	0.5473519160
## D.Threitol_HMDB0004136	0.2572435889
## Dihydrouracil_HMDB0000076	0.3278829887
## Erythritol_HMDB0002994	0.4127943784
## N.Acetylserine_HMDB0002931	0.5327963711
## L.Aspartic.acid_HMDB0000191	0.7094052044
## L.Methionine_HMDB0000696	0.9082160158
## X4.Hydroxyproline_HMDB0000725	0.6803296093
## Pyroglutamic.acid_HMDB0000267	0.6744931561
## Cytosine_HMDB0000630	0.2525188913
## Gamma.Aminobutyric.acid_HMDB0000112	0.2587827823
## Threonic.acid_HMDB0000943	-0.3442683219

## L.Cysteine_HMDB0000574	-0.1769655034
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.6675960850
## Creatinine_HMDB0000562	0.8078821352
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.6982171350
## Oxoglutaric.acid_HMDB0000208	0.0043218613
## Phenylpyruvic.acid_HMDB0000205	-0.4217524472
## Pimelic.acid_HMDB0000857	0.4570289507
## Phenyllactic.acid_HMDB0000779	-0.5622484274
## Phosphoenolpyruvic.acid_HMDB0000263	-0.8425049963
## Ornithine_HMDB0000214	0.5907796863
## Hypotaurine_HMDB0000965	0.7385664051
## Triethanolamine_HMDB0032538	0.6534621373
## X2.Aminobenzoic.acid_HMDB0001123	0.8827066390
## L.Glutamic.acid_HMDB0000148	0.8421202411
## X4.Hydroxybenzoic.acid_HMDB0000500	0.7972935109
## X5.Aminopentanoic.acid_HMDB0003355	-0.0314320836
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.4110027033
## L.Phenylalanine_HMDB0000159	0.8785700021
## Dodecanoic.acid_HMDB0000638	0.5472605215
## Lyxose_HMDB0003402_1	-0.8521250212
## D.Xylose_HMDB0000098	-0.1292542613
## Lyxose_HMDB0003402_2	0.0008497504
## D.Arabinose_HMDB0029942	-0.9077749340
## L.Asparagine_HMDB0000168	0.5674666427
## D.Ribulose_HMDB0000621	-0.7403370545
## D.Ribose_HMDB0000283	-0.9027960593
## D.Xylulose_HMDB0001644	-0.7130833648
## X3.Sulfinoalanine_HMDB0000996	0.4038220604
## Suberic.acid_HMDB0000893	0.4109050461
## L.Lysine_HMDB0000182	0.4970237579
## Levoglucosan_HMDB0000640	0.0319851602
## D.Arabitol_HMDB0000568	0.3162828403
## Ribitol_HMDB0000508	0.0468366930
## cis.Aconitic.acid_HMDB0000072	0.1191066070
## Quinolinic.acid_HMDB0000232	0.0223653031
## Putrescine_HMDB0001414	-0.0636785671
## Glycerol.3.phosphate_HMDB0000126	-0.7045442902
## Vanillic.acid_HMDB0000484	0.6326565315
## L.Glutamine_HMDB0000641	0.3173080046
## X2.Phosphoglyceric.acid_HMDB0000362	0.0035467862
## Azelaic.acid_HMDB0000784	-0.1265039128
## L.Dihydroorotic.acid_HMDB0003349	-0.8970610519
## O.Phosphoethanolamine_HMDB0000224	0.5690920384
## X3.Phosphoglyceric.acid_HMDB0000807	0.0240479352
## Isocitric.acid_HMDB0000193	0.1859897691
## Hypoxanthine_HMDB0000157	0.1072618352
## Citric.acid_HMDB0000094	-0.4114374496
## L.Arginine_HMDB0000517	-0.3714755404
## Ornithine_HMDB0000214.1	0.8340876318
## Dopamine_HMDB0000073	0.8190629497
## Myristic.acid_HMDB0000806	0.8290013133
## X1.5.Anhydrosorbitol_HMDB0002712	0.0031501459
## D.Tagatose_HMDB0003418	-0.9074105225
## Psicose_1	0.1814632464

## Sebacic.acid_HMDB0000792	0.6172846951
## D.Fructose_HMDB0000660	-0.8543582386
## Gluconolactone_HMDB0000150	-0.7508200544
## L.Sorbose_HMDB0001266	-0.8575925626
## D.Mannose_HMDB0000169	1.0000000000
## Hydroxyphenyllactic.acid_HMDB0000755	0.3111256546
## D.Glucose_HMDB0000122	0.9752887611
## N.Acetylglutamine_HMDB0006029	0.9957883862
## L.Lysine_HMDB0000182.1	0.8704651109
## D.Mannose_HMDB0000169.1	0.9711841404
## Tyramine_HMDB0000306	0.8658570316
## L.Histidine_HMDB0000177	0.8770896759
## D.Glucose_HMDB0000122.1	0.9735480691
## X1.Hexadecanol_HMDB0003424	-0.1001058320
## L.Tyrosine_HMDB0000158	0.7917210226
## Mannitol_HMDB0000765	0.7922020407
## Sorbitol_HMDB0000247	-0.2839549199
## ITSD_Sorbitol	0.7921186966
## Galacturonic.acid_HMDB0002545	0.2881987754
## Pantothenic.acid_HMDB0000210	-0.1038822415
## Palmitoleic.acid_HMDB0003229	0.6327045981
## Xanthine_HMDB0000292	0.2856414090
## Gluconic.acid_HMDB0000625	-0.4882574313
## Palmitic.acid_HMDB0000220	0.5784010420
## Glucaric.acid_HMDB0000663	0.7094370176
## N.Acetylmannosamine_HMDB0001129	0.7049702985
## N.Acetyl.D.glucosamine_HMDB0000215	0.9333792141
## D.Ribulose.5.phosphate_HMDB0000618	-0.7840161101
## Uric.acid_HMDB0000289	0.6026728928
## D.Ribose.5.phosphate_HMDB0001548	-0.8491867196
## myo.Inositol_HMDB0000211	0.4937717510
## D.Ribose.5.phosphate_HMDB0001548.1	-0.8745069300
## Heptadecanoic.acid_HMDB0002259	-0.3648484457
## Octadecanol_HMDB0002350	-0.1382169519
## Glutathione_HMDB0000125	0.0653087561
## Linoleic.acid_HMDB0000673	0.4019078774
## Oleic.acid_HMDB0000207	0.5452211869
## Elaidic.acid_HMDB0000573	0.5894859886
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.7866701113
## Stearic.acid_HMDB0000827	0.1742123734
## L.Tryptophan_HMDB0000929	0.2100790510
## Fructose.1.phosphate_HMDB0001076	-0.7867059531
## Mannose.6.phosphate_HMDB0001078	-0.3639041201
## Arachidonic.acid_HMDB0001043	0.4149242104
## Glucose.6.phosphate_HMDB0001401	-0.7391170611
## X6.Phosphogluconic.acid_HMDB0001316	-0.1548940854
## Inositol.phosphate_HMDB0002985	-0.0236228498
## Uridine_HMDB0000296	0.2496795919
## Stigmasterol_HMDB0000937	0.3981916434
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.0749274579
## Sucrose_HMDB0000258	0.5835054754
## MG.18.0e.0.0.0.0._HMDB0011143	0.0914366263
## Trehalose_HMDB0000975	-0.1702055237
## D.Maltose_HMDB0000163	-0.1658607635

## Lactitol_HMDB0040937	0.1258724460
## Xanthylic.acid_HMDB0001554	-0.6415490068
## Adenosine.monophosphate_HMDB0000045	-0.7554648912
## Cholesterol_HMDB0000067	0.3385396592
## Lathosterol_HMDB0001170	0.4666906827
## X7b.Hydroxycholesterol_.HMDB0006119	-0.5383320113
##	Hydroxyphenyllactic.acid_HMDB0000755
## Dimethylglycine_HMDB0000092	-0.043699688
## Glyoxylic.acid_HMDB0000119	-0.046852821
## Pyruvic.acid_HMDB0000243	0.673937742
## L.Lactic.acid_HMDB0000190	0.554166080
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.847725369
## Glycolic.acid_HMDB0000115	0.411942588
## Caproic.acid_HMDB0000535	0.015221197
## L.Alanine_HMDB0000161	0.371591343
## Alpha.ketoisovaleric.acid_HMDB0000019	0.603361411
## Glycine_HMDB0000123	0.524791234
## Oxalic.acid_HMDB0002329	0.253986466
## Hydroxylamine_HMDB0003338	0.500113760
## X2.Hydroxybutyric.acid_HMDB0000008	0.782613056
## Acetoacetic.acid_HMDB0000060	0.696096019
## Hydroxypropionic.acid_HMDB0000700	0.693832736
## Pyruvic.acid_HMDB0000243.1	0.714932664
## X3.Hydroxybutyric.acid_HMDB0000357	0.913200345
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.877448840
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.621997045
## D.Alpha.aminobutyric.acid_HMDB0000650	0.458434285
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.545284887
## Beta.Alanine_HMDB0000056	0.237062744
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.523729389
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.724112478
## Malonic.acid_HMDB0000691	0.414522832
## X3.Aminoisobutanoic.acid_HMDB0003911	0.192767263
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.740122778
## Ketoleucine_HMDB0000695	0.679172561
## L.Valine_HMDB0000883	0.484232891
## ITSD_Valine	0.523827514
## Urea_HMDB0000294	0.668252081
## Benzoic.acid_HMDB0001870	0.150946382
## Caprylic.acid_HMDB0000482	0.262979144
## Glycerol_HMDB0000131	0.423101675
## Ethanolamine_HMDB0000149	0.329862243
## L.Leucine_HMDB0000687	0.495595931
## Acetylglucine_HMDB0000532	0.524749295
## L.Isoleucine_HMDB0000172	0.481935365
## Nicotinic.acid_HMDB0001488	0.142676925
## Maleic.acid_HMDB0000176	0.699759513
## L.Proline_HMDB0000162	0.555626675
## Phenylacetic.acid_HMDB0000209	0.492997549
## Succinic.acid_HMDB0000254	0.664753412
## Glycine_HMDB0000123.1	0.499011300
## Methylsuccinic.acid_HMDB0001844	0.271508806
## Glyceric.acid_HMDB0000139	0.432680479
## Fumaric.acid_HMDB0000134	0.779259184

## Uracil_HMDB0000300	0.625008947
## Pelargonic.acid_HMDB0000847	0.097650236
## L.Serine_HMDB0000187	0.332209018
## L.Threonine_HMDB0000167	0.451956597
## Mesaconic.acid_HMDB0000749	0.296496278
## Glutaric.acid_HMDB0000661	0.163714635
## Thymine_HMDB0000262	0.511299238
## Beta.Alanine_HMDB0000056.1	0.345515703
## L.Homoserine_HMDB0000719	0.101532646
## Capric.acid_HMDB0000511	0.170726573
## Citramalic.acid_HMDB0000426	0.213730279
## Malic.acid_HMDB0000744	0.507301130
## Niacinamide_HMDB0001406	0.525124067
## Adipic.acid_HMDB0000448	0.064079713
## D.Threitol_HMDB0004136	0.465088143
## Dihydrouracil_HMDB0000076	0.532885411
## Erythritol_HMDB0002994	0.849724442
## N.Acetylserine_HMDB0002931	0.399987208
## L.Aspartic.acid_HMDB0000191	0.348521810
## L.Methionine_HMDB0000696	0.154428116
## X4.Hydroxyproline_HMDB0000725	0.513781089
## Pyroglutamic.acid_HMDB0000267	0.433930460
## Cytosine_HMDB0000630	-0.257138631
## Gamma.Aminobutyric.acid_HMDB0000112	0.469962829
## Threonic.acid_HMDB0000943	0.584287713
## L.Cysteine_HMDB0000574	0.579940519
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.340255567
## Creatinine_HMDB0000562	0.071776539
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.114963865
## Oxoglutaric.acid_HMDB0000208	0.688117719
## Phenylpyruvic.acid_HMDB0000205	-0.049426735
## Pimelic.acid_HMDB0000857	0.279562465
## Phenyllactic.acid_HMDB0000779	-0.026933736
## Phosphoenolpyruvic.acid_HMDB0000263	-0.311805279
## Ornithine_HMDB0000214	-0.286198839
## Hypotaurine_HMDB0000965	0.399481041
## Triethanolamine_HMDB0032538	0.295737169
## X2.Aminobenzoic.acid_HMDB0001123	0.318294996
## L.Glutamic.acid_HMDB0000148	0.050989726
## X4.Hydroxybenzoic.acid_HMDB0000500	0.407269098
## X5.Aminopentanoic.acid_HMDB0003355	0.564296817
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.193522132
## L.Phenylalanine_HMDB0000159	0.179151668
## Dodecanoic.acid_HMDB0000638	0.642670726
## Lyxose_HMDB0003402_1	0.077402599
## D.Xylose_HMDB0000098	-0.301414862
## Lyxose_HMDB0003402_2	-0.301147560
## D.Arabinose_HMDB0029942	-0.005877613
## L.Asparagine_HMDB0000168	-0.482423943
## D.Ribulose_HMDB0000621	-0.103349279
## D.Ribose_HMDB0000283	-0.021544533
## D.Xylulose_HMDB0001644	-0.110134577
## X3.Sulfinoalanine_HMDB0000996	-0.560424187
## Suberic.acid_HMDB0000893	0.274263963

## L.Lysine_HMDB0000182	-0.494042942
## Levoglucosan_HMDB0000640	-0.332244673
## D.Arabitol_HMDB0000568	0.398775723
## Ribitol_HMDB0000508	0.140049216
## cis.Aconitic.acid_HMDB0000072	-0.114769913
## Quinolinic.acid_HMDB0000232	0.267390427
## Putrescine_HMDB0001414	0.423181455
## Glycerol.3.phosphate_HMDB0000126	-0.255585985
## Vanillic.acid_HMDB0000484	0.503757579
## L.Glutamine_HMDB0000641	-0.669026564
## X2.Phosphoglyceric.acid_HMDB0000362	0.324729960
## Azelaic.acid_HMDB0000784	-0.126057644
## L.Dihydroorotic.acid_HMDB0003349	0.030127992
## O.Phosphoethanolamine_HMDB0000224	0.358522538
## X3.Phosphoglyceric.acid_HMDB0000807	0.418343063
## Isocitric.acid_HMDB0000193	0.239026522
## Hypoxanthine_HMDB0000157	-0.823009016
## Citric.acid_HMDB0000094	0.167480484
## L.Arginine_HMDB0000517	-0.458017954
## Ornithine_HMDB0000214.1	0.101605879
## Dopamine_HMDB0000073	0.076055333
## Myristic.acid_HMDB0000806	0.490629910
## X1.5.Anhydrosorbitol_HMDB0002712	0.610977693
## D.Tagatose_HMDB0003418	-0.026573170
## Psicose_1	-0.144971294
## Sebacic.acid_HMDB0000792	0.532940664
## D.Fructose_HMDB0000660	0.066722121
## Gluconolactone_HMDB0000150	-0.012030217
## L.Sorbose_HMDB0001266	0.040471088
## D.Mannose_HMDB0000169	0.311125655
## Hydroxyphenyllactic.acid_HMDB0000755	1.000000000
## D.Glucose_HMDB0000122	0.232100389
## N.Acetylglutamine_HMDB0006029	0.318825455
## L.Lysine_HMDB0000182.1	0.010928000
## D.Mannose_HMDB0000169.1	0.150565479
## Tyramine_HMDB0000306	-0.003017838
## L.Histidine_HMDB0000177	-0.002908852
## D.Glucose_HMDB0000122.1	0.243855507
## X1.Hexadecanol_HMDB0003424	0.244552758
## L.Tyrosine_HMDB0000158	-0.157270548
## Mannitol_HMDB0000765	0.469104789
## Sorbitol_HMDB0000247	-0.316108460
## ITSD_Sorbitol	0.632226313
## Galacturonic.acid_HMDB0002545	0.667492250
## Pantothenic.acid_HMDB0000210	0.564894023
## Palmitoleic.acid_HMDB0003229	0.404736220
## Xanthine_HMDB0000292	-0.502001894
## Gluconic.acid_HMDB0000625	0.057222922
## Palmitic.acid_HMDB0000220	0.678880917
## Glucaric.acid_HMDB0000663	0.305708274
## N.Acetylmannosamine_HMDB0001129	0.361992647
## N.Acetyl.D.glucosamine_HMDB0000215	0.498067661
## D.Ribulose.5.phosphate_HMDB0000618	-0.025898564
## Uric.acid_HMDB0000289	-0.511325386

## D.Ribose.5.phosphate_HMDB0001548	-0.111777149
## myo.Inositol_HMDB0000211	0.425198629
## D.Ribose.5.phosphate_HMDB0001548.1	-0.111724516
## Heptadecanoic.acid_HMDB0002259	0.222902299
## Octadecanol_HMDB0002350	0.748760591
## Glutathione_HMDB0000125	-0.380836579
## Linoleic.acid_HMDB0000673	0.466017584
## Oleic.acid_HMDB0000207	0.325427883
## Elaidic.acid_HMDB0000573	0.435461436
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.050038076
## Stearic.acid_HMDB0000827	0.741375537
## L.Tryptophan_HMDB0000929	0.741996822
## Fructose.1.phosphate_HMDB0001076	0.111957001
## Mannose.6.phosphate_HMDB0001078	-0.420579937
## Arachidonic.acid_HMDB0001043	0.043960458
## Glucose.6.phosphate_HMDB0001401	0.235611340
## X6.Phosphogluconic.acid_HMDB0001316	0.555118229
## Inositol.phosphate_HMDB0002985	0.390314475
## Uridine_HMDB0000296	0.620556458
## Stigmasterol_HMDB0000937	0.891522664
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.426790047
## Sucrose_HMDB0000258	0.180432619
## MG.18.0e.0.0.0.0._HMDB0011143	0.795608654
## Trehalose_HMDB0000975	-0.302758445
## D.Maltose_HMDB0000163	-0.295417265
## Lactitol_HMDB0040937	0.437433338
## Xanthylic.acid_HMDB0001554	-0.745706692
## Adenosine.monophosphate_HMDB0000045	0.071181626
## Cholesterol_HMDB0000067	0.275911301
## Lathosterol_HMDB0001170	0.402419792
## X7b.Hydroxycholesterol_.HMDB0006119	-0.027271057
##	
## D.Glucose_HMDB0000122	
## Dimethylglycine_HMDB0000092	-0.7144553231
## Glyoxylic.acid_HMDB0000119	-0.7162685335
## Pyruvic.acid_HMDB0000243	0.4583376100
## L.Lactic.acid_HMDB0000190	0.6487513385
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.2311359956
## Glycolic.acid_HMDB0000115	-0.3376741448
## Caproic.acid_HMDB0000535	-0.8426084505
## L.Alanine_HMDB0000161	0.6949631589
## Alpha.ketoisovaleric.acid_HMDB0000019	0.3023683139
## Glycine_HMDB0000123	0.6146632196
## Oxalic.acid_HMDB0002329	-0.5757848193
## Hydroxylamine_HMDB0003338	0.1695533975
## X2.Hydroxybutyric.acid_HMDB0000008	-0.0701225526
## Acetoacetic.acid_HMDB0000060	-0.2602783475
## Hydroxypropionic.acid_HMDB0000700	0.4335595001
## Pyruvic.acid_HMDB0000243.1	0.3318491605
## X3.Hydroxybutyric.acid_HMDB0000357	-0.0501074803
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.0378955779
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.2939419761
## D.Alpha.aminobutyric.acid_HMDB0000650	0.6789735608
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.0812693421
## Beta.Alanine_HMDB0000056	0.7284121129

## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.2423207459
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.3254523630
## Malonic.acid_HMDB0000691	0.3281761968
## X3.Aminoisobutanoic.acid_HMDB0003911	0.8197628402
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.4850277425
## Ketoleucine_HMDB0000695	-0.1468178797
## L.Valine_HMDB0000883	0.6422350356
## ITSD_Valine	0.6839245700
## Urea_HMDB0000294	0.5904931730
## Benzoic.acid_HMDB0001870	-0.2558660293
## Caprylic.acid_HMDB0000482	-0.6538869901
## Glycerol_HMDB0000131	0.7234626333
## Ethanolamine_HMDB0000149	0.6825302257
## L.Leucine_HMDB0000687	0.6669833183
## Acetyl glycine_HMDB0000532	-0.2102031719
## L.Isoleucine_HMDB0000172	0.7072095224
## Nicotinic.acid_HMDB0001488	-0.2247027794
## Maleic.acid_HMDB0000176	-0.4068825877
## L.Proline_HMDB0000162	0.4117018990
## Phenylacetic.acid_HMDB0000209	-0.5925160557
## Succinic.acid_HMDB0000254	0.3666871284
## Glycine_HMDB0000123.1	0.6809830571
## Methylsuccinic.acid_HMDB0001844	-0.0514289216
## Glyceric.acid_HMDB0000139	-0.5278343039
## Fumaric.acid_HMDB0000134	0.5473618064
## Uracil_HMDB0000300	0.3939304332
## Pelargonic.acid_HMDB0000847	-0.7187776977
## L.Serine_HMDB0000187	0.5900836929
## L.Threonine_HMDB0000167	0.6488324417
## Mesaconic.acid_HMDB0000749	0.1315181588
## Glutaric.acid_HMDB0000661	-0.2429036570
## Thymine_HMDB0000262	0.3746679527
## Beta.Alanine_HMDB0000056.1	0.8395000058
## L.Homoserine_HMDB0000719	-0.1292760798
## Capric.acid_HMDB0000511	-0.2503149666
## Citramalic.acid_HMDB0000426	0.4125681402
## Malic.acid_HMDB0000744	-0.4723876732
## Niacinamide_HMDB0001406	0.7472418194
## Adipic.acid_HMDB0000448	0.5278789676
## D.Threitol_HMDB0004136	0.2772969826
## Dihydrouracil_HMDB0000076	0.2659255099
## Erythritol_HMDB0002994	0.3273076591
## N.Acetylserine_HMDB0002931	0.4923746998
## L.Aspartic.acid_HMDB0000191	0.6568008168
## L.Methionine_HMDB0000696	0.8736500009
## X4.Hydroxyproline_HMDB0000725	0.6331038863
## Pyroglutamic.acid_HMDB0000267	0.6518670154
## Cytosine_HMDB0000630	0.2793670574
## Gamma.Aminobutyric.acid_HMDB0000112	0.2611126375
## Threonic.acid_HMDB0000943	-0.3909243584
## L.Cysteine_HMDB0000574	-0.2282561759
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.7036569168
## Creatinine_HMDB0000562	0.7402440903
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.6121087902

## Oxoglutaric.acid_HMDB0000208	-0.0313498014
## Phenylpyruvic.acid_HMDB0000205	-0.3302554255
## Pimelic.acid_HMDB0000857	0.4591021478
## Phenyllactic.acid_HMDB0000779	-0.4785512948
## Phosphoenolpyruvic.acid_HMDB0000263	-0.7604790474
## Ornithine_HMDB0000214	0.6005419705
## Hypotaurine_HMDB0000965	0.7131999869
## Triethanolamine_HMDB0032538	0.6506005903
## X2.Aminobenzoic.acid_HMDB0001123	0.8099141663
## L.Glutamic.acid_HMDB0000148	0.8150733930
## X4.Hydroxybenzoic.acid_HMDB0000500	0.7102729825
## X5.Aminopentanoic.acid_HMDB0003355	-0.0206235536
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.3993533440
## L.Phenylalanine_HMDB0000159	0.8199264283
## Dodecanoic.acid_HMDB0000638	0.4239314067
## Lyxose_HMDB0003402_1	-0.8569917298
## D.Xylose_HMDB0000098	0.0080296009
## Lyxose_HMDB0003402_2	0.1429115204
## D.Arabinose_HMDB0029942	-0.8945812525
## L.Asparagine_HMDB0000168	0.5662599304
## D.Ribulose_HMDB0000621	-0.6584833015
## D.Ribose_HMDB0000283	-0.8915993112
## D.Xylulose_HMDB0001644	-0.6250119520
## X3.Sulfinioalanine_HMDB0000996	0.4154938516
## Suberic.acid_HMDB0000893	0.4376823810
## L.Lysine_HMDB0000182	0.5147487369
## Levoglucosan_HMDB0000640	0.1615429594
## D.Arabitol_HMDB0000568	0.3779797892
## Ribitol_HMDB0000508	0.0310770159
## cis.Aconitic.acid_HMDB0000072	0.2400966734
## Quinolinic.acid_HMDB0000232	0.1263462487
## Putrescine_HMDB0001414	-0.1180874727
## Glycerol.3.phosphate_HMDB0000126	-0.6709365097
## Vanillic.acid_HMDB0000484	0.6235655024
## L.Glutamine_HMDB0000641	0.3133578497
## X2.Phosphoglyceric.acid_HMDB0000362	0.0203129969
## Azelaic.acid_HMDB0000784	-0.0307055088
## L.Dihydroorotic.acid_HMDB0003349	-0.8843338438
## O.Phosphoethanolamine_HMDB0000224	0.4584884532
## X3.Phosphoglyceric.acid_HMDB0000807	0.0556997897
## Isocitric.acid_HMDB0000193	0.1407866730
## Hypoxanthine_HMDB0000157	0.1595673376
## Citric.acid_HMDB0000094	-0.3920546888
## L.Arginine_HMDB0000517	-0.4018620806
## Ornithine_HMDB0000214.1	0.8018983968
## Dopamine_HMDB0000073	0.7806637289
## Myristic.acid_HMDB0000806	0.7256587918
## X1.5.Anhydrosorbitol_HMDB0002712	-0.0009199234
## D.Tagatose_HMDB0003418	-0.8802151568
## Psicose_1	0.2980601544
## Sebacic.acid_HMDB0000792	0.5415611915
## D.Fructose_HMDB0000660	-0.8222263388
## Gluconolactone_HMDB0000150	-0.7087947270
## L.Sorbose_HMDB0001266	-0.8251871416

## D.Mannose_HMDB0000169	0.9752887611
## Hydroxyphenyllactic.acid_HMDB0000755	0.2321003895
## D.Glucose_HMDB0000122	1.0000000000
## N.Acetylglutamine_HMDB0006029	0.9799265232
## L.Lysine_HMDB0000182.1	0.8238787379
## D.Mannose_HMDB0000169.1	0.9381478111
## Tyramine_HMDB0000306	0.8197464441
## L.Histidine_HMDB0000177	0.8298645830
## D.Glucose_HMDB0000122.1	0.9779408762
## X1.Hexadecanol_HMDB0003424	-0.0939082809
## L.Tyrosine_HMDB0000158	0.7662130070
## Mannitol_HMDB0000765	0.7592916945
## Sorbitol_HMDB0000247	-0.3469934867
## ITSD_Sorbitol	0.6896187347
## Galacturonic.acid_HMDB0002545	0.2704848622
## Pantothenic.acid_HMDB0000210	-0.1230584683
## Palmitoleic.acid_HMDB0003229	0.5220374124
## Xanthine_HMDB0000292	0.2972985161
## Gluconic.acid_HMDB0000625	-0.4560164009
## Palmitic.acid_HMDB0000220	0.4836480922
## Glucaric.acid_HMDB0000663	0.6715376881
## N.Acetylmannosamine_HMDB0001129	0.6494038903
## N.Acetyl.D.glucosamine_HMDB0000215	0.8712297310
## D.Ribulose.5.phosphate_HMDB0000618	-0.7338432721
## Uric.acid_HMDB0000289	0.5918016189
## D.Ribose.5.phosphate_HMDB0001548	-0.7870523404
## myo.Inositol_HMDB0000211	0.4642240778
## D.Ribose.5.phosphate_HMDB0001548.1	-0.8086447897
## Heptadecanoic.acid_HMDB0002259	-0.4055294976
## Octadecanol_HMDB0002350	-0.1822961440
## Glutathione_HMDB0000125	0.0906991801
## Linoleic.acid_HMDB0000673	0.2878697585
## Oleic.acid_HMDB0000207	0.4310863734
## Elaidic.acid_HMDB0000573	0.4722676159
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.7338422174
## Stearic.acid_HMDB0000827	0.1173803966
## L.Tryptophan_HMDB0000929	0.1664983813
## Fructose.1.phosphate_HMDB0001076	-0.7838802332
## Mannose.6.phosphate_HMDB0001078	-0.2321678708
## Arachidonic.acid_HMDB0001043	0.3289957499
## Glucose.6.phosphate_HMDB0001401	-0.7388775737
## X6.Phosphogluconic.acid_HMDB0001316	-0.1901272371
## Inositol.phosphate_HMDB0002985	-0.0995596654
## Uridine_HMDB0000296	0.1668489241
## Stigmasterol_HMDB0000937	0.3412690337
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.1311829108
## Sucrose_HMDB0000258	0.5676988072
## MG.18.Oe.0.0.0.0._HMDB0011143	0.0081237965
## Trehalose_HMDB0000975	-0.0627658464
## D.Maltose_HMDB0000163	-0.0580042433
## Lactitol_HMDB0040937	0.1443885431
## Xanthylic.acid_HMDB0001554	-0.5571842326
## Adenosine.monophosphate_HMDB0000045	-0.7082106431
## Cholesterol_HMDB0000067	0.3097460224

## Lathosterol_HMDB0001170	0.4007191118
## X7b.Hydroxycholesterol_.HMDB0006119	-0.4860955933
##	N.Acetylglutamine_HMDB0006029
## Dimethylglycine_HMDB0000092	-0.7311870635
## Glyoxylic.acid_HMDB0000119	-0.7337944310
## Pyruvic.acid_HMDB0000243	0.4814153653
## L.Lactic.acid_HMDB0000190	0.6998314084
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.3002081555
## Glycolic.acid_HMDB0000115	-0.2927989660
## Caproic.acid_HMDB0000535	-0.8511624935
## L.Alanine_HMDB0000161	0.7205534413
## Alpha.ketoisovaleric.acid_HMDB0000019	0.2971537656
## Glycine_HMDB0000123	0.6104102971
## Oxalic.acid_HMDB0002329	-0.5557580879
## Hydroxylamine_HMDB0003338	0.2403017735
## X2.Hydroxybutyric.acid_HMDB0000008	0.0254999457
## Acetoacetic.acid_HMDB0000060	-0.1767124956
## Hydroxypropionic.acid_HMDB0000700	0.5338302570
## Pyruvic.acid_HMDB0000243.1	0.3880239998
## X3.Hydroxybutyric.acid_HMDB0000357	0.0394827115
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.0659302653
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.2092123931
## D.Alpha.aminobutyric.acid_HMDB0000650	0.7497133770
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.0155744905
## Beta.Alanine_HMDB0000056	0.7357267189
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.2300731359
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.3784499580
## Malonic.acid_HMDB0000691	0.2913627106
## X3.Aminoisobutanoic.acid_HMDB0003911	0.8476054333
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.5867389315
## Ketoleucine_HMDB0000695	-0.1067296460
## L.Valine_HMDB0000883	0.7103322092
## ITSD_Valine	0.7657496528
## Urea_HMDB0000294	0.6185704873
## Benzoic.acid_HMDB0001870	-0.2293243604
## Caprylic.acid_HMDB0000482	-0.6555736640
## Glycerol_HMDB0000131	0.7668193566
## Ethanolamine_HMDB0000149	0.7085157199
## L.Leucine_HMDB0000687	0.7360857532
## Acetylglutamine_HMDB0000532	-0.1427048069
## L.Isoleucine_HMDB0000172	0.7628610367
## Nicotinic.acid_HMDB0001488	-0.2412573222
## Maleic.acid_HMDB0000176	-0.3473376077
## L.Proline_HMDB0000162	0.4825517763
## Phenylacetic.acid_HMDB0000209	-0.5732708371
## Succinic.acid_HMDB0000254	0.4534576936
## Glycine_HMDB0000123.1	0.7174198087
## Methylsuccinic.acid_HMDB0001844	-0.0202017130
## Glyceric.acid_HMDB0000139	-0.4958030042
## Fumaric.acid_HMDB0000134	0.6053107034
## Uracil_HMDB0000300	0.4120666395
## Pelargonic.acid_HMDB0000847	-0.7236327813
## L.Serine_HMDB0000187	0.6043759877
## L.Threonine_HMDB0000167	0.6803911374

## Mesaconic.acid_HMDB0000749	0.1511380307
## Glutaric.acid_HMDB0000661	-0.2747513145
## Thymine_HMDB0000262	0.4391532719
## Beta.Alanine_HMDB0000056.1	0.8906989430
## L.Homoserine_HMDB0000719	-0.1154493405
## Capric.acid_HMDB0000511	-0.2178872137
## Citramalic.acid_HMDB0000426	0.3574922613
## Malic.acid_HMDB0000744	-0.4384530897
## Niacinamide_HMDB0001406	0.7856159734
## Adipic.acid_HMDB0000448	0.5200344745
## D.Threitol_HMDB0004136	0.2481211252
## Dihydrouracil_HMDB0000076	0.3280693818
## Erythritol_HMDB0002994	0.4217459238
## N.Acetylserine_HMDB0002931	0.5056694853
## L.Aspartic.acid_HMDB0000191	0.6824625510
## L.Methionine_HMDB0000696	0.8821383825
## X4.Hydroxyproline_HMDB0000725	0.6692548210
## Pyroglutamic.acid_HMDB0000267	0.6635310756
## Cytosine_HMDB0000630	0.2625477796
## Gamma.Aminobutyric.acid_HMDB0000112	0.2563401562
## Threonic.acid_HMDB0000943	-0.3230203844
## L.Cysteine_HMDB0000574	-0.1609846331
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.6589554748
## Creatinine_HMDB0000562	0.7693914384
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.6806921342
## Oxoglutaric.acid_HMDB0000208	0.0135804358
## Phenylpyruvic.acid_HMDB0000205	-0.4158231645
## Pimelic.acid_HMDB0000857	0.4655787551
## Phenyllactic.acid_HMDB0000779	-0.5266530728
## Phosphoenolpyruvic.acid_HMDB0000263	-0.8050674532
## Ornithine_HMDB0000214	0.5571228023
## Hypotaurine_HMDB0000965	0.7363026756
## Triethanolamine_HMDB0032538	0.6444169826
## X2.Aminobenzoic.acid_HMDB0001123	0.8486954799
## L.Glutamic.acid_HMDB0000148	0.8302044507
## X4.Hydroxybenzoic.acid_HMDB0000500	0.7673941860
## X5.Aminopentanoic.acid_HMDB0003355	-0.0001370094
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.4341552470
## L.Phenylalanine_HMDB0000159	0.8504632765
## Dodecanoic.acid_HMDB0000638	0.5223789722
## Lyxose_HMDB0003402_1	-0.8339333882
## D.Xylose_HMDB0000098	-0.0921692302
## Lyxose_HMDB0003402_2	0.0317534239
## D.Arabinose_HMDB0029942	-0.8882113222
## L.Asparagine_HMDB0000168	0.5457447359
## D.Ribulose_HMDB0000621	-0.7210707382
## D.Ribose_HMDB0000283	-0.8837289022
## D.Xylulose_HMDB0001644	-0.6884196153
## X3.Sulfinioalanine_HMDB0000996	0.3860413960
## Suberic.acid_HMDB0000893	0.4000420907
## L.Lysine_HMDB0000182	0.4594608445
## Levoglucosan_HMDB0000640	0.0665275155
## D.Arabitool_HMDB0000568	0.3245673395
## Ribitol_HMDB0000508	0.0229451989

## cis.Aconitic.acid_HMDB0000072	0.1588426235
## Quinolinic.acid_HMDB0000232	0.0432942859
## Putrescine_HMDB0001414	-0.0860177266
## Glycerol.3.phosphate_HMDB0000126	-0.6911406451
## Vanillic.acid_HMDB0000484	0.6344641340
## L.Glutamine_HMDB0000641	0.3018441356
## X2.Phosphoglyceric.acid_HMDB0000362	0.0180687944
## Azelaic.acid_HMDB0000784	-0.1008087995
## L.Dihydroorotic.acid_HMDB0003349	-0.8821801258
## O.Phosphoethanolamine_HMDB0000224	0.5264478070
## X3.Phosphoglyceric.acid_HMDB0000807	0.0489616886
## Isocitric.acid_HMDB0000193	0.1650219751
## Hypoxanthine_HMDB0000157	0.1014821031
## Citric.acid_HMDB0000094	-0.3969193752
## L.Arginine_HMDB0000517	-0.3956992001
## Ornithine_HMDB0000214.1	0.8069831634
## Dopamine_HMDB0000073	0.7878560904
## Myristic.acid_HMDB0000806	0.7933987067
## X1.5.Anhydrosorbitol_HMDB0002712	0.0528875964
## D.Tagatose_HMDB0003418	-0.8844043624
## Psicose_1	0.2224209463
## Sebacic.acid_HMDB0000792	0.6119567960
## D.Fructose_HMDB0000660	-0.8495272614
## Gluconolactone_HMDB0000150	-0.7462665630
## L.Sorbose_HMDB0001266	-0.8534337032
## D.Mannose_HMDB0000169	0.9957883862
## Hydroxyphenyllactic.acid_HMDB0000755	0.3188254549
## D.Glucose_HMDB0000122	0.9799265232
## N.Acetylglutamine_HMDB0006029	1.0000000000
## L.Lysine_HMDB0000182.1	0.8395387039
## D.Mannose_HMDB0000169.1	0.9572123217
## Tyramine_HMDB0000306	0.8348016605
## L.Histidine_HMDB0000177	0.8461706020
## D.Glucose_HMDB0000122.1	0.9805674760
## X1.Hexadecanol_HMDB0003424	-0.1052116866
## L.Tyrosine_HMDB0000158	0.7676650219
## Mannitol_HMDB0000765	0.7950714171
## Sorbitol_HMDB0000247	-0.3271343455
## ITSD_Sorbitol	0.7825940760
## Galacturonic.acid_HMDB0002545	0.3226847364
## Pantothenic.acid_HMDB0000210	-0.1012805382
## Palmitoleic.acid_HMDB0003229	0.6016630173
## Xanthine_HMDB0000292	0.2605793792
## Gluconic.acid_HMDB0000625	-0.4764146550
## Palmitic.acid_HMDB0000220	0.5551899689
## Glucaric.acid_HMDB0000663	0.6937997430
## N.Acetylmannosamine_HMDB0001129	0.7021996211
## N.Acetyl.D.glucosamine_HMDB0000215	0.9215107900
## D.Ribulose.5.phosphate_HMDB0000618	-0.7539638514
## Uric.acid_HMDB0000289	0.5792633132
## D.Ribose.5.phosphate_HMDB0001548	-0.8093437114
## myo.Inositol_HMDB0000211	0.4725236837
## D.Ribose.5.phosphate_HMDB0001548.1	-0.8427753801
## Heptadecanoic.acid_HMDB0002259	-0.3707022333

## Octadecanol_HMDB0002350	-0.1345314742
## Glutathione_HMDB0000125	0.0789700052
## Linoleic.acid_HMDB0000673	0.3727944544
## Oleic.acid_HMDB0000207	0.5128821287
## Elaidic.acid_HMDB0000573	0.5645531493
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.7572095910
## Stearic.acid_HMDB0000827	0.1644017866
## L.Tryptophan_HMDB0000929	0.2070359061
## Fructose.1.phosphate_HMDB0001076	-0.7727682805
## Mannose.6.phosphate_HMDB0001078	-0.3381164184
## Arachidonic.acid_HMDB0001043	0.3905031364
## Glucose.6.phosphate_HMDB0001401	-0.7260691448
## X6.Phosphogluconic.acid_HMDB0001316	-0.1605136182
## Inositol.phosphate_HMDB0002985	-0.0215472536
## Uridine_HMDB0000296	0.2380231964
## Stigmasterol_HMDB0000937	0.3926419115
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.0963851105
## Sucrose_HMDB0000258	0.5632330735
## MG.18.0e.0.0.0.0._HMDB0011143	0.0897333558
## Trehalose_HMDB0000975	-0.1435284690
## D.Maltose_HMDB0000163	-0.1395498066
## Lactitol_HMDB00040937	0.1748146084
## Xanthylic.acid_HMDB0001554	-0.6141154362
## Adenosine.monophosphate_HMDB0000045	-0.7349826683
## Cholesterol_HMDB0000067	0.3594905138
## Lathosterol_HMDB0001170	0.4689019165
## X7b.Hydroxycholesterol._HMDB0006119	-0.5155621433
##	
	L.Lysine_HMDB0000182.1
## Dimethylglycine_HMDB0000092	-0.814729625
## Glyoxylic.acid_HMDB0000119	-0.816804374
## Pyruvic.acid_HMDB0000243	0.415628706
## L.Lactic.acid_HMDB0000190	0.728873705
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.124734602
## Glycolic.acid_HMDB0000115	-0.338747231
## Caproic.acid_HMDB0000535	-0.803949264
## L.Alanine_HMDB0000161	0.804167074
## Alpha.ketoisovaleric.acid_HMDB0000019	0.176517371
## Glycine_HMDB0000123	0.549302966
## Oxalic.acid_HMDB0002329	-0.582404166
## Hydroxylamine_HMDB0003338	0.222520345
## X2.Hydroxybutyric.acid_HMDB0000008	-0.131407853
## Acetoacetic.acid_HMDB0000060	-0.291871747
## Hydroxypropionic.acid_HMDB0000700	0.546244464
## Pyruvic.acid_HMDB0000243.1	0.244150219
## X3.Hydroxybutyric.acid_HMDB0000357	-0.201247830
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.097135125
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.395853947
## D.Alpha.aminobutyric.acid_HMDB0000650	0.782899321
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.072767595
## Beta.Alanine_HMDB0000056	0.755386790
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.160847670
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.230178710
## Malonic.acid_HMDB0000691	0.327838420
## X3.Aminoisobutanoic.acid_HMDB0003911	0.912891734

## X3.Hydroxyisovaleric.acid_HMDB0000754	0.546728414
## Ketoleucine_HMDB0000695	-0.275247281
## L.Valine_HMDB0000883	0.794413363
## ITSD_Valine	0.806032058
## Urea_HMDB0000294	0.509332130
## Benzoic.acid_HMDB0001870	-0.175064819
## Caprylic.acid_HMDB0000482	-0.804010333
## Glycerol_HMDB0000131	0.840938791
## Ethanolamine_HMDB0000149	0.839943236
## L.Leucine_HMDB0000687	0.813977489
## Acetyl glycine_HMDB0000532	-0.166267118
## L.Isoleucine_HMDB0000172	0.817725145
## Nicotinic.acid_HMDB0001488	-0.330443152
## Maleic.acid_HMDB0000176	-0.515595943
## L.Proline_HMDB0000162	0.586594256
## Phenylacetic.acid_HMDB0000209	-0.707306536
## Succinic.acid_HMDB0000254	0.541335172
## Glycine_HMDB0000123.1	0.798400972
## Methylsuccinic.acid_HMDB0001844	0.045143146
## Glyceric.acid_HMDB0000139	-0.552774229
## Fumaric.acid_HMDB0000134	0.462345799
## Uracil_HMDB0000300	0.396895396
## Pelargonic.acid_HMDB0000847	-0.851615048
## L.Serine_HMDB0000187	0.745844056
## L.Threonine_HMDB0000167	0.761743053
## Mesaconic.acid_HMDB0000749	-0.017951040
## Glutaric.acid_HMDB0000661	-0.139396589
## Thymine_HMDB0000262	0.403912199
## Beta.Alanine_HMDB0000056.1	0.915596793
## L.Homoserine_HMDB0000719	-0.086937736
## Capric.acid_HMDB0000511	-0.239730554
## Citramalic.acid_HMDB0000426	0.430199221
## Malic.acid_HMDB0000744	-0.431956784
## Niacinamide_HMDB0001406	0.710210034
## Adipic.acid_HMDB0000448	0.718830407
## D.Threitol_HMDB0004136	0.104863912
## Dihydrouracil_HMDB0000076	0.328444791
## Erythritol_HMDB0002994	0.240521394
## N.Acetylserine_HMDB0002931	0.633259744
## L.Aspartic.acid_HMDB0000191	0.793139611
## L.Methionine_HMDB0000696	0.971402839
## X4.Hydroxyproline_HMDB0000725	0.693022641
## Pyroglutamic.acid_HMDB0000267	0.678081231
## Cytosine_HMDB0000630	0.337225174
## Gamma.Aminobutyric.acid_HMDB0000112	0.165303592
## Threonic.acid_HMDB0000943	-0.517043133
## L.Cysteine_HMDB0000574	-0.331286881
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.692491147
## Creatinine_HMDB0000562	0.920431677
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.676398781
## Oxoglutaric.acid_HMDB0000208	-0.177196505
## Phenylpyruvic.acid_HMDB0000205	-0.483295278
## Pimelic.acid_HMDB0000857	0.418983494
## Phenyllactic.acid_HMDB0000779	-0.574872221

## Phosphoenolpyruvic.acid_HMDB0000263	-0.836763530
## Ornithine_HMDB0000214	0.854208338
## Hypotaurine_HMDB0000965	0.739440224
## Triethanolamine_HMDB0032538	0.714086971
## X2.Aminobenzoic.acid_HMDB0001123	0.921979816
## L.Glutamic.acid_HMDB0000148	0.924744202
## X4.Hydroxybenzoic.acid_HMDB0000500	0.869329138
## X5.Aminopentanoic.acid_HMDB0003355	-0.234539077
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.445091275
## L.Phenylalanine_HMDB0000159	0.977887077
## Dodecanoic.acid_HMDB0000638	0.390727421
## Lyxose_HMDB0003402_1	-0.842380038
## D.Xylose_HMDB0000098	-0.338879770
## Lyxose_HMDB0003402_2	-0.174683808
## D.Arabinose_HMDB0029942	-0.894413340
## L.Asparagine_HMDB0000168	0.824888538
## D.Ribulose_HMDB0000621	-0.824866334
## D.Ribose_HMDB0000283	-0.888346739
## D.Xylulose_HMDB0001644	-0.812771311
## X3.Sulfinoalanine_HMDB0000996	0.583124537
## Suberic.acid_HMDB0000893	0.439612889
## L.Lysine_HMDB0000182	0.790717126
## Levoglucosan_HMDB0000640	-0.154559952
## D.Arabitol_HMDB0000568	0.176388167
## Ribitol_HMDB0000508	0.080089647
## cis.Aconitic.acid_HMDB0000072	-0.173077452
## Quinolinic.acid_HMDB0000232	-0.068156836
## Putrescine_HMDB0001414	-0.096334381
## Glycerol.3.phosphate_HMDB0000126	-0.717067117
## Vanillic.acid_HMDB0000484	0.526671466
## L.Glutamine_HMDB0000641	0.594139556
## X2.Phosphoglyceric.acid_HMDB0000362	-0.002845092
## Azelaic.acid_HMDB0000784	-0.115133668
## L.Dihydroorotic.acid_HMDB0003349	-0.893808742
## O.Phosphoethanolamine_HMDB0000224	0.530133994
## X3.Phosphoglyceric.acid_HMDB0000807	-0.034584045
## Isocitric.acid_HMDB0000193	0.281098001
## Hypoxanthine_HMDB0000157	0.316596666
## Citric.acid_HMDB0000094	-0.405823086
## L.Arginine_HMDB0000517	-0.111843928
## Ornithine_HMDB0000214.1	0.959216360
## Dopamine_HMDB0000073	0.963812446
## Myristic.acid_HMDB0000806	0.782884951
## X1.5.Anhydrosorbitol_HMDB0002712	-0.269849242
## D.Tagatose_HMDB0003418	-0.890071164
## Psicose_1	-0.069313577
## Sebacic.acid_HMDB0000792	0.577870861
## D.Fructose_HMDB0000660	-0.831505487
## Gluconolactone_HMDB0000150	-0.753921477
## L.Sorbose_HMDB0001266	-0.825094189
## D.Mannose_HMDB0000169	0.870465111
## Hydroxyphenyllactic.acid_HMDB0000755	0.010928000
## D.Glucose_HMDB0000122	0.823878738
## N.Acetylglutamine_HMDB0006029	0.839538704

## L.Lysine_HMDB0000182.1	1.000000000
## D.Mannose_HMDB0000169.1	0.952588274
## Tyramine_HMDB0000306	0.999364926
## L.Histidine_HMDB0000177	0.997234171
## D.Glucose_HMDB0000122.1	0.819265657
## X1.Hexadecanol_HMDB0003424	-0.281119474
## L.Tyrosine_HMDB0000158	0.967213847
## Mannitol_HMDB0000765	0.686322142
## Sorbitol_HMDB0000247	-0.102331355
## ITSD_Sorbitol	0.658460874
## Galacturonic.acid_HMDB0002545	0.044144971
## Pantothenic.acid_HMDB0000210	-0.239354588
## Palmitoleic.acid_HMDB0003229	0.532773780
## Xanthine_HMDB0000292	0.590700389
## Gluconic.acid_HMDB0000625	-0.492890569
## Palmitic.acid_HMDB0000220	0.355225469
## Glucaric.acid_HMDB0000663	0.720518860
## N.Acetylmannosamine_HMDB0001129	0.513524371
## N.Acetyl.D.glucosamine_HMDB0000215	0.778416571
## D.Ribulose.5.phosphate_HMDB0000618	-0.882265370
## Uric.acid_HMDB0000289	0.801192196
## D.Ribose.5.phosphate_HMDB0001548	-0.900999179
## myo.Inositol_HMDB0000211	0.447317313
## D.Ribose.5.phosphate_HMDB0001548.1	-0.941506811
## Heptadecanoic.acid_HMDB0002259	-0.274995661
## Octadecanol_HMDB0002350	-0.371247162
## Glutathione_HMDB0000125	0.168094692
## Linoleic.acid_HMDB0000673	0.235759083
## Oleic.acid_HMDB0000207	0.448725485
## Elaidic.acid_HMDB0000573	0.449415757
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.863281502
## Stearic.acid_HMDB0000827	-0.109237564
## L.Tryptophan_HMDB0000929	-0.091116742
## Fructose.1.phosphate_HMDB0001076	-0.785481930
## Mannose.6.phosphate_HMDB0001078	-0.441057696
## Arachidonic.acid_HMDB0001043	0.355699200
## Glucose.6.phosphate_HMDB0001401	-0.767596062
## X6.Phosphogluconic.acid_HMDB0001316	-0.386371522
## Inositol.phosphate_HMDB0002985	-0.265860635
## Uridine_HMDB0000296	0.127500827
## Stigmasterol_HMDB0000937	0.141240642
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.196514392
## Sucrose_HMDB0000258	0.456178710
## MG.18.Oe.0.0.0.0._HMDB0011143	-0.188338978
## Trehalose_HMDB0000975	-0.184267556
## D.Maltose_HMDB0000163	-0.181585158
## Lactitol_HMDB00040937	-0.119563274
## Xanthylic.acid_HMDB0001554	-0.543898206
## Adenosine.monophosphate_HMDB0000045	-0.811351790
## Cholesterol_HMDB0000067	0.081577020
## Lathosterol_HMDB0001170	0.181016867
## X7b.Hydroxycholesterol_.HMDB0006119	-0.460748171
## D.Mannose_HMDB0000169.1	-0.829947025
## Dimethylglycine_HMDB0000092	

## Glyoxylic.acid_HMDB0000119	-0.833046278
## Pyruvic.acid_HMDB0000243	0.428744026
## L.Lactic.acid_HMDB0000190	0.721448117
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.187386760
## Glycolic.acid_HMDB0000115	-0.325147681
## Caproic.acid_HMDB0000535	-0.882972993
## L.Alanine_HMDB0000161	0.759434303
## Alpha.ketoisovaleric.acid_HMDB0000019	0.200052160
## Glycine_HMDB0000123	0.569275695
## Oxalic.acid_HMDB0002329	-0.590682485
## Hydroxylamine_HMDB0003338	0.243182411
## X2.Hydroxybutyric.acid_HMDB0000008	-0.090089221
## Acetoacetic.acid_HMDB0000060	-0.247530580
## Hydroxypropionic.acid_HMDB0000700	0.555836875
## Pyruvic.acid_HMDB0000243.1	0.319263594
## X3.Hydroxybutyric.acid_HMDB0000357	-0.106056619
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.045711950
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.319731316
## D.Alpha.aminobutyric.acid_HMDB0000650	0.781056995
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.075363731
## Beta.Alanine_HMDB0000056	0.749381543
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.158401466
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.287908318
## Malonic.acid_HMDB0000691	0.279609372
## X3.Aminoisobutanoic.acid_HMDB0003911	0.920607169
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.572216086
## Ketoleucine_HMDB0000695	-0.235711923
## L.Valine_HMDB0000883	0.753086550
## ITSD_Valine	0.801318475
## Urea_HMDB0000294	0.543215477
## Benzoic.acid_HMDB0001870	-0.209912610
## Caprylic.acid_HMDB0000482	-0.778114206
## Glycerol_HMDB0000131	0.823566475
## Ethanolamine_HMDB0000149	0.776258916
## L.Leucine_HMDB0000687	0.783368987
## Acetyl glycine_HMDB0000532	-0.173337900
## L.Isoleucine_HMDB0000172	0.799307135
## Nicotinic.acid_HMDB0001488	-0.340957270
## Maleic.acid_HMDB0000176	-0.468083329
## L.Proline_HMDB0000162	0.515738281
## Phenylacetic.acid_HMDB0000209	-0.687409467
## Succinic.acid_HMDB0000254	0.486905229
## Glycine_HMDB0000123.1	0.768178983
## Methylsuccinic.acid_HMDB0001844	0.004534597
## Glyceric.acid_HMDB0000139	-0.538504329
## Fumaric.acid_HMDB0000134	0.517508127
## Uracil_HMDB0000300	0.378352296
## Pelargonic.acid_HMDB0000847	-0.842415697
## L.Serine_HMDB0000187	0.675690552
## L.Threonine_HMDB0000167	0.715080157
## Mesaconic.acid_HMDB0000749	0.014484362
## Glutaric.acid_HMDB0000661	-0.287135709
## Thymine_HMDB0000262	0.402757423
## Beta.Alanine_HMDB0000056.1	0.929068009

## L.Homoserine_HMDB0000719	-0.086323687
## Capric.acid_HMDB0000511	-0.225498518
## Citramalic.acid_HMDB0000426	0.353147543
## Malic.acid_HMDB0000744	-0.478208014
## Niacinamide_HMDB0001406	0.732833783
## Adipic.acid_HMDB0000448	0.595316475
## D.Threitol_HMDB0004136	0.152583122
## Dihydrouracil_HMDB0000076	0.294945233
## Erythritol_HMDB0002994	0.306926192
## N.Acetylserine_HMDB0002931	0.557931774
## L.Aspartic.acid_HMDB0000191	0.732851033
## L.Methionine_HMDB0000696	0.953795909
## X4.Hydroxyproline_HMDB0000725	0.665209386
## Pyroglutamic.acid_HMDB0000267	0.659280621
## Cytosine_HMDB0000630	0.273191714
## Gamma.Aminobutyric.acid_HMDB0000112	0.174122161
## Threonic.acid_HMDB0000943	-0.457377736
## L.Cysteine_HMDB0000574	-0.279227763
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.734320771
## Creatinine_HMDB0000562	0.884900874
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.732418546
## Oxoglutaric.acid_HMDB0000208	-0.088180542
## Phenylpyruvic.acid_HMDB0000205	-0.462784934
## Pimelic.acid_HMDB0000857	0.447144593
## Phenyllactic.acid_HMDB0000779	-0.582117930
## Phosphoenolpyruvic.acid_HMDB0000263	-0.865974085
## Ornithine_HMDB0000214	0.709300552
## Hypotaurine_HMDB0000965	0.726084240
## Triethanolamine_HMDB00032538	0.670238744
## X2.Aminobenzoic.acid_HMDB0001123	0.921194931
## L.Glutamic.acid_HMDB0000148	0.886271785
## X4.Hydroxybenzoic.acid_HMDB0000500	0.834204259
## X5.Aminopentanoic.acid_HMDB0003355	-0.153589198
## X2.3.Dihydroxybutanedioic.acid_HMDB00059916	-0.470507904
## L.Phenylalanine_HMDB0000159	0.939027185
## Dodecanoic.acid_HMDB0000638	0.477491732
## Lyxose_HMDB0003402_1	-0.881283973
## D.Xylose_HMDB0000098	-0.203575913
## Lyxose_HMDB0003402_2	-0.063192860
## D.Arabinose_HMDB00029942	-0.935358252
## L.Asparagine_HMDB0000168	0.705267817
## D.Ribulose_HMDB0000621	-0.793882829
## D.Ribose_HMDB0000283	-0.930926776
## D.Xylulose_HMDB0001644	-0.770063001
## X3.Sulfinioalanine_HMDB0000996	0.502711359
## Suberic.acid_HMDB0000893	0.373979116
## L.Lysine_HMDB0000182	0.638273650
## Levoglucosan_HMDB0000640	-0.023907177
## D.Arabitool_HMDB0000568	0.231528675
## Ribitol_HMDB0000508	0.036257227
## cis.Aconitic.acid_HMDB0000072	0.004287916
## Quinolinic.acid_HMDB0000232	-0.065665296
## Putrescine_HMDB0001414	-0.134378045
## Glycerol.3.phosphate_HMDB0000126	-0.746424203

## Vanillic.acid_HMDB0000484	0.581678281
## L.Glutamine_HMDB0000641	0.471111818
## X2.Phosphoglyceric.acid_HMDB0000362	-0.038158635
## Azelaic.acid_HMDB0000784	-0.160294605
## L.Dihydroorotic.acid_HMDB0003349	-0.933430364
## O.Phosphoethanolamine_HMDB0000224	0.566071543
## X3.Phosphoglyceric.acid_HMDB0000807	-0.039590403
## Isocitric.acid_HMDB0000193	0.177530537
## Hypoxanthine_HMDB0000157	0.254981111
## Citric.acid_HMDB0000094	-0.459075869
## L.Arginine_HMDB0000517	-0.262619337
## Ornithine_HMDB0000214.1	0.902837908
## Dopamine_HMDB0000073	0.895036219
## Myristic.acid_HMDB0000806	0.817284229
## X1.5.Anhydrosorbitol_HMDB0002712	-0.146391953
## D.Tagatose_HMDB0003418	-0.939565705
## Psicose_1	0.109103103
## Sebacic.acid_HMDB0000792	0.576323526
## D.Fructose_HMDB0000660	-0.890999003
## Gluconolactone_HMDB0000150	-0.789756743
## L.Sorbose_HMDB0001266	-0.888589385
## D.Mannose_HMDB0000169	0.971184140
## Hydroxyphenyllactic.acid_HMDB0000755	0.150565479
## D.Glucose_HMDB0000122	0.938147811
## N.Acetylglutamine_HMDB0006029	0.957212322
## L.Lysine_HMDB0000182.1	0.952588274
## D.Mannose_HMDB0000169.1	1.000000000
## Tyramine_HMDB0000306	0.951090494
## L.Histidine_HMDB0000177	0.957554525
## D.Glucose_HMDB0000122.1	0.933990656
## X1.Hexadecanol_HMDB0003424	-0.188205278
## L.Tyrosine_HMDB0000158	0.891804293
## Mannitol_HMDB0000765	0.754867664
## Sorbitol_HMDB0000247	-0.238829078
## ITSD_Sorbitol	0.751152670
## Galacturonic.acid_HMDB0002545	0.172496417
## Pantothenic.acid_HMDB0000210	-0.208099882
## Palmitoleic.acid_HMDB0003229	0.616737471
## Xanthine_HMDB0000292	0.426345276
## Gluconic.acid_HMDB0000625	-0.541007824
## Palmitic.acid_HMDB0000220	0.483581559
## Glucaric.acid_HMDB0000663	0.738169647
## N.Acetylmannosamine_HMDB0001129	0.617980898
## N.Acetyl.D.glucosamine_HMDB0000215	0.882989229
## D.Ribulose.5.phosphate_HMDB0000618	-0.875104424
## Uric.acid_HMDB0000289	0.731257147
## D.Ribose.5.phosphate_HMDB0001548	-0.896111035
## myo.Inositol_HMDB0000211	0.423570971
## D.Ribose.5.phosphate_HMDB0001548.1	-0.934601457
## Heptadecanoic.acid_HMDB0002259	-0.372083076
## Octadecanol_HMDB0002350	-0.279389965
## Glutathione_HMDB0000125	0.096655857
## Linoleic.acid_HMDB0000673	0.346956803
## Oleic.acid_HMDB0000207	0.533461951

## Elaidic.acid_HMDB0000573	0.550155159
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.863270557
## Stearic.acid_HMDB0000827	0.021666978
## L.Tryptophan_HMDB0000929	0.047818196
## Fructose.1.phosphate_HMDB0001076	-0.853584371
## Mannose.6.phosphate_HMDB0001078	-0.410566214
## Arachidonic.acid_HMDB0001043	0.433346701
## Glucose.6.phosphate_HMDB0001401	-0.806458570
## X6.Phosphogluconic.acid_HMDB0001316	-0.278484547
## Inositol.phosphate_HMDB0002985	-0.148367879
## Uridine_HMDB0000296	0.191981071
## Stigmasterol_HMDB0000937	0.265268747
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.047224067
## Sucrose_HMDB0000258	0.524596170
## MG.18.0e.0.0.0.0._HMDB0011143	-0.047675665
## Trehalose_HMDB0000975	-0.195521749
## D.Maltose_HMDB0000163	-0.192422867
## Lactitol_HMDB00040937	-0.024784851
## Xanthylic.acid_HMDB0001554	-0.591498669
## Adenosine.monophosphate_HMDB0000045	-0.830076898
## Cholesterol_HMDB0000067	0.237126284
## Lathosterol_HMDB0001170	0.367326119
## X7b.Hydroxycholesterol._HMDB0006119	-0.552719757
## Tyramine_HMDB0000306	
## Dimethylglycine_HMDB0000092	-0.810446243
## Glyoxylic.acid_HMDB0000119	-0.812677479
## Pyruvic.acid_HMDB0000243	0.393289868
## L.Lactic.acid_HMDB0000190	0.716151607
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.107320967
## Glycolic.acid_HMDB0000115	-0.338525860
## Caproic.acid_HMDB0000535	-0.807552499
## L.Alanine_HMDB0000161	0.794088006
## Alpha.ketoisovaleric.acid_HMDB0000019	0.170067117
## Glycine_HMDB0000123	0.526900223
## Oxalic.acid_HMDB0002329	-0.584297571
## Hydroxylamine_HMDB0003338	0.218698791
## X2.Hydroxybutyric.acid_HMDB0000008	-0.139069481
## Acetoacetic.acid_HMDB0000060	-0.301685639
## Hydroxypropionic.acid_HMDB0000700	0.538652722
## Pyruvic.acid_HMDB0000243.1	0.234431388
## X3.Hydroxybutyric.acid_HMDB0000357	-0.214040008
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.107879405
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.396910893
## D.Alpha.aminobutyric.acid_HMDB0000650	0.782959769
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.073801640
## Beta.Alanine_HMDB0000056	0.740285604
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.148201048
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.228051729
## Malonic.acid_HMDB0000691	0.307414278
## X3.Aminoisobutanoic.acid_HMDB0003911	0.909381496
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.537489467
## Ketoleucine_HMDB0000695	-0.282362513
## L.Valine_HMDB0000883	0.787120752
## ITSD_Valine	0.797495735

## Urea_HMDB0000294	0.497741988
## Benzoic.acid_HMDB0001870	-0.175463630
## Caprylic.acid_HMDB0000482	-0.809159921
## Glycerol_HMDB0000131	0.830915414
## Ethanolamine_HMDB0000149	0.829578279
## L.Leucine_HMDB0000687	0.807794904
## Acetylglycine_HMDB0000532	-0.174979153
## L.Isoleucine_HMDB0000172	0.809677993
## Nicotinic.acid_HMDB0001488	-0.340636089
## Maleic.acid_HMDB0000176	-0.528883542
## L.Proline_HMDB0000162	0.583041028
## Phenylacetic.acid_HMDB0000209	-0.711607959
## Succinic.acid_HMDB0000254	0.527115399
## Glycine_HMDB0000123.1	0.791469402
## Methylsuccinic.acid_HMDB0001844	0.036369217
## Glyceric.acid_HMDB0000139	-0.555834490
## Fumaric.acid_HMDB0000134	0.441898229
## Uracil_HMDB0000300	0.382968795
## Pelargonic.acid_HMDB0000847	-0.853058889
## L.Serine_HMDB0000187	0.736404553
## L.Threonine_HMDB0000167	0.750338899
## Mesaconic.acid_HMDB0000749	-0.030756894
## Glutaric.acid_HMDB0000661	-0.150599423
## Thymine_HMDB0000262	0.389641999
## Beta.Alanine_HMDB0000056.1	0.913421970
## L.Homoserine_HMDB0000719	-0.080981897
## Capric.acid_HMDB0000511	-0.237266904
## Citramalic.acid_HMDB0000426	0.412150734
## Malic.acid_HMDB0000744	-0.438679499
## Niacinamide_HMDB0001406	0.696332346
## Adipic.acid_HMDB0000448	0.707404968
## D.Threitol_HMDB0004136	0.089628158
## Dihydrouracil_HMDB0000076	0.318028123
## Erythritol_HMDB0002994	0.228007275
## N.Acetylserine_HMDB0002931	0.621036704
## L.Aspartic.acid_HMDB0000191	0.785223561
## L.Methionine_HMDB0000696	0.969263575
## X4.Hydroxyproline_HMDB0000725	0.679617142
## Pyroglutamic.acid_HMDB0000267	0.664940636
## Cytosine_HMDB0000630	0.324712958
## Gamma.Aminobutyric.acid_HMDB0000112	0.146926051
## Threonic.acid_HMDB0000943	-0.519662629
## L.Cysteine_HMDB0000574	-0.331931884
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.698164436
## Creatinine_HMDB0000562	0.923333598
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.680434721
## Oxoglutaric.acid_HMDB0000208	-0.189469598
## Phenylpyruvic.acid_HMDB0000205	-0.481805674
## Pimelic.acid_HMDB0000857	0.414445673
## Phenyllactic.acid_HMDB0000779	-0.582614510
## Phosphoenolpyruvic.acid_HMDB0000263	-0.834128943
## Ornithine_HMDB0000214	0.852170675
## Hypotaurine_HMDB0000965	0.734839015
## Triethanolamine_HMDB0032538	0.703118762

## X2.Aminobenzoic.acid_HMDB0001123	0.918079265
## L.Glutamic.acid_HMDB0000148	0.920412183
## X4.Hydroxybenzoic.acid_HMDB0000500	0.860691601
## X5.Aminopentanoic.acid_HMDB0003355	-0.254068915
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.443061464
## L.Phenylalanine_HMDB0000159	0.973404295
## Dodecanoic.acid_HMDB0000638	0.379292461
## Lyxose_HMDB0003402_1	-0.839129805
## D.Xylose_HMDB0000098	-0.337966321
## Lyxose_HMDB0003402_2	-0.177256796
## D.Arabinose_HMDB0029942	-0.890360104
## L.Asparagine_HMDB0000168	0.827351763
## D.Ribulose_HMDB0000621	-0.823891343
## D.Ribose_HMDB0000283	-0.885142249
## D.Xylulose_HMDB0001644	-0.812058149
## X3.Sulfinioalanine_HMDB0000996	0.588076241
## Suberic.acid_HMDB0000893	0.420582410
## L.Lysine_HMDB0000182	0.794075756
## Levoglucosan_HMDB0000640	-0.154087060
## D.Arabitol_HMDB0000568	0.160974699
## Ribitol_HMDB0000508	0.077621405
## cis.Aconitic.acid_HMDB0000072	-0.174284462
## Quinolinic.acid_HMDB0000232	-0.077511390
## Putrescine_HMDB0001414	-0.113336138
## Glycerol.3.phosphate_HMDB0000126	-0.718523629
## Vanillic.acid_HMDB0000484	0.517114553
## L.Glutamine_HMDB0000641	0.601015548
## X2.Phosphoglyceric.acid_HMDB0000362	-0.014586004
## Azelaic.acid_HMDB0000784	-0.128583340
## L.Dihydroorotic.acid_HMDB0003349	-0.890715462
## O.Phosphoethanolamine_HMDB0000224	0.523280292
## X3.Phosphoglyceric.acid_HMDB0000807	-0.046068714
## Isocitric.acid_HMDB0000193	0.265883586
## Hypoxanthine_HMDB0000157	0.336656636
## Citric.acid_HMDB0000094	-0.407002825
## L.Arginine_HMDB0000517	-0.103637255
## Ornithine_HMDB0000214.1	0.955596833
## Dopamine_HMDB0000073	0.960471163
## Myristic.acid_HMDB0000806	0.774345308
## X1.5.Anhydrosorbitol_HMDB0002712	-0.279288805
## D.Tagatose_HMDB0003418	-0.887576973
## Psicose_1	-0.066458053
## Sebacic.acid_HMDB0000792	0.557989999
## D.Fructose_HMDB0000660	-0.835648229
## Gluconolactone_HMDB0000150	-0.755599936
## L.Sorbose_HMDB0001266	-0.828781730
## D.Mannose_HMDB0000169	0.865857032
## Hydroxyphenyllactic.acid_HMDB0000755	-0.003017838
## D.Glucose_HMDB0000122	0.819746444
## N.Acetylglutamine_HMDB0006029	0.834801661
## L.Lysine_HMDB0000182.1	0.999364926
## D.Mannose_HMDB0000169.1	0.951090494
## Tyramine_HMDB0000306	1.000000000
## L.Histidine_HMDB0000177	0.996590479

## D.Glucose_HMDB0000122.1	0.815605097
## X1.Hexadecanol_HMDB0003424	-0.290118957
## L.Tyrosine_HMDB0000158	0.966778714
## Mannitol_HMDB0000765	0.676289317
## Sorbitol_HMDB0000247	-0.100274367
## ITSD_Sorbitol	0.652240574
## Galacturonic.acid_HMDB0002545	0.045330299
## Pantothenic.acid_HMDB0000210	-0.253620556
## Palmitoleic.acid_HMDB0003229	0.528925483
## Xanthine_HMDB0000292	0.598825150
## Gluconic.acid_HMDB0000625	-0.493243543
## Palmitic.acid_HMDB0000220	0.341182542
## Glucaric.acid_HMDB0000663	0.720691729
## N.Acetylmannosamine_HMDB0001129	0.510294056
## N.Acetyl.D.glucosamine_HMDB0000215	0.770657859
## D.Ribulose.5.phosphate_HMDB0000618	-0.881772663
## Uric.acid_HMDB0000289	0.808294886
## D.Ribose.5.phosphate_HMDB0001548	-0.897997914
## myo.Inositol_HMDB0000211	0.427884487
## D.Ribose.5.phosphate_HMDB0001548.1	-0.937242551
## Heptadecanoic.acid_HMDB0002259	-0.283161059
## Octadecanol_HMDB0002350	-0.387252242
## Glutathione_HMDB0000125	0.171659551
## Linoleic.acid_HMDB0000673	0.231096302
## Oleic.acid_HMDB0000207	0.446658007
## Elaidic.acid_HMDB0000573	0.443106130
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.864253330
## Stearic.acid_HMDB0000827	-0.129857268
## L.Tryptophan_HMDB0000929	-0.113656000
## Fructose.1.phosphate_HMDB0001076	-0.792530712
## Mannose.6.phosphate_HMDB0001078	-0.438920814
## Arachidonic.acid_HMDB0001043	0.358546352
## Glucose.6.phosphate_HMDB0001401	-0.772493097
## X6.Phosphogluconic.acid_HMDB0001316	-0.389764661
## Inositol.phosphate_HMDB0002985	-0.268564878
## Uridine_HMDB0000296	0.121879850
## Stigmasterol_HMDB0000937	0.120582582
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.194841891
## Sucrose_HMDB0000258	0.438514214
## MG.18.0e.0.0.0.0._HMDB0011143	-0.201739260
## Trehalose_HMDB0000975	-0.191845714
## D.Maltose_HMDB0000163	-0.189365226
## Lactitol_HMDB0040937	-0.121035121
## Xanthylic.acid_HMDB0001554	-0.535162291
## Adenosine.monophosphate_HMDB0000045	-0.811302283
## Cholesterol_HMDB0000067	0.082990252
## Lathosterol_HMDB0001170	0.178887535
## X7b.Hydroxycholesterol_.HMDB0006119	-0.464572109
## L.Histidine_HMDB0000177	
## Dimethylglycine_HMDB0000092	-0.841373760
## Glyoxylic.acid_HMDB0000119	-0.843479792
## Pyruvic.acid_HMDB0000243	0.407852356
## L.Lactic.acid_HMDB0000190	0.704017025
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.107067151

## Glycolic.acid_HMDB0000115	-0.348490424
## Caproic.acid_HMDB0000535	-0.829372590
## L.Alanine_HMDB0000161	0.772263099
## Alpha.ketoisovaleric.acid_HMDB0000019	0.129138513
## Glycine_HMDB0000123	0.534685869
## Oxalic.acid_HMDB0002329	-0.578687147
## Hydroxylamine_HMDB0003338	0.195455172
## X2.Hydroxybutyric.acid_HMDB0000008	-0.163843791
## Acetoacetic.acid_HMDB0000060	-0.308025336
## Hydroxypropionic.acid_HMDB0000700	0.538737038
## Pyruvic.acid_HMDB0000243.1	0.211647623
## X3.Hydroxybutyric.acid_HMDB0000357	-0.219283729
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.122665756
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.414684631
## D.Alpha.aminobutyric.acid_HMDB0000650	0.762483277
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.109099970
## Beta.Alanine_HMDB0000056	0.763294856
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.125739331
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.193974714
## Malonic.acid_HMDB0000691	0.323210598
## X3.Aminoisobutanoic.acid_HMDB0003911	0.906513694
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.535495233
## Ketoleucine_HMDB0000695	-0.321324663
## L.Valine_HMDB0000883	0.765865177
## ITSD_Valine	0.793554762
## Urea_HMDB0000294	0.473352304
## Benzoic.acid_HMDB0001870	-0.182374618
## Caprylic.acid_HMDB0000482	-0.823130132
## Glycerol_HMDB0000131	0.826983035
## Ethanolamine_HMDB0000149	0.808053486
## L.Leucine_HMDB0000687	0.793091515
## Acetyl glycine_HMDB0000532	-0.180915044
## L.Isoleucine_HMDB0000172	0.792981485
## Nicotinic.acid_HMDB0001488	-0.328596491
## Maleic.acid_HMDB0000176	-0.537785833
## L.Proline_HMDB0000162	0.548070919
## Phenylacetic.acid_HMDB0000209	-0.735530993
## Succinic.acid_HMDB0000254	0.517609553
## Glycine_HMDB0000123.1	0.772608503
## Methylsuccinic.acid_HMDB0001844	0.056910001
## Glyceric.acid_HMDB0000139	-0.575160598
## Fumaric.acid_HMDB0000134	0.436580232
## Uracil_HMDB0000300	0.350479679
## Pelargonic.acid_HMDB0000847	-0.870351240
## L.Serine_HMDB0000187	0.714645805
## L.Threonine_HMDB0000167	0.727900406
## Mesaconic.acid_HMDB0000749	-0.024908139
## Glutaric.acid_HMDB0000661	-0.182791950
## Thymine_HMDB0000262	0.384236441
## Beta.Alanine_HMDB0000056.1	0.911948152
## L.Homoserine_HMDB0000719	-0.085346999
## Capric.acid_HMDB0000511	-0.237278211
## Citramalic.acid_HMDB0000426	0.420345298
## Malic.acid_HMDB0000744	-0.470060054

## Niacinamide_HMDB0001406	0.692342387
## Adipic.acid_HMDB0000448	0.688525309
## D.Threitol_HMDB0004136	0.078710334
## Dihydrouracil_HMDB0000076	0.288464743
## Erythritol_HMDB0002994	0.217595636
## N.Acetylserine_HMDB0002931	0.592662676
## L.Aspartic.acid_HMDB0000191	0.762103780
## L.Methionine_HMDB0000696	0.964490155
## X4.Hydroxyproline_HMDB0000725	0.660728497
## Pyroglutamic.acid_HMDB0000267	0.648583518
## Cytosine_HMDB0000630	0.328353566
## Gamma.Aminobutyric.acid_HMDB0000112	0.163261011
## Threonic.acid_HMDB0000943	-0.545691720
## L.Cysteine_HMDB0000574	-0.366599907
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.719885206
## Creatinine_HMDB0000562	0.923634645
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.688548048
## Oxoglutaric.acid_HMDB0000208	-0.183855727
## Phenylpyruvic.acid_HMDB0000205	-0.487251206
## Pimelic.acid_HMDB0000857	0.419145429
## Phenyllactic.acid_HMDB0000779	-0.602256898
## Phosphoenolpyruvic.acid_HMDB0000263	-0.846351539
## Ornithine_HMDB0000214	0.840390882
## Hypotaurine_HMDB0000965	0.701836101
## Triethanolamine_HMDB0032538	0.681094981
## X2.Aminobenzoic.acid_HMDB0001123	0.917397023
## L.Glutamic.acid_HMDB0000148	0.915771319
## X4.Hydroxybenzoic.acid_HMDB0000500	0.850329089
## X5.Aminopentanoic.acid_HMDB0003355	-0.268223571
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.461223493
## L.Phenylalanine_HMDB0000159	0.968555372
## Dodecanoic.acid_HMDB0000638	0.406211506
## Lyxose_HMDB0003402_1	-0.862828501
## D.Xylose_HMDB0000098	-0.329789914
## Lyxose_HMDB0003402_2	-0.165118282
## D.Arabinose_HMDB0029942	-0.909541422
## L.Asparagine_HMDB0000168	0.829627963
## D.Ribulose_HMDB0000621	-0.837883241
## D.Ribose_HMDB0000283	-0.902553333
## D.Xylulose_HMDB0001644	-0.825179830
## X3.Sulfinioalanine_HMDB0000996	0.601915809
## Suberic.acid_HMDB0000893	0.422214152
## L.Lysine_HMDB0000182	0.791752393
## Levoglucosan_HMDB0000640	-0.145675489
## D.Arabitool_HMDB0000568	0.183999319
## Ribitol_HMDB0000508	0.043139635
## cis.Aconitic.acid_HMDB0000072	-0.158097977
## Quinolinic.acid_HMDB0000232	-0.092470795
## Putrescine_HMDB0001414	-0.109441392
## Glycerol.3.phosphate_HMDB0000126	-0.700522614
## Vanillic.acid_HMDB0000484	0.487955174
## L.Glutamine_HMDB0000641	0.597509726
## X2.Phosphoglyceric.acid_HMDB0000362	-0.052060589
## Azelaic.acid_HMDB0000784	-0.109384958

## L.Dihydroorotic.acid_HMDB0003349	-0.911796310
## O.Phosphoethanolamine_HMDB0000224	0.561232444
## X3.Phosphoglyceric.acid_HMDB0000807	-0.079828788
## Isocitric.acid_HMDB0000193	0.255568705
## Hypoxanthine_HMDB0000157	0.340456039
## Citric.acid_HMDB0000094	-0.455072573
## L.Arginine_HMDB0000517	-0.127245156
## Ornithine_HMDB0000214.1	0.941713782
## Dopamine_HMDB0000073	0.946383957
## Myristic.acid_HMDB0000806	0.791557805
## X1.5.Anhydrosorbitol_HMDB0002712	-0.289219360
## D.Tagatose_HMDB0003418	-0.908769941
## Psicose_1	-0.064251000
## Sebacic.acid_HMDB0000792	0.555599126
## D.Fructose_HMDB0000660	-0.850176709
## Gluconolactone_HMDB0000150	-0.780029000
## L.Sorbose_HMDB0001266	-0.843169968
## D.Mannose_HMDB0000169	0.877089676
## Hydroxyphenyllactic.acid_HMDB0000755	-0.002908852
## D.Glucose_HMDB0000122	0.829864583
## N.Acetylglutamine_HMDB0006029	0.846170602
## L.Lysine_HMDB0000182.1	0.997234171
## D.Mannose_HMDB0000169.1	0.957554525
## Tyramine_HMDB0000306	0.996590479
## L.Histidine_HMDB0000177	1.000000000
## D.Glucose_HMDB0000122.1	0.828609005
## X1.Hexadecanol_HMDB0003424	-0.272608656
## L.Tyrosine_HMDB0000158	0.959832502
## Mannitol_HMDB0000765	0.679468928
## Sorbitol_HMDB0000247	-0.104602729
## ITSD_Sorbitol	0.654520070
## Galacturonic.acid_HMDB0002545	0.008230972
## Pantothenic.acid_HMDB0000210	-0.258689349
## Palmitoleic.acid_HMDB0003229	0.564545164
## Xanthine_HMDB0000292	0.562720804
## Gluconic.acid_HMDB0000625	-0.542575156
## Palmitic.acid_HMDB0000220	0.379528361
## Glucaric.acid_HMDB0000663	0.695697220
## N.Acetylmannosamine_HMDB0001129	0.512187207
## N.Acetyl.D.glucosamine_HMDB0000215	0.776470592
## D.Ribulose.5.phosphate_HMDB0000618	-0.890632120
## Uric.acid_HMDB0000289	0.815388773
## D.Ribose.5.phosphate_HMDB0001548	-0.904415560
## myo.Inositol_HMDB0000211	0.443393833
## D.Ribose.5.phosphate_HMDB0001548.1	-0.946065031
## Heptadecanoic.acid_HMDB0002259	-0.313493982
## Octadecanol_HMDB0002350	-0.378318467
## Glutathione_HMDB0000125	0.167260067
## Linoleic.acid_HMDB0000673	0.273664689
## Oleic.acid_HMDB0000207	0.487310925
## Elaidic.acid_HMDB0000573	0.485394451
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.874213001
## Stearic.acid_HMDB0000827	-0.087741808
## L.Tryptophan_HMDB0000929	-0.069276648

## Fructose.1.phosphate_HMDB0001076	-0.800848073
## Mannose.6.phosphate_HMDB0001078	-0.422500269
## Arachidonic.acid_HMDB0001043	0.406060127
## Glucose.6.phosphate_HMDB0001401	-0.790773976
## X6.Phosphogluconic.acid_HMDB0001316	-0.382927950
## Inositol.phosphate_HMDB0002985	-0.243056869
## Uridine_HMDB0000296	0.110834264
## Stigmasterol_HMDB0000937	0.133541783
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.188079412
## Sucrose_HMDB0000258	0.488105021
## MG.18.0e.0.0.0.0._HMDB0011143	-0.174924673
## Trehalose_HMDB0000975	-0.164355177
## D.Maltose_HMDB0000163	-0.161809571
## Lactitol_HMDB0040937	-0.137251806
## Xanthylic.acid_HMDB0001554	-0.533564994
## Adenosine.monophosphate_HMDB0000045	-0.830399878
## Cholesterol_HMDB0000067	0.092689798
## Lathosterol_HMDB0001170	0.214039046
## X7b.Hydroxycholesterol_.HMDB0006119	-0.508488836
##	D.Glucose_HMDB0000122.1
## Dimethylglycine_HMDB0000092	-0.69523715
## Glyoxylic.acid_HMDB0000119	-0.69638064
## Pyruvic.acid_HMDB0000243	0.41148833
## L.Lactic.acid_HMDB0000190	0.62407054
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.25045691
## Glycolic.acid_HMDB0000115	-0.36521159
## Caproic.acid_HMDB0000535	-0.86860139
## L.Alanine_HMDB0000161	0.67609250
## Alpha.ketoisovaleric.acid_HMDB0000019	0.22841767
## Glycine_HMDB0000123	0.56455868
## Oxalic.acid_HMDB0002329	-0.57550930
## Hydroxylamine_HMDB0003338	0.18034135
## X2.Hydroxybutyric.acid_HMDB0000008	-0.05722006
## Acetoacetic.acid_HMDB0000060	-0.23021122
## Hydroxypropionic.acid_HMDB0000700	0.45796418
## Pyruvic.acid_HMDB0000243.1	0.29663949
## X3.Hydroxybutyric.acid_HMDB0000357	-0.03346239
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.02797920
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.28305583
## D.Alpha.aminobutyric.acid_HMDB0000650	0.70264523
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.04446260
## Beta.Alanine_HMDB0000056	0.74615343
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.21660710
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.26732812
## Malonic.acid_HMDB0000691	0.27453297
## X3.Aminoisobutanoic.acid_HMDB0003911	0.82286483
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.51184732
## Ketoleucine_HMDB0000695	-0.18971250
## L.Valine_HMDB0000883	0.66159492
## ITSD_Valine	0.70073364
## Urea_HMDB0000294	0.54830761
## Benzoic.acid_HMDB0001870	-0.21418179
## Caprylic.acid_HMDB0000482	-0.65559947
## Glycerol_HMDB0000131	0.71707356

## Ethanolamine_HMDB0000149	0.64884362
## L.Leucine_HMDB0000687	0.68032514
## Acetylglycine_HMDB0000532	-0.23869665
## L.Isoleucine_HMDB0000172	0.69486227
## Nicotinic.acid_HMDB0001488	-0.23863100
## Maleic.acid_HMDB0000176	-0.42814929
## L.Proline_HMDB0000162	0.41121372
## Phenylacetic.acid_HMDB0000209	-0.61480829
## Succinic.acid_HMDB0000254	0.35608015
## Glycine_HMDB0000123.1	0.66310616
## Methylsuccinic.acid_HMDB0001844	-0.02180140
## Glyceric.acid_HMDB0000139	-0.56899961
## Fumaric.acid_HMDB0000134	0.52718123
## Uracil_HMDB0000300	0.32647470
## Pelargonic.acid_HMDB0000847	-0.70867470
## L.Serine_HMDB0000187	0.55872289
## L.Threonine_HMDB0000167	0.61486568
## Mesaconic.acid_HMDB0000749	0.13332190
## Glutaric.acid_HMDB0000661	-0.31197785
## Thymine_HMDB0000262	0.37566730
## Beta.Alanine_HMDB0000056.1	0.85782613
## L.Homoserine_HMDB0000719	-0.13109429
## Capric.acid_HMDB0000511	-0.22986248
## Citramalic.acid_HMDB0000426	0.37653206
## Malic.acid_HMDB0000744	-0.52962598
## Niacinamide_HMDB0001406	0.74568175
## Adipic.acid_HMDB0000448	0.48588586
## D.Threitol_HMDB0004136	0.24758777
## Dihydrouracil_HMDB0000076	0.27696445
## Erythritol_HMDB0002994	0.33730925
## N.Acetylserine_HMDB0002931	0.43985997
## L.Aspartic.acid_HMDB0000191	0.63938214
## L.Methionine_HMDB0000696	0.86884997
## X4.Hydroxyproline_HMDB0000725	0.61263083
## Pyroglutamic.acid_HMDB0000267	0.63526777
## Cytosine_HMDB0000630	0.24660607
## Gamma.Aminobutyric.acid_HMDB0000112	0.22869404
## Threonic.acid_HMDB0000943	-0.39377392
## L.Cysteine_HMDB0000574	-0.23649119
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.72583063
## Creatinine_HMDB0000562	0.76357637
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.68120328
## Oxoglutaric.acid_HMDB0000208	-0.02387716
## Phenylpyruvic.acid_HMDB0000205	-0.39362731
## Pimelic.acid_HMDB0000857	0.42703655
## Phenyllactic.acid_HMDB0000779	-0.52328669
## Phosphoenolpyruvic.acid_HMDB0000263	-0.80109286
## Ornithine_HMDB0000214	0.59114297
## Hypotaurine_HMDB0000965	0.71488486
## Triethanolamine_HMDB0032538	0.58750860
## X2.Aminobenzoic.acid_HMDB0001123	0.79808174
## L.Glutamic.acid_HMDB0000148	0.81751170
## X4.Hydroxybenzoic.acid_HMDB0000500	0.69579987
## X5.Aminopentanoic.acid_HMDB0003355	-0.10485643

## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.46963607
## L.Phenylalanine_HMDB0000159	0.81466086
## Dodecanoic.acid_HMDB0000638	0.48027022
## Lyxose_HMDB0003402_1	-0.85979181
## D.Xylose_HMDB0000098	-0.03175680
## Lyxose_HMDB0003402_2	0.10443927
## D.Arabinose_HMDB0029942	-0.90919223
## L.Asparagine_HMDB0000168	0.55822702
## D.Ribulose_HMDB0000621	-0.72306138
## D.Ribose_HMDB0000283	-0.90668918
## D.Xylulose_HMDB0001644	-0.69107142
## X3.Sulfinoalanine_HMDB0000996	0.43370544
## Suberic.acid_HMDB0000893	0.39669224
## L.Lysine_HMDB0000182	0.51169452
## Levoglucosan_HMDB0000640	0.12732082
## D.Arabitol_HMDB0000568	0.31107142
## Ribitol_HMDB0000508	0.03151907
## cis.Aconitic.acid_HMDB0000072	0.20816096
## Quinolinic.acid_HMDB0000232	0.02636994
## Putrescine_HMDB0001414	-0.17474023
## Glycerol.3.phosphate_HMDB0000126	-0.66220571
## Vanillic.acid_HMDB0000484	0.60957014
## L.Glutamine_HMDB0000641	0.31343587
## X2.Phosphoglyceric.acid_HMDB0000362	-0.08253369
## Azelaic.acid_HMDB0000784	-0.06266680
## L.Dihydroorotic.acid_HMDB0003349	-0.90412811
## O.Phosphoethanolamine_HMDB0000224	0.52027915
## X3.Phosphoglyceric.acid_HMDB0000807	-0.04273163
## Isocitric.acid_HMDB0000193	0.14168238
## Hypoxanthine_HMDB0000157	0.17792406
## Citric.acid_HMDB0000094	-0.45910384
## L.Arginine_HMDB0000517	-0.41918680
## Ornithine_HMDB0000214.1	0.77686762
## Dopamine_HMDB0000073	0.75404968
## Myristic.acid_HMDB0000806	0.74440253
## X1.5.Anhydrosorbitol_HMDB0002712	-0.02434389
## D.Tagatose_HMDB0003418	-0.88657573
## Psicose_1	0.21891742
## Sebacic.acid_HMDB0000792	0.51984783
## D.Fructose_HMDB0000660	-0.87900160
## Gluconolactone_HMDB0000150	-0.75693350
## L.Sorbose_HMDB0001266	-0.88131297
## D.Mannose_HMDB0000169	0.97354807
## Hydroxyphenyllactic.acid_HMDB0000755	0.24385551
## D.Glucose_HMDB0000122	0.97794088
## N.Acetylglutamine_HMDB0006029	0.98056748
## L.Lysine_HMDB0000182.1	0.81926566
## D.Mannose_HMDB0000169.1	0.93399066
## Tyramine_HMDB0000306	0.81560510
## L.Histidine_HMDB0000177	0.82860900
## D.Glucose_HMDB0000122.1	1.00000000
## X1.Hexadecanol_HMDB0003424	-0.12199554
## L.Tyrosine_HMDB0000158	0.75120585
## Mannitol_HMDB0000765	0.70115367

## Sorbitol_HMDB0000247	-0.33853370
## ITSD_Sorbitol	0.69951218
## Galacturonic.acid_HMDB0002545	0.25885162
## Pantothenic.acid_HMDB0000210	-0.16059824
## Palmitoleic.acid_HMDB0003229	0.59291029
## Xanthine_HMDB0000292	0.26557697
## Gluconic.acid_HMDB0000625	-0.48577115
## Palmitic.acid_HMDB0000220	0.52266282
## Glucaric.acid_HMDB0000663	0.62595506
## N.Acetylmannosamine_HMDB0001129	0.71029325
## N.Acetyl.D.glucosamine_HMDB0000215	0.85879899
## D.Ribulose.5.phosphate_HMDB0000618	-0.73328564
## Uric.acid_HMDB0000289	0.60809001
## D.Ribose.5.phosphate_HMDB0001548	-0.79297973
## myo.Inositol_HMDB0000211	0.45393142
## D.Ribose.5.phosphate_HMDB0001548.1	-0.81062330
## Heptadecanoic.acid_HMDB0002259	-0.45343758
## Octadecanol_HMDB0002350	-0.19252875
## Glutathione_HMDB0000125	0.11139865
## Linoleic.acid_HMDB0000673	0.36228721
## Oleic.acid_HMDB0000207	0.51054614
## Elaidic.acid_HMDB0000573	0.55164225
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.76809428
## Stearic.acid_HMDB0000827	0.13742558
## L.Tryptophan_HMDB0000929	0.18167075
## Fructose.1.phosphate_HMDB0001076	-0.76462879
## Mannose.6.phosphate_HMDB0001078	-0.25538661
## Arachidonic.acid_HMDB0001043	0.42078821
## Glucose.6.phosphate_HMDB0001401	-0.70844740
## X6.Phosphogluconic.acid_HMDB0001316	-0.15864668
## Inositol.phosphate_HMDB0002985	-0.04741795
## Uridine_HMDB0000296	0.12795541
## Stigmasterol_HMDB0000937	0.32919706
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.14154812
## Sucrose_HMDB0000258	0.57944239
## MG.18.0e.0.0.0.0._HMDB0011143	0.04872636
## Trehalose_HMDB0000975	-0.08797235
## D.Maltose_HMDB0000163	-0.08437327
## Lactitol_HMDB0040937	0.22483909
## Xanthylic.acid_HMDB0001554	-0.56967290
## Adenosine.monophosphate_HMDB0000045	-0.72630222
## Cholesterol_HMDB0000067	0.36401080
## Lathosterol_HMDB0001170	0.47045107
## X7b.Hydroxycholesterol_.HMDB0006119	-0.55674775
##	X1.Hexadecanol_HMDB0003424
## Dimethylglycine_HMDB0000092	0.2420226329
## Glyoxylic.acid_HMDB0000119	0.2271403825
## Pyruvic.acid_HMDB0000243	0.2327667159
## L.Lactic.acid_HMDB0000190	-0.1983549639
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.3406393707
## Glycolic.acid_HMDB0000115	0.6279400450
## Caproic.acid_HMDB0000535	0.3058881405
## L.Alanine_HMDB0000161	-0.3227642573
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.1091310040

## Glycine_HMDB0000123	-0.1288210823
## Oxalic.acid_HMDB0002329	0.1338040634
## Hydroxylamine_HMDB0003338	0.0312779312
## X2.Hydroxybutyric.acid_HMDB0000008	0.3318661455
## Acetoacetic.acid_HMDB0000060	0.3122161678
## Hydroxypropionic.acid_HMDB0000700	0.1179354239
## Pyruvic.acid_HMDB0000243.1	0.0958495288
## X3.Hydroxybutyric.acid_HMDB0000357	0.4286148510
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.3447184087
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.5583665947
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.2436650614
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.0133133962
## Beta.Alanine_HMDB0000056	-0.1323876489
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.1254337101
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.0380362268
## Malonic.acid_HMDB0000691	0.0644744570
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.1014048381
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.0545852283
## Ketoleucine_HMDB0000695	0.1875707511
## L.Valine_HMDB0000883	-0.1766024539
## ITSD_Valine	-0.0798649127
## Urea_HMDB0000294	-0.1116820481
## Benzoic.acid_HMDB0001870	0.6315289169
## Caprylic.acid_HMDB0000482	0.5122349287
## Glycerol_HMDB0000131	-0.1946106767
## Ethanolamine_HMDB0000149	-0.2941496071
## L.Leucine_HMDB0000687	-0.1408336473
## Acetyl glycine_HMDB0000532	0.5806282069
## L.Isoleucine_HMDB0000172	-0.2159490413
## Nicotinic.acid_HMDB0001488	0.1295324678
## Maleic.acid_HMDB0000176	0.5049390956
## L.Proline_HMDB0000162	-0.1366577267
## Phenylacetic.acid_HMDB0000209	0.4257214209
## Succinic.acid_HMDB0000254	-0.0022355481
## Glycine_HMDB0000123.1	-0.1577334515
## Methylsuccinic.acid_HMDB0001844	0.4264308492
## Glyceric.acid_HMDB0000139	0.5826870372
## Fumaric.acid_HMDB0000134	0.1055369421
## Uracil_HMDB0000300	-0.0265347652
## Pelargonic.acid_HMDB0000847	0.3999911370
## L.Serine_HMDB0000187	-0.2426359733
## L.Threonine_HMDB0000167	-0.2664129206
## Mesaconic.acid_HMDB0000749	0.4291419416
## Glutaric.acid_HMDB0000661	-0.1392173397
## Thymine_HMDB0000262	-0.3644739565
## Beta.Alanine_HMDB0000056.1	-0.2429726772
## L.Homoserine_HMDB0000719	0.5805291293
## Capric.acid_HMDB0000511	0.7060971582
## Citramalic.acid_HMDB0000426	-0.3096706320
## Malic.acid_HMDB0000744	0.3339707446
## Niacinamide_HMDB0001406	-0.1812268480
## Adipic.acid_HMDB0000448	-0.3430761920
## D.Threitol_HMDB0004136	0.6840775151
## Dihydrouracil_HMDB0000076	-0.2500047008

## Erythritol_HMDB0002994	0.1981042028
## N.Acetylserine_HMDB0002931	-0.3100530887
## L.Aspartic.acid_HMDB0000191	-0.2548216062
## L.Methionine_HMDB0000696	-0.2726088808
## X4.Hydroxyproline_HMDB0000725	-0.1640182992
## Pyroglutamic.acid_HMDB0000267	-0.1272583244
## Cytosine_HMDB0000630	0.0905203304
## Gamma.Aminobutyric.acid_HMDB0000112	-0.0619813509
## Threonic.acid_HMDB0000943	0.4444053196
## L.Cysteine_HMDB0000574	0.4565121104
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.3052278848
## Creatinine_HMDB0000562	-0.0686969305
## X3.Hydroxyglutaric.acid_HMDB0000428	0.3708588907
## Oxoglutaric.acid_HMDB0000208	0.2094422954
## Phenylpyruvic.acid_HMDB0000205	0.3971219760
## Pimelic.acid_HMDB0000857	-0.5122174544
## Phenyllactic.acid_HMDB0000779	0.2666271421
## Phosphoenolpyruvic.acid_HMDB0000263	0.0273014293
## Ornithine_HMDB0000214	-0.4145625268
## Hypotaurine_HMDB0000965	-0.3330151523
## Triethanolamine_HMDB0032538	-0.4661318162
## X2.Aminobenzoic.acid_HMDB0001123	-0.2536973072
## L.Glutamic.acid_HMDB0000148	-0.2641463890
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.2440995806
## X5.Aminopentanoic.acid_HMDB0003355	0.0238799362
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.4404120666
## L.Phenylalanine_HMDB0000159	-0.2795678415
## Dodecanoic.acid_HMDB0000638	0.4392285841
## Lyxose_HMDB0003402_1	0.3209545245
## D.Xylose_HMDB0000098	0.1953197757
## Lyxose_HMDB0003402_2	0.0465978833
## D.Arabinose_HMDB0029942	0.2067606079
## L.Asparagine_HMDB0000168	-0.4104879645
## D.Ribulose_HMDB0000621	0.3659671499
## D.Ribose_HMDB0000283	0.2103551792
## D.Xylulose_HMDB0001644	0.3530017136
## X3.Sulfinioalanine_HMDB0000996	-0.0198667344
## Suberic.acid_HMDB0000893	-0.2606662905
## L.Lysine_HMDB0000182	-0.2922899790
## Levoglucosan_HMDB0000640	0.1024901753
## D.Arabitol_HMDB0000568	0.3759671934
## Ribitol_HMDB0000508	0.5853726573
## cis.Aconitic.acid_HMDB0000072	0.0819541940
## Quinolinic.acid_HMDB0000232	0.1246255525
## Putrescine_HMDB0001414	0.1214219887
## Glycerol.3.phosphate_HMDB0000126	0.3420072872
## Vanillic.acid_HMDB0000484	0.1939845881
## L.Glutamine_HMDB0000641	-0.4226179234
## X2.Phosphoglyceric.acid_HMDB0000362	-0.0222841530
## Azelaic.acid_HMDB0000784	-0.0718821924
## L.Dihydroorotic.acid_HMDB0003349	0.2547310114
## O.Phosphoethanolamine_HMDB0000224	0.2200954939
## X3.Phosphoglyceric.acid_HMDB0000807	-0.1488573214
## Isocitric.acid_HMDB0000193	0.3040554716

## Hypoxanthine_HMDB0000157	-0.2067504619
## Citric.acid_HMDB0000094	0.1579808898
## L.Arginine_HMDB0000517	0.1888999425
## Ornithine_HMDB0000214.1	-0.3861418548
## Dopamine_HMDB0000073	-0.3744975135
## Myristic.acid_HMDB0000806	0.1153032477
## X1.5.Anhydrosorbitol_HMDB0002712	0.3725309673
## D.Tagatose_HMDB0003418	0.2340020881
## Psicose_1	0.0337580467
## Sebacic.acid_HMDB0000792	0.1107651320
## D.Fructose_HMDB0000660	0.3280474651
## Gluconolactone_HMDB0000150	0.4282531617
## L.Sorbose_HMDB0001266	0.3440330866
## D.Mannose_HMDB0000169	-0.1001058320
## Hydroxyphenyllactic.acid_HMDB0000755	0.2445527584
## D.Glucose_HMDB0000122	-0.0939082809
## N.Acetylglutamine_HMDB0006029	-0.1052116866
## L.Lysine_HMDB0000182.1	-0.2811194739
## D.Mannose_HMDB0000169.1	-0.1882052779
## Tyramine_HMDB0000306	-0.2901189575
## L.Histidine_HMDB0000177	-0.2726086563
## D.Glucose_HMDB0000122.1	-0.1219955381
## X1.Hexadecanol_HMDB0003424	1.0000000000
## L.Tyrosine_HMDB0000158	-0.3748794376
## Mannitol_HMDB0000765	-0.0753086657
## Sorbitol_HMDB0000247	-0.1318283390
## ITSD_Sorbitol	0.1381975581
## Galacturonic.acid_HMDB0002545	0.2055103311
## Pantothenic.acid_HMDB0000210	0.5578529012
## Palmitoleic.acid_HMDB0003229	0.3030733282
## Xanthine_HMDB0000292	-0.5022287377
## Gluconic.acid_HMDB0000625	0.0127253360
## Palmitic.acid_HMDB0000220	0.4213943394
## Glucaric.acid_HMDB0000663	-0.0677942395
## N.Acetylmannosamine_HMDB0001129	0.1424794378
## N.Acetyl.D.glucosamine_HMDB0000215	0.0429139522
## D.Ribulose.5.phosphate_HMDB0000618	0.3732838480
## Uric.acid_HMDB0000289	-0.2724507973
## D.Ribose.5.phosphate_HMDB0001548	0.2400754896
## myo.Inositol_HMDB0000211	0.2842996262
## D.Ribose.5.phosphate_HMDB0001548.1	0.2354253753
## Heptadecanoic.acid_HMDB0002259	-0.0060119338
## Octadecanol_HMDB0002350	0.6194072095
## Glutathione_HMDB0000125	-0.1948160086
## Linoleic.acid_HMDB0000673	0.4488070603
## Oleic.acid_HMDB0000207	0.3328490451
## Elaidic.acid_HMDB0000573	0.3738622637
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.1453322316
## Stearic.acid_HMDB0000827	0.5524765601
## L.Tryptophan_HMDB0000929	0.4776019558
## Fructose.1.phosphate_HMDB0001076	0.1810054041
## Mannose.6.phosphate_HMDB0001078	0.2083793119
## Arachidonic.acid_HMDB0001043	0.3225334753
## Glucose.6.phosphate_HMDB0001401	0.3328019115

## X6.Phosphogluconic.acid_HMDB0001316	0.7265091627
## Inositol.phosphate_HMDB0002985	0.7377016982
## Uridine_HMDB0000296	0.4026035440
## Stigmasterol_HMDB0000937	0.3236749084
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.1294668706
## Sucrose_HMDB0000258	0.2413193377
## MG.18.0e.0.0.0.0._HMDB0011143	0.5819597772
## Trehalose_HMDB0000975	0.0006670886
## D.Maltose_HMDB0000163	0.0073478413
## Lactitol_HMDB0040937	0.0792263587
## Xanthylic.acid_HMDB0001554	-0.1739707311
## Adenosine.monophosphate_HMDB0000045	0.3751859114
## Cholesterol_HMDB0000067	0.6294273063
## Lathosterol_HMDB0001170	0.5862392895
## X7b.Hydroxycholesterol_.HMDB0006119	-0.2315910929
## L.Tyrosine_HMDB0000158	
## Dimethylglycine_HMDB0000092	-7.390376e-01
## Glyoxylic.acid_HMDB0000119	-7.389892e-01
## Pyruvic.acid_HMDB0000243	2.945672e-01
## L.Lactic.acid_HMDB0000190	6.533673e-01
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-1.903925e-02
## Glycolic.acid_HMDB0000115	-4.512125e-01
## Caproic.acid_HMDB0000535	-7.490619e-01
## L.Alanine_HMDB0000161	7.788673e-01
## Alpha.ketoisovaleric.acid_HMDB0000019	1.617008e-01
## Glycine_HMDB0000123	4.982419e-01
## Oxalic.acid_HMDB0002329	-6.475699e-01
## Hydroxylamine_HMDB0003338	1.199159e-01
## X2.Hydroxybutyric.acid_HMDB0000008	-2.206205e-01
## Acetoacetic.acid_HMDB0000060	-4.407882e-01
## Hydroxypropionic.acid_HMDB0000700	3.719934e-01
## Pyruvic.acid_HMDB0000243.1	1.431903e-01
## X3.Hydroxybutyric.acid_HMDB0000357	-3.530585e-01
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-2.238244e-01
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-4.990533e-01
## D.Alpha.aminobutyric.acid_HMDB0000650	6.899611e-01
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-7.517551e-02
## Beta.Alanine_HMDB0000056	7.043305e-01
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	1.296495e-01
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	1.634248e-01
## Malonic.acid_HMDB0000691	2.432928e-01
## X3.Aminoisobutanoic.acid_HMDB0003911	8.404043e-01
## X3.Hydroxyisovaleric.acid_HMDB0000754	3.962352e-01
## Ketoleucine_HMDB0000695	-3.011196e-01
## L.Valine_HMDB0000883	7.148173e-01
## ITSD_Valine	6.916629e-01
## Urea_HMDB0000294	4.571154e-01
## Benzoic.acid_HMDB0001870	-2.425583e-01
## Caprylic.acid_HMDB0000482	-8.037603e-01
## Glycerol_HMDB0000131	7.533738e-01
## Ethanolamine_HMDB0000149	8.102135e-01
## L.Leucine_HMDB0000687	7.173231e-01
## Acetyl glycine_HMDB0000532	-2.685786e-01
## L.Isoleucine_HMDB0000172	7.485931e-01

## Nicotinic.acid_HMDB0001488	-2.693905e-01
## Maleic.acid_HMDB0000176	-6.154653e-01
## L.Proline_HMDB0000162	5.135935e-01
## Phenylacetic.acid_HMDB0000209	-7.670941e-01
## Succinic.acid_HMDB0000254	4.259460e-01
## Glycine_HMDB0000123.1	6.946919e-01
## Methylsuccinic.acid_HMDB0001844	-8.965423e-02
## Glyceric.acid_HMDB0000139	-6.463914e-01
## Fumaric.acid_HMDB0000134	3.722678e-01
## Uracil_HMDB0000300	3.566819e-01
## Pelargonic.acid_HMDB0000847	-8.011830e-01
## L.Serine_HMDB0000187	7.121017e-01
## L.Threonine_HMDB0000167	7.238725e-01
## Mesaconic.acid_HMDB0000749	1.330395e-02
## Glutaric.acid_HMDB0000661	-4.203344e-02
## Thymine_HMDB0000262	3.731911e-01
## Beta.Alanine_HMDB0000056.1	8.291269e-01
## L.Homoserine_HMDB0000719	-1.753564e-01
## Capric.acid_HMDB0000511	-3.333928e-01
## Citramalic.acid_HMDB0000426	4.301686e-01
## Malic.acid_HMDB0000744	-4.811148e-01
## Niacinamide_HMDB0001406	6.719639e-01
## Adipic.acid_HMDB0000448	7.846525e-01
## D.Threitol_HMDB0004136	3.361406e-02
## Dihydrouracil_HMDB0000076	3.144830e-01
## Erythritol_HMDB0002994	1.269884e-01
## N.Acetylserine_HMDB0002931	6.158755e-01
## L.Aspartic.acid_HMDB0000191	7.672135e-01
## L.Methionine_HMDB0000696	9.157869e-01
## X4.Hydroxyproline_HMDB0000725	6.574726e-01
## Pyroglutamic.acid_HMDB0000267	6.473202e-01
## Cytosine_HMDB0000630	4.625945e-01
## Gamma.Aminobutyric.acid_HMDB0000112	1.394613e-01
## Threonic.acid_HMDB0000943	-5.694524e-01
## L.Cysteine_HMDB0000574	-3.868408e-01
## L.2.Hydroxyglutaric.acid_HMDB0000694	-6.739476e-01
## Creatinine_HMDB0000562	8.199841e-01
## X3.Hydroxyglutaric.acid_HMDB0000428	-5.954036e-01
## Oxoglutaric.acid_HMDB0000208	-2.896923e-01
## Phenylpyruvic.acid_HMDB0000205	-4.631307e-01
## Pimelic.acid_HMDB0000857	4.110531e-01
## Phenyllactic.acid_HMDB0000779	-4.809002e-01
## Phosphoenolpyruvic.acid_HMDB0000263	-6.828247e-01
## Ornithine_HMDB0000214	8.969452e-01
## Hypotaurine_HMDB0000965	7.130081e-01
## Triethanolamine_HMDB0032538	7.301549e-01
## X2.Aminobenzoic.acid_HMDB0001123	8.263374e-01
## L.Glutamic.acid_HMDB0000148	9.409091e-01
## X4.Hydroxybenzoic.acid_HMDB0000500	7.982895e-01
## X5.Aminopentanoic.acid_HMDB0003355	-1.992688e-01
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-4.833797e-01
## L.Phenylalanine_HMDB0000159	9.307705e-01
## Dodecanoic.acid_HMDB0000638	1.977243e-01
## Lyxose_HMDB0003402_1	-8.114722e-01

## D.Xylose_HMDB0000098	-2.571421e-01
## Lyxose_HMDB0003402_2	-9.558253e-02
## D.Arabinose_HMDB0029942	-8.488469e-01
## L.Asparagine_HMDB0000168	9.138140e-01
## D.Ribulose_HMDB0000621	-7.784976e-01
## D.Ribose_HMDB0000283	-8.378388e-01
## D.Xylulose_HMDB0001644	-7.590907e-01
## X3.Sulfinioalanine_HMDB0000996	6.649276e-01
## Suberic.acid_HMDB0000893	4.661885e-01
## L.Lysine_HMDB0000182	8.393813e-01
## Levoglucosan_HMDB0000640	-7.152703e-02
## D.Arabitol_HMDB0000568	9.645543e-02
## Ribitol_HMDB0000508	4.736327e-02
## cis.Aconitic.acid_HMDB0000072	-1.109337e-01
## Quinolinic.acid_HMDB0000232	-1.691820e-02
## Putrescine_HMDB0001414	-8.591885e-02
## Glycerol.3.phosphate_HMDB0000126	-6.269143e-01
## Vanillic.acid_HMDB0000484	4.506363e-01
## L.Glutamine_HMDB0000641	7.344670e-01
## X2.Phosphoglyceric.acid_HMDB0000362	8.403111e-02
## Azelaic.acid_HMDB0000784	1.703665e-05
## L.Dihydroorotic.acid_HMDB0003349	-8.551967e-01
## O.Phosphoethanolamine_HMDB0000224	3.575613e-01
## X3.Phosphoglyceric.acid_HMDB0000807	3.647006e-02
## Isocitric.acid_HMDB0000193	2.736701e-01
## Hypoxanthine_HMDB0000157	4.020832e-01
## Citric.acid_HMDB0000094	-3.097973e-01
## L.Arginine_HMDB0000517	-1.994583e-02
## Ornithine_HMDB0000214.1	9.430244e-01
## Dopamine_HMDB0000073	9.511955e-01
## Myristic.acid_HMDB0000806	6.322170e-01
## X1.5.Anhydrosorbitol_HMDB0002712	-2.845000e-01
## D.Tagatose_HMDB0003418	-8.302373e-01
## Psicose_1	3.299947e-03
## Sebacic.acid_HMDB0000792	5.416910e-01
## D.Fructose_HMDB0000660	-8.036130e-01
## Gluconolactone_HMDB0000150	-7.189300e-01
## L.Sorbose_HMDB0001266	-7.963933e-01
## D.Mannose_HMDB0000169	7.917210e-01
## Hydroxyphenyllactic.acid_HMDB0000755	-1.572705e-01
## D.Glucose_HMDB0000122	7.662130e-01
## N.Acetylglutamine_HMDB0006029	7.676650e-01
## L.Lysine_HMDB0000182.1	9.672138e-01
## D.Mannose_HMDB0000169.1	8.918043e-01
## Tyramine_HMDB0000306	9.667787e-01
## L.Histidine_HMDB0000177	9.598325e-01
## D.Glucose_HMDB0000122.1	7.512058e-01
## X1.Hexadecanol_HMDB0003424	-3.748794e-01
## L.Tyrosine_HMDB0000158	1.000000e+00
## Mannitol_HMDB0000765	6.446887e-01
## Sorbitol_HMDB0000247	-1.071719e-03
## ITSD_Sorbitol	5.126425e-01
## Galacturonic.acid_HMDB0002545	-2.258294e-02
## Pantothenic.acid_HMDB0000210	-3.321241e-01

## Palmitoleic.acid_HMDB0003229	3.354762e-01
## Xanthine_HMDB0000292	7.216396e-01
## Gluconic.acid_HMDB0000625	-3.975723e-01
## Palmitic.acid_HMDB0000220	1.496710e-01
## Glucaric.acid_HMDB0000663	6.550394e-01
## N.Acetylmannosamine_HMDB0001129	4.432136e-01
## N.Acetyl.D.glucosamine_HMDB0000215	6.776145e-01
## D.Ribulose.5.phosphate_HMDB0000618	-8.213887e-01
## Uric.acid_HMDB0000289	8.546011e-01
## D.Ribose.5.phosphate_HMDB0001548	-8.330520e-01
## myo.Inositol_HMDB0000211	3.944514e-01
## D.Ribose.5.phosphate_HMDB0001548.1	-8.871748e-01
## Heptadecanoic.acid_HMDB0002259	-2.014943e-01
## Octadecanol_HMDB0002350	-4.963360e-01
## Glutathione_HMDB0000125	3.196535e-01
## Linoleic.acid_HMDB0000673	2.679402e-02
## Oleic.acid_HMDB0000207	2.566120e-01
## Elaidic.acid_HMDB0000573	2.571850e-01
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-7.615762e-01
## Stearic.acid_HMDB0000827	-2.840224e-01
## L.Tryptophan_HMDB0000929	-2.514009e-01
## Fructose.1.phosphate_HMDB0001076	-7.280953e-01
## Mannose.6.phosphate_HMDB0001078	-3.210224e-01
## Arachidonic.acid_HMDB0001043	1.970435e-01
## Glucose.6.phosphate_HMDB0001401	-7.752844e-01
## X6.Phosphogluconic.acid_HMDB0001316	-5.452247e-01
## Inositol.phosphate_HMDB0002985	-3.845588e-01
## Uridine_HMDB0000296	7.665042e-03
## Stigmasterol_HMDB0000937	-2.454646e-02
## D.Sedoheptulose.7.phosphate_HMDB0001068	-3.019660e-01
## Sucrose_HMDB0000258	3.867924e-01
## MG.18.0e.0.0.0.0._HMDB0011143	-3.802637e-01
## Trehalose_HMDB0000975	-6.884548e-02
## D.Maltose_HMDB0000163	-6.782313e-02
## Lactitol_HMDB0040937	-1.399027e-01
## Xanthylic.acid_HMDB0001554	-3.434891e-01
## Adenosine.monophosphate_HMDB0000045	-7.682678e-01
## Cholesterol_HMDB0000067	-4.000166e-03
## Lathosterol_HMDB0001170	1.506234e-02
## X7b.Hydroxycholesterol_.HMDB0006119	-3.027292e-01
## Mannitol_HMDB0000765	
## Dimethylglycine_HMDB0000092	-0.616965708
## Glyoxylic.acid_HMDB0000119	-0.621657702
## Pyruvic.acid_HMDB0000243	0.667866908
## L.Lactic.acid_HMDB0000190	0.816543911
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.527105067
## Glycolic.acid_HMDB0000115	-0.065606045
## Caproic.acid_HMDB0000535	-0.552622901
## L.Alanine_HMDB0000161	0.799179474
## Alpha.ketoisovaleric.acid_HMDB0000019	0.490590755
## Glycine_HMDB0000123	0.712257900
## Oxalic.acid_HMDB0002329	-0.273601294
## Hydroxylamine_HMDB0003338	0.292706992
## X2.Hydroxybutyric.acid_HMDB0000008	0.290596877

## Acetoacetic.acid_HMDB0000060	-0.050455448
## Hydroxypropionic.acid_HMDB0000700	0.653363527
## Pyruvic.acid_HMDB0000243.1	0.551814255
## X3.Hydroxybutyric.acid_HMDB0000357	0.245066719
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.361128643
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.028219427
## D.Alpha.aminobutyric.acid_HMDB0000650	0.788581497
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.327193728
## Beta.Alanine_HMDB0000056	0.676701568
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.370608071
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.652141140
## Malonic.acid_HMDB0000691	0.465273688
## X3.Aminoisobutanoic.acid_HMDB0003911	0.668193954
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.746082325
## Ketoleucine_HMDB0000695	0.217539316
## L.Valine_HMDB0000883	0.759277824
## ITSD_Valine	0.802775851
## Urea_HMDB0000294	0.777983131
## Benzoic.acid_HMDB0001870	-0.067855402
## Caprylic.acid_HMDB0000482	-0.369167227
## Glycerol_HMDB0000131	0.764039469
## Ethanolamine_HMDB0000149	0.740955523
## L.Leucine_HMDB0000687	0.759155487
## Acetylglycine_HMDB0000532	0.205798801
## L.Isoleucine_HMDB0000172	0.809512221
## Nicotinic.acid_HMDB0001488	0.058437267
## Maleic.acid_HMDB0000176	-0.059921190
## L.Proline_HMDB0000162	0.629886079
## Phenylacetic.acid_HMDB0000209	-0.328296223
## Succinic.acid_HMDB0000254	0.703178566
## Glycine_HMDB0000123.1	0.736638723
## Methylsuccinic.acid_HMDB0001844	0.125456429
## Glyceric.acid_HMDB0000139	-0.324671931
## Fumaric.acid_HMDB0000134	0.782073959
## Uracil_HMDB0000300	0.661331375
## Pelargonic.acid_HMDB0000847	-0.457410798
## L.Serine_HMDB0000187	0.694527157
## L.Threonine_HMDB0000167	0.788080625
## Mesaconic.acid_HMDB0000749	0.419777136
## Glutaric.acid_HMDB0000661	0.197852306
## Thymine_HMDB0000262	0.547484055
## Beta.Alanine_HMDB0000056.1	0.809804662
## L.Homoserine_HMDB0000719	-0.054321599
## Capric.acid_HMDB0000511	-0.149556010
## Citramalic.acid_HMDB0000426	0.494400299
## Malic.acid_HMDB0000744	-0.060175150
## Niacinamide_HMDB0001406	0.874388349
## Adipic.acid_HMDB0000448	0.620269089
## D.Threitol_HMDB0004136	0.316641043
## Dihydrouracil_HMDB0000076	0.558470397
## Erythritol_HMDB0002994	0.626461720
## N.Acetylserine_HMDB0002931	0.658895476
## L.Aspartic.acid_HMDB0000191	0.751336422
## L.Methionine_HMDB0000696	0.711110231

## X4.Hydroxyproline_HMDB0000725	0.808079021
## Pyroglutamic.acid_HMDB0000267	0.738633554
## Cytosine_HMDB0000630	0.310814387
## Gamma.Aminobutyric.acid_HMDB0000112	0.539964461
## Threonic.acid_HMDB0000943	-0.058535393
## L.Cysteine_HMDB0000574	0.044955654
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.204347146
## Creatinine_HMDB0000562	0.528501455
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.360037438
## Oxoglutaric.acid_HMDB0000208	0.311615737
## Phenylpyruvic.acid_HMDB0000205	-0.338384918
## Pimelic.acid_HMDB0000857	0.688056031
## Phenyllactic.acid_HMDB0000779	-0.212412322
## Phosphoenolpyruvic.acid_HMDB0000263	-0.557773188
## Ornithine_HMDB0000214	0.382438980
## Hypotaurine_HMDB0000965	0.715238276
## Triethanolamine_HMDB0032538	0.754313009
## X2.Aminobenzoic.acid_HMDB0001123	0.771039497
## L.Glutamic.acid_HMDB0000148	0.771588363
## X4.Hydroxybenzoic.acid_HMDB0000500	0.818295067
## X5.Aminopentanoic.acid_HMDB0003355	0.322376520
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.271932890
## L.Phenylalanine_HMDB0000159	0.759026070
## Dodecanoic.acid_HMDB0000638	0.422568343
## Lyxose_HMDB0003402_1	-0.520001504
## D.Xylose_HMDB0000098	-0.300393133
## Lyxose_HMDB0003402_2	-0.190909322
## D.Arabinose_HMDB0029942	-0.598713507
## L.Asparagine_HMDB0000168	0.421590167
## D.Ribulose_HMDB0000621	-0.622337141
## D.Ribose_HMDB0000283	-0.597536682
## D.Xylulose_HMDB0001644	-0.603192142
## X3.Sulfinoalanine_HMDB0000996	0.234383974
## Suberic.acid_HMDB0000893	0.542463085
## L.Lysine_HMDB0000182	0.220733616
## Levoglucosan_HMDB0000640	-0.202468000
## D.Arabitol_HMDB0000568	0.501839228
## Ribitol_HMDB0000508	-0.011577639
## cis.Aconitic.acid_HMDB0000072	-0.053501327
## Quinolinic.acid_HMDB0000232	0.407078179
## Putrescine_HMDB0001414	0.331511110
## Glycerol.3.phosphate_HMDB0000126	-0.487818109
## Vanillic.acid_HMDB0000484	0.520786190
## L.Glutamine_HMDB0000641	0.172022132
## X2.Phosphoglyceric.acid_HMDB0000362	0.405587094
## Azelaic.acid_HMDB0000784	0.178724398
## L.Dihydroorotic.acid_HMDB0003349	-0.601657689
## O.Phosphoethanolamine_HMDB0000224	0.407597324
## X3.Phosphoglyceric.acid_HMDB0000807	0.473276217
## Isocitric.acid_HMDB0000193	0.314384534
## Hypoxanthine_HMDB0000157	-0.195274860
## Citric.acid_HMDB0000094	-0.051885227
## L.Arginine_HMDB0000517	-0.287781979
## Ornithine_HMDB0000214.1	0.716690356

## Dopamine_HMDB0000073	0.709195881
## Myristic.acid_HMDB0000806	0.706569200
## X1.5.Anhydrosorbitol_HMDB0002712	0.348836668
## D.Tagatose_HMDB0003418	-0.589975418
## Psicose_1	0.112571578
## Sebacic.acid_HMDB0000792	0.789816996
## D.Fructose_HMDB0000660	-0.520807094
## Gluconolactone_HMDB0000150	-0.590303348
## L.Sorbose_HMDB0001266	-0.532284901
## D.Mannose_HMDB0000169	0.792202041
## Hydroxyphenyllactic.acid_HMDB0000755	0.469104789
## D.Glucose_HMDB0000122	0.759291695
## N.Acetylglutamine_HMDB0006029	0.795071417
## L.Lysine_HMDB0000182.1	0.686322142
## D.Mannose_HMDB0000169.1	0.754867664
## Tyramine_HMDB0000306	0.676289317
## L.Histidine_HMDB0000177	0.679468928
## D.Glucose_HMDB0000122.1	0.701153669
## X1.Hexadecanol_HMDB0003424	-0.075308666
## L.Tyrosine_HMDB0000158	0.644688704
## Mannitol_HMDB0000765	1.000000000
## Sorbitol_HMDB0000247	-0.220117858
## ITSD_Sorbitol	0.742191812
## Galacturonic.acid_HMDB0002545	0.397834415
## Pantothenic.acid_HMDB0000210	0.025892430
## Palmitoleic.acid_HMDB0003229	0.404443048
## Xanthine_HMDB0000292	0.131814398
## Gluconic.acid_HMDB0000625	-0.377270197
## Palmitic.acid_HMDB0000220	0.464392367
## Glucaric.acid_HMDB0000663	0.592395566
## N.Acetylmannosamine_HMDB0001129	0.462623758
## N.Acetyl.D.glucosamine_HMDB0000215	0.858804130
## D.Ribulose.5.phosphate_HMDB0000618	-0.606353536
## Uric.acid_HMDB0000289	0.295359317
## D.Ribose.5.phosphate_HMDB0001548	-0.594815691
## myo.Inositol_HMDB0000211	0.616671694
## D.Ribose.5.phosphate_HMDB0001548.1	-0.723596665
## Heptadecanoic.acid_HMDB0002259	0.098550594
## Octadecanol_HMDB0002350	0.137209396
## Glutathione_HMDB0000125	0.102678578
## Linoleic.acid_HMDB0000673	0.201579349
## Oleic.acid_HMDB0000207	0.287894945
## Elaidic.acid_HMDB0000573	0.388750142
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.528133054
## Stearic.acid_HMDB0000827	0.233165193
## L.Tryptophan_HMDB0000929	0.250197499
## Fructose.1.phosphate_HMDB0001076	-0.443558468
## Mannose.6.phosphate_HMDB0001078	-0.346200687
## Arachidonic.acid_HMDB0001043	0.082901146
## Glucose.6.phosphate_HMDB0001401	-0.532312047
## X6.Phosphogluconic.acid_HMDB0001316	-0.172457379
## Inositol.phosphate_HMDB0002985	-0.065034219
## Uridine_HMDB0000296	0.556402288
## Stigmasterol_HMDB0000937	0.542799255

## D.Sedoheptulose.7.phosphate_HMDB0001068	0.076640048	
## Sucrose_HMDB0000258	0.458085818	
## MG.18.0e.0.0.0.0._HMDB0011143	0.196895840	
## Trehalose_HMDB0000975	0.001737181	
## D.Maltose_HMDB0000163	0.007448774	
## Lactitol_HMDB00040937	0.126219297	
## Xanthylic.acid_HMDB0001554	-0.585829970	
## Adenosine.monophosphate_HMDB0000045	-0.543442503	
## Cholesterol_HMDB0000067	0.143027273	
## Lathosterol_HMDB0001170	0.213018981	
## X7b.Hydroxycholesterol_.HMDB0006119	-0.129336580	
##	Sorbitol_HMDB0000247	ITSD_Sorbitol
## Dimethylglycine_HMDB0000092	0.192454596	-0.545099190
## Glyoxylic.acid_HMDB0000119	0.197635091	-0.554021947
## Pyruvic.acid_HMDB0000243	-0.361480910	0.676236904
## L.Lactic.acid_HMDB0000190	-0.160788407	0.766257667
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.124067733	0.563320742
## Glycolic.acid_HMDB0000115	-0.161619473	0.243408957
## Caproic.acid_HMDB0000535	0.279492166	-0.503040694
## L.Alanine_HMDB0000161	-0.154213874	0.641635462
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.061941502	0.420175859
## Glycine_HMDB0000123	-0.264396151	0.539190835
## Oxalic.acid_HMDB0002329	-0.109671841	-0.274821627
## Hydroxylamine_HMDB0003338	0.169472482	0.469018845
## X2.Hydroxybutyric.acid_HMDB0000008	-0.142995300	0.458274074
## Acetoacetic.acid_HMDB0000060	-0.002277090	0.288017311
## Hydroxypropionic.acid_HMDB0000700	-0.175271000	0.834781458
## Pyruvic.acid_HMDB0000243.1	0.038265526	0.517988817
## X3.Hydroxybutyric.acid_HMDB0000357	-0.209235700	0.454474094
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.145191011	0.514917323
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.064985583	0.271400236
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.298040112	0.782812469
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.196611060	0.260377760
## Beta.Alanine_HMDB0000056	-0.230498894	0.513763238
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.391406134	0.329434691
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.126580585	0.575995092
## Malonic.acid_HMDB0000691	-0.291692754	0.383422271
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.153052207	0.694627688
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.198772215	0.824544079
## Ketoleucine_HMDB0000695	-0.033078658	0.253754536
## L.Valine_HMDB0000883	-0.142435661	0.762866479
## ITSD_Valine	-0.226824077	0.840832339
## Urea_HMDB0000294	-0.268103495	0.647676803
## Benzoic.acid_HMDB0001870	0.023174169	0.110867494
## Caprylic.acid_HMDB0000482	0.012524089	-0.300982113
## Glycerol_HMDB0000131	-0.174540055	0.772068411
## Ethanolamine_HMDB0000149	-0.124910520	0.687493252
## L.Leucine_HMDB0000687	-0.098285240	0.800829547
## Acetyl glycine_HMDB0000532	-0.279168811	0.409811635
## L.Isoleucine_HMDB0000172	-0.104335208	0.780355020
## Nicotinic.acid_HMDB0001488	0.556401937	-0.360448612
## Maleic.acid_HMDB0000176	-0.117109394	0.162117625
## L.Proline_HMDB0000162	0.038058235	0.638356356
## Phenylacetic.acid_HMDB0000209	-0.076373517	-0.122125597

## Succinic.acid_HMDB0000254	-0.081878354	0.740514674
## Glycine_HMDB0000123.1	-0.167310445	0.789864651
## Methylsuccinic.acid_HMDB0001844	-0.264279703	0.285296570
## Glyceric.acid_HMDB0000139	-0.019473612	0.016689701
## Fumaric.acid_HMDB0000134	-0.323262178	0.767820462
## Uracil_HMDB0000300	0.076847248	0.515687584
## Pelargonic.acid_HMDB0000847	0.069029814	-0.452565540
## L.Serine_HMDB0000187	0.027435007	0.583906515
## L.Threonine_HMDB0000167	-0.140702548	0.693708492
## Mesaconic.acid_HMDB0000749	-0.048481380	0.190674057
## Glutaric.acid_HMDB0000661	0.172099225	-0.166686578
## Thymine_HMDB0000262	0.292966397	0.395205246
## Beta.Alanine_HMDB0000056.1	-0.131619512	0.779858634
## L.Homoserine_HMDB0000719	-0.218365072	0.282035029
## Capric.acid_HMDB0000511	-0.125551087	0.213489240
## Citramalic.acid_HMDB0000426	-0.055569329	0.198814101
## Malic.acid_HMDB0000744	-0.027655753	0.083487695
## Niacinamide_HMDB0001406	-0.127860752	0.704988949
## Adipic.acid_HMDB0000448	0.177897280	0.407717900
## D.Threitol_HMDB0004136	-0.033135417	0.319713613
## Dihydrouracil_HMDB0000076	0.043569390	0.482593627
## Erythritol_HMDB0002994	-0.313674143	0.750419582
## N.Acetylserine_HMDB0002931	-0.037688697	0.540520297
## L.Aspartic.acid_HMDB0000191	-0.015958576	0.658290034
## L.Methionine_HMDB0000696	-0.197065479	0.691702227
## X4.Hydroxyproline_HMDB0000725	-0.162231648	0.701118038
## Pyroglutamic.acid_HMDB0000267	-0.159567087	0.603434722
## Cytosine_HMDB0000630	0.020520122	0.127517608
## Gamma.Aminobutyric.acid_HMDB0000112	0.038891159	0.133911642
## Threonic.acid_HMDB0000943	-0.067199904	0.141168703
## L.Cysteine_HMDB0000574	-0.104634368	0.293451888
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.215977267	-0.243536892
## Creatinine_HMDB0000562	-0.219071498	0.694962811
## X3.Hydroxyglutaric.acid_HMDB0000428	0.089229994	-0.523467760
## Oxoglutaric.acid_HMDB0000208	-0.104786111	0.229114082
## Phenylpyruvic.acid_HMDB0000205	0.052945015	-0.310847746
## Pimelic.acid_HMDB0000857	-0.175280368	0.288972018
## Phenyllactic.acid_HMDB0000779	0.017695151	-0.413383491
## Phosphoenolpyruvic.acid_HMDB0000263	0.216195890	-0.749563947
## Ornithine_HMDB0000214	-0.024681847	0.292975830
## Hypotaurine_HMDB0000965	-0.231365188	0.632286903
## Triethanolamine_HMDB0032538	-0.151526297	0.511752135
## X2.Aminobenzoic.acid_HMDB0001123	-0.163332545	0.778095465
## L.Glutamic.acid_HMDB0000148	-0.031582086	0.593981859
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.146155286	0.800316115
## X5.Aminopentanoic.acid_HMDB0003355	-0.126855895	0.180462377
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.159233877	-0.071997841
## L.Phenylalanine_HMDB0000159	-0.141885067	0.722707122
## Dodecanoic.acid_HMDB0000638	-0.196162643	0.800781959
## Lyxose_HMDB0003402_1	0.101830602	-0.451623285
## D.Xylose_HMDB0000098	-0.029835398	-0.305797024
## Lyxose_HMDB0003402_2	-0.057040609	-0.256248378
## D.Arabinose_HMDB0029942	0.105360158	-0.568535275
## L.Asparagine_HMDB0000168	0.103029009	0.242966560

## D.Ribulose_HMDB0000621	0.021859651	-0.524376766
## D.Ribose_HMDB0000283	0.138950590	-0.587838393
## D.Xylulose_HMDB0001644	-0.015709972	-0.508737532
## X3.Sulfinoalanine_HMDB0000996	0.295636043	0.038785327
## Suberic.acid_HMDB0000893	-0.044921711	0.314979520
## L.Lysine_HMDB0000182	0.036524686	0.182270905
## Levoglucosan_HMDB0000640	-0.062191668	-0.204077218
## D.Arabitol_HMDB0000568	-0.469784774	0.287212331
## Ribitol_HMDB0000508	0.047858071	0.275627664
## cis.Aconitic.acid_HMDB0000072	-0.029357730	-0.107112925
## Quinolinic.acid_HMDB0000232	-0.150669403	0.016340410
## Putrescine_HMDB0001414	0.463408287	0.013967266
## Glycerol.3.phosphate_HMDB0000126	0.454571212	-0.685403407
## Vanillic.acid_HMDB0000484	-0.391436389	0.724626422
## L.Glutamine_HMDB0000641	0.337483169	-0.000574817
## X2.Phosphoglyceric.acid_HMDB0000362	0.051766637	0.185723593
## Azelaic.acid_HMDB0000784	0.022376775	-0.343429975
## L.Dihydroorotic.acid_HMDB0003349	0.141725354	-0.539704308
## O.Phosphoethanolamine_HMDB0000224	-0.005268581	0.632446474
## X3.Phosphoglyceric.acid_HMDB0000807	-0.070696688	0.177632398
## Isocitric.acid_HMDB0000193	-0.012824912	0.425129582
## Hypoxanthine_HMDB0000157	0.122788012	-0.214134993
## Citric.acid_HMDB0000094	0.188569353	-0.117076234
## L.Arginine_HMDB0000517	0.423870211	-0.201056532
## Ornithine_HMDB0000214.1	-0.119267699	0.628660344
## Dopamine_HMDB0000073	-0.073675119	0.623798602
## Myristic.acid_HMDB0000806	-0.199347268	0.900042427
## X1.5.Anhydrosorbitol_HMDB0002712	-0.325903168	0.330288537
## D.Tagatose_HMDB0003418	0.106230418	-0.587697764
## Psicose_1	-0.093354961	-0.024863621
## Sebacic.acid_HMDB0000792	-0.217300162	0.765772409
## D.Fructose_HMDB0000660	0.079612498	-0.534403459
## Gluconolactone_HMDB0000150	0.066590913	-0.416408888
## L.Sorbose_HMDB0001266	0.077395505	-0.543526407
## D.Mannose_HMDB0000169	-0.283954920	0.792118697
## Hydroxyphenyllactic.acid_HMDB0000755	-0.316108460	0.632226313
## D.Glucose_HMDB0000122	-0.346993487	0.689618735
## N.Acetylglutamine_HMDB0006029	-0.327134346	0.782594076
## L.Lysine_HMDB0000182.1	-0.102331355	0.658460874
## D.Mannose_HMDB0000169.1	-0.238829078	0.751152670
## Tyramine_HMDB0000306	-0.100274367	0.652240574
## L.Histidine_HMDB0000177	-0.104602729	0.654520070
## D.Glucose_HMDB0000122.1	-0.338533705	0.699512181
## X1.Hexadecanol_HMDB0003424	-0.131828339	0.138197558
## L.Tyrosine_HMDB0000158	-0.001071719	0.512642492
## Mannitol_HMDB0000765	-0.220117858	0.742191812
## Sorbitol_HMDB0000247	1.000000000	-0.410356876
## ITSD_Sorbitol	-0.410356876	1.000000000
## Galacturonic.acid_HMDB0002545	-0.416239453	0.601979178
## Pantothenic.acid_HMDB0000210	-0.435921540	0.292384309
## Palmitoleic.acid_HMDB0003229	-0.194749965	0.709971503
## Xanthine_HMDB0000292	0.208640113	0.005191879
## Gluconic.acid_HMDB0000625	0.260253464	-0.305803851
## Palmitic.acid_HMDB0000220	-0.198656708	0.728540591

## Glucaric.acid_HMDB0000663	-0.400890388	0.782482995
## N.Acetylmannosamine_HMDB0001129	0.122700286	0.542610316
## N.Acetyl.D.glucosamine_HMDB0000215	-0.162448749	0.852676556
## D.Ribulose.5.phosphate_HMDB0000618	0.122016393	-0.576440367
## Uric.acid_HMDB0000289	0.085545213	0.284228708
## D.Ribose.5.phosphate_HMDB0001548	0.002729583	-0.665058295
## myo.Inositol_HMDB0000211	-0.036601172	0.559001853
## D.Ribose.5.phosphate_HMDB0001548.1	0.042546606	-0.664345946
## Heptadecanoic.acid_HMDB0002259	0.338911879	-0.033017514
## Octadecanol_HMDB0002350	-0.187438383	0.316690018
## Glutathione_HMDB0000125	0.377477900	-0.083268779
## Linoleic.acid_HMDB0000673	-0.097790258	0.558253863
## Oleic.acid_HMDB0000207	-0.128159312	0.624189375
## Elaidic.acid_HMDB0000573	-0.177040470	0.700203009
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.241060609	-0.586393487
## Stearic.acid_HMDB0000827	-0.143980181	0.425087933
## L.Tryptophan_HMDB0000929	-0.172211863	0.407696780
## Fructose.1.phosphate_HMDB0001076	0.254558069	-0.482424643
## Mannose.6.phosphate_HMDB0001078	0.285433993	-0.602930780
## Arachidonic.acid_HMDB0001043	-0.142216303	0.422284567
## Glucose.6.phosphate_HMDB0001401	-0.002893467	-0.319850134
## X6.Phosphogluconic.acid_HMDB0001316	-0.129401051	0.206269616
## Inositol.phosphate_HMDB0002985	-0.045451907	0.267097117
## Uridine_HMDB0000296	-0.134190081	0.587361688
## Stigmasterol_HMDB0000937	-0.229262799	0.599627577
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.328280387	0.202197931
## Sucrose_HMDB0000258	-0.047734258	0.388831187
## MG.18.Oe.0.0.0.0._HMDB0011143	-0.173143279	0.427056602
## Trehalose_HMDB0000975	0.115853969	-0.509966026
## D.Maltose_HMDB0000163	0.111682954	-0.503840373
## Lactitol_HMDB00040937	-0.289697370	0.163810149
## Xanthylic.acid_HMDB0001554	0.396731017	-0.811015108
## Adenosine.monophosphate_HMDB0000045	0.101688600	-0.473641212
## Cholesterol_HMDB0000067	-0.227533182	0.481747251
## Lathosterol_HMDB0001170	-0.197424842	0.525354726
## X7b.Hydroxycholesterol_.HMDB0006119	0.240857219	-0.421250076
##	Galacturonic.acid_HMDB0002545	
## Dimethylglycine_HMDB0000092	0.223938041	
## Glyoxylic.acid_HMDB0000119	0.216024782	
## Pyruvic.acid_HMDB0000243	0.326959804	
## L.Lactic.acid_HMDB0000190	0.390547229	
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.496523226	
## Glycolic.acid_HMDB0000115	0.493140282	
## Caproic.acid_HMDB0000535	0.082913478	
## L.Alanine_HMDB0000161	0.307500459	
## Alpha.ketoisovaleric.acid_HMDB0000019	0.725561053	
## Glycine_HMDB0000123	0.240980195	
## Oxalic.acid_HMDB0002329	0.024696226	
## Hydroxylamine_HMDB0003338	0.370483007	
## X2.Hydroxybutyric.acid_HMDB0000008	0.775742118	
## Acetoacetic.acid_HMDB0000060	0.419739905	
## Hydroxypropionic.acid_HMDB0000700	0.403994075	
## Pyruvic.acid_HMDB0000243.1	0.495211386	
## X3.Hydroxybutyric.acid_HMDB0000357	0.638126691	

## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.688070402
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.667906216
## D.Alpha.aminobutyric.acid_HMDB0000650	0.411315486
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.644409665
## Beta.Alanine_HMDB0000056	-0.025196846
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.550114008
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.774878434
## Malonic.acid_HMDB0000691	0.048630550
## X3.Aminoisobutanoic.acid_HMDB0003911	0.150968487
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.468813041
## Ketoleucine_HMDB0000695	0.779044691
## L.Valine_HMDB0000883	0.376564552
## ITSD_Valine	0.329346919
## Urea_HMDB0000294	0.626676908
## Benzoic.acid_HMDB0001870	0.201413105
## Caprylic.acid_HMDB0000482	0.328022766
## Glycerol_HMDB0000131	0.248959105
## Ethanolamine_HMDB0000149	0.290325303
## L.Leucine_HMDB0000687	0.361046286
## Acetylglycine_HMDB0000532	0.510959490
## L.Isoleucine_HMDB0000172	0.386428134
## Nicotinic.acid_HMDB0001488	-0.118598369
## Maleic.acid_HMDB0000176	0.521030651
## L.Proline_HMDB0000162	0.479005549
## Phenylacetic.acid_HMDB0000209	0.467645069
## Succinic.acid_HMDB0000254	0.362483766
## Glycine_HMDB0000123.1	0.371091356
## Methylsuccinic.acid_HMDB0001844	0.009054253
## Glyceric.acid_HMDB0000139	0.380612088
## Fumaric.acid_HMDB0000134	0.605813386
## Uracil_HMDB0000300	0.483184348
## Pelargonic.acid_HMDB0000847	0.261462737
## L.Serine_HMDB0000187	0.214761357
## L.Threonine_HMDB0000167	0.378496243
## Mesaconic.acid_HMDB0000749	0.354270070
## Glutaric.acid_HMDB0000661	0.174528647
## Thymine_HMDB0000262	0.150680481
## Beta.Alanine_HMDB0000056.1	0.233556832
## L.Homoserine_HMDB0000719	0.388047029
## Capric.acid_HMDB0000511	0.369753543
## Citramalic.acid_HMDB0000426	-0.074001932
## Malic.acid_HMDB0000744	0.516130577
## Niacinamide_HMDB0001406	0.430381828
## Adipic.acid_HMDB0000448	0.134389059
## D.Threitol_HMDB0004136	0.402498277
## Dihydrouracil_HMDB0000076	0.548824700
## Erythritol_HMDB0002994	0.783944925
## N.Acetylserine_HMDB0002931	0.302864074
## L.Aspartic.acid_HMDB0000191	0.324856826
## L.Methionine_HMDB0000696	0.127935933
## X4.Hydroxyproline_HMDB0000725	0.462834695
## Pyroglutamic.acid_HMDB0000267	0.343014454
## Cytosine_HMDB0000630	0.014357622
## Gamma.Aminobutyric.acid_HMDB0000112	-0.003351513

## Threonic.acid_HMDB0000943	0.713521313
## L.Cysteine_HMDB0000574	0.815086303
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.315469192
## Creatinine_HMDB0000562	0.053552273
## X3.Hydroxyglutaric.acid_HMDB0000428	0.060663524
## Oxoglutaric.acid_HMDB0000208	0.321269929
## Phenylpyruvic.acid_HMDB0000205	0.155829131
## Pimelic.acid_HMDB0000857	0.018064654
## Phenyllactic.acid_HMDB0000779	0.161702541
## Phosphoenolpyruvic.acid_HMDB0000263	-0.067205143
## Ornithine_HMDB0000214	-0.186874091
## Hypotaurine_HMDB0000965	0.444509319
## Triethanolamine_HMDB0032538	0.258643925
## X2.Aminobenzoic.acid_HMDB0001123	0.154275211
## L.Glutamic.acid_HMDB0000148	0.148910124
## X4.Hydroxybenzoic.acid_HMDB0000500	0.282282162
## X5.Aminopentanoic.acid_HMDB0003355	0.525998978
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.342573044
## L.Phenylalanine_HMDB0000159	0.142404370
## Dodecanoic.acid_HMDB0000638	0.383856236
## Lyxose_HMDB0003402_1	0.193565812
## D.Xylose_HMDB0000098	0.024842525
## Lyxose_HMDB0003402_2	-0.062771592
## D.Arabinose_HMDB0029942	0.080089279
## L.Asparagine_HMDB0000168	-0.261160704
## D.Ribulose_HMDB0000621	0.089567286
## D.Ribose_HMDB0000283	0.043870661
## D.Xylulose_HMDB0001644	0.116181718
## X3.Sulfinoalanine_HMDB0000996	-0.349959016
## Suberic.acid_HMDB0000893	0.162969953
## L.Lysine_HMDB0000182	-0.309192423
## Levoglucosan_HMDB0000640	0.001228058
## D.Arabitol_HMDB0000568	0.169638403
## Ribitol_HMDB0000508	0.411377685
## cis.Aconitic.acid_HMDB0000072	0.136593953
## Quinolinic.acid_HMDB0000232	0.364064938
## Putrescine_HMDB0001414	0.030942672
## Glycerol.3.phosphate_HMDB0000126	-0.288647196
## Vanillic.acid_HMDB0000484	0.683119019
## L.Glutamine_HMDB0000641	-0.335856169
## X2.Phosphoglyceric.acid_HMDB0000362	0.576911740
## Azelaic.acid_HMDB0000784	-0.240175496
## L.Dihydroorotic.acid_HMDB0003349	0.123614138
## O.Phosphoethanolamine_HMDB0000224	-0.007270943
## X3.Phosphoglyceric.acid_HMDB0000807	0.576397165
## Isocitric.acid_HMDB0000193	0.359551573
## Hypoxanthine_HMDB0000157	-0.407722569
## Citric.acid_HMDB0000094	0.544746772
## L.Arginine_HMDB0000517	-0.049043117
## Ornithine_HMDB0000214.1	0.118217249
## Dopamine_HMDB0000073	0.099458996
## Myristic.acid_HMDB0000806	0.285887565
## X1.5.Anhydrosorbitol_HMDB0002712	0.781158534
## D.Tagatose_HMDB0003418	0.093630346

## Psicose_1	0.192639639
## Sebacic.acid_HMDB0000792	0.471203330
## D.Fructose_HMDB0000660	0.023002859
## Gluconolactone_HMDB0000150	0.176569515
## L.Sorbose_HMDB0001266	0.003347614
## D.Mannose_HMDB0000169	0.288198775
## Hydroxyphenyllactic.acid_HMDB0000755	0.667492250
## D.Glucose_HMDB0000122	0.270484862
## N.Acetylglutamine_HMDB0006029	0.322684736
## L.Lysine_HMDB0000182.1	0.044144971
## D.Mannose_HMDB0000169.1	0.172496417
## Tyramine_HMDB0000306	0.045330299
## L.Histidine_HMDB0000177	0.008230972
## D.Glucose_HMDB0000122.1	0.258851623
## X1.Hexadecanol_HMDB0003424	0.205510331
## L.Tyrosine_HMDB0000158	-0.022582944
## Mannitol_HMDB0000765	0.397834415
## Sorbitol_HMDB0000247	-0.416239453
## ITSD_Sorbitol	0.601979178
## Galacturonic.acid_HMDB0002545	1.000000000
## Pantothenic.acid_HMDB0000210	0.481596725
## Palmitoleic.acid_HMDB0003229	0.082615644
## Xanthine_HMDB0000292	-0.187491756
## Gluconic.acid_HMDB0000625	0.374669225
## Palmitic.acid_HMDB0000220	0.259275787
## Glucaric.acid_HMDB0000663	0.492709030
## N.Acetylmannosamine_HMDB0001129	0.336702982
## N.Acetyl.D.glucosamine_HMDB0000215	0.384134227
## D.Ribulose.5.phosphate_HMDB0000618	0.113775685
## Uric.acid_HMDB0000289	-0.259151662
## D.Ribose.5.phosphate_HMDB0001548	-0.002900153
## myo.Inositol_HMDB0000211	0.289670517
## D.Ribose.5.phosphate_HMDB0001548.1	0.034539527
## Heptadecanoic.acid_HMDB0002259	0.321289573
## Octadecanol_HMDB0002350	0.523225072
## Glutathione_HMDB0000125	0.076932071
## Linoleic.acid_HMDB0000673	0.069838634
## Oleic.acid_HMDB0000207	0.003785751
## Elaidic.acid_HMDB0000573	0.102752698
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.121700537
## Stearic.acid_HMDB0000827	0.261289761
## L.Tryptophan_HMDB0000929	0.265891034
## Fructose.1.phosphate_HMDB0001076	0.083277993
## Mannose.6.phosphate_HMDB0001078	-0.216077600
## Arachidonic.acid_HMDB0001043	-0.180362171
## Glucose.6.phosphate_HMDB0001401	0.275468860
## X6.Phosphogluconic.acid_HMDB0001316	0.423021083
## Inositol.phosphate_HMDB0002985	0.307329468
## Uridine_HMDB0000296	0.493821316
## Stigmasterol_HMDB0000937	0.448155971
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.437629716
## Sucrose_HMDB0000258	-0.226152107
## MG.18.0e.0.0.0.0._HMDB0011143	0.379976607
## Trehalose_HMDB0000975	-0.422439152

## D.Maltose_HMDB0000163	-0.417967036
## Lactitol_HMDB0040937	0.561788261
## Xanthylic.acid_HMDB0001554	-0.436791731
## Adenosine.monophosphate_HMDB0000045	0.251537920
## Cholesterol_HMDB0000067	0.534731582
## Lathosterol_HMDB0001170	0.241563471
## X7b.Hydroxycholesterol_.HMDB0006119	0.205092654
##	Pantothenic.acid_HMDB0000210
## Dimethylglycine_HMDB0000092	0.280033402
## Glyoxylic.acid_HMDB0000119	0.273266679
## Pyruvic.acid_HMDB0000243	0.598110227
## L.Lactic.acid_HMDB0000190	0.069103942
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.430890365
## Glycolic.acid_HMDB0000115	0.608762535
## Caproic.acid_HMDB0000535	0.377903600
## L.Alanine_HMDB0000161	-0.017882495
## Alpha.ketoisovaleric.acid_HMDB0000019	0.327734365
## Glycine_HMDB0000123	0.212344842
## Oxalic.acid_HMDB0002329	0.264575255
## Hydroxylamine_HMDB0003338	0.001428755
## X2.Hydroxybutyric.acid_HMDB0000008	0.618570256
## Acetoacetic.acid_HMDB0000060	0.433055465
## Hydroxypropionic.acid_HMDB0000700	0.219353732
## Pyruvic.acid_HMDB0000243.1	0.175287857
## X3.Hydroxybutyric.acid_HMDB0000357	0.661883784
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.618286781
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.527931402
## D.Alpha.aminobutyric.acid_HMDB0000650	0.006468304
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.166536807
## Beta.Alanine_HMDB0000056	-0.034355873
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.362488316
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.350990917
## Malonic.acid_HMDB0000691	0.427616218
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.152474159
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.216154044
## Ketoleucine_HMDB0000695	0.506063453
## L.Valine_HMDB0000883	0.075274393
## ITSD_Valine	0.118962158
## Urea_HMDB0000294	0.312586185
## Benzoic.acid_HMDB0001870	0.199927074
## Caprylic.acid_HMDB0000482	0.455693264
## Glycerol_HMDB0000131	-0.018516866
## Ethanolamine_HMDB0000149	0.050455252
## L.Leucine_HMDB0000687	0.058249947
## Acetylglucine_HMDB0000532	0.706159309
## L.Isoleucine_HMDB0000172	0.025593349
## Nicotinic.acid_HMDB0001488	-0.052727314
## Maleic.acid_HMDB0000176	0.752121511
## L.Proline_HMDB0000162	0.197504354
## Phenylacetic.acid_HMDB0000209	0.690834562
## Succinic.acid_HMDB0000254	0.313600617
## Glycine_HMDB0000123.1	0.094336827
## Methylsuccinic.acid_HMDB0001844	0.381331248
## Glyceric.acid_HMDB0000139	0.665590080

## Fumaric.acid_HMDB0000134	0.434915184
## Uracil_HMDB0000300	0.254960931
## Pelargonic.acid_HMDB0000847	0.363546952
## L.Serine_HMDB0000187	-0.066465491
## L.Threonine_HMDB0000167	0.100062094
## Mesaconic.acid_HMDB0000749	0.396056731
## Glutaric.acid_HMDB0000661	0.292087679
## Thymine_HMDB0000262	-0.064566085
## Beta.Alanine_HMDB0000056.1	-0.160252975
## L.Homoserine_HMDB0000719	0.281088272
## Capric.acid_HMDB0000511	0.373488413
## Citramalic.acid_HMDB0000426	0.041123812
## Malic.acid_HMDB0000744	0.655308633
## Niacinamide_HMDB0001406	0.055115126
## Adipic.acid_HMDB0000448	-0.099589366
## D.Threitol_HMDB0004136	0.442525708
## Dihydrouracil_HMDB0000076	0.054294806
## Erythritol_HMDB0002994	0.545187145
## N.Acetylserine_HMDB0002931	0.072508258
## L.Aspartic.acid_HMDB0000191	-0.034137520
## L.Methionine_HMDB0000696	-0.136693063
## X4.Hydroxyproline_HMDB0000725	0.159234745
## Pyroglutamic.acid_HMDB0000267	0.097678023
## Cytosine_HMDB0000630	0.133035337
## Gamma.Aminobutyric.acid_HMDB0000112	0.133115813
## Threonic.acid_HMDB0000943	0.604233592
## L.Cysteine_HMDB0000574	0.633511419
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.463663670
## Creatinine_HMDB0000562	-0.067631046
## X3.Hydroxyglutaric.acid_HMDB0000428	0.354179635
## Oxoglutaric.acid_HMDB0000208	0.134373794
## Phenylpyruvic.acid_HMDB0000205	0.147819951
## Pimelic.acid_HMDB0000857	-0.245984221
## Phenyllactic.acid_HMDB0000779	0.101708217
## Phosphoenolpyruvic.acid_HMDB0000263	0.076845339
## Ornithine_HMDB0000214	-0.243395783
## Hypotaurine_HMDB0000965	0.072091604
## Triethanolamine_HMDB0032538	-0.007386686
## X2.Aminobenzoic.acid_HMDB0001123	-0.123567605
## L.Glutamic.acid_HMDB0000148	-0.235540731
## X4.Hydroxybenzoic.acid_HMDB0000500	0.005309983
## X5.Aminopentanoic.acid_HMDB0003355	0.466838971
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.449909605
## L.Phenylalanine_HMDB0000159	-0.136354877
## Dodecanoic.acid_HMDB0000638	0.344801161
## Lyxose_HMDB0003402_1	0.389287630
## D.Xylose_HMDB0000098	-0.143803322
## Lyxose_HMDB0003402_2	-0.200818587
## D.Arabinose_HMDB0029942	0.358281149
## L.Asparagine_HMDB0000168	-0.471400414
## D.Ribulose_HMDB0000621	0.332769602
## D.Ribose_HMDB0000283	0.355035193
## D.Xylulose_HMDB0001644	0.332171143
## X3.Sulfinioalanine_HMDB0000996	-0.501217146

## Suberic.acid_HMDB0000893	0.127174584
## L.Lysine_HMDB0000182	-0.315083910
## Levoglucosan_HMDB0000640	-0.210540056
## D.Arabitol_HMDB0000568	0.490302085
## Ribitol_HMDB0000508	0.358360592
## cis.Aconitic.acid_HMDB0000072	-0.192139205
## Quinolinic.acid_HMDB0000232	0.309824878
## Putrescine_HMDB0001414	0.189902014
## Glycerol.3.phosphate_HMDB0000126	0.017669274
## Vanillic.acid_HMDB0000484	0.377612929
## L.Glutamine_HMDB0000641	-0.635324996
## X2.Phosphoglyceric.acid_HMDB0000362	0.321829668
## Azelaic.acid_HMDB0000784	-0.010420473
## L.Dihydroorotic.acid_HMDB0003349	0.382567013
## O.Phosphoethanolamine_HMDB0000224	-0.091583361
## X3.Phosphoglyceric.acid_HMDB0000807	0.286740231
## Isocitric.acid_HMDB0000193	0.444952493
## Hypoxanthine_HMDB0000157	-0.663641334
## Citric.acid_HMDB0000094	0.376987751
## L.Arginine_HMDB0000517	-0.078569191
## Ornithine_HMDB0000214.1	-0.173398443
## Dopamine_HMDB0000073	-0.181305038
## Myristic.acid_HMDB0000806	0.123606871
## X1.5.Anhydrosorbitol_HMDB0002712	0.612713341
## D.Tagatose_HMDB0003418	0.350332727
## Psicose_1	-0.246249563
## Sebacic.acid_HMDB0000792	0.427839701
## D.Fructose_HMDB0000660	0.516629251
## Gluconolactone_HMDB0000150	0.500896213
## L.Sorbose_HMDB0001266	0.517307951
## D.Mannose_HMDB0000169	-0.103882242
## Hydroxyphenyllactic.acid_HMDB0000755	0.564894023
## D.Glucose_HMDB0000122	-0.123058468
## N.Acetylglutamine_HMDB0006029	-0.101280538
## L.Lysine_HMDB0000182.1	-0.239354588
## D.Mannose_HMDB0000169.1	-0.208099882
## Tyramine_HMDB0000306	-0.253620556
## L.Histidine_HMDB0000177	-0.258689349
## D.Glucose_HMDB0000122.1	-0.160598239
## X1.Hexadecanol_HMDB0003424	0.557852901
## L.Tyrosine_HMDB0000158	-0.332124058
## Mannitol_HMDB0000765	0.025892430
## Sorbitol_HMDB0000247	-0.435921540
## ITSD_Sorbitol	0.292384309
## Galacturonic.acid_HMDB0002545	0.481596725
## Pantothenic.acid_HMDB0000210	1.000000000
## Palmitoleic.acid_HMDB0003229	0.018003667
## Xanthine_HMDB0000292	-0.308608272
## Gluconic.acid_HMDB0000625	0.286811973
## Palmitic.acid_HMDB0000220	0.249708957
## Glucaric.acid_HMDB0000663	0.209540625
## N.Acetylmannosamine_HMDB0001129	-0.076154711
## N.Acetyl.D.glucosamine_HMDB0000215	-0.004431941
## D.Ribulose.5.phosphate_HMDB0000618	0.428747819

## Uric.acid_HMDB0000289	-0.506180137
## D.Ribose.5.phosphate_HMDB0001548	0.279288949
## myo.Inositol_HMDB0000211	0.337715285
## D.Ribose.5.phosphate_HMDB0001548.1	0.297402461
## Heptadecanoic.acid_HMDB0002259	0.160052681
## Octadecanol_HMDB0002350	0.650902731
## Glutathione_HMDB0000125	-0.392465262
## Linoleic.acid_HMDB0000673	0.107742836
## Oleic.acid_HMDB0000207	-0.022891895
## Elaidic.acid_HMDB0000573	0.078241314
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.257698633
## Stearic.acid_HMDB0000827	0.456226527
## L.Tryptophan_HMDB0000929	0.466985883
## Fructose.1.phosphate_HMDB0001076	0.337879950
## Mannose.6.phosphate_HMDB0001078	-0.247315166
## Arachidonic.acid_HMDB0001043	-0.140398551
## Glucose.6.phosphate_HMDB0001401	0.523729228
## X6.Phosphogluconic.acid_HMDB0001316	0.513136339
## Inositol.phosphate_HMDB0002985	0.525176547
## Uridine_HMDB0000296	0.339156448
## Stigmasterol_HMDB0000937	0.405876926
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.044961685
## Sucrose_HMDB0000258	0.007003457
## MG.18.0e.0.0.0.0._HMDB0011143	0.449597582
## Trehalose_HMDB0000975	-0.156115940
## D.Maltose_HMDB0000163	-0.148064220
## Lactitol_HMDB00040937	0.380595629
## Xanthylic.acid_HMDB0001554	-0.407345882
## Adenosine.monophosphate_HMDB0000045	0.460589691
## Cholesterol_HMDB0000067	0.299309307
## Lathosterol_HMDB0001170	0.160020727
## X7b.Hydroxycholesterol_.HMDB0006119	0.140511471
##	Palmitoleic.acid_HMDB0003229
## Dimethylglycine_HMDB0000092	-0.6405445596
## Glyoxylic.acid_HMDB0000119	-0.6496168886
## Pyruvic.acid_HMDB0000243	0.4276000542
## L.Lactic.acid_HMDB0000190	0.4587077199
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.4504064982
## Glycolic.acid_HMDB0000115	0.1490562593
## Caproic.acid_HMDB0000535	-0.5803895439
## L.Alanine_HMDB0000161	0.3163226372
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.1277381946
## Glycine_HMDB0000123	0.3040144363
## Oxalic.acid_HMDB0002329	-0.1210454569
## Hydroxylamine_HMDB0003338	0.3173631608
## X2.Hydroxybutyric.acid_HMDB0000008	0.1626700518
## Acetoacetic.acid_HMDB0000060	0.2444286462
## Hydroxypropionic.acid_HMDB0000700	0.7555484375
## Pyruvic.acid_HMDB0000243.1	0.2925322643
## X3.Hydroxybutyric.acid_HMDB0000357	0.3221275603
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.2858671723
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.1481474507
## D.Alpha.aminobutyric.acid_HMDB0000650	0.5263720303
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.0337632123

## Beta.Alanine_HMDB0000056	0.5484663312
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.0127614468
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.1459740567
## Malonic.acid_HMDB0000691	0.2189659187
## X3.Aminoisobutanoic.acid_HMDB0003911	0.6520709127
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.6837250989
## Ketoleucine_HMDB0000695	-0.1943018930
## L.Valine_HMDB0000883	0.5146986303
## ITSD_Valine	0.6679376920
## Urea_HMDB0000294	0.2180481817
## Benzoic.acid_HMDB0001870	0.3016075011
## Caprylic.acid_HMDB0000482	-0.3602665434
## Glycerol_HMDB0000131	0.5909458989
## Ethanolamine_HMDB0000149	0.3226141022
## L.Leucine_HMDB0000687	0.6026689798
## Acetylglycine_HMDB0000532	0.2024481642
## L.Isoleucine_HMDB0000172	0.4963949348
## Nicotinic.acid_HMDB0001488	-0.1942790345
## Maleic.acid_HMDB0000176	-0.0208339383
## L.Proline_HMDB0000162	0.3595821414
## Phenylacetic.acid_HMDB0000209	-0.2888567836
## Succinic.acid_HMDB0000254	0.4905951681
## Glycine_HMDB0000123.1	0.5257634837
## Methylsuccinic.acid_HMDB0001844	0.4261067549
## Glyceric.acid_HMDB0000139	-0.0505052860
## Fumaric.acid_HMDB0000134	0.3987304315
## Uracil_HMDB0000300	0.1181669304
## Pelargonic.acid_HMDB0000847	-0.5111903248
## L.Serine_HMDB0000187	0.3381785120
## L.Threonine_HMDB0000167	0.3130803286
## Mesaconic.acid_HMDB0000749	0.0148636078
## Glutaric.acid_HMDB0000661	-0.5313760899
## Thymine_HMDB0000262	0.1700672332
## Beta.Alanine_HMDB0000056.1	0.6489247965
## L.Homoserine_HMDB0000719	0.3077659586
## Capric.acid_HMDB0000511	0.2924044536
## Citramalic.acid_HMDB0000426	0.0253480442
## Malic.acid_HMDB0000744	-0.2139506365
## Niacinamide_HMDB0001406	0.3918775560
## Adipic.acid_HMDB0000448	0.0554183334
## D.Threitol_HMDB0004136	0.2821544964
## Dihydrouracil_HMDB0000076	0.0814168457
## Erythritol_HMDB0002994	0.3826273332
## N.Acetylserine_HMDB0002931	0.1588796696
## L.Aspartic.acid_HMDB0000191	0.3455283070
## L.Methionine_HMDB0000696	0.5346152901
## X4.Hydroxyproline_HMDB0000725	0.3262714781
## Pyroglutamic.acid_HMDB0000267	0.3319125760
## Cytosine_HMDB0000630	-0.1641884305
## Gamma.Aminobutyric.acid_HMDB0000112	0.1368462144
## Threonic.acid_HMDB0000943	-0.1202165962
## L.Cysteine_HMDB0000574	-0.0535765899
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.4002482967
## Creatinine_HMDB0000562	0.7003478657

## X3.Hydroxyglutaric.acid_HMDB0000428	-0.5680750086
## Oxoglutaric.acid_HMDB0000208	0.2966507648
## Phenylpyruvic.acid_HMDB0000205	-0.2356744599
## Pimelic.acid_HMDB0000857	0.1092624643
## Phenyllactic.acid_HMDB0000779	-0.4923588364
## Phosphoenolpyruvic.acid_HMDB0000263	-0.8422242855
## Ornithine_HMDB0000214	0.1639525661
## Hypotaurine_HMDB0000965	0.2226871141
## Triethanolamine_HMDB0032538	0.0627315160
## X2.Aminobenzoic.acid_HMDB0001123	0.6263767666
## L.Glutamic.acid_HMDB0000148	0.4032862686
## X4.Hydroxybenzoic.acid_HMDB0000500	0.5182191422
## X5.Aminopentanoic.acid_HMDB0003355	-0.3626289655
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.2094933954
## L.Phenylalanine_HMDB0000159	0.5418313105
## Dodecanoic.acid_HMDB0000638	0.8743805613
## Lyxose_HMDB0003402_1	-0.4857921926
## D.Xylose_HMDB0000098	-0.3622368394
## Lyxose_HMDB0003402_2	-0.3273397439
## D.Arabinose_HMDB0029942	-0.5986584160
## L.Asparagine_HMDB0000168	0.1621242397
## D.Ribulose_HMDB0000621	-0.6060973560
## D.Ribose_HMDB0000283	-0.6035965560
## D.Xylulose_HMDB0001644	-0.6185663549
## X3.Sulfinioalanine_HMDB0000996	0.2486671611
## Suberic.acid_HMDB0000893	-0.0001618882
## L.Lysine_HMDB0000182	0.2011177931
## Levoglucosan_HMDB0000640	-0.2900933392
## D.Arabitol_HMDB0000568	0.2604332077
## Ribitol_HMDB0000508	0.1383645034
## cis.Aconitic.acid_HMDB0000072	-0.2165207794
## Quinolinic.acid_HMDB0000232	-0.3108539551
## Putrescine_HMDB0001414	-0.0311920443
## Glycerol.3.phosphate_HMDB0000126	-0.3742567214
## Vanillic.acid_HMDB0000484	0.3299670301
## L.Glutamine_HMDB0000641	-0.0342010366
## X2.Phosphoglyceric.acid_HMDB0000362	-0.4074654723
## Azelaic.acid_HMDB0000784	-0.3288038809
## L.Dihydroorotic.acid_HMDB0003349	-0.5841437135
## O.Phosphoethanolamine_HMDB0000224	0.9420006740
## X3.Phosphoglyceric.acid_HMDB0000807	-0.4210447415
## Isocitric.acid_HMDB0000193	0.1386117382
## Hypoxanthine_HMDB0000157	0.0289674115
## Citric.acid_HMDB0000094	-0.5875405049
## L.Arginine_HMDB0000517	-0.2510765331
## Ornithine_HMDB0000214.1	0.3740731907
## Dopamine_HMDB0000073	0.3724223084
## Myristic.acid_HMDB0000806	0.8455763005
## X1.5.Anhydrosorbitol_HMDB0002712	-0.1035650856
## D.Tagatose_HMDB0003418	-0.6244423325
## Psicose_1	-0.2602542851
## Sebacic.acid_HMDB0000792	0.3318317061
## D.Fructose_HMDB0000660	-0.5685052452
## Gluconolactone_HMDB0000150	-0.5540562950

## L.Sorbose_HMDB0001266	-0.5624856484
## D.Mannose_HMDB0000169	0.6327045981
## Hydroxyphenyllactic.acid_HMDB0000755	0.4047362195
## D.Glucose_HMDB0000122	0.5220374124
## N.Acetylglutamine_HMDB0006029	0.6016630173
## L.Lysine_HMDB0000182.1	0.5327737801
## D.Mannose_HMDB0000169.1	0.6167374706
## Tyramine_HMDB0000306	0.5289254835
## L.Histidine_HMDB0000177	0.5645451636
## D.Glucose_HMDB0000122.1	0.5929102917
## X1.Hexadecanol_HMDB0003424	0.3030733282
## L.Tyrosine_HMDB0000158	0.3354761876
## Mannitol_HMDB0000765	0.4044430482
## Sorbitol_HMDB0000247	-0.1947499646
## ITSD_Sorbitol	0.7099715028
## Galacturonic.acid_HMDB0002545	0.0826156439
## Pantothenic.acid_HMDB0000210	0.0180036674
## Palmitoleic.acid_HMDB0003229	1.0000000000
## Xanthine_HMDB0000292	-0.2287464363
## Gluconic.acid_HMDB0000625	-0.6815036407
## Palmitic.acid_HMDB0000220	0.8966733672
## Glucaric.acid_HMDB0000663	0.3723662387
## N.Acetylmannosamine_HMDB0001129	0.5521081754
## N.Acetyl.D.glucosamine_HMDB0000215	0.6585621482
## D.Ribulose.5.phosphate_HMDB0000618	-0.5826785771
## Uric.acid_HMDB0000289	0.3106505978
## D.Ribose.5.phosphate_HMDB0001548	-0.6007014380
## myo.Inositol_HMDB0000211	0.3935826519
## D.Ribose.5.phosphate_HMDB0001548.1	-0.6260090489
## Heptadecanoic.acid_HMDB0002259	-0.3926159630
## Octadecanol_HMDB0002350	0.2252403712
## Glutathione_HMDB0000125	-0.2031426722
## Linoleic.acid_HMDB0000673	0.9383084727
## Oleic.acid_HMDB0000207	0.9870339486
## Elaidic.acid_HMDB0000573	0.9826540833
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.7146626382
## Stearic.acid_HMDB0000827	0.5752312823
## L.Tryptophan_HMDB0000929	0.5243166668
## Fructose.1.phosphate_HMDB0001076	-0.5276788790
## Mannose.6.phosphate_HMDB0001078	-0.3643306965
## Arachidonic.acid_HMDB0001043	0.8903972981
## Glucose.6.phosphate_HMDB0001401	-0.3798539956
## X6.Phosphogluconic.acid_HMDB0001316	0.3812155402
## Inositol.phosphate_HMDB0002985	0.4014316609
## Uridine_HMDB0000296	0.3567906381
## Stigmasterol_HMDB0000937	0.5185840858
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.1673747441
## Sucrose_HMDB0000258	0.5718595530
## MG.18.0e.0.0.0.0._HMDB0011143	0.5952078946
## Trehalose_HMDB0000975	-0.2829067163
## D.Maltose_HMDB0000163	-0.2785726869
## Lactitol_HMDB00040937	-0.0645843975
## Xanthylic.acid_HMDB0001554	-0.7269700846
## Adenosine.monophosphate_HMDB0000045	-0.5231350509

## Cholesterol_HMDB0000067	0.4646959037
## Lathosterol_HMDB0001170	0.8027192104
## X7b.Hydroxycholesterol_HMDB0006119	-0.8619300919
##	Xanthine_HMDB0000292
## Dimethylglycine_HMDB0000092	-0.313902974
## Glyoxylic.acid_HMDB0000119	-0.307209406
## Pyruvic.acid_HMDB0000243	-0.108175159
## L.Lactic.acid_HMDB0000190	0.235950298
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.471742881
## Glycolic.acid_HMDB0000115	-0.581677313
## Caproic.acid_HMDB0000535	-0.359883824
## L.Alanine_HMDB0000161	0.435908160
## Alpha.ketoisovaleric.acid_HMDB0000019	0.087911141
## Glycine_HMDB0000123	0.108453343
## Oxalic.acid_HMDB0002329	-0.713848464
## Hydroxylamine_HMDB0003338	-0.148106188
## X2.Hydroxybutyric.acid_HMDB0000008	-0.385038117
## Acetoacetic.acid_HMDB0000060	-0.621092138
## Hydroxypropionic.acid_HMDB0000700	-0.118207824
## Pyruvic.acid_HMDB0000243.1	-0.193128340
## X3.Hydroxybutyric.acid_HMDB0000357	-0.586497523
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.463838662
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.644985014
## D.Alpha.aminobutyric.acid_HMDB0000650	0.275495372
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.215079983
## Beta.Alanine_HMDB0000056	0.221590612
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.067262086
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.095849380
## Malonic.acid_HMDB0000691	-0.026654021
## X3.Aminoisobutanoic.acid_HMDB0003911	0.403638072
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.115469356
## Ketoleucine_HMDB0000695	-0.283956891
## L.Valine_HMDB0000883	0.327466559
## ITSD_Valine	0.188334498
## Urea_HMDB0000294	0.119308025
## Benzoic.acid_HMDB0001870	-0.333302685
## Caprylic.acid_HMDB0000482	-0.614794223
## Glycerol_HMDB0000131	0.330164233
## Ethanolamine_HMDB0000149	0.517396758
## L.Leucine_HMDB0000687	0.314829384
## Acetyl glycine_HMDB0000532	-0.485140202
## L.Isoleucine_HMDB0000172	0.358417835
## Nicotinic.acid_HMDB0001488	-0.257256120
## Maleic.acid_HMDB0000176	-0.645778604
## L.Proline_HMDB0000162	0.270375770
## Phenylacetic.acid_HMDB0000209	-0.571249904
## Succinic.acid_HMDB0000254	0.034857658
## Glycine_HMDB0000123.1	0.326696530
## Methylsuccinic.acid_HMDB0001844	-0.459742594
## Glyceric.acid_HMDB0000139	-0.461430404
## Fumaric.acid_HMDB0000134	-0.080444094
## Uracil_HMDB0000300	0.164620548
## Pelargonic.acid_HMDB0000847	-0.517440405
## L.Serine_HMDB0000187	0.467612920

## L.Threonine_HMDB0000167	0.415421524
## Mesaconic.acid_HMDB0000749	-0.195564248
## Glutaric.acid_HMDB0000661	0.125265998
## Thymine_HMDB0000262	0.126677643
## Beta.Alanine_HMDB0000056.1	0.350311691
## L.Homoserine_HMDB0000719	-0.384022376
## Capric.acid_HMDB0000511	-0.515765180
## Citramalic.acid_HMDB0000426	0.191494159
## Malic.acid_HMDB0000744	-0.393167741
## Niacinamide_HMDB0001406	0.194136506
## Adipic.acid_HMDB0000448	0.627586112
## D.Threitol_HMDB0004136	-0.210973063
## Dihydrouracil_HMDB0000076	0.003841002
## Erythritol_HMDB0002994	-0.296972174
## N.Acetylserine_HMDB0002931	0.436664123
## L.Aspartic.acid_HMDB0000191	0.491167522
## L.Methionine_HMDB0000696	0.556443212
## X4.Hydroxyproline_HMDB0000725	0.310869360
## Pyroglutamic.acid_HMDB0000267	0.372766603
## Cytosine_HMDB0000630	0.359385961
## Gamma.Aminobutyric.acid_HMDB0000112	-0.100468563
## Threonic.acid_HMDB0000943	-0.558290087
## L.Cysteine_HMDB0000574	-0.400603753
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.481462480
## Creatinine_HMDB0000562	0.442025482
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.391009375
## Oxoglutaric.acid_HMDB0000208	-0.619279759
## Phenylpyruvic.acid_HMDB0000205	-0.279168441
## Pimelic.acid_HMDB0000857	0.184239629
## Phenyllactic.acid_HMDB0000779	-0.315553604
## Phosphoenolpyruvic.acid_HMDB0000263	-0.209056598
## Ornithine_HMDB0000214	0.780604050
## Hypotaurine_HMDB0000965	0.476616706
## Triethanolamine_HMDB0032538	0.507186351
## X2.Aminobenzoic.acid_HMDB0001123	0.396377785
## L.Glutamic.acid_HMDB0000148	0.547630417
## X4.Hydroxybenzoic.acid_HMDB0000500	0.392185259
## X5.Aminopentanoic.acid_HMDB0003355	-0.169456453
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.339347762
## L.Phenylalanine_HMDB0000159	0.531771060
## Dodecanoic.acid_HMDB0000638	-0.365571677
## Lyxose_HMDB0003402_1	-0.461232582
## D.Xylose_HMDB0000098	-0.095793989
## Lyxose_HMDB0003402_2	-0.011716502
## D.Arabinose_HMDB0029942	-0.442510595
## L.Asparagine_HMDB0000168	0.726029239
## D.Ribulose_HMDB0000621	-0.382770303
## D.Ribose_HMDB0000283	-0.440727984
## D.Xylulose_HMDB0001644	-0.371745114
## X3.Sulfinoalanine_HMDB0000996	0.455190223
## Suberic.acid_HMDB0000893	0.265590923
## L.Lysine_HMDB0000182	0.734450962
## Levoglucosan_HMDB0000640	0.035971775
## D.Arabitool_HMDB0000568	-0.292512665

## Ribitol_HMDB0000508	0.091287496
## cis.Aconitic.acid_HMDB0000072	-0.086390010
## Quinolinic.acid_HMDB0000232	-0.041613014
## Putrescine_HMDB0001414	-0.121195919
## Glycerol.3.phosphate_HMDB0000126	-0.397516803
## Vanillic.acid_HMDB0000484	0.147308287
## L.Glutamine_HMDB0000641	0.683148741
## X2.Phosphoglyceric.acid_HMDB0000362	0.088117650
## Azelaic.acid_HMDB0000784	0.022934719
## L.Dihydroorotic.acid_HMDB0003349	-0.454341657
## O.Phosphoethanolamine_HMDB0000224	-0.207292482
## X3.Phosphoglyceric.acid_HMDB0000807	0.012898061
## Isocitric.acid_HMDB0000193	0.052811533
## Hypoxanthine_HMDB0000157	0.420954994
## Citric.acid_HMDB0000094	-0.010896137
## L.Arginine_HMDB0000517	0.129393177
## Ornithine_HMDB0000214.1	0.644835612
## Dopamine_HMDB0000073	0.657931702
## Myristic.acid_HMDB0000806	0.085132424
## X1.5.Anhydrosorbitol_HMDB0002712	-0.454231420
## D.Tagatose_HMDB0003418	-0.423500847
## Psicose_1	0.004537933
## Sebacic.acid_HMDB0000792	0.150887906
## D.Fructose_HMDB0000660	-0.434844207
## Gluconolactone_HMDB0000150	-0.311986089
## L.Sorbose_HMDB0001266	-0.425237424
## D.Mannose_HMDB0000169	0.285641409
## Hydroxyphenyllactic.acid_HMDB0000755	-0.502001894
## D.Glucose_HMDB0000122	0.297298516
## N.Acetylglutamine_HMDB0006029	0.260579379
## L.Lysine_HMDB0000182.1	0.590700389
## D.Mannose_HMDB0000169.1	0.426345276
## Tyramine_HMDB0000306	0.598825150
## L.Histidine_HMDB0000177	0.562720804
## D.Glucose_HMDB0000122.1	0.265576967
## X1.Hexadecanol_HMDB0003424	-0.502228738
## L.Tyrosine_HMDB0000158	0.721639579
## Mannitol_HMDB0000765	0.131814398
## Sorbitol_HMDB0000247	0.208640113
## ITSD_Sorbitol	0.005191879
## Galacturonic.acid_HMDB0002545	-0.187491756
## Pantothenic.acid_HMDB0000210	-0.308608272
## Palmitoleic.acid_HMDB0003229	-0.228746436
## Xanthine_HMDB0000292	1.000000000
## Gluconic.acid_HMDB0000625	0.043660115
## Palmitic.acid_HMDB0000220	-0.441848957
## Glucaric.acid_HMDB0000663	0.489795553
## N.Acetylmannosamine_HMDB0001129	0.033683881
## N.Acetyl.D.glucosamine_HMDB0000215	0.142704147
## D.Ribulose.5.phosphate_HMDB0000618	-0.441642533
## Uric.acid_HMDB0000289	0.674282930
## D.Ribose.5.phosphate_HMDB0001548	-0.479538239
## myo.Inositol_HMDB0000211	-0.033884153
## D.Ribose.5.phosphate_HMDB0001548.1	-0.480924728

## Heptadecanoic.acid_HMDB0002259	-0.069910139
## Octadecanol_HMDB0002350	-0.697745141
## Glutathione_HMDB0000125	0.256310969
## Linoleic.acid_HMDB0000673	-0.456128589
## Oleic.acid_HMDB0000207	-0.261362437
## Elaidic.acid_HMDB0000573	-0.323714931
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.361530105
## Stearic.acid_HMDB0000827	-0.722845571
## L.Tryptophan_HMDB0000929	-0.701233162
## Fructose.1.phosphate_HMDB0001076	-0.447342713
## Mannose.6.phosphate_HMDB0001078	-0.130517132
## Arachidonic.acid_HMDB0001043	-0.245209113
## Glucose.6.phosphate_HMDB0001401	-0.504593938
## X6.Phosphogluconic.acid_HMDB0001316	-0.649850305
## Inositol.phosphate_HMDB0002985	-0.578993784
## Uridine_HMDB0000296	-0.349783527
## Stigmasterol_HMDB0000937	-0.509572068
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.507879715
## Sucrose_HMDB0000258	0.047632583
## MG.18.Oe.0.0.0.0._HMDB0011143	-0.809115898
## Trehalose_HMDB0000975	-0.008222300
## D.Maltose_HMDB0000163	-0.010183914
## Lactitol_HMDB00040937	-0.212556159
## Xanthylic.acid_HMDB0001554	0.117543498
## Adenosine.monophosphate_HMDB0000045	-0.420644901
## Cholesterol_HMDB0000067	-0.322488029
## Lathosterol_HMDB0001170	-0.448566868
## X7b.Hydroxycholesterol_.HMDB0006119	0.098450238
##	Gluconic.acid_HMDB0000625
## Dimethylglycine_HMDB0000092	0.806110297
## Glyoxylic.acid_HMDB0000119	0.810437580
## Pyruvic.acid_HMDB0000243	-0.196847869
## L.Lactic.acid_HMDB0000190	-0.206934831
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.008920836
## Glycolic.acid_HMDB0000115	0.268572159
## Caproic.acid_HMDB0000535	0.750270423
## L.Alanine_HMDB0000161	-0.203089045
## Alpha.ketoisovaleric.acid_HMDB0000019	0.499430298
## Glycine_HMDB0000123	-0.215502419
## Oxalic.acid_HMDB0002329	0.086561143
## Hydroxylamine_HMDB0003338	0.246340797
## X2.Hydroxybutyric.acid_HMDB0000008	0.306339415
## Acetoacetic.acid_HMDB0000060	0.358745507
## Hydroxypropionic.acid_HMDB0000700	-0.353961403
## Pyruvic.acid_HMDB0000243.1	0.138235234
## X3.Hydroxybutyric.acid_HMDB0000357	0.161580034
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.178206559
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.341841488
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.380771779
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.372948784
## Beta.Alanine_HMDB0000056	-0.617170579
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.192356687
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.162629872
## Malonic.acid_HMDB0000691	-0.139377130

## X3.Aminoisobutanoic.acid_HMDB0003911	-0.503677326
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.342806301
## Ketoleucine_HMDB0000695	0.628198322
## L.Valine_HMDB0000883	-0.254342525
## ITSD_Valine	-0.440846003
## Urea_HMDB0000294	0.005026413
## Benzoic.acid_HMDB0001870	-0.007313752
## Caprylic.acid_HMDB0000482	0.593345045
## Glycerol_HMDB0000131	-0.381997046
## Ethanolamine_HMDB0000149	-0.132320103
## L.Leucine_HMDB0000687	-0.312382828
## Acetylglycine_HMDB0000532	0.127536470
## L.Isoleucine_HMDB0000172	-0.245826212
## Nicotinic.acid_HMDB0001488	0.127977005
## Maleic.acid_HMDB0000176	0.472523486
## L.Proline_HMDB0000162	-0.021554889
## Phenylacetic.acid_HMDB0000209	0.650315091
## Succinic.acid_HMDB0000254	-0.151801350
## Glycine_HMDB0000123.1	-0.208779407
## Methylsuccinic.acid_HMDB0001844	-0.256334469
## Glyceric.acid_HMDB0000139	0.490222019
## Fumaric.acid_HMDB0000134	-0.058365195
## Uracil_HMDB0000300	0.238692310
## Pelargonic.acid_HMDB0000847	0.618781359
## L.Serine_HMDB0000187	-0.140664809
## L.Threonine_HMDB0000167	-0.115632621
## Mesaconic.acid_HMDB0000749	0.021927583
## Glutaric.acid_HMDB0000661	0.465732578
## Thymine_HMDB0000262	0.091363198
## Beta.Alanine_HMDB0000056.1	-0.500155094
## L.Homoserine_HMDB0000719	0.038041868
## Capric.acid_HMDB0000511	0.124887214
## Citramalic.acid_HMDB0000426	-0.074501399
## Malic.acid_HMDB0000744	0.590988008
## Niacinamide_HMDB0001406	-0.195326270
## Adipic.acid_HMDB0000448	0.043891048
## D.Threitol_HMDB0004136	0.155122515
## Dihydrouracil_HMDB0000076	0.287133445
## Erythritol_HMDB0002994	0.061733742
## N.Acetylserine_HMDB0002931	0.035369249
## L.Aspartic.acid_HMDB0000191	-0.129471278
## L.Methionine_HMDB0000696	-0.463741842
## X4.Hydroxyproline_HMDB0000725	-0.104111786
## Pyroglutamic.acid_HMDB0000267	-0.178409029
## Cytosine_HMDB0000630	0.082992987
## Gamma.Aminobutyric.acid_HMDB0000112	-0.269967799
## Threonic.acid_HMDB0000943	0.563604452
## L.Cysteine_HMDB0000574	0.569041778
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.583959104
## Creatinine_HMDB0000562	-0.566269828
## X3.Hydroxyglutaric.acid_HMDB0000428	0.492128302
## Oxoglutaric.acid_HMDB0000208	-0.088739867
## Phenylpyruvic.acid_HMDB0000205	0.342150222
## Pimelic.acid_HMDB0000857	-0.423882339

## Phenyllactic.acid_HMDB0000779	0.450152953
## Phosphoenolpyruvic.acid_HMDB0000263	0.601038399
## Ornithine_HMDB0000214	-0.247979179
## Hypotaurine_HMDB0000965	-0.058125279
## Triethanolamine_HMDB0032538	-0.054969057
## X2.Aminobenzoic.acid_HMDB0001123	-0.483459091
## L.Glutamic.acid_HMDB0000148	-0.392448184
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.323099648
## X5.Aminopentanoic.acid_HMDB0003355	0.531086934
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.624291564
## L.Phenylalanine_HMDB0000159	-0.456277279
## Dodecanoic.acid_HMDB0000638	-0.326469642
## Lyxose_HMDB0003402_1	0.552150802
## D.Xylose_HMDB0000098	0.380781545
## Lyxose_HMDB0003402_2	0.305233096
## D.Arabinose_HMDB0029942	0.566739275
## L.Asparagine_HMDB0000168	-0.383269359
## D.Ribulose_HMDB0000621	0.695617863
## D.Ribose_HMDB0000283	0.558721056
## D.Xylulose_HMDB0001644	0.693792479
## X3.Sulfinioalanine_HMDB0000996	-0.437726416
## Suberic.acid_HMDB0000893	0.066594748
## L.Lysine_HMDB0000182	-0.329008770
## Levoglucosan_HMDB0000640	0.299147827
## D.Arabitol_HMDB0000568	-0.371355556
## Ribitol_HMDB0000508	0.412357744
## cis.Aconitic.acid_HMDB0000072	0.271365170
## Quinolinic.acid_HMDB0000232	0.211492364
## Putrescine_HMDB0001414	0.105966517
## Glycerol.3.phosphate_HMDB0000126	0.199736126
## Vanillic.acid_HMDB0000484	0.164439383
## L.Glutamine_HMDB0000641	-0.178733680
## X2.Phosphoglyceric.acid_HMDB0000362	0.588030441
## Azelaic.acid_HMDB0000784	-0.137081483
## L.Dihydroorotic.acid_HMDB0003349	0.638647285
## O.Phosphoethanolamine_HMDB0000224	-0.613484974
## X3.Phosphoglyceric.acid_HMDB0000807	0.497426900
## Isocitric.acid_HMDB0000193	0.259550461
## Hypoxanthine_HMDB0000157	-0.316889640
## Citric.acid_HMDB0000094	0.826217049
## L.Arginine_HMDB0000517	0.398314874
## Ornithine_HMDB0000214.1	-0.330004526
## Dopamine_HMDB0000073	-0.317528480
## Myristic.acid_HMDB0000806	-0.492973245
## X1.5.Anhydrosorbitol_HMDB0002712	0.323372511
## D.Tagatose_HMDB0003418	0.601065279
## Psicose_1	0.225809246
## Sebacic.acid_HMDB0000792	-0.069845446
## D.Fructose_HMDB0000660	0.564117763
## Gluconolactone_HMDB0000150	0.777590824
## L.Sorbose_HMDB0001266	0.545570683
## D.Mannose_HMDB0000169	-0.488257431
## Hydroxyphenyllactic.acid_HMDB0000755	0.057222922
## D.Glucose_HMDB0000122	-0.456016401

## N.Acetylglutamine_HMDB0006029	-0.476414655
## L.Lysine_HMDB0000182.1	-0.492890569
## D.Mannose_HMDB0000169.1	-0.541007824
## Tyramine_HMDB0000306	-0.493243543
## L.Histidine_HMDB0000177	-0.542575156
## D.Glucose_HMDB0000122.1	-0.485771152
## X1.Hexadecanol_HMDB0003424	0.012725336
## L.Tyrosine_HMDB0000158	-0.397572310
## Mannitol_HMDB0000765	-0.377270197
## Sorbitol_HMDB0000247	0.260253464
## ITSD_Sorbitol	-0.305803851
## Galacturonic.acid_HMDB0002545	0.374669225
## Pantothenic.acid_HMDB0000210	0.286811973
## Palmitoleic.acid_HMDB0003229	-0.681503641
## Xanthine_HMDB0000292	0.043660115
## Gluconic.acid_HMDB0000625	1.000000000
## Palmitic.acid_HMDB0000220	-0.445223900
## Glucaric.acid_HMDB0000663	-0.136538012
## N.Acetylmannosamine_HMDB0001129	-0.140599649
## N.Acetyl.D.glucosamine_HMDB0000215	-0.379309389
## D.Ribulose.5.phosphate_HMDB0000618	0.615591864
## Uric.acid_HMDB0000289	-0.426954394
## D.Ribose.5.phosphate_HMDB0001548	0.410016210
## myo.Inositol_HMDB0000211	-0.093258151
## D.Ribose.5.phosphate_HMDB0001548.1	0.589959228
## Heptadecanoic.acid_HMDB0002259	0.606959566
## Octadecanol_HMDB0002350	0.219030601
## Glutathione_HMDB0000125	0.189276825
## Linoleic.acid_HMDB0000673	-0.560937538
## Oleic.acid_HMDB0000207	-0.682612145
## Elaidic.acid_HMDB0000573	-0.644118479
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.723624433
## Stearic.acid_HMDB0000827	-0.141789048
## L.Tryptophan_HMDB0000929	-0.128385431
## Fructose.1.phosphate_HMDB0001076	0.622197241
## Mannose.6.phosphate_HMDB0001078	0.143732278
## Arachidonic.acid_HMDB0001043	-0.737461167
## Glucose.6.phosphate_HMDB0001401	0.662071622
## X6.Phosphogluconic.acid_HMDB0001316	0.132155896
## Inositol.phosphate_HMDB0002985	-0.017356719
## Uridine_HMDB0000296	-0.014095701
## Stigmasterol_HMDB0000937	-0.090630985
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.098121427
## Sucrose_HMDB0000258	-0.556299914
## MG.18.0e.0.0.0.0._HMDB0011143	-0.148679770
## Trehalose_HMDB0000975	-0.266483136
## D.Maltose_HMDB0000163	-0.267063395
## Lactitol_HMDB00040937	0.250541305
## Xanthylic.acid_HMDB0001554	0.329451909
## Adenosine.monophosphate_HMDB0000045	0.663653549
## Cholesterol_HMDB0000067	-0.027141866
## Lathosterol_HMDB0001170	-0.448989219
## X7b.Hydroxycholesterol_.HMDB0006119	0.791205143
##	Palmitic.acid_HMDB0000220

## Dimethylglycine_HMDB0000092	-0.479007187
## Glyoxylic.acid_HMDB0000119	-0.486159303
## Pyruvic.acid_HMDB0000243	0.627819482
## L.Lactic.acid_HMDB0000190	0.535704206
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.685011160
## Glycolic.acid_HMDB0000115	0.292452693
## Caproic.acid_HMDB0000535	-0.361206054
## L.Alanine_HMDB0000161	0.325417123
## Alpha.ketoisovaleric.acid_HMDB0000019	0.156577059
## Glycine_HMDB0000123	0.488677149
## Oxalic.acid_HMDB0002329	0.012357572
## Hydroxylamine_HMDB0003338	0.440762985
## X2.Hydroxybutyric.acid_HMDB0000008	0.381725509
## Acetoacetic.acid_HMDB0000060	0.496859142
## Hydroxypropionic.acid_HMDB0000700	0.781040387
## Pyruvic.acid_HMDB0000243.1	0.496660907
## X3.Hydroxybutyric.acid_HMDB0000357	0.587947051
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.518770926
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.338289664
## D.Alpha.aminobutyric.acid_HMDB0000650	0.428290145
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.117345247
## Beta.Alanine_HMDB0000056	0.504213286
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.203051956
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.331961951
## Malonic.acid_HMDB0000691	0.401227890
## X3.Aminoisobutanoic.acid_HMDB0003911	0.519975150
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.732648408
## Ketoleucine_HMDB0000695	0.125168379
## L.Valine_HMDB0000883	0.482740089
## ITSD_Valine	0.624191822
## Urea_HMDB0000294	0.385359529
## Benzoic.acid_HMDB0001870	0.282591136
## Caprylic.acid_HMDB0000482	-0.113816971
## Glycerol_HMDB0000131	0.576692930
## Ethanolamine_HMDB0000149	0.337261618
## L.Leucine_HMDB0000687	0.570250694
## Acetyl glycine_HMDB0000532	0.353552446
## L.Isoleucine_HMDB0000172	0.506232879
## Nicotinic.acid_HMDB0001488	0.002788435
## Maleic.acid_HMDB0000176	0.304681286
## L.Proline_HMDB0000162	0.393442504
## Phenylacetic.acid_HMDB0000209	-0.001366595
## Succinic.acid_HMDB0000254	0.591039904
## Glycine_HMDB0000123.1	0.542757462
## Methylsuccinic.acid_HMDB0001844	0.437079527
## Glyceric.acid_HMDB0000139	0.164388695
## Fumaric.acid_HMDB0000134	0.610081828
## Uracil_HMDB0000300	0.345823656
## Pelargonic.acid_HMDB0000847	-0.316048134
## L.Serine_HMDB0000187	0.362201942
## L.Threonine_HMDB0000167	0.372359229
## Mesaconic.acid_HMDB0000749	0.142773926
## Glutaric.acid_HMDB0000661	-0.317763714
## Thymine_HMDB0000262	0.346489733

## Beta.Alanine_HMDB0000056.1	0.547422160
## L.Homoserine_HMDB0000719	0.295911564
## Capric.acid_HMDB0000511	0.324519210
## Citramalic.acid_HMDB0000426	0.177534045
## Malic.acid_HMDB0000744	0.059375707
## Niacinamide_HMDB0001406	0.490856115
## Adipic.acid_HMDB0000448	0.098066316
## D.Threitol_HMDB0004136	0.478865756
## Dihydrouracil_HMDB0000076	0.260228733
## Erythritol_HMDB0002994	0.587614903
## N.Acetylserine_HMDB0002931	0.261272859
## L.Aspartic.acid_HMDB0000191	0.356907401
## L.Methionine_HMDB0000696	0.403357848
## X4.Hydroxyproline_HMDB0000725	0.415554572
## Pyroglutamic.acid_HMDB0000267	0.388902977
## Cytosine_HMDB0000630	-0.159812286
## Gamma.Aminobutyric.acid_HMDB0000112	0.315249094
## Threonic.acid_HMDB0000943	0.131844270
## L.Cysteine_HMDB0000574	0.163529410
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.152688803
## Creatinine_HMDB0000562	0.473854783
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.370142757
## Oxoglutaric.acid_HMDB0000208	0.510369834
## Phenylpyruvic.acid_HMDB0000205	-0.074304736
## Pimelic.acid_HMDB0000857	0.117080730
## Phenyllactic.acid_HMDB0000779	-0.308812226
## Phosphoenolpyruvic.acid_HMDB0000263	-0.704492845
## Ornithine_HMDB0000214	-0.008718912
## Hypotaurine_HMDB0000965	0.223060513
## Triethanolamine_HMDB0032538	0.138613508
## X2.Aminobenzoic.acid_HMDB0001123	0.540690885
## L.Glutamic.acid_HMDB0000148	0.285426421
## X4.Hydroxybenzoic.acid_HMDB0000500	0.493111139
## X5.Aminopentanoic.acid_HMDB0003355	0.016325384
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.026584914
## L.Phenylalanine_HMDB0000159	0.421500063
## Dodecanoic.acid_HMDB0000638	0.941016750
## Lyxose_HMDB0003402_1	-0.353768523
## D.Xylose_HMDB0000098	-0.244866758
## Lyxose_HMDB0003402_2	-0.210154993
## D.Arabinose_HMDB0029942	-0.460452329
## L.Asparagine_HMDB0000168	-0.080318012
## D.Ribulose_HMDB0000621	-0.397446963
## D.Ribose_HMDB0000283	-0.465875335
## D.Xylulose_HMDB0001644	-0.407967655
## X3.Sulfinioalanine_HMDB0000996	-0.013706109
## Suberic.acid_HMDB0000893	0.195482963
## L.Lysine_HMDB0000182	-0.044624491
## Levoglucosan_HMDB0000640	-0.214857152
## D.Arabitool_HMDB0000568	0.399188790
## Ribitol_HMDB0000508	0.189824813
## cis.Aconitic.acid_HMDB0000072	-0.061759350
## Quinolinic.acid_HMDB0000232	-0.077238520
## Putrescine_HMDB0001414	0.211673677

## Glycerol.3.phosphate_HMDB0000126	-0.296168343
## Vanillic.acid_HMDB0000484	0.441825874
## L.Glutamine_HMDB0000641	-0.285363377
## X2.Phosphoglyceric.acid_HMDB0000362	-0.125684064
## Azelaic.acid_HMDB0000784	-0.240999392
## L.Dihydroorotic.acid_HMDB0003349	-0.413689442
## O.Phosphoethanolamine_HMDB0000224	0.884214384
## X3.Phosphoglyceric.acid_HMDB0000807	-0.125243894
## Isocitric.acid_HMDB0000193	0.262641946
## Hypoxanthine_HMDB0000157	-0.317489043
## Citric.acid_HMDB0000094	-0.351673402
## L.Arginine_HMDB0000517	-0.331150589
## Ornithine_HMDB0000214.1	0.270556867
## Dopamine_HMDB0000073	0.263420059
## Myristic.acid_HMDB0000806	0.820949019
## X1.5.Anhydrosorbitol_HMDB0002712	0.155233530
## D.Tagatose_HMDB0003418	-0.480166853
## Psicose_1	-0.152986120
## Sebacic.acid_HMDB0000792	0.457089064
## D.Fructose_HMDB0000660	-0.351997482
## Gluconolactone_HMDB0000150	-0.342704372
## L.Sorbose_HMDB0001266	-0.361268896
## D.Mannose_HMDB0000169	0.578401042
## Hydroxyphenyllactic.acid_HMDB0000755	0.678880917
## D.Glucose_HMDB0000122	0.483648092
## N.Acetylglutamine_HMDB0006029	0.555189969
## L.Lysine_HMDB0000182.1	0.355225469
## D.Mannose_HMDB0000169.1	0.483581559
## Tyramine_HMDB0000306	0.341182542
## L.Histidine_HMDB0000177	0.379528361
## D.Glucose_HMDB0000122.1	0.522662822
## X1.Hexadecanol_HMDB0003424	0.421394339
## L.Tyrosine_HMDB0000158	0.149671026
## Mannitol_HMDB0000765	0.464392367
## Sorbitol_HMDB0000247	-0.198656708
## ITSD_Sorbitol	0.728540591
## Galacturonic.acid_HMDB0002545	0.259275787
## Pantothenic.acid_HMDB0000210	0.249708957
## Palmitoleic.acid_HMDB0003229	0.896673367
## Xanthine_HMDB0000292	-0.441848957
## Gluconic.acid_HMDB0000625	-0.445223900
## Palmitic.acid_HMDB0000220	1.000000000
## Glucaric.acid_HMDB0000663	0.325097024
## N.Acetylmannosamine_HMDB0001129	0.558301915
## N.Acetyl.D.glucosamine_HMDB0000215	0.676180812
## D.Ribulose.5.phosphate_HMDB0000618	-0.404057447
## Uric.acid_HMDB0000289	0.017203321
## D.Ribose.5.phosphate_HMDB0001548	-0.490520573
## myo.Inositol_HMDB0000211	0.556009824
## D.Ribose.5.phosphate_HMDB0001548.1	-0.474023421
## Heptadecanoic.acid_HMDB0002259	-0.162129563
## Octadecanol_HMDB0002350	0.537043406
## Glutathione_HMDB0000125	-0.238660840
## Linoleic.acid_HMDB0000673	0.908732925

## Oleic.acid_HMDB0000207	0.864449456
## Elaidic.acid_HMDB0000573	0.911965376
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.470917072
## Stearic.acid_HMDB0000827	0.849651528
## L.Tryptophan_HMDB0000929	0.823530616
## Fructose.1.phosphate_HMDB0001076	-0.295712553
## Mannose.6.phosphate_HMDB0001078	-0.305195316
## Arachidonic.acid_HMDB0001043	0.680374007
## Glucose.6.phosphate_HMDB0001401	-0.158902088
## X6.Phosphogluconic.acid_HMDB0001316	0.552130188
## Inositol.phosphate_HMDB0002985	0.478895931
## Uridine_HMDB0000296	0.478236232
## Stigmasterol_HMDB0000937	0.798383015
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.348576439
## Sucrose_HMDB0000258	0.586658790
## MG.18.Oe.0.0.0.0._HMD0011143	0.804831617
## Trehalose_HMDB0000975	-0.275573626
## D.Maltose_HMDB0000163	-0.268243053
## Lactitol_HMDB00040937	0.042526394
## Xanthylic.acid_HMDB0001554	-0.784289666
## Adenosine.monophosphate_HMDB0000045	-0.309426808
## Cholesterol_HMDB0000067	0.470719759
## Lathosterol_HMDB0001170	0.771553746
## X7b.Hydroxycholesterol_.HMD0006119	-0.639909780
##	Glucaric.acid_HMDB0000663
## Dimethylglycine_HMDB0000092	-0.553326415
## Glyoxylic.acid_HMDB0000119	-0.556320854
## Pyruvic.acid_HMDB0000243	0.500354038
## L.Lactic.acid_HMDB0000190	0.729608277
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.145844120
## Glycolic.acid_HMDB0000115	-0.044199852
## Caproic.acid_HMDB0000535	-0.509062537
## L.Alanine_HMDB0000161	0.690306938
## Alpha.ketoisovaleric.acid_HMDB0000019	0.490794643
## Glycine_HMDB0000123	0.533899111
## Oxalic.acid_HMDB0002329	-0.558659576
## Hydroxylamine_HMDB0003338	0.220543804
## X2.Hydroxybutyric.acid_HMDB0000008	0.223498792
## Acetoacetic.acid_HMDB0000060	-0.064818372
## Hydroxypropionic.acid_HMDB0000700	0.580381387
## Pyruvic.acid_HMDB0000243.1	0.286358732
## X3.Hydroxybutyric.acid_HMDB0000357	0.145461866
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.217890861
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.076758222
## D.Alpha.aminobutyric.acid_HMDB0000650	0.684721999
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.002154541
## Beta.Alanine_HMDB0000056	0.434439764
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.363861045
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.456769032
## Malonic.acid_HMDB0000691	0.317093895
## X3.Aminoisobutanoic.acid_HMDB0003911	0.702602903
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.551969342
## Ketoleucine_HMDB0000695	0.190795197
## L.Valine_HMDB0000883	0.697128153

## ITSD_Valine	0.670444794
## Urea_HMDB0000294	0.604245147
## Benzoic.acid_HMDB0001870	-0.032164286
## Caprylic.acid_HMDB0000482	-0.448994160
## Glycerol_HMDB0000131	0.777481989
## Ethanolamine_HMDB0000149	0.786517943
## L.Leucine_HMDB0000687	0.744862048
## Acetylglycine_HMDB0000532	0.114618048
## L.Isoleucine_HMDB0000172	0.773572494
## Nicotinic.acid_HMDB0001488	-0.492850376
## Maleic.acid_HMDB0000176	-0.094968747
## L.Proline_HMDB0000162	0.610911556
## Phenylacetic.acid_HMDB0000209	-0.243382531
## Succinic.acid_HMDB0000254	0.556191839
## Glycine_HMDB0000123.1	0.797768752
## Methylsuccinic.acid_HMDB0001844	-0.123305900
## Glyceric.acid_HMDB0000139	-0.024414912
## Fumaric.acid_HMDB0000134	0.580963160
## Uracil_HMDB0000300	0.526216553
## Pelargonic.acid_HMDB0000847	-0.552283994
## L.Serine_HMDB0000187	0.718539149
## L.Threonine_HMDB0000167	0.762810522
## Mesaconic.acid_HMDB0000749	-0.066440903
## Glutaric.acid_HMDB0000661	-0.050289299
## Thymine_HMDB0000262	0.232868030
## Beta.Alanine_HMDB0000056.1	0.689436640
## L.Homoserine_HMDB0000719	0.095110333
## Capric.acid_HMDB0000511	-0.071575594
## Citramalic.acid_HMDB0000426	0.191423180
## Malic.acid_HMDB0000744	-0.005461666
## Niacinamide_HMDB0001406	0.562192215
## Adipic.acid_HMDB0000448	0.579487529
## D.Threitol_HMDB0004136	0.175222267
## Dihydrouracil_HMDB0000076	0.296362068
## Erythritol_HMDB0002994	0.433862762
## N.Acetylserine_HMDB0002931	0.704147483
## L.Aspartic.acid_HMDB0000191	0.756754772
## L.Methionine_HMDB0000696	0.775289649
## X4.Hydroxyproline_HMDB0000725	0.711402921
## Pyroglutamic.acid_HMDB0000267	0.707601997
## Cytosine_HMDB0000630	0.101391807
## Gamma.Aminobutyric.acid_HMDB0000112	0.045243701
## Threonic.acid_HMDB0000943	-0.094839603
## L.Cysteine_HMDB0000574	0.097483573
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.398275021
## Creatinine_HMDB0000562	0.685070122
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.550202984
## Oxoglutaric.acid_HMDB0000208	-0.050129384
## Phenylpyruvic.acid_HMDB0000205	-0.141373699
## Pimelic.acid_HMDB0000857	0.327336000
## Phenyllactic.acid_HMDB0000779	-0.343941784
## Phosphoenolpyruvic.acid_HMDB0000263	-0.629214432
## Ornithine_HMDB0000214	0.542882614
## Hypotaurine_HMDB0000965	0.699384733

## Triethanolamine_HMDB0032538	0.662507294
## X2.Aminobenzoic.acid_HMDB0001123	0.765262816
## L.Glutamic.acid_HMDB0000148	0.608021649
## X4.Hydroxybenzoic.acid_HMDB0000500	0.781840625
## X5.Aminopentanoic.acid_HMDB0003355	0.182085136
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.115449236
## L.Phenylalanine_HMDB0000159	0.763631835
## Dodecanoic.acid_HMDB0000638	0.384615110
## Lyxose_HMDB0003402_1	-0.497533301
## D.Xylose_HMDB0000098	-0.202315595
## Lyxose_HMDB0003402_2	-0.164373080
## D.Arabinose_HMDB0029942	-0.587451465
## L.Asparagine_HMDB0000168	0.391456211
## D.Ribulose_HMDB0000621	-0.448586063
## D.Ribose_HMDB0000283	-0.628541661
## D.Xylulose_HMDB0001644	-0.426273388
## X3.Sulfinioalanine_HMDB0000996	0.038122080
## Suberic.acid_HMDB0000893	0.386641571
## L.Lysine_HMDB0000182	0.409971196
## Levoglucosan_HMDB0000640	-0.086685554
## D.Arabitol_HMDB0000568	0.114115599
## Ribitol_HMDB0000508	0.324658965
## cis.Aconitic.acid_HMDB0000072	-0.059908801
## Quinolinic.acid_HMDB0000232	0.114873262
## Putrescine_HMDB0001414	-0.059274625
## Glycerol.3.phosphate_HMDB0000126	-0.796712476
## Vanillic.acid_HMDB0000484	0.700538361
## L.Glutamine_HMDB0000641	0.145682141
## X2.Phosphoglyceric.acid_HMDB0000362	0.258319161
## Azelaic.acid_HMDB0000784	-0.271018149
## L.Dihydroorotic.acid_HMDB0003349	-0.560210083
## O.Phosphoethanolamine_HMDB0000224	0.308592582
## X3.Phosphoglyceric.acid_HMDB0000807	0.233199488
## Isocitric.acid_HMDB0000193	0.263080406
## Hypoxanthine_HMDB0000157	-0.052693938
## Citric.acid_HMDB0000094	0.002204950
## L.Arginine_HMDB0000517	-0.217481411
## Ornithine_HMDB0000214.1	0.770788479
## Dopamine_HMDB0000073	0.759644854
## Myristic.acid_HMDB0000806	0.700904164
## X1.5.Anhydrosorbitol_HMDB0002712	0.060787294
## D.Tagatose_HMDB0003418	-0.599418763
## Psicose_1	0.056608920
## Sebacic.acid_HMDB0000792	0.593857308
## D.Fructose_HMDB0000660	-0.519271321
## Gluconolactone_HMDB0000150	-0.348028778
## L.Sorbose_HMDB0001266	-0.527501359
## D.Mannose_HMDB0000169	0.709437018
## Hydroxyphenyllactic.acid_HMDB0000755	0.305708274
## D.Glucose_HMDB0000122	0.671537688
## N.Acetylglutamine_HMDB0006029	0.693799743
## L.Lysine_HMDB0000182.1	0.720518860
## D.Mannose_HMDB0000169.1	0.738169647
## Tyramine_HMDB0000306	0.720691729

## L.Histidine_HMDB0000177	0.695697220
## D.Glucose_HMDB0000122.1	0.625955064
## X1.Hexadecanol_HMDB0003424	-0.067794240
## L.Tyrosine_HMDB0000158	0.655039363
## Mannitol_HMDB0000765	0.592395566
## Sorbitol_HMDB0000247	-0.400890388
## ITSD_Sorbitol	0.782482995
## Galacturonic.acid_HMDB0002545	0.492709030
## Pantothenic.acid_HMDB0000210	0.209540625
## Palmitoleic.acid_HMDB0003229	0.372366239
## Xanthine_HMDB0000292	0.489795553
## Gluconic.acid_HMDB0000625	-0.136538012
## Palmitic.acid_HMDB0000220	0.325097024
## Glucaric.acid_HMDB0000663	1.000000000
## N.Acetylmannosamine_HMDB0001129	0.269536404
## N.Acetyl.D.glucosamine_HMDB0000215	0.665292840
## D.Ribulose.5.phosphate_HMDB0000618	-0.637891780
## Uric.acid_HMDB0000289	0.412230351
## D.Ribose.5.phosphate_HMDB0001548	-0.694011835
## myo.Inositol_HMDB0000211	0.326481275
## D.Ribose.5.phosphate_HMDB0001548.1	-0.676206482
## Heptadecanoic.acid_HMDB0002259	-0.030792647
## Octadecanol_HMDB0002350	0.016591711
## Glutathione_HMDB0000125	-0.096421544
## Linoleic.acid_HMDB0000673	0.170301639
## Oleic.acid_HMDB0000207	0.282384244
## Elaidic.acid_HMDB0000573	0.283922467
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.565229381
## Stearic.acid_HMDB0000827	-0.002839886
## L.Tryptophan_HMDB0000929	-0.010023038
## Fructose.1.phosphate_HMDB0001076	-0.606605607
## Mannose.6.phosphate_HMDB0001078	-0.481888501
## Arachidonic.acid_HMDB0001043	0.104497384
## Glucose.6.phosphate_HMDB0001401	-0.409654803
## X6.Phosphogluconic.acid_HMDB0001316	-0.015827246
## Inositol.phosphate_HMDB0002985	-0.168129100
## Uridine_HMDB0000296	0.242400600
## Stigmasterol_HMDB0000937	0.252170438
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.059062180
## Sucrose_HMDB0000258	0.269821738
## MG.18.Oe.0.0.0.0._HMDB0011143	-0.055761892
## Trehalose_HMDB0000975	-0.434169725
## D.Maltose_HMDB0000163	-0.428009878
## Lactitol_HMDB00040937	-0.057912833
## Xanthylic.acid_HMDB0001554	-0.612602961
## Adenosine.monophosphate_HMDB0000045	-0.458814869
## Cholesterol_HMDB0000067	0.149306925
## Lathosterol_HMDB0001170	0.116840529
## X7b.Hydroxycholesterol_.HMDB0006119	-0.225854932
## N.Acetylmannosamine_HMDB0001129	
## Dimethylglycine_HMDB0000092	-0.253720546
## Glyoxylic.acid_HMDB0000119	-0.259138396
## Pyruvic.acid_HMDB0000243	0.219102639
## L.Lactic.acid_HMDB0000190	0.409377824

## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.477471846
## Glycolic.acid_HMDB0000115	-0.074726627
## Caproic.acid_HMDB0000535	-0.490917763
## L.Alanine_HMDB0000161	0.442655665
## Alpha.ketoisovaleric.acid_HMDB0000019	0.242950404
## Glycine_HMDB0000123	0.280449270
## Oxalic.acid_HMDB0002329	-0.368111515
## Hydroxylamine_HMDB0003338	0.473460961
## X2.Hydroxybutyric.acid_HMDB0000008	0.227818690
## Acetoacetic.acid_HMDB0000060	0.138594147
## Hydroxypropionic.acid_HMDB0000700	0.407643767
## Pyruvic.acid_HMDB0000243.1	0.564870156
## X3.Hydroxybutyric.acid_HMDB0000357	0.235011189
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.231969767
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.162490704
## D.Alpha.aminobutyric.acid_HMDB0000650	0.509231274
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.347605808
## Beta.Alanine_HMDB0000056	0.455338592
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.045889792
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.386400317
## Malonic.acid_HMDB0000691	-0.032520190
## X3.Aminoisobutanoic.acid_HMDB0003911	0.639865872
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.467348124
## Ketoleucine_HMDB0000695	0.041546721
## L.Valine_HMDB0000883	0.553038498
## ITSD_Valine	0.569764437
## Urea_HMDB0000294	0.458318144
## Benzoic.acid_HMDB0001870	-0.031581747
## Caprylic.acid_HMDB0000482	-0.322408928
## Glycerol_HMDB0000131	0.430333490
## Ethanolamine_HMDB0000149	0.403972292
## L.Leucine_HMDB0000687	0.555840002
## Acetyl glycine_HMDB0000532	-0.091290485
## L.Isoleucine_HMDB0000172	0.524487453
## Nicotinic.acid_HMDB0001488	0.095405686
## Maleic.acid_HMDB0000176	-0.093406616
## L.Proline_HMDB0000162	0.473265527
## Phenylacetic.acid_HMDB0000209	-0.256099069
## Succinic.acid_HMDB0000254	0.313881909
## Glycine_HMDB0000123.1	0.458513665
## Methylsuccinic.acid_HMDB0001844	0.033680494
## Glyceric.acid_HMDB0000139	-0.237625295
## Fumaric.acid_HMDB0000134	0.443760701
## Uracil_HMDB0000300	0.381314578
## Pelargonic.acid_HMDB0000847	-0.356476431
## L.Serine_HMDB0000187	0.335765027
## L.Threonine_HMDB0000167	0.383968112
## Mesaconic.acid_HMDB0000749	0.302391891
## Glutaric.acid_HMDB0000661	-0.288058232
## Thymine_HMDB0000262	0.508787835
## Beta.Alanine_HMDB0000056.1	0.648355074
## L.Homoserine_HMDB0000719	-0.049068854
## Capric.acid_HMDB0000511	0.023297714
## Citramalic.acid_HMDB0000426	0.092563282

## Malic.acid_HMDB0000744	-0.264075818
## Niacinamide_HMDB0001406	0.609299500
## Adipic.acid_HMDB0000448	0.283874649
## D.Threitol_HMDB0004136	0.520350403
## Dihydrouracil_HMDB0000076	0.370302203
## Erythritol_HMDB0002994	0.424308973
## N.Acetylserine_HMDB0002931	0.212436281
## L.Aspartic.acid_HMDB0000191	0.424544807
## L.Methionine_HMDB0000696	0.540547728
## X4.Hydroxyproline_HMDB0000725	0.416605195
## Pyroglutamic.acid_HMDB0000267	0.390317380
## Cytosine_HMDB0000630	0.230493617
## Gamma.Aminobutyric.acid_HMDB0000112	0.149236389
## Threonic.acid_HMDB0000943	0.018450443
## L.Cysteine_HMDB0000574	0.157127999
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.317464582
## Creatinine_HMDB0000562	0.540218957
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.453054121
## Oxoglutaric.acid_HMDB0000208	0.061191861
## Phenylpyruvic.acid_HMDB0000205	-0.353500218
## Pimelic.acid_HMDB0000857	-0.003617958
## Phenyllactic.acid_HMDB0000779	-0.410564063
## Phosphoenolpyruvic.acid_HMDB0000263	-0.616618992
## Ornithine_HMDB0000214	0.245165691
## Hypotaurine_HMDB0000965	0.538109500
## Triethanolamine_HMDB0032538	0.264321851
## X2.Aminobenzoic.acid_HMDB0001123	0.504698058
## L.Glutamic.acid_HMDB0000148	0.592661288
## X4.Hydroxybenzoic.acid_HMDB0000500	0.445093096
## X5.Aminopentanoic.acid_HMDB0003355	-0.097231637
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.185683171
## L.Phenylalanine_HMDB0000159	0.520074311
## Dodecanoic.acid_HMDB0000638	0.591763270
## Lyxose_HMDB0003402_1	-0.503161632
## D.Xylose_HMDB0000098	-0.051428647
## Lyxose_HMDB0003402_2	-0.004586857
## D.Arabinose_HMDB0029942	-0.587467344
## L.Asparagine_HMDB0000168	0.244471610
## D.Ribulose_HMDB0000621	-0.488610442
## D.Ribose_HMDB0000283	-0.546404247
## D.Xylulose_HMDB0001644	-0.482107652
## X3.Sulfinioalanine_HMDB0000996	0.411280866
## Suberic.acid_HMDB0000893	0.102355597
## L.Lysine_HMDB0000182	0.207490456
## Levoglucosan_HMDB0000640	0.047789050
## D.Arabitool_HMDB0000568	0.129288068
## Ribitol_HMDB0000508	0.267843651
## cis.Aconitic.acid_HMDB0000072	0.127059792
## Quinolinic.acid_HMDB0000232	-0.139159470
## Putrescine_HMDB0001414	0.047905917
## Glycerol.3.phosphate_HMDB0000126	-0.276125149
## Vanillic.acid_HMDB0000484	0.578293262
## L.Glutamine_HMDB0000641	0.191664286
## X2.Phosphoglyceric.acid_HMDB0000362	-0.022779461

## Azelaic.acid_HMDB0000784	-0.273509301
## L.Dihydroorotic.acid_HMDB0003349	-0.549330942
## O.Phosphoethanolamine_HMDB0000224	0.476910865
## X3.Phosphoglyceric.acid_HMDB0000807	-0.094355865
## Isocitric.acid_HMDB0000193	0.241234236
## Hypoxanthine_HMDB0000157	0.021128957
## Citric.acid_HMDB0000094	-0.208500306
## L.Arginine_HMDB0000517	-0.096371076
## Ornithine_HMDB0000214.1	0.444094450
## Dopamine_HMDB0000073	0.442567358
## Myristic.acid_HMDB0000806	0.573544286
## X1.5.Anhydrosorbitol_HMDB0002712	0.137399087
## D.Tagatose_HMDB0003418	-0.569689023
## Psicose_1	0.098074019
## Sebacic.acid_HMDB0000792	0.440219716
## D.Fructose_HMDB0000660	-0.601096835
## Gluconolactone_HMDB0000150	-0.455477869
## L.Sorbose_HMDB0001266	-0.597647917
## D.Mannose_HMDB0000169	0.704970298
## Hydroxyphenyllactic.acid_HMDB0000755	0.361992647
## D.Glucose_HMDB0000122	0.649403890
## N.Acetylglutamine_HMDB0006029	0.702199621
## L.Lysine_HMDB0000182.1	0.513524371
## D.Mannose_HMDB0000169.1	0.617980898
## Tyramine_HMDB0000306	0.510294056
## L.Histidine_HMDB0000177	0.512187207
## D.Glucose_HMDB0000122.1	0.710293246
## X1.Hexadecanol_HMDB0003424	0.142479438
## L.Tyrosine_HMDB0000158	0.443213602
## Mannitol_HMDB0000765	0.462623758
## Sorbitol_HMDB0000247	0.122700286
## ITSD_Sorbitol	0.542610316
## Galacturonic.acid_HMDB0002545	0.336702982
## Pantothenic.acid_HMDB0000210	-0.076154711
## Palmitoleic.acid_HMDB0003229	0.552108175
## Xanthine_HMDB0000292	0.033683881
## Gluconic.acid_HMDB0000625	-0.140599649
## Palmitic.acid_HMDB0000220	0.558301915
## Glucaric.acid_HMDB0000663	0.269536404
## N.Acetylmannosamine_HMDB0001129	1.000000000
## N.Acetyl.D.glucosamine_HMDB0000215	0.758261388
## D.Ribulose.5.phosphate_HMDB0000618	-0.331193402
## Uric.acid_HMDB0000289	0.347218827
## D.Ribose.5.phosphate_HMDB0001548	-0.530360144
## myo.Inositol_HMDB0000211	0.417809333
## D.Ribose.5.phosphate_HMDB0001548.1	-0.519293820
## Heptadecanoic.acid_HMDB0002259	-0.282673332
## Octadecanol_HMDB0002350	-0.012748741
## Glutathione_HMDB0000125	0.181822245
## Linoleic.acid_HMDB0000673	0.458793498
## Oleic.acid_HMDB0000207	0.507121025
## Elaidic.acid_HMDB0000573	0.571474496
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.471285030
## Stearic.acid_HMDB0000827	0.270331821

## L.Tryptophan_HMDB0000929	0.297120441
## Fructose.1.phosphate_HMDB0001076	-0.427405682
## Mannose.6.phosphate_HMDB0001078	-0.191755549
## Arachidonic.acid_HMDB0001043	0.393976370
## Glucose.6.phosphate_HMDB0001401	-0.395468019
## X6.Phosphogluconic.acid_HMDB0001316	0.120460717
## Inositol.phosphate_HMDB0002985	0.370597983
## Uridine_HMDB0000296	0.290205999
## Stigmasterol_HMDB0000937	0.417484415
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.013116756
## Sucrose_HMDB0000258	0.357017859
## MG.18.0e.0.0.0.0._HMDB0011143	0.315517097
## Trehalose_HMDB0000975	-0.191563902
## D.Maltose_HMDB0000163	-0.190325464
## Lactitol_HMDB00040937	0.432601689
## Xanthylic.acid_HMDB0001554	-0.491506089
## Adenosine.monophosphate_HMDB0000045	-0.381281369
## Cholesterol_HMDB0000067	0.628498902
## Lathosterol_HMDB0001170	0.678039651
## X7b.Hydroxycholesterol._HMDB0006119	-0.422710364
##	
## N.Acetyl.D.glucosamine_HMDB0000215	
## Dimethylglycine_HMDB0000092	-0.657144426
## Glyoxylic.acid_HMDB0000119	-0.662851135
## Pyruvic.acid_HMDB0000243	0.593607747
## L.Lactic.acid_HMDB0000190	0.787324038
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.545786434
## Glycolic.acid_HMDB0000115	-0.089185354
## Caproic.acid_HMDB0000535	-0.676777961
## L.Alanine_HMDB0000161	0.745184197
## Alpha.ketoisovaleric.acid_HMDB0000019	0.395309892
## Glycine_HMDB0000123	0.609441613
## Oxalic.acid_HMDB0002329	-0.459629353
## Hydroxylamine_HMDB0003338	0.508705722
## X2.Hydroxybutyric.acid_HMDB0000008	0.205286450
## Acetoacetic.acid_HMDB0000060	0.086796071
## Hydroxypropionic.acid_HMDB0000700	0.706851938
## Pyruvic.acid_HMDB0000243.1	0.643432637
## X3.Hydroxybutyric.acid_HMDB0000357	0.243190502
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.291352281
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.021924170
## D.Alpha.aminobutyric.acid_HMDB0000650	0.790565919
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.193911619
## Beta.Alanine_HMDB0000056	0.645989155
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.185758973
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.525328627
## Malonic.acid_HMDB0000691	0.355090767
## X3.Aminoisobutanoic.acid_HMDB0003911	0.820211128
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.738755276
## Ketoleucine_HMDB0000695	0.079694982
## L.Valine_HMDB0000883	0.791345525
## ITSD_Valine	0.845892924
## Urea_HMDB0000294	0.669930688
## Benzoic.acid_HMDB0001870	-0.077824271
## Caprylic.acid_HMDB0000482	-0.495778279

## Glycerol_HMDB0000131	0.800115849
## Ethanolamine_HMDB0000149	0.743950473
## L.Leucine_HMDB0000687	0.814252993
## Acetylglycine_HMDB0000532	0.069753292
## L.Isoleucine_HMDB0000172	0.825748941
## Nicotinic.acid_HMDB0001488	-0.126273739
## Maleic.acid_HMDB0000176	-0.107605794
## L.Proline_HMDB0000162	0.616324969
## Phenylacetic.acid_HMDB0000209	-0.389559355
## Succinic.acid_HMDB0000254	0.659952254
## Glycine_HMDB0000123.1	0.801933989
## Methylsuccinic.acid_HMDB0001844	0.125645053
## Glyceric.acid_HMDB0000139	-0.277363232
## Fumaric.acid_HMDB0000134	0.715043308
## Uracil_HMDB0000300	0.617260218
## Pelargonic.acid_HMDB0000847	-0.621685078
## L.Serine_HMDB0000187	0.683499174
## L.Threonine_HMDB0000167	0.733727736
## Mesaconic.acid_HMDB0000749	0.220004331
## Glutaric.acid_HMDB0000661	-0.171278583
## Thymine_HMDB0000262	0.610942154
## Beta.Alanine_HMDB0000056.1	0.897705948
## L.Homoserine_HMDB0000719	-0.042553922
## Capric.acid_HMDB0000511	-0.089565600
## Citramalic.acid_HMDB0000426	0.355591336
## Malic.acid_HMDB0000744	-0.208760697
## Niacinamide_HMDB0001406	0.815853433
## Adipic.acid_HMDB0000448	0.529617546
## D.Threitol_HMDB0004136	0.420682314
## Dihydrouracil_HMDB0000076	0.469368588
## Erythritol_HMDB0002994	0.556115977
## N.Acetylserine_HMDB0002931	0.584615659
## L.Aspartic.acid_HMDB0000191	0.731944593
## L.Methionine_HMDB0000696	0.815850025
## X4.Hydroxyproline_HMDB0000725	0.718032296
## Pyroglutamic.acid_HMDB0000267	0.679690349
## Cytosine_HMDB0000630	0.224151310
## Gamma.Aminobutyric.acid_HMDB0000112	0.315631184
## Threonic.acid_HMDB0000943	-0.134355148
## L.Cysteine_HMDB0000574	0.019803206
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.431743677
## Creatinine_HMDB0000562	0.726492289
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.630636310
## Oxoglutaric.acid_HMDB0000208	0.187290398
## Phenylpyruvic.acid_HMDB0000205	-0.437189145
## Pimelic.acid_HMDB0000857	0.440190889
## Phenyllactic.acid_HMDB0000779	-0.469877588
## Phosphoenolpyruvic.acid_HMDB0000263	-0.817391647
## Ornithine_HMDB0000214	0.432563675
## Hypotaurine_HMDB0000965	0.731766242
## Triethanolamine_HMDB0032538	0.638114184
## X2.Aminobenzoic.acid_HMDB0001123	0.872993682
## L.Glutamic.acid_HMDB0000148	0.764914150
## X4.Hydroxybenzoic.acid_HMDB0000500	0.832058358

## X5.Aminopentanoic.acid_HMDB0003355	0.123343250
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.267659732
## L.Phenylalanine_HMDB0000159	0.818636862
## Dodecanoic.acid_HMDB0000638	0.646463135
## Lyxose_HMDB0003402_1	-0.703041686
## D.Xylose_HMDB0000098	-0.189208407
## Lyxose_HMDB0003402_2	-0.081609245
## D.Arabinose_HMDB0029942	-0.791337810
## L.Asparagine_HMDB0000168	0.405364052
## D.Ribulose_HMDB0000621	-0.650243065
## D.Ribose_HMDB0000283	-0.780375198
## D.Xylulose_HMDB0001644	-0.638723867
## X3.Sulfinoalanine_HMDB0000996	0.286238943
## Suberic.acid_HMDB0000893	0.369868181
## L.Lysine_HMDB0000182	0.299358629
## Levoglucosan_HMDB0000640	-0.052924141
## D.Arabitol_HMDB0000568	0.309789688
## Ribitol_HMDB0000508	0.177458523
## cis.Aconitic.acid_HMDB0000072	0.046592369
## Quinolinic.acid_HMDB0000232	0.050977027
## Putrescine_HMDB0001414	0.137743121
## Glycerol.3.phosphate_HMDB0000126	-0.648504332
## Vanillic.acid_HMDB0000484	0.677623381
## L.Glutamine_HMDB0000641	0.190119329
## X2.Phosphoglyceric.acid_HMDB0000362	0.134877574
## Azelaic.acid_HMDB0000784	-0.202011148
## L.Dihydroorotic.acid_HMDB0003349	-0.762398899
## O.Phosphoethanolamine_HMDB0000224	0.607591602
## X3.Phosphoglyceric.acid_HMDB0000807	0.140921881
## Isocitric.acid_HMDB0000193	0.283360814
## Hypoxanthine_HMDB0000157	-0.105495681
## Citric.acid_HMDB0000094	-0.261161247
## L.Arginine_HMDB0000517	-0.279710404
## Ornithine_HMDB0000214.1	0.760592847
## Dopamine_HMDB0000073	0.755962252
## Myristic.acid_HMDB0000806	0.854569816
## X1.5.Anhydrosorbitol_HMDB0002712	0.143032294
## D.Tagatose_HMDB0003418	-0.794708618
## Psicose_1	0.158378781
## Sebacic.acid_HMDB0000792	0.722053026
## D.Fructose_HMDB0000660	-0.717610837
## Gluconolactone_HMDB0000150	-0.621320887
## L.Sorbose_HMDB0001266	-0.724232811
## D.Mannose_HMDB0000169	0.933379214
## Hydroxyphenyllactic.acid_HMDB0000755	0.498067661
## D.Glucose_HMDB0000122	0.871229731
## N.Acetylglutamine_HMDB0006029	0.921510790
## L.Lysine_HMDB0000182.1	0.778416571
## D.Mannose_HMDB0000169.1	0.882989229
## Tyramine_HMDB0000306	0.770657859
## L.Histidine_HMDB0000177	0.776470592
## D.Glucose_HMDB0000122.1	0.858798989
## X1.Hexadecanol_HMDB0003424	0.042913952
## L.Tyrosine_HMDB0000158	0.677614467

## Mannitol_HMDB0000765	0.858804130
## Sorbitol_HMDB0000247	-0.162448749
## ITSD_Sorbitol	0.852676556
## Galacturonic.acid_HMDB0002545	0.384134227
## Pantothenic.acid_HMDB0000210	-0.004431941
## Palmitoleic.acid_HMDB0003229	0.658562148
## Xanthine_HMDB0000292	0.142704147
## Gluconic.acid_HMDB0000625	-0.379309389
## Palmitic.acid_HMDB0000220	0.676180812
## Glucaric.acid_HMDB0000663	0.665292840
## N.Acetylmannosamine_HMDB0001129	0.758261388
## N.Acetyl.D.glucosamine_HMDB0000215	1.000000000
## D.Ribulose.5.phosphate_HMDB0000618	-0.708443114
## Uric.acid_HMDB0000289	0.433068060
## D.Ribose.5.phosphate_HMDB0001548	-0.808790134
## myo.Inositol_HMDB0000211	0.564890893
## D.Ribose.5.phosphate_HMDB0001548.1	-0.836787520
## Heptadecanoic.acid_HMDB0002259	-0.156157982
## Octadecanol_HMDB0002350	0.075495988
## Glutathione_HMDB0000125	-0.021602644
## Linoleic.acid_HMDB0000673	0.468716161
## Oleic.acid_HMDB0000207	0.564786929
## Elaidic.acid_HMDB0000573	0.636674358
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.712088289
## Stearic.acid_HMDB0000827	0.322504739
## L.Tryptophan_HMDB0000929	0.323715249
## Fructose.1.phosphate_HMDB0001076	-0.648587134
## Mannose.6.phosphate_HMDB0001078	-0.465730952
## Arachidonic.acid_HMDB0001043	0.367867129
## Glucose.6.phosphate_HMDB0001401	-0.615994959
## X6.Phosphogluconic.acid_HMDB0001316	-0.024354481
## Inositol.phosphate_HMDB0002985	0.110594712
## Uridine_HMDB0000296	0.539367012
## Stigmasterol_HMDB0000937	0.594760096
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.081184712
## Sucrose_HMDB0000258	0.571079017
## MG.18.0e.0.0.0.0._HMDB0011143	0.286946452
## Trehalose_HMDB0000975	-0.280473088
## D.Maltose_HMDB0000163	-0.275154338
## Lactitol_HMDB0040937	0.133581970
## Xanthylic.acid_HMDB0001554	-0.718233666
## Adenosine.monophosphate_HMDB0000045	-0.682067215
## Cholesterol_HMDB0000067	0.378979002
## Lathosterol_HMDB0001170	0.517220021
## X7b.Hydroxycholesterol_.HMDB0006119	-0.432215670
## D.Ribulose.5.phosphate_HMDB0000618	0.913563910
## Dimethylglycine_HMDB0000092	0.912215199
## Glyoxylic.acid_HMDB0000119	-0.305382007
## Pyruvic.acid_HMDB0000243	-0.711819457
## L.Lactic.acid_HMDB0000190	-0.070446489
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.441628689
## Glycolic.acid_HMDB0000115	0.821154386
## Caproic.acid_HMDB0000535	-0.705846132
## L.Alanine_HMDB0000161	

## Alpha.ketoisovaleric.acid_HMDB0000019	-0.046647597
## Glycine_HMDB0000123	-0.522105671
## Oxalic.acid_HMDB0002329	0.492329971
## Hydroxylamine_HMDB0003338	-0.275841808
## X2.Hydroxybutyric.acid_HMDB0000008	0.273829831
## Acetoacetic.acid_HMDB0000060	0.211291359
## Hydroxypropionic.acid_HMDB0000700	-0.557202991
## Pyruvic.acid_HMDB0000243.1	-0.247561125
## X3.Hydroxybutyric.acid_HMDB0000357	0.224400042
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.170743748
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.474536390
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.693582967
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.231678432
## Beta.Alanine_HMDB0000056	-0.663023033
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.072757856
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.086057409
## Malonic.acid_HMDB0000691	-0.275343823
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.834599606
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.521296362
## Ketoleucine_HMDB0000695	0.350656485
## L.Valine_HMDB0000883	-0.674740548
## ITSD_Valine	-0.708708445
## Urea_HMDB0000294	-0.350132338
## Benzoic.acid_HMDB0001870	0.189507272
## Caprylic.acid_HMDB0000482	0.805666490
## Glycerol_HMDB0000131	-0.832273079
## Ethanolamine_HMDB0000149	-0.729612889
## L.Leucine_HMDB0000687	-0.717003199
## Acetyl glycine_HMDB0000532	0.288133956
## L.Isoleucine_HMDB0000172	-0.735704371
## Nicotinic.acid_HMDB0001488	0.375298964
## Maleic.acid_HMDB0000176	0.535242854
## L.Proline_HMDB0000162	-0.420740229
## Phenylacetic.acid_HMDB0000209	0.746281249
## Succinic.acid_HMDB0000254	-0.484995507
## Glycine_HMDB0000123.1	-0.739049647
## Methylsuccinic.acid_HMDB0001844	0.022826806
## Glyceric.acid_HMDB0000139	0.532173688
## Fumaric.acid_HMDB0000134	-0.356026093
## Uracil_HMDB0000300	-0.313779146
## Pelargonic.acid_HMDB0000847	0.895343392
## L.Serine_HMDB0000187	-0.724803542
## L.Threonine_HMDB0000167	-0.664787029
## Mesaconic.acid_HMDB0000749	0.315673718
## Glutaric.acid_HMDB0000661	0.298412321
## Thymine_HMDB0000262	-0.406444496
## Beta.Alanine_HMDB0000056.1	-0.838047086
## L.Homoserine_HMDB0000719	0.170406601
## Capric.acid_HMDB0000511	0.341232875
## Citramalic.acid_HMDB0000426	-0.364898336
## Malic.acid_HMDB0000744	0.498209673
## Niacinamide_HMDB0001406	-0.555873993
## Adipic.acid_HMDB0000448	-0.550121604
## D.Threitol_HMDB0004136	0.081135526

## Dihydrouracil_HMDB0000076	-0.235372105
## Erythritol_HMDB0002994	-0.078767443
## N.Acetylserine_HMDB0002931	-0.601973861
## L.Aspartic.acid_HMDB0000191	-0.695634695
## L.Methionine_HMDB0000696	-0.863803068
## X4.Hydroxyproline_HMDB0000725	-0.562605193
## Pyroglutamic.acid_HMDB0000267	-0.592289458
## Cytosine_HMDB0000630	-0.003718814
## Gamma.Aminobutyric.acid_HMDB0000112	-0.164177052
## Threonic.acid_HMDB0000943	0.627491805
## L.Cysteine_HMDB0000574	0.519719533
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.739321981
## Creatinine_HMDB0000562	-0.787951313
## X3.Hydroxyglutaric.acid_HMDB0000428	0.806266352
## Oxoglutaric.acid_HMDB0000208	-0.020630359
## Phenylpyruvic.acid_HMDB0000205	0.444296326
## Pimelic.acid_HMDB0000857	-0.563127065
## Phenyllactic.acid_HMDB0000779	0.511512164
## Phosphoenolpyruvic.acid_HMDB0000263	0.833744323
## Ornithine_HMDB0000214	-0.695688555
## Hypotaurine_HMDB0000965	-0.567636961
## Triethanolamine_HMDB0032538	-0.635293056
## X2.Aminobenzoic.acid_HMDB0001123	-0.910006166
## L.Glutamic.acid_HMDB0000148	-0.729871336
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.810791011
## X5.Aminopentanoic.acid_HMDB0003355	0.225429680
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.546062573
## L.Phenylalanine_HMDB0000159	-0.870441157
## Dodecanoic.acid_HMDB0000638	-0.330767797
## Lyxose_HMDB0003402_1	0.847736665
## D.Xylose_HMDB0000098	0.288228378
## Lyxose_HMDB0003402_2	0.127255280
## D.Arabinose_HMDB0029942	0.884848948
## L.Asparagine_HMDB0000168	-0.670978972
## D.Ribulose_HMDB0000621	0.782910223
## D.Ribose_HMDB0000283	0.895796026
## D.Xylulose_HMDB0001644	0.777439352
## X3.Sulfinoalanine_HMDB0000996	-0.382632823
## Suberic.acid_HMDB0000893	-0.322381280
## L.Lysine_HMDB0000182	-0.605573288
## Levoglucosan_HMDB0000640	0.116805117
## D.Arabitol_HMDB0000568	-0.021944229
## Ribitol_HMDB0000508	0.108493482
## cis.Aconitic.acid_HMDB0000072	0.122439587
## Quinolinic.acid_HMDB0000232	0.209211435
## Putrescine_HMDB0001414	0.098348630
## Glycerol.3.phosphate_HMDB0000126	0.760218833
## Vanillic.acid_HMDB0000484	-0.336179801
## L.Glutamine_HMDB0000641	-0.475976880
## X2.Phosphoglyceric.acid_HMDB0000362	0.168744778
## Azelaic.acid_HMDB0000784	0.177355113
## L.Dihydroorotic.acid_HMDB0003349	0.889849648
## O.Phosphoethanolamine_HMDB0000224	-0.605072902
## X3.Phosphoglyceric.acid_HMDB0000807	0.129075779

## Isocitric.acid_HMDB0000193	0.021219761
## Hypoxanthine_HMDB0000157	-0.276938205
## Citric.acid_HMDB0000094	0.577128050
## L.Arginine_HMDB0000517	0.288020903
## Ornithine_HMDB0000214.1	-0.856217486
## Dopamine_HMDB0000073	-0.851109084
## Myristic.acid_HMDB0000806	-0.720338364
## X1.5.Anhydrosorbitol_HMDB0002712	0.457972527
## D.Tagatose_HMDB0003418	0.904259588
## Psicose_1	-0.003866596
## Sebacic.acid_HMDB0000792	-0.358437693
## D.Fructose_HMDB0000660	0.838152333
## Gluconolactone_HMDB0000150	0.801375967
## L.Sorbose_HMDB0001266	0.841036495
## D.Mannose_HMDB0000169	-0.784016110
## Hydroxyphenyllactic.acid_HMDB0000755	-0.025898564
## D.Glucose_HMDB0000122	-0.733843272
## N.Acetylglutamine_HMDB0006029	-0.753963851
## L.Lysine_HMDB0000182.1	-0.882265370
## D.Mannose_HMDB0000169.1	-0.875104424
## Tyramine_HMDB0000306	-0.881772663
## L.Histidine_HMDB0000177	-0.890632120
## D.Glucose_HMDB0000122.1	-0.733285636
## X1.Hexadecanol_HMDB0003424	0.373283848
## L.Tyrosine_HMDB0000158	-0.821388669
## Mannitol_HMDB0000765	-0.606353536
## Sorbitol_HMDB0000247	0.122016393
## ITSD_Sorbitol	-0.576440367
## Galacturonic.acid_HMDB0002545	0.113775685
## Pantothenic.acid_HMDB0000210	0.428747819
## Palmitoleic.acid_HMDB0003229	-0.582678577
## Xanthine_HMDB0000292	-0.441642533
## Gluconic.acid_HMDB0000625	0.615591864
## Palmitic.acid_HMDB0000220	-0.404057447
## Glucaric.acid_HMDB0000663	-0.637891780
## N.Acetylmannosamine_HMDB0001129	-0.331193402
## N.Acetyl.D.glucosamine_HMDB0000215	-0.708443114
## D.Ribulose.5.phosphate_HMDB0000618	1.000000000
## Uric.acid_HMDB0000289	-0.683748051
## D.Ribose.5.phosphate_HMDB0001548	0.907450974
## myo.Inositol_HMDB0000211	-0.214604150
## D.Ribose.5.phosphate_HMDB0001548.1	0.942534402
## Heptadecanoic.acid_HMDB0002259	0.286736336
## Octadecanol_HMDB0002350	0.345620336
## Glutathione_HMDB0000125	0.051740378
## Linoleic.acid_HMDB0000673	-0.331850716
## Oleic.acid_HMDB0000207	-0.518749030
## Elaidic.acid_HMDB0000573	-0.476259202
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.887410730
## Stearic.acid_HMDB0000827	0.038636612
## L.Tryptophan_HMDB0000929	0.046451990
## Fructose.1.phosphate_HMDB0001076	0.825939090
## Mannose.6.phosphate_HMDB0001078	0.454518277
## Arachidonic.acid_HMDB0001043	-0.425343726

## Glucose.6.phosphate_HMDB0001401	0.798101812
## X6.Phosphogluconic.acid_HMDB0001316	0.362884968
## Inositol.phosphate_HMDB0002985	0.431260823
## Uridine_HMDB0000296	-0.109069829
## Stigmasterol_HMDB0000937	-0.209490649
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.042094051
## Sucrose_HMDB0000258	-0.486991088
## MG.18.0e.0.0.0.0._HMDB0011143	0.115896763
## Trehalose_HMDB0000975	0.221488223
## D.Maltose_HMDB0000163	0.219923434
## Lactitol_HMDB0040937	0.377764031
## Xanthylic.acid_HMDB0001554	0.494952343
## Adenosine.monophosphate_HMDB0000045	0.910756556
## Cholesterol_HMDB0000067	0.138390045
## Lathosterol_HMDB0001170	-0.147166040
## X7b.Hydroxycholesterol._HMDB0006119	0.524949043
##	
## Uric.acid_HMDB0000289	
## Dimethylglycine_HMDB0000092	-0.60538125
## Glyoxylic.acid_HMDB0000119	-0.60703409
## Pyruvic.acid_HMDB0000243	-0.06011078
## L.Lactic.acid_HMDB0000190	0.23243999
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.34355446
## Glycolic.acid_HMDB0000115	-0.44938128
## Caproic.acid_HMDB0000535	-0.68388374
## L.Alanine_HMDB0000161	0.36286933
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.23740192
## Glycine_HMDB0000123	0.05823999
## Oxalic.acid_HMDB0002329	-0.70080750
## Hydroxylamine_HMDB0003338	-0.02749296
## X2.Hydroxybutyric.acid_HMDB0000008	-0.53894584
## Acetoacetic.acid_HMDB0000060	-0.56579240
## Hydroxypropionic.acid_HMDB0000700	0.06378140
## Pyruvic.acid_HMDB0000243.1	-0.21011456
## X3.Hydroxybutyric.acid_HMDB0000357	-0.66377949
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.56996751
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.60182669
## D.Alpha.aminobutyric.acid_HMDB0000650	0.35499930
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.35558400
## Beta.Alanine_HMDB0000056	0.42112304
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.27666783
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.26537392
## Malonic.acid_HMDB0000691	-0.02507100
## X3.Aminoisobutanoic.acid_HMDB0003911	0.61627631
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.02674447
## Ketoleucine_HMDB0000695	-0.62155654
## L.Valine_HMDB0000883	0.33461217
## ITSD_Valine	0.34728447
## Urea_HMDB0000294	-0.03373807
## Benzoic.acid_HMDB0001870	-0.19942367
## Caprylic.acid_HMDB0000482	-0.77557504
## Glycerol_HMDB0000131	0.40476678
## Ethanolamine_HMDB0000149	0.43568659
## L.Leucine_HMDB0000687	0.35278952
## Acetyl glycine_HMDB0000532	-0.40096137

## L.Isoleucine_HMDB0000172	0.35131292
## Nicotinic.acid_HMDB00001488	-0.41279979
## Maleic.acid_HMDB0000176	-0.79518138
## L.Proline_HMDB0000162	0.08647441
## Phenylacetic.acid_HMDB0000209	-0.86403503
## Succinic.acid_HMDB0000254	0.02775031
## Glycine_HMDB0000123.1	0.32892532
## Methylsuccinic.acid_HMDB00001844	-0.07316817
## Glyceric.acid_HMDB0000139	-0.69921345
## Fumaric.acid_HMDB0000134	-0.06976213
## Uracil_HMDB0000300	-0.10009733
## Pelargonic.acid_HMDB0000847	-0.73045571
## L.Serine_HMDB0000187	0.33468470
## L.Threonine_HMDB0000167	0.28971319
## Mesaconic.acid_HMDB0000749	-0.13146278
## Glutaric.acid_HMDB0000661	-0.35971296
## Thymine_HMDB0000262	0.03986953
## Beta.Alanine_HMDB0000056.1	0.55926759
## L.Homoserine_HMDB0000719	-0.04455293
## Capric.acid_HMDB0000511	-0.17525161
## Citramalic.acid_HMDB0000426	0.14696347
## Malic.acid_HMDB0000744	-0.68741149
## Niacinamide_HMDB0001406	0.28009399
## Adipic.acid_HMDB0000448	0.48810593
## D.Threitol_HMDB00004136	-0.15937464
## Dihydrouracil_HMDB0000076	-0.03565252
## Erythritol_HMDB0002994	-0.24145129
## N.Acetylserine_HMDB0002931	0.17976431
## L.Aspartic.acid_HMDB0000191	0.39506019
## L.Methionine_HMDB0000696	0.68415046
## X4.Hydroxyproline_HMDB0000725	0.21707628
## Pyroglutamic.acid_HMDB0000267	0.22912036
## Cytosine_HMDB0000630	0.48370733
## Gamma.Aminobutyric.acid_HMDB0000112	-0.26588354
## Threonic.acid_HMDB0000943	-0.70151652
## L.Cysteine_HMDB0000574	-0.53075489
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.79349916
## Creatinine_HMDB0000562	0.72494243
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.54890033
## Oxoglutaric.acid_HMDB0000208	-0.58341140
## Phenylpyruvic.acid_HMDB0000205	-0.40828080
## Pimelic.acid_HMDB0000857	0.07811720
## Phenyllactic.acid_HMDB0000779	-0.53187284
## Phosphoenolpyruvic.acid_HMDB0000263	-0.54321411
## Ornithine_HMDB0000214	0.79122715
## Hypotaurine_HMDB0000965	0.33642668
## Triethanolamine_HMDB0032538	0.31487525
## X2.Aminobenzoic.acid_HMDB0001123	0.55967783
## L.Glutamic.acid_HMDB0000148	0.71822119
## X4.Hydroxybenzoic.acid_HMDB0000500	0.44864689
## X5.Aminopentanoic.acid_HMDB0003355	-0.52057802
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.43353933
## L.Phenylalanine_HMDB0000159	0.66912069
## Dodecanoic.acid_HMDB0000638	0.09230317

## Lyxose_HMDB0003402_1	-0.76866315
## D.Xylose_HMDB0000098	0.03136448
## Lyxose_HMDB0003402_2	0.14887689
## D.Arabinose_HMDB0029942	-0.77521813
## L.Asparagine_HMDB0000168	0.93627130
## D.Ribulose_HMDB0000621	-0.59158535
## D.Ribose_HMDB0000283	-0.76048809
## D.Xylulose_HMDB0001644	-0.57111750
## X3.Sulfinioalanine_HMDB0000996	0.82607462
## Suberic.acid_HMDB0000893	0.14164252
## L.Lysine_HMDB0000182	0.88538733
## Levoglucosan_HMDB0000640	0.20675011
## D.Arabitol_HMDB0000568	-0.15891357
## Ribitol_HMDB0000508	0.06119591
## cis.Aconitic.acid_HMDB0000072	0.08109388
## Quinolinic.acid_HMDB0000232	-0.31034070
## Putrescine_HMDB0001414	-0.41426830
## Glycerol.3.phosphate_HMDB0000126	-0.45366571
## Vanillic.acid_HMDB0000484	0.19396683
## L.Glutamine_HMDB0000641	0.88283032
## X2.Phosphoglyceric.acid_HMDB0000362	-0.24251920
## Azelaic.acid_HMDB0000784	-0.14451205
## L.Dihydroorotic.acid_HMDB0003349	-0.78275094
## O.Phosphoethanolamine_HMDB0000224	0.31344611
## X3.Phosphoglyceric.acid_HMDB0000807	-0.34319162
## Isocitric.acid_HMDB0000193	0.15573962
## Hypoxanthine_HMDB0000157	0.75547420
## Citric.acid_HMDB0000094	-0.44559088
## L.Arginine_HMDB0000517	0.22322035
## Ornithine_HMDB0000214.1	0.67465686
## Dopamine_HMDB0000073	0.69770846
## Myristic.acid_HMDB0000806	0.42957448
## X1.5.Anhydrosorbitol_HMDB0002712	-0.49069695
## D.Tagatose_HMDB0003418	-0.75651538
## Psicose_1	0.15156192
## Sebacic.acid_HMDB0000792	0.20994550
## D.Fructose_HMDB0000660	-0.80530938
## Gluconolactone_HMDB0000150	-0.59769174
## L.Sorbose_HMDB0001266	-0.78647269
## D.Mannose_HMDB0000169	0.60267289
## Hydroxyphenyllactic.acid_HMDB0000755	-0.51132539
## D.Glucose_HMDB0000122	0.59180162
## N.Acetylglutamine_HMDB0006029	0.57926331
## L.Lysine_HMDB0000182.1	0.80119220
## D.Mannose_HMDB0000169.1	0.73125715
## Tyramine_HMDB0000306	0.80829489
## L.Histidine_HMDB0000177	0.81538877
## D.Glucose_HMDB0000122.1	0.60809001
## X1.Hexadecanol_HMDB0003424	-0.27245080
## L.Tyrosine_HMDB0000158	0.85460108
## Mannitol_HMDB0000765	0.29535932
## Sorbitol_HMDB0000247	0.08554521
## ITSD_Sorbitol	0.28422871
## Galacturonic.acid_HMDB0002545	-0.25915166

## Pantothenic.acid_HMDB0000210	-0.50618014
## Palmitoleic.acid_HMDB0003229	0.31065060
## Xanthine_HMDB0000292	0.67428293
## Gluconic.acid_HMDB0000625	-0.42695439
## Palmitic.acid_HMDB0000220	0.01720332
## Glucaric.acid_HMDB0000663	0.41223035
## N.Acetylmannosamine_HMDB0001129	0.34721883
## N.Acetyl.D.glucosamine_HMDB0000215	0.43306806
## D.Ribulose.5.phosphate_HMDB0000618	-0.68374805
## Uric.acid_HMDB0000289	1.00000000
## D.Ribose.5.phosphate_HMDB0001548	-0.71925405
## myo.Inositol_HMDB0000211	0.17752207
## D.Ribose.5.phosphate_HMDB0001548.1	-0.70705417
## Heptadecanoic.acid_HMDB0002259	-0.38322677
## Octadecanol_HMDB0002350	-0.67068966
## Glutathione_HMDB0000125	0.42140459
## Linoleic.acid_HMDB0000673	0.05051933
## Oleic.acid_HMDB0000207	0.30322937
## Elaidic.acid_HMDB0000573	0.26117744
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.67003773
## Stearic.acid_HMDB0000827	-0.41372977
## L.Tryptophan_HMDB0000929	-0.41002072
## Fructose.1.phosphate_HMDB0001076	-0.71429133
## Mannose.6.phosphate_HMDB0001078	-0.12436039
## Arachidonic.acid_HMDB0001043	0.40298914
## Glucose.6.phosphate_HMDB0001401	-0.75574333
## X6.Phosphogluconic.acid_HMDB0001316	-0.55030203
## Inositol.phosphate_HMDB0002985	-0.24957185
## Uridine_HMDB0000296	-0.18007549
## Stigmasterol_HMDB0000937	-0.36693663
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.31921727
## Sucrose_HMDB0000258	0.34348397
## MG.18.0e.0.0.0.0._HMDB0011143	-0.52247757
## Trehalose_HMDB0000975	-0.09523165
## D.Maltose_HMDB0000163	-0.09770860
## Lactitol_HMDB00040937	-0.26476122
## Xanthylic.acid_HMDB0001554	-0.01168712
## Adenosine.monophosphate_HMDB0000045	-0.72866830
## Cholesterol_HMDB0000067	0.13451241
## Lathosterol_HMDB0001170	0.09901134
## X7b.Hydroxycholesterol_.HMDB0006119	-0.45700154
##	D.Ribose.5.phosphate_HMDB0001548
## Dimethylglycine_HMDB0000092	0.788295482
## Glyoxylic.acid_HMDB0000119	0.787104918
## Pyruvic.acid_HMDB0000243	-0.406707257
## L.Lactic.acid_HMDB0000190	-0.712353335
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.173989274
## Glycolic.acid_HMDB0000115	0.362213176
## Caproic.acid_HMDB0000535	0.735260128
## L.Alanine_HMDB0000161	-0.694802169
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.194495967
## Glycine_HMDB0000123	-0.498163248
## Oxalic.acid_HMDB0002329	0.666245239
## Hydroxylamine_HMDB0003338	-0.414026391

## X2.Hydroxybutyric.acid_HMDB0000008	0.201773356
## Acetoacetic.acid_HMDB0000060	0.101813431
## Hydroxypropionic.acid_HMDB0000700	-0.570186196
## Pyruvic.acid_HMDB0000243.1	-0.317056102
## X3.Hydroxybutyric.acid_HMDB0000357	0.162992222
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.113206942
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.402363599
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.663992075
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.171506742
## Beta.Alanine_HMDB0000056	-0.600629399
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.021449143
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.120952948
## Malonic.acid_HMDB0000691	-0.365778182
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.814619324
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.517870458
## Ketoleucine_HMDB0000695	0.247370510
## L.Valine_HMDB0000883	-0.702498875
## ITSD_Valine	-0.709481611
## Urea_HMDB0000294	-0.377312794
## Benzoic.acid_HMDB0001870	0.181557051
## Caprylic.acid_HMDB0000482	0.740845004
## Glycerol_HMDB0000131	-0.824482492
## Ethanolamine_HMDB0000149	-0.776600422
## L.Leucine_HMDB0000687	-0.754130957
## Acetyl glycine_HMDB0000532	0.245537230
## L.Isoleucine_HMDB0000172	-0.759593720
## Nicotinic.acid_HMDB0001488	0.340565291
## Maleic.acid_HMDB0000176	0.438337340
## L.Proline_HMDB0000162	-0.479373816
## Phenylacetic.acid_HMDB0000209	0.650702953
## Succinic.acid_HMDB0000254	-0.533739752
## Glycine_HMDB0000123.1	-0.800086243
## Methylsuccinic.acid_HMDB0001844	-0.007550888
## Glyceric.acid_HMDB0000139	0.447246401
## Fumaric.acid_HMDB0000134	-0.414305377
## Uracil_HMDB0000300	-0.434547603
## Pelargonic.acid_HMDB0000847	0.854124841
## L.Serine_HMDB0000187	-0.753379326
## L.Threonine_HMDB0000167	-0.693374796
## Mesaconic.acid_HMDB0000749	0.198102717
## Glutaric.acid_HMDB0000661	0.266109545
## Thymine_HMDB0000262	-0.534353201
## Beta.Alanine_HMDB0000056.1	-0.860949986
## L.Homoserine_HMDB0000719	0.143051438
## Capric.acid_HMDB0000511	0.257788756
## Citramalic.acid_HMDB0000426	-0.434897729
## Malic.acid_HMDB0000744	0.432813749
## Niacinamide_HMDB0001406	-0.626479666
## Adipic.acid_HMDB0000448	-0.652080306
## D.Threitol_HMDB0004136	-0.103600405
## Dihydrouracil_HMDB0000076	-0.305373191
## Erythritol_HMDB0002994	-0.163873928
## N.Acetylserine_HMDB0002931	-0.623849706
## L.Aspartic.acid_HMDB0000191	-0.756526239

## L.Methionine_HMDB0000696	-0.897495856
## X4.Hydroxyproline_HMDB0000725	-0.601332462
## Pyroglutamic.acid_HMDB0000267	-0.612146224
## Cytosine_HMDB0000630	-0.155505484
## Gamma.Aminobutyric.acid_HMDB0000112	-0.100023893
## Threonic.acid_HMDB0000943	0.533666473
## L.Cysteine_HMDB0000574	0.372354104
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.709334563
## Creatinine_HMDB0000562	-0.824719158
## X3.Hydroxyglutaric.acid_HMDB0000428	0.806603547
## Oxoglutaric.acid_HMDB0000208	0.110718661
## Phenylpyruvic.acid_HMDB0000205	0.450513774
## Pimelic.acid_HMDB0000857	-0.397691547
## Phenyllactic.acid_HMDB0000779	0.632640007
## Phosphoenolpyruvic.acid_HMDB0000263	0.871643973
## Ornithine_HMDB0000214	-0.739317356
## Hypotaurine_HMDB0000965	-0.643040677
## Triethanolamine_HMDB0032538	-0.639402902
## X2.Aminobenzoic.acid_HMDB0001123	-0.923240253
## L.Glutamic.acid_HMDB0000148	-0.760919701
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.829824510
## X5.Aminopentanoic.acid_HMDB0003355	0.155113119
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.333368906
## L.Phenylalanine_HMDB0000159	-0.879683203
## Dodecanoic.acid_HMDB0000638	-0.460408061
## Lyxose_HMDB0003402_1	0.885329729
## D.Xylose_HMDB0000098	0.152129625
## Lyxose_HMDB0003402_2	-0.013878435
## D.Arabinose_HMDB0029942	0.928486451
## L.Asparagine_HMDB0000168	-0.665183816
## D.Ribulose_HMDB0000621	0.707942236
## D.Ribose_HMDB0000283	0.933428776
## D.Xylulose_HMDB0001644	0.706441648
## X3.Sulfinoalanine_HMDB0000996	-0.404132598
## Suberic.acid_HMDB0000893	-0.424925083
## L.Lysine_HMDB0000182	-0.646435246
## Levoglucosan_HMDB0000640	-0.023198708
## D.Arabitol_HMDB0000568	0.017911889
## Ribitol_HMDB0000508	-0.142063178
## cis.Aconitic.acid_HMDB0000072	-0.036962354
## Quinolinic.acid_HMDB0000232	0.188711723
## Putrescine_HMDB0001414	0.061479483
## Glycerol.3.phosphate_HMDB0000126	0.775764357
## Vanillic.acid_HMDB0000484	-0.498187812
## L.Glutamine_HMDB0000641	-0.468842521
## X2.Phosphoglyceric.acid_HMDB0000362	0.095482742
## Azelaic.acid_HMDB0000784	0.281253720
## L.Dihydroorotic.acid_HMDB0003349	0.893141926
## O.Phosphoethanolamine_HMDB0000224	-0.632886407
## X3.Phosphoglyceric.acid_HMDB0000807	0.112774402
## Isocitric.acid_HMDB0000193	-0.206379696
## Hypoxanthine_HMDB0000157	-0.195811400
## Citric.acid_HMDB0000094	0.441982283
## L.Arginine_HMDB0000517	0.182183790

## Ornithine_HMDB0000214.1	-0.876671944
## Dopamine_HMDB0000073	-0.884298663
## Myristic.acid_HMDB0000806	-0.810839255
## X1.5.Anhydrosorbitol_HMDB0002712	0.380251597
## D.Tagatose_HMDB0003418	0.930708013
## Psicose_1	-0.085905333
## Sebacic.acid_HMDB0000792	-0.489337688
## D.Fructose_HMDB0000660	0.848140574
## Gluconolactone_HMDB0000150	0.671800622
## L.Sorbose_HMDB0001266	0.854301124
## D.Mannose_HMDB0000169	-0.849186720
## Hydroxyphenyllactic.acid_HMDB0000755	-0.111777149
## D.Glucose_HMDB0000122	-0.787052340
## N.Acetylglutamine_HMDB0006029	-0.809343711
## L.Lysine_HMDB0000182.1	-0.900999179
## D.Mannose_HMDB0000169.1	-0.896111035
## Tyramine_HMDB0000306	-0.897997914
## L.Histidine_HMDB0000177	-0.904415560
## D.Glucose_HMDB0000122.1	-0.792979731
## X1.Hexadecanol_HMDB0003424	0.240075490
## L.Tyrosine_HMDB0000158	-0.833052025
## Mannitol_HMDB0000765	-0.594815691
## Sorbitol_HMDB0000247	0.002729583
## ITSD_Sorbitol	-0.665058295
## Galacturonic.acid_HMDB0002545	-0.002900153
## Pantothenic.acid_HMDB0000210	0.279288949
## Palmitoleic.acid_HMDB0003229	-0.600701438
## Xanthine_HMDB0000292	-0.479538239
## Gluconic.acid_HMDB0000625	0.410016210
## Palmitic.acid_HMDB0000220	-0.490520573
## Glucaric.acid_HMDB0000663	-0.694011835
## N.Acetylmannosamine_HMDB0001129	-0.530360144
## N.Acetyl.D.glucosamine_HMDB0000215	-0.808790134
## D.Ribulose.5.phosphate_HMDB0000618	0.907450974
## Uric.acid_HMDB0000289	-0.719254053
## D.Ribose.5.phosphate_HMDB0001548	1.000000000
## myo.Inositol_HMDB0000211	-0.419561418
## D.Ribose.5.phosphate_HMDB0001548.1	0.936432872
## Heptadecanoic.acid_HMDB0002259	0.226231538
## Octadecanol_HMDB0002350	0.254213520
## Glutathione_HMDB0000125	-0.030830851
## Linoleic.acid_HMDB0000673	-0.369687339
## Oleic.acid_HMDB0000207	-0.539023612
## Elaidic.acid_HMDB0000573	-0.526215674
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.824526426
## Stearic.acid_HMDB0000827	-0.069080374
## L.Tryptophan_HMDB0000929	-0.055060109
## Fructose.1.phosphate_HMDB0001076	0.757743996
## Mannose.6.phosphate_HMDB0001078	0.458059300
## Arachidonic.acid_HMDB0001043	-0.411165469
## Glucose.6.phosphate_HMDB0001401	0.721810079
## X6.Phosphogluconic.acid_HMDB0001316	0.253128455
## Inositol.phosphate_HMDB0002985	0.229296926
## Uridine_HMDB0000296	-0.184180795

## Stigmasterol_HMDB0000937	-0.261370507
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.001925423
## Sucrose_HMDB0000258	-0.594522276
## MG.18.0e.0.0.0.0._HMDB0011143	0.080581493
## Trehalose_HMDB0000975	0.363342752
## D.Maltose_HMDB0000163	0.359858925
## Lactitol_HMDB0040937	0.227779448
## Xanthylic.acid_HMDB0001554	0.541872078
## Adenosine.monophosphate_HMDB0000045	0.850545795
## Cholesterol_HMDB0000067	-0.060360063
## Lathosterol_HMDB0001170	-0.238097347
## X7b.Hydroxycholesterol_.HMDB0006119	0.499240065
##	myo.Inositol_HMDB0000211
## Dimethylglycine_HMDB0000092	-0.239491783
## Glyoxylic.acid_HMDB0000119	-0.243477869
## Pyruvic.acid_HMDB0000243	0.796848463
## L.Lactic.acid_HMDB0000190	0.582877598
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.650599503
## Glycolic.acid_HMDB0000115	0.224241153
## Caproic.acid_HMDB0000535	-0.113832096
## L.Alanine_HMDB0000161	0.540971109
## Alpha.ketoisovaleric.acid_HMDB0000019	0.453717110
## Glycine_HMDB0000123	0.597737696
## Oxalic.acid_HMDB0002329	-0.176597824
## Hydroxylamine_HMDB0003338	0.246698200
## X2.Hydroxybutyric.acid_HMDB0000008	0.381890707
## Acetoacetic.acid_HMDB0000060	0.183677217
## Hydroxypropionic.acid_HMDB0000700	0.573125837
## Pyruvic.acid_HMDB0000243.1	0.307679536
## X3.Hydroxybutyric.acid_HMDB0000357	0.343263790
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.420471750
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.166292450
## D.Alpha.aminobutyric.acid_HMDB0000650	0.439732637
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.311741907
## Beta.Alanine_HMDB0000056	0.575807151
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.406677182
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.388981396
## Malonic.acid_HMDB0000691	0.734561426
## X3.Aminoisobutanoic.acid_HMDB0003911	0.374468306
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.602786182
## Ketoleucine_HMDB0000695	0.287372177
## L.Valine_HMDB0000883	0.569085917
## ITSD_Valine	0.569437928
## Urea_HMDB0000294	0.557307418
## Benzoic.acid_HMDB0001870	0.298332303
## Caprylic.acid_HMDB0000482	0.028332742
## Glycerol_HMDB0000131	0.555725840
## Ethanolamine_HMDB0000149	0.549208886
## L.Leucine_HMDB0000687	0.580038265
## Acetyl glycine_HMDB0000532	0.435804441
## L.Isoleucine_HMDB0000172	0.556124069
## Nicotinic.acid_HMDB0001488	0.251695711
## Maleic.acid_HMDB0000176	0.210256520
## L.Proline_HMDB0000162	0.514876973

## Phenylacetic.acid_HMDB0000209	-0.008000109
## Succinic.acid_HMDB0000254	0.665193607
## Glycine_HMDB0000123.1	0.586316789
## Methylsuccinic.acid_HMDB0001844	0.474357847
## Glyceric.acid_HMDB0000139	-0.065549426
## Fumaric.acid_HMDB0000134	0.708895474
## Uracil_HMDB0000300	0.576393904
## Pelargonic.acid_HMDB0000847	-0.097491441
## L.Serine_HMDB0000187	0.546190424
## L.Threonine_HMDB0000167	0.588424675
## Mesaconic.acid_HMDB0000749	0.634807080
## Glutaric.acid_HMDB0000661	0.405797880
## Thymine_HMDB0000262	0.395710327
## Beta.Alanine_HMDB0000056.1	0.514238792
## L.Homoserine_HMDB0000719	0.255504563
## Capric.acid_HMDB0000511	0.259175655
## Citramalic.acid_HMDB0000426	0.667491063
## Malic.acid_HMDB0000744	0.189824362
## Niacinamide_HMDB0001406	0.740492995
## Adipic.acid_HMDB0000448	0.637487352
## D.Threitol_HMDB0004136	0.620562502
## Dihydrouracil_HMDB0000076	0.543117530
## Erythritol_HMDB0002994	0.634724161
## N.Acetylserine_HMDB0002931	0.501308558
## L.Aspartic.acid_HMDB0000191	0.615529006
## L.Methionine_HMDB0000696	0.461692812
## X4.Hydroxyproline_HMDB0000725	0.683544338
## Pyroglutamic.acid_HMDB0000267	0.610580815
## Cytosine_HMDB0000630	0.478585690
## Gamma.Aminobutyric.acid_HMDB0000112	0.469092702
## Threonic.acid_HMDB0000943	0.122775401
## L.Cysteine_HMDB0000574	0.214794069
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.045978045
## Creatinine_HMDB0000562	0.384167473
## X3.Hydroxyglutaric.acid_HMDB0000428	0.031746078
## Oxoglutaric.acid_HMDB0000208	0.239056977
## Phenylpyruvic.acid_HMDB0000205	-0.031062467
## Pimelic.acid_HMDB0000857	0.209814407
## Phenyllactic.acid_HMDB0000779	-0.082855254
## Phosphoenolpyruvic.acid_HMDB0000263	-0.400382069
## Ornithine_HMDB0000214	0.374801318
## Hypotaurine_HMDB0000965	0.474844401
## Triethanolamine_HMDB0032538	0.460984303
## X2.Aminobenzoic.acid_HMDB0001123	0.457136813
## L.Glutamic.acid_HMDB0000148	0.574315639
## X4.Hydroxybenzoic.acid_HMDB0000500	0.566355751
## X5.Aminopentanoic.acid_HMDB0003355	0.223968125
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.198881685
## L.Phenylalanine_HMDB0000159	0.500642499
## Dodecanoic.acid_HMDB0000638	0.593531540
## Lyxose_HMDB0003402_1	-0.283848923
## D.Xylose_HMDB0000098	-0.173511958
## Lyxose_HMDB0003402_2	-0.056985529
## D.Arabinose_HMDB0029942	-0.385910420

## L.Asparagine_HMDB0000168	0.294549948
## D.Ribulose_HMDB0000621	-0.350494675
## D.Ribose_HMDB0000283	-0.390299864
## D.Xylulose_HMDB0001644	-0.355162558
## X3.Sulfinioalanine_HMDB0000996	0.264239798
## Suberic.acid_HMDB0000893	0.745689691
## L.Lysine_HMDB0000182	0.303083786
## Levoglucosan_HMDB0000640	-0.142536703
## D.Arabitol_HMDB0000568	0.576066993
## Ribitol_HMDB0000508	0.418483257
## cis.Aconitic.acid_HMDB0000072	-0.004990685
## Quinolinic.acid_HMDB0000232	0.513170771
## Putrescine_HMDB0001414	0.384420884
## Glycerol.3.phosphate_HMDB0000126	-0.145946048
## Vanillic.acid_HMDB0000484	0.529755068
## L.Glutamine_HMDB0000641	0.032220798
## X2.Phosphoglyceric.acid_HMDB0000362	0.395268858
## Azelaic.acid_HMDB0000784	0.297151758
## L.Dihydroorotic.acid_HMDB0003349	-0.330537506
## O.Phosphoethanolamine_HMDB0000224	0.509593299
## X3.Phosphoglyceric.acid_HMDB0000807	0.362031020
## Isocitric.acid_HMDB0000193	0.815978987
## Hypoxanthine_HMDB0000157	-0.280979090
## Citric.acid_HMDB0000094	0.151658177
## L.Arginine_HMDB0000517	0.005170159
## Ornithine_HMDB0000214.1	0.443030224
## Dopamine_HMDB0000073	0.459091967
## Myristic.acid_HMDB0000806	0.670096196
## X1.5.Anhydrosorbitol_HMDB0002712	0.364474808
## D.Tagatose_HMDB0003418	-0.304621535
## Psicose_1	-0.128471915
## Sebacic.acid_HMDB0000792	0.775503679
## D.Fructose_HMDB0000660	-0.204971966
## Gluconolactone_HMDB0000150	-0.160554875
## L.Sorbose_HMDB0001266	-0.215778283
## D.Mannose_HMDB0000169	0.493771751
## Hydroxyphenyllactic.acid_HMDB0000755	0.425198629
## D.Glucose_HMDB0000122	0.464224078
## N.Acetylglutamine_HMDB0006029	0.472523684
## L.Lysine_HMDB0000182.1	0.447317313
## D.Mannose_HMDB0000169.1	0.423570971
## Tyramine_HMDB0000306	0.427884487
## L.Histidine_HMDB0000177	0.443393833
## D.Glucose_HMDB0000122.1	0.453931424
## X1.Hexadecanol_HMDB0003424	0.284299626
## L.Tyrosine_HMDB0000158	0.394451369
## Mannitol_HMDB0000765	0.616671694
## Sorbitol_HMDB0000247	-0.036601172
## ITSD_Sorbitol	0.559001853
## Galacturonic.acid_HMDB0002545	0.289670517
## Pantothenic.acid_HMDB0000210	0.337715285
## Palmitoleic.acid_HMDB0003229	0.393582652
## Xanthine_HMDB0000292	-0.033884153
## Gluconic.acid_HMDB0000625	-0.093258151

## Palmitic.acid_HMDB0000220	0.556009824
## Glucaric.acid_HMDB0000663	0.326481275
## N.Acetylmannosamine_HMDB0001129	0.417809333
## N.Acetyl.D.glucosamine_HMDB0000215	0.564890893
## D.Ribulose.5.phosphate_HMDB0000618	-0.214604150
## Uric.acid_HMDB0000289	0.177522073
## D.Ribose.5.phosphate_HMDB0001548	-0.419561418
## myo.Inositol_HMDB0000211	1.000000000
## D.Ribose.5.phosphate_HMDB0001548.1	-0.405915106
## Heptadecanoic.acid_HMDB0002259	0.274893237
## Octadecanol_HMDB0002350	0.447625649
## Glutathione_HMDB0000125	0.302661942
## Linoleic.acid_HMDB0000673	0.295156118
## Oleic.acid_HMDB0000207	0.311555132
## Elaidic.acid_HMDB0000573	0.434922381
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.236293088
## Stearic.acid_HMDB0000827	0.546199763
## L.Tryptophan_HMDB0000929	0.539072245
## Fructose.1.phosphate_HMDB0001076	0.041050220
## Mannose.6.phosphate_HMDB0001078	-0.080043482
## Arachidonic.acid_HMDB0001043	0.127591487
## Glucose.6.phosphate_HMDB0001401	-0.018051271
## X6.Phosphogluconic.acid_HMDB0001316	0.194897637
## Inositol.phosphate_HMDB0002985	0.248134849
## Uridine_HMDB0000296	0.436014599
## Stigmasterol_HMDB0000937	0.535050986
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.216861452
## Sucrose_HMDB0000258	0.566221239
## MG.18.0e.0.0.0.0._HMDB0011143	0.353552463
## Trehalose_HMDB0000975	0.029746618
## D.Maltose_HMDB0000163	0.039315838
## Lactitol_HMDB00040937	0.256223234
## Xanthylic.acid_HMDB0001554	-0.529552655
## Adenosine.monophosphate_HMDB0000045	-0.124103333
## Cholesterol_HMDB0000067	0.312230684
## Lathosterol_HMDB0001170	0.224249207
## X7b.Hydroxycholesterol_.HMDB0006119	-0.071792334
## D.Ribose.5.phosphate_HMDB0001548.1	
## Dimethylglycine_HMDB0000092	0.888229951
## Glyoxylic.acid_HMDB0000119	0.888718647
## Pyruvic.acid_HMDB0000243	-0.431768563
## L.Lactic.acid_HMDB0000190	-0.760329946
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.199527162
## Glycolic.acid_HMDB0000115	0.416260640
## Caproic.acid_HMDB0000535	0.828823635
## L.Alanine_HMDB0000161	-0.780223718
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.114709779
## Glycine_HMDB0000123	-0.573826270
## Oxalic.acid_HMDB0002329	0.602925519
## Hydroxylamine_HMDB0003338	-0.275016073
## X2.Hydroxybutyric.acid_HMDB0000008	0.147025622
## Acetoacetic.acid_HMDB0000060	0.234976155
## Hydroxypropionic.acid_HMDB0000700	-0.615986375
## Pyruvic.acid_HMDB0000243.1	-0.322224588

## X3.Hydroxybutyric.acid_HMDB0000357	0.126617240
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.052963779
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.398735400
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.767482588
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.103695438
## Beta.Alanine_HMDB0000056	-0.755653461
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.056573427
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.197709572
## Malonic.acid_HMDB0000691	-0.324361893
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.899591561
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.610686866
## Ketoleucine_HMDB0000695	0.283369947
## L.Valine_HMDB0000883	-0.782744181
## ITSD_Valine	-0.813522238
## Urea_HMDB0000294	-0.466361457
## Benzoic.acid_HMDB0001870	0.134568614
## Caprylic.acid_HMDB0000482	0.786200900
## Glycerol_HMDB0000131	-0.873007464
## Ethanolamine_HMDB0000149	-0.797207230
## L.Leucine_HMDB0000687	-0.820183869
## Acetylglycine_HMDB0000532	0.211412433
## L.Isoleucine_HMDB0000172	-0.821310993
## Nicotinic.acid_HMDB0001488	0.228874724
## Maleic.acid_HMDB0000176	0.485940991
## L.Proline_HMDB0000162	-0.549813518
## Phenylacetic.acid_HMDB0000209	0.730965105
## Succinic.acid_HMDB0000254	-0.578526827
## Glycine_HMDB0000123.1	-0.795204732
## Methylsuccinic.acid_HMDB0001844	-0.008969920
## Glyceric.acid_HMDB0000139	0.527513206
## Fumaric.acid_HMDB0000134	-0.479078554
## Uracil_HMDB0000300	-0.433435057
## Pelargonic.acid_HMDB0000847	0.866927775
## L.Serine_HMDB0000187	-0.780993556
## L.Threonine_HMDB0000167	-0.742425531
## Mesaconic.acid_HMDB0000749	0.047858620
## Glutaric.acid_HMDB0000661	0.210410858
## Thymine_HMDB0000262	-0.493568642
## Beta.Alanine_HMDB0000056.1	-0.924993628
## L.Homoserine_HMDB0000719	0.199520177
## Capric.acid_HMDB0000511	0.320444026
## Citramalic.acid_HMDB0000426	-0.402032728
## Malic.acid_HMDB0000744	0.483844645
## Niacinamide_HMDB0001406	-0.694769680
## Adipic.acid_HMDB0000448	-0.647877973
## D.Threitol_HMDB0004136	-0.115596521
## Dihydrouracil_HMDB0000076	-0.278247111
## Erythritol_HMDB0002994	-0.208020316
## N.Acetylserine_HMDB0002931	-0.636819961
## L.Aspartic.acid_HMDB0000191	-0.787046894
## L.Methionine_HMDB0000696	-0.933861955
## X4.Hydroxyproline_HMDB0000725	-0.673960872
## Pyroglutamic.acid_HMDB0000267	-0.704675192
## Cytosine_HMDB0000630	-0.185492905

## Gamma.Aminobutyric.acid_HMDB0000112	-0.283632287
## Threonic.acid_HMDB0000943	0.554311771
## L.Cysteine_HMDB0000574	0.411412136
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.681880220
## Creatinine_HMDB0000562	-0.854179857
## X3.Hydroxyglutaric.acid_HMDB0000428	0.794284656
## Oxoglutaric.acid_HMDB0000208	0.008962799
## Phenylpyruvic.acid_HMDB0000205	0.508076210
## Pimelic.acid_HMDB0000857	-0.543646371
## Phenyllactic.acid_HMDB0000779	0.563774037
## Phosphoenolpyruvic.acid_HMDB0000263	0.876349509
## Ornithine_HMDB0000214	-0.723858883
## Hypotaurine_HMDB0000965	-0.680690040
## Triethanolamine_HMDB0032538	-0.675482196
## X2.Aminobenzoic.acid_HMDB0001123	-0.948983150
## L.Glutamic.acid_HMDB0000148	-0.855758045
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.876561690
## X5.Aminopentanoic.acid_HMDB0003355	0.174150186
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.539886749
## L.Phenylalanine_HMDB0000159	-0.941477251
## Dodecanoic.acid_HMDB0000638	-0.427637042
## Lyxose_HMDB0003402_1	0.861118938
## D.Xylose_HMDB0000098	0.342205691
## Lyxose_HMDB0003402_2	0.190499418
## D.Arabinose_HMDB0029942	0.926941705
## L.Asparagine_HMDB0000168	-0.702481197
## D.Ribulose_HMDB0000621	0.857760702
## D.Ribose_HMDB0000283	0.923461177
## D.Xylulose_HMDB0001644	0.853166493
## X3.Sulfinoalanine_HMDB0000996	-0.491854353
## Suberic.acid_HMDB0000893	-0.388595726
## L.Lysine_HMDB0000182	-0.625475618
## Levoglucosan_HMDB0000640	0.167732823
## D.Arabitol_HMDB0000568	-0.137313875
## Ribitol_HMDB0000508	-0.020397700
## cis.Aconitic.acid_HMDB0000072	0.144242666
## Quinolinic.acid_HMDB0000232	0.110664676
## Putrescine_HMDB0001414	-0.053424503
## Glycerol.3.phosphate_HMDB0000126	0.689906158
## Vanillic.acid_HMDB0000484	-0.432035437
## L.Glutamine_HMDB0000641	-0.476493112
## X2.Phosphoglyceric.acid_HMDB0000362	0.092312231
## Azelaic.acid_HMDB0000784	0.094917866
## L.Dihydroorotic.acid_HMDB0003349	0.928035925
## O.Phosphoethanolamine_HMDB0000224	-0.628661452
## X3.Phosphoglyceric.acid_HMDB0000807	0.085722250
## Isocitric.acid_HMDB0000193	-0.135909801
## Hypoxanthine_HMDB0000157	-0.184957422
## Citric.acid_HMDB0000094	0.497916822
## L.Arginine_HMDB0000517	0.270257901
## Ornithine_HMDB0000214.1	-0.906140582
## Dopamine_HMDB0000073	-0.906579921
## Myristic.acid_HMDB0000806	-0.811987347
## X1.5.Anhydrosorbitol_HMDB0002712	0.311806935

## D.Tagatose_HMDB0003418	0.929484024
## Psicose_1	0.041038482
## Sebacic.acid_HMDB0000792	-0.550030729
## D.Fructose_HMDB0000660	0.858943108
## Gluconolactone_HMDB0000150	0.820732606
## L.Sorbose_HMDB0001266	0.857874012
## D.Mannose_HMDB0000169	-0.874506930
## Hydroxyphenyllactic.acid_HMDB0000755	-0.111724516
## D.Glucose_HMDB0000122	-0.808644790
## N.Acetylglutamine_HMDB0006029	-0.842775380
## L.Lysine_HMDB0000182.1	-0.941506811
## D.Mannose_HMDB0000169.1	-0.934601457
## Tyramine_HMDB0000306	-0.937242551
## L.Histidine_HMDB0000177	-0.946065031
## D.Glucose_HMDB0000122.1	-0.810623302
## X1.Hexadecanol_HMDB0003424	0.235425375
## L.Tyrosine_HMDB0000158	-0.887174832
## Mannitol_HMDB0000765	-0.723596665
## Sorbitol_HMDB0000247	0.042546606
## ITSD_Sorbitol	-0.664345946
## Galacturonic.acid_HMDB0002545	0.034539527
## Pantothenic.acid_HMDB0000210	0.297402461
## Palmitoleic.acid_HMDB0003229	-0.626009049
## Xanthine_HMDB0000292	-0.480924728
## Gluconic.acid_HMDB0000625	0.589959228
## Palmitic.acid_HMDB0000220	-0.474023421
## Glucaric.acid_HMDB0000663	-0.676206482
## N.Acetylmannosamine_HMDB0001129	-0.519293820
## N.Acetyl.D.glucosamine_HMDB0000215	-0.836787520
## D.Ribulose.5.phosphate_HMDB0000618	0.942534402
## Uric.acid_HMDB0000289	-0.707054172
## D.Ribose.5.phosphate_HMDB0001548	0.936432872
## myo.Inositol_HMDB0000211	-0.405915106
## D.Ribose.5.phosphate_HMDB0001548.1	1.000000000
## Heptadecanoic.acid_HMDB0002259	0.265731538
## Octadecanol_HMDB0002350	0.278898161
## Glutathione_HMDB0000125	-0.009219670
## Linoleic.acid_HMDB0000673	-0.370671877
## Oleic.acid_HMDB0000207	-0.552925862
## Elaidic.acid_HMDB0000573	-0.547725963
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.900639026
## Stearic.acid_HMDB0000827	-0.025601126
## L.Tryptophan_HMDB0000929	-0.018202123
## Fructose.1.phosphate_HMDB0001076	0.801174937
## Mannose.6.phosphate_HMDB0001078	0.445069933
## Arachidonic.acid_HMDB0001043	-0.425464519
## Glucose.6.phosphate_HMDB0001401	0.814280327
## X6.Phosphogluconic.acid_HMDB0001316	0.315274574
## Inositol.phosphate_HMDB0002985	0.249367593
## Uridine_HMDB0000296	-0.207198460
## Stigmasterol_HMDB0000937	-0.271632147
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.152655893
## Sucrose_HMDB0000258	-0.622365885
## MG.18.0e.0.0.0.0._HMDB0011143	0.055331219

## Trehalose_HMDB0000975	0.145848220
## D.Maltose_HMDB0000163	0.142904866
## Lactitol_HMDB0040937	0.208534839
## Xanthylic.acid_HMDB0001554	0.565107526
## Adenosine.monophosphate_HMDB0000045	0.891994365
## Cholesterol_HMDB0000067	-0.018678064
## Lathosterol_HMDB0001170	-0.263351304
## X7b.Hydroxycholesterol_.HMDB0006119	0.522900922
##	Heptadecanoic.acid_HMDB0002259
## Dimethylglycine_HMDB0000092	0.428497612
## Glyoxylic.acid_HMDB0000119	0.430008448
## Pyruvic.acid_HMDB0000243	0.147532702
## L.Lactic.acid_HMDB0000190	0.215356393
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.300746566
## Glycolic.acid_HMDB0000115	0.382564176
## Caproic.acid_HMDB0000535	0.670951184
## L.Alanine_HMDB0000161	0.100727164
## Alpha.ketoisovaleric.acid_HMDB0000019	0.546874328
## Glycine_HMDB0000123	0.093944652
## Oxalic.acid_HMDB0002329	0.208806361
## Hydroxylamine_HMDB0003338	0.316584494
## X2.Hydroxybutyric.acid_HMDB0000008	0.497554818
## Acetoacetic.acid_HMDB0000060	0.408286615
## Hydroxypropionic.acid_HMDB0000700	0.151713319
## Pyruvic.acid_HMDB0000243.1	0.242665940
## X3.Hydroxybutyric.acid_HMDB0000357	0.326288898
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.461638364
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.435976883
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.072224678
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.592510333
## Beta.Alanine_HMDB0000056	-0.304439316
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.329914212
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.374858542
## Malonic.acid_HMDB0000691	0.165544160
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.335390470
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.162999461
## Ketoleucine_HMDB0000695	0.740743561
## L.Valine_HMDB0000883	0.059071142
## ITSD_Valine	-0.078315424
## Urea_HMDB0000294	0.200867503
## Benzoic.acid_HMDB0001870	0.352830242
## Caprylic.acid_HMDB0000482	0.593676147
## Glycerol_HMDB0000131	0.020035419
## Ethanolamine_HMDB0000149	0.117841500
## L.Leucine_HMDB0000687	0.042796612
## Acetylglucine_HMDB0000532	0.464355237
## L.Isoleucine_HMDB0000172	0.099101058
## Nicotinic.acid_HMDB0001488	0.359090198
## Maleic.acid_HMDB0000176	0.530818563
## L.Proline_HMDB0000162	0.258938294
## Phenylacetic.acid_HMDB0000209	0.508692803
## Succinic.acid_HMDB0000254	0.345912056
## Glycine_HMDB0000123.1	0.093060644
## Methylsuccinic.acid_HMDB0001844	0.009679164

## Glyceric.acid_HMDB0000139	0.420782964
## Fumaric.acid_HMDB0000134	0.270925908
## Uracil_HMDB0000300	0.481349472
## Pelargonic.acid_HMDB0000847	0.538483595
## L.Serine_HMDB0000187	0.244307611
## L.Threonine_HMDB0000167	0.212719752
## Mesaconic.acid_HMDB0000749	0.240076769
## Glutaric.acid_HMDB0000661	0.732725398
## Thymine_HMDB0000262	0.238172759
## Beta.Alanine_HMDB0000056.1	-0.205688501
## L.Homoserine_HMDB0000719	0.239106573
## Capric.acid_HMDB0000511	0.249934068
## Citramalic.acid_HMDB0000426	0.171526361
## Malic.acid_HMDB0000744	0.717185103
## Niacinamide_HMDB0001406	0.131146302
## Adipic.acid_HMDB0000448	0.343435494
## D.Threitol_HMDB0004136	0.155504459
## Dihydrouracil_HMDB0000076	0.578100752
## Erythritol_HMDB0002994	0.344139445
## N.Acetylserine_HMDB0002931	0.362664470
## L.Aspartic.acid_HMDB0000191	0.226654236
## L.Methionine_HMDB0000696	-0.309003779
## X4.Hydroxyproline_HMDB0000725	0.270381178
## Pyroglutamic.acid_HMDB0000267	0.154883258
## Cytosine_HMDB0000630	0.055685989
## Gamma.Aminobutyric.acid_HMDB0000112	0.134611337
## Threonic.acid_HMDB0000943	0.561167631
## L.Cysteine_HMDB0000574	0.512980153
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.744986147
## Creatinine_HMDB0000562	-0.462926011
## X3.Hydroxyglutaric.acid_HMDB0000428	0.468374581
## Oxoglutaric.acid_HMDB0000208	0.383250771
## Phenylpyruvic.acid_HMDB0000205	0.356736673
## Pimelic.acid_HMDB0000857	0.059966703
## Phenyllactic.acid_HMDB0000779	0.592459452
## Phosphoenolpyruvic.acid_HMDB0000263	0.448518510
## Ornithine_HMDB0000214	-0.210882276
## Hypotaurine_HMDB0000965	-0.009726269
## Triethanolamine_HMDB0032538	0.164743628
## X2.Aminobenzoic.acid_HMDB0001123	-0.185399224
## L.Glutamic.acid_HMDB0000148	-0.126940041
## X4.Hydroxybenzoic.acid_HMDB0000500	0.068133480
## X5.Aminopentanoic.acid_HMDB0003355	0.622747989
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.532091923
## L.Phenylalanine_HMDB0000159	-0.185322360
## Dodecanoic.acid_HMDB0000638	-0.090542730
## Lyxose_HMDB0003402_1	0.529314601
## D.Xylose_HMDB0000098	-0.030780969
## Lyxose_HMDB0003402_2	-0.082405426
## D.Arabinose_HMDB0029942	0.449397115
## L.Asparagine_HMDB0000168	-0.205323580
## D.Ribulose_HMDB0000621	0.334314596
## D.Ribose_HMDB0000283	0.412806966
## D.Xylulose_HMDB0001644	0.318753805

## X3.Sulfinioalanine_HMDB0000996	-0.328162524
## Suberic.acid_HMDB0000893	0.364363189
## L.Lysine_HMDB0000182	-0.325993233
## Levoglucosan_HMDB0000640	-0.127029554
## D.Arabitool_HMDB0000568	-0.158138828
## Ribitol_HMDB0000508	0.323669878
## cis.Aconitic.acid_HMDB0000072	-0.031165948
## Quinolinic.acid_HMDB0000232	0.476919035
## Putrescine_HMDB0001414	0.545291127
## Glycerol.3.phosphate_HMDB0000126	0.223971180
## Vanillic.acid_HMDB0000484	0.051288230
## L.Glutamine_HMDB0000641	-0.114319086
## X2.Phosphoglyceric.acid_HMDB0000362	0.779833777
## Azelaic.acid_HMDB0000784	0.176923705
## L.Dihydroorotic.acid_HMDB0003349	0.505977827
## O.Phosphoethanolamine_HMDB0000224	-0.180354797
## X3.Phosphoglyceric.acid_HMDB0000807	0.745558166
## Isocitric.acid_HMDB0000193	0.454396082
## Hypoxanthine_HMDB0000157	-0.439099279
## Citric.acid_HMDB0000094	0.830158304
## L.Arginine_HMDB0000517	0.383027412
## Ornithine_HMDB0000214.1	-0.138662884
## Dopamine_HMDB0000073	-0.111915263
## Myristic.acid_HMDB0000806	-0.127144121
## X1.5.Anhydrosorbitol_HMDB0002712	0.423808583
## D.Tagatose_HMDB0003418	0.495646258
## Psicose_1	-0.012641827
## Sebacic.acid_HMDB0000792	0.249840663
## D.Fructose_HMDB0000660	0.470493217
## Gluconolactone_HMDB0000150	0.487175072
## L.Sorbose_HMDB0001266	0.440644778
## D.Mannose_HMDB0000169	-0.364848446
## Hydroxyphenyllactic.acid_HMDB0000755	0.222902299
## D.Glucose_HMDB0000122	-0.405529498
## N.Acetylglutamine_HMDB0006029	-0.370702233
## L.Lysine_HMDB0000182.1	-0.274995661
## D.Mannose_HMDB0000169.1	-0.372083076
## Tyramine_HMDB0000306	-0.283161059
## L.Histidine_HMDB0000177	-0.313493982
## D.Glucose_HMDB0000122.1	-0.453437582
## X1.Hexadecanol_HMDB0003424	-0.006011934
## L.Tyrosine_HMDB0000158	-0.201494341
## Mannitol_HMDB0000765	0.098550594
## Sorbitol_HMDB0000247	0.338911879
## ITSD_Sorbitol	-0.033017514
## Galacturonic.acid_HMDB0002545	0.321289573
## Pantothenic.acid_HMDB0000210	0.160052681
## Palmitoleic.acid_HMDB0003229	-0.392615963
## Xanthine_HMDB0000292	-0.069910139
## Gluconic.acid_HMDB0000625	0.606959566
## Palmitic.acid_HMDB0000220	-0.162129563
## Glucaric.acid_HMDB0000663	-0.030792647
## N.Acetylmannosamine_HMDB0001129	-0.282673332
## N.Acetyl.D.glucosamine_HMDB0000215	-0.156157982

## D.Ribulose.5.phosphate_HMDB0000618	0.286736336
## Uric.acid_HMDB0000289	-0.383226768
## D.Ribose.5.phosphate_HMDB0001548	0.226231538
## myo.Inositol_HMDB0000211	0.274893237
## D.Ribose.5.phosphate_HMDB0001548.1	0.265731538
## Heptadecanoic.acid_HMDB0002259	1.000000000
## Octadecanol_HMDB0002350	0.506491902
## Glutathione_HMDB0000125	0.319487988
## Linoleic.acid_HMDB0000673	-0.316149738
## Oleic.acid_HMDB0000207	-0.419775478
## Elaidic.acid_HMDB0000573	-0.360067219
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.543239990
## Stearic.acid_HMDB0000827	0.123149857
## L.Tryptophan_HMDB0000929	0.072906714
## Fructose.1.phosphate_HMDB0001076	0.663852910
## Mannose.6.phosphate_HMDB0001078	0.079591019
## Arachidonic.acid_HMDB0001043	-0.588710640
## Glucose.6.phosphate_HMDB0001401	0.553299607
## X6.Phosphogluconic.acid_HMDB0001316	0.142605795
## Inositol.phosphate_HMDB0002985	-0.121063932
## Uridine_HMDB0000296	0.344406092
## Stigmasterol_HMDB0000937	0.183314136
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.202427376
## Sucrose_HMDB0000258	-0.283905497
## MG.18.0e.0.0.0.0._HMDB0011143	0.096162502
## Trehalose_HMDB0000975	-0.125250037
## D.Maltose_HMDB0000163	-0.122967384
## Lactitol_HMDB00040937	-0.066274064
## Xanthylic.acid_HMDB0001554	0.138664664
## Adenosine.monophosphate_HMDB0000045	0.465436990
## Cholesterol_HMDB0000067	-0.220370959
## Lathosterol_HMDB0001170	-0.488106859
## X7b.Hydroxycholesterol_.HMDB0006119	0.767210658
##	Octadecanol_HMDB0002350
## Dimethylglycine_HMDB0000092	0.287842186
## Glyoxylic.acid_HMDB0000119	0.281484085
## Pyruvic.acid_HMDB0000243	0.520244310
## L.Lactic.acid_HMDB0000190	0.200350444
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.699388021
## Glycolic.acid_HMDB0000115	0.708034968
## Caproic.acid_HMDB0000535	0.479185339
## L.Alanine_HMDB0000161	-0.044954733
## Alpha.ketoisovaleric.acid_HMDB0000019	0.410166238
## Glycine_HMDB0000123	0.238931799
## Oxalic.acid_HMDB0002329	0.420245170
## Hydroxylamine_HMDB0003338	0.282484154
## X2.Hydroxybutyric.acid_HMDB0000008	0.763479790
## Acetoacetic.acid_HMDB0000060	0.717349317
## Hydroxypropionic.acid_HMDB0000700	0.462806812
## Pyruvic.acid_HMDB0000243.1	0.371042049
## X3.Hydroxybutyric.acid_HMDB0000357	0.855849179
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.815568729
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.774134050
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.021215032

## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.444933085
## Beta.Alanine_HMDB0000056	-0.082009110
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.403096516
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.448888703
## Malonic.acid_HMDB0000691	0.361663182
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.210901725
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.447107685
## Ketoleucine_HMDB0000695	0.728402129
## L.Valine_HMDB0000883	0.065614451
## ITSD_Valine	0.097972949
## Urea_HMDB0000294	0.281351361
## Benzoic.acid_HMDB0001870	0.592257272
## Caprylic.acid_HMDB0000482	0.716842146
## Glycerol_HMDB0000131	0.070748822
## Ethanolamine_HMDB0000149	-0.056550102
## L.Leucine_HMDB0000687	0.103875888
## Acetylglycine_HMDB0000532	0.765067941
## L.Isoleucine_HMDB0000172	0.072172166
## Nicotinic.acid_HMDB0001488	0.301523037
## Maleic.acid_HMDB0000176	0.875113963
## L.Proline_HMDB0000162	0.207702381
## Phenylacetic.acid_HMDB0000209	0.732901163
## Succinic.acid_HMDB0000254	0.418119672
## Glycine_HMDB0000123.1	0.125737805
## Methylsuccinic.acid_HMDB0001844	0.400940204
## Glyceric.acid_HMDB0000139	0.720675079
## Fumaric.acid_HMDB0000134	0.513213507
## Uracil_HMDB0000300	0.373027430
## Pelargonic.acid_HMDB0000847	0.542256384
## L.Serine_HMDB0000187	0.056046508
## L.Threonine_HMDB0000167	0.083020965
## Mesaconic.acid_HMDB0000749	0.406989713
## Glutaric.acid_HMDB0000661	0.293313589
## Thymine_HMDB0000262	0.059372336
## Beta.Alanine_HMDB0000056.1	-0.132817142
## L.Homoserine_HMDB0000719	0.500664917
## Capric.acid_HMDB0000511	0.590120958
## Citramalic.acid_HMDB0000426	0.036332400
## Malic.acid_HMDB0000744	0.739661680
## Niacinamide_HMDB0001406	0.146071681
## Adipic.acid_HMDB0000448	-0.113121206
## D.Threitol_HMDB0004136	0.548235082
## Dihydrouracil_HMDB0000076	0.313406916
## Erythritol_HMDB0002994	0.652678337
## N.Acetylserine_HMDB0002931	0.113110930
## L.Aspartic.acid_HMDB0000191	0.039722939
## L.Methionine_HMDB0000696	-0.294514693
## X4.Hydroxyproline_HMDB0000725	0.211503858
## Pyroglutamic.acid_HMDB0000267	0.154676883
## Cytosine_HMDB0000630	-0.218644246
## Gamma.Aminobutyric.acid_HMDB0000112	0.295072688
## Threonic.acid_HMDB0000943	0.760400611
## L.Cysteine_HMDB0000574	0.692299368
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.661408158

## Creatinine_HMDB0000562	-0.292378698
## X3.Hydroxyglutaric.acid_HMDB0000428	0.380452076
## Oxoglutaric.acid_HMDB0000208	0.717352929
## Phenylpyruvic.acid_HMDB0000205	0.450161408
## Pimelic.acid_HMDB0000857	-0.069545683
## Phenyllactic.acid_HMDB0000779	0.421201498
## Phosphoenolpyruvic.acid_HMDB0000263	0.099543871
## Ornithine_HMDB0000214	-0.545051132
## Hypotaurine_HMDB0000965	-0.109663767
## Triethanolamine_HMDB0032538	-0.123376342
## X2.Aminobenzoic.acid_HMDB0001123	-0.137861782
## L.Glutamic.acid_HMDB0000148	-0.292575463
## X4.Hydroxybenzoic.acid_HMDB0000500	0.008725023
## X5.Aminopentanoic.acid_HMDB0003355	0.530420770
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.565914048
## L.Phenylalanine_HMDB0000159	-0.239729144
## Dodecanoic.acid_HMDB0000638	0.524322930
## Lyxose_HMDB0003402_1	0.485850993
## D.Xylose_HMDB0000098	-0.059899140
## Lyxose_HMDB0003402_2	-0.159891607
## D.Arabinose_HMDB0029942	0.363359963
## L.Asparagine_HMDB0000168	-0.651392593
## D.Ribulose_HMDB0000621	0.311734820
## D.Ribose_HMDB0000283	0.324932696
## D.Xylulose_HMDB0001644	0.295683505
## X3.Sulfinoalanine_HMDB0000996	-0.549641231
## Suberic.acid_HMDB0000893	0.179357426
## L.Lysine_HMDB0000182	-0.617779264
## Levoglucosan_HMDB0000640	-0.192825421
## D.Arabitol_HMDB0000568	0.366500805
## Ribitol_HMDB0000508	0.391633986
## cis.Aconitic.acid_HMDB0000072	-0.010800844
## Quinolinic.acid_HMDB0000232	0.419498260
## Putrescine_HMDB0001414	0.474853245
## Glycerol.3.phosphate_HMDB0000126	0.205688206
## Vanillic.acid_HMDB0000484	0.251856403
## L.Glutamine_HMDB0000641	-0.741337293
## X2.Phosphoglyceric.acid_HMDB0000362	0.383261673
## Azelaic.acid_HMDB0000784	0.053909318
## L.Dihydroorotic.acid_HMDB0003349	0.423434365
## O.Phosphoethanolamine_HMDB0000224	0.272849818
## X3.Phosphoglyceric.acid_HMDB0000807	0.398075354
## Isocitric.acid_HMDB0000193	0.393074446
## Hypoxanthine_HMDB0000157	-0.739095212
## Citric.acid_HMDB0000094	0.446397050
## L.Arginine_HMDB0000517	-0.094730994
## Ornithine_HMDB0000214.1	-0.329061086
## Dopamine_HMDB0000073	-0.333781977
## Myristic.acid_HMDB0000806	0.220648623
## X1.5.Anhydrosorbitol_HMDB0002712	0.658913964
## D.Tagatose_HMDB0003418	0.386028382
## Psicose_1	-0.122220022
## Sebacic.acid_HMDB0000792	0.308370291
## D.Fructose_HMDB0000660	0.464072391

## Gluconolactone_HMDB0000150	0.432804522
## L.Sorbose_HMDB0001266	0.440954025
## D.Mannose_HMDB0000169	-0.138216952
## Hydroxyphenyllactic.acid_HMDB0000755	0.748760591
## D.Glucose_HMDB0000122	-0.182296144
## N.Acetylglutamine_HMDB0006029	-0.134531474
## L.Lysine_HMDB0000182.1	-0.371247162
## D.Mannose_HMDB0000169.1	-0.279389965
## Tyramine_HMDB0000306	-0.387252242
## L.Histidine_HMDB0000177	-0.378318467
## D.Glucose_HMDB0000122.1	-0.192528754
## X1.Hexadecanol_HMDB0003424	0.619407209
## L.Tyrosine_HMDB0000158	-0.496335964
## Mannitol_HMDB0000765	0.137209396
## Sorbitol_HMDB0000247	-0.187438383
## ITSD_Sorbitol	0.316690018
## Galacturonic.acid_HMDB0002545	0.523225072
## Pantothenic.acid_HMDB0000210	0.650902731
## Palmitoleic.acid_HMDB0003229	0.225240371
## Xanthine_HMDB0000292	-0.697745141
## Gluconic.acid_HMDB0000625	0.219030601
## Palmitic.acid_HMDB0000220	0.537043406
## Glucaric.acid_HMDB0000663	0.016591711
## N.Acetylmannosamine_HMDB0001129	-0.012748741
## N.Acetyl.D.glucosamine_HMDB0000215	0.075495988
## D.Ribulose.5.phosphate_HMDB0000618	0.345620336
## Uric.acid_HMDB0000289	-0.670689664
## D.Ribose.5.phosphate_HMDB0001548	0.254213520
## myo.Inositol_HMDB0000211	0.447625649
## D.Ribose.5.phosphate_HMDB0001548.1	0.278898161
## Heptadecanoic.acid_HMDB0002259	0.506491902
## Octadecanol_HMDB0002350	1.000000000
## Glutathione_HMDB0000125	-0.196636204
## Linoleic.acid_HMDB0000673	0.407216061
## Oleic.acid_HMDB0000207	0.203195309
## Elaidic.acid_HMDB0000573	0.292179931
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.344735071
## Stearic.acid_HMDB0000827	0.825856360
## L.Tryptophan_HMDB0000929	0.769308976
## Fructose.1.phosphate_HMDB0001076	0.519826661
## Mannose.6.phosphate_HMDB0001078	0.016350101
## Arachidonic.acid_HMDB0001043	0.001088057
## Glucose.6.phosphate_HMDB0001401	0.629796428
## X6.Phosphogluconic.acid_HMDB0001316	0.816085490
## Inositol.phosphate_HMDB0002985	0.516266981
## Uridine_HMDB0000296	0.554029023
## Stigmasterol_HMDB0000937	0.706821343
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.539211176
## Sucrose_HMDB0000258	0.105491825
## MG.18.0e.0.0.0.0._HMDB0011143	0.826222373
## Trehalose_HMDB0000975	-0.140174014
## D.Maltose_HMDB0000163	-0.131677692
## Lactitol_HMDB00040937	0.209989598
## Xanthylic.acid_HMDB0001554	-0.392136972

## Adenosine.monophosphate_HMDB0000045	0.501079364
## Cholesterol_HMDB0000067	0.305488366
## Lathosterol_HMDB0001170	0.289159556
## X7b.Hydroxycholesterol_.HMDB0006119	0.140666219
##	Glutathione_HMDB0000125
## Dimethylglycine_HMDB0000092	0.145603234
## Glyoxylic.acid_HMDB0000119	0.146302918
## Pyruvic.acid_HMDB0000243	-0.247266918
## L.Lactic.acid_HMDB0000190	-0.018959700
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.190383920
## Glycolic.acid_HMDB0000115	-0.078731740
## Caproic.acid_HMDB0000535	0.027892777
## L.Alanine_HMDB0000161	0.068328866
## Alpha.ketoisovaleric.acid_HMDB0000019	0.135287003
## Glycine_HMDB0000123	-0.071204034
## Oxalic.acid_HMDB0002329	-0.221626229
## Hydroxylamine_HMDB0003338	-0.112656302
## X2.Hydroxybutyric.acid_HMDB0000008	-0.028253969
## Acetoacetic.acid_HMDB0000060	-0.298936223
## Hydroxypropionic.acid_HMDB0000700	-0.189929268
## Pyruvic.acid_HMDB0000243.1	-0.240403841
## X3.Hydroxybutyric.acid_HMDB0000357	-0.329289847
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.191125579
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.060193386
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.062032963
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.320712493
## Beta.Alanine_HMDB0000056	0.054512221
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.089783418
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.018678208
## Malonic.acid_HMDB0000691	-0.206083291
## X3.Aminoisobutanoic.acid_HMDB0003911	0.014220143
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.125722059
## Ketoleucine_HMDB0000695	0.044341077
## L.Valine_HMDB0000883	-0.010839709
## ITSD_Valine	-0.098100567
## Urea_HMDB0000294	0.012753254
## Benzoic.acid_HMDB0001870	0.090299390
## Caprylic.acid_HMDB0000482	-0.003792186
## Glycerol_HMDB0000131	-0.031593938
## Ethanolamine_HMDB0000149	0.047811072
## L.Leucine_HMDB0000687	-0.004999320
## Acetylglucine_HMDB0000532	-0.112616019
## L.Isoleucine_HMDB0000172	0.036015395
## Nicotinic.acid_HMDB0001488	0.256962432
## Maleic.acid_HMDB0000176	-0.298539445
## L.Proline_HMDB0000162	0.023955413
## Phenylacetic.acid_HMDB0000209	-0.255085462
## Succinic.acid_HMDB0000254	-0.150738741
## Glycine_HMDB0000123.1	-0.080728623
## Methylsuccinic.acid_HMDB0001844	-0.191977165
## Glyceric.acid_HMDB0000139	-0.380935794
## Fumaric.acid_HMDB0000134	-0.056489145
## Uracil_HMDB0000300	-0.055204412
## Pelargonic.acid_HMDB0000847	0.111817912

## L.Serine_HMDB0000187	0.039968122
## L.Threonine_HMDB0000167	0.042127687
## Mesaconic.acid_HMDB0000749	0.323178547
## Glutaric.acid_HMDB0000661	0.232852768
## Thymine_HMDB0000262	-0.044427435
## Beta.Alanine_HMDB0000056.1	0.050702005
## L.Homoserine_HMDB0000719	0.213681095
## Capric.acid_HMDB0000511	0.152826350
## Citramalic.acid_HMDB0000426	0.091690354
## Malic.acid_HMDB0000744	-0.123000049
## Niacinamide_HMDB0001406	0.230947196
## Adipic.acid_HMDB0000448	0.426376120
## D.Threitol_HMDB0004136	-0.031205402
## Dihydrouracil_HMDB0000076	0.308627886
## Erythritol_HMDB0002994	0.021715824
## N.Acetylserine_HMDB0002931	0.004637565
## L.Aspartic.acid_HMDB0000191	0.160834464
## L.Methionine_HMDB0000696	0.036763739
## X4.Hydroxyproline_HMDB0000725	0.135261503
## Pyroglutamic.acid_HMDB0000267	0.047842094
## Cytosine_HMDB0000630	0.487110732
## Gamma.Aminobutyric.acid_HMDB0000112	-0.117264216
## Threonic.acid_HMDB0000943	0.007271111
## L.Cysteine_HMDB0000574	0.059120060
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.013902944
## Creatinine_HMDB0000562	-0.044582273
## X3.Hydroxyglutaric.acid_HMDB0000428	0.244897016
## Oxoglutaric.acid_HMDB0000208	-0.214822976
## Phenylpyruvic.acid_HMDB0000205	0.203889019
## Pimelic.acid_HMDB0000857	-0.112930358
## Phenyllactic.acid_HMDB0000779	0.191868732
## Phosphoenolpyruvic.acid_HMDB0000263	0.222744299
## Ornithine_HMDB0000214	0.241633768
## Hypotaurine_HMDB0000965	0.027753857
## Triethanolamine_HMDB0032538	0.063105953
## X2.Aminobenzoic.acid_HMDB0001123	-0.095156797
## L.Glutamic.acid_HMDB0000148	0.390634254
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.007579829
## X5.Aminopentanoic.acid_HMDB0003355	-0.080905013
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.101744277
## L.Phenylalanine_HMDB0000159	0.098015940
## Dodecanoic.acid_HMDB0000638	-0.101100283
## Lyxose_HMDB0003402_1	-0.048196911
## D.Xylose_HMDB0000098	0.223378556
## Lyxose_HMDB0003402_2	0.219105208
## D.Arabinose_HMDB0029942	-0.090718556
## L.Asparagine_HMDB0000168	0.504004564
## D.Ribulose_HMDB0000621	-0.109250287
## D.Ribose_HMDB0000283	-0.094341214
## D.Xylulose_HMDB0001644	-0.081553725
## X3.Sulfinioalanine_HMDB0000996	0.580549240
## Suberic.acid_HMDB0000893	0.304295434
## L.Lysine_HMDB0000182	0.357380116
## Levoglucosan_HMDB0000640	0.230914815

## D.Arabitol_HMDB0000568	-0.160097648
## Ribitol_HMDB0000508	0.121148085
## cis.Aconitic.acid_HMDB0000072	0.295474239
## Quinolinic.acid_HMDB0000232	0.232432610
## Putrescine_HMDB0001414	-0.015567205
## Glycerol.3.phosphate_HMDB0000126	0.259681772
## Vanillic.acid_HMDB0000484	0.007150156
## L.Glutamine_HMDB0000641	0.620224187
## X2.Phosphoglyceric.acid_HMDB0000362	0.353033357
## Azelaic.acid_HMDB0000784	0.268166411
## L.Dihydroorotic.acid_HMDB0003349	-0.069564361
## O.Phosphoethanolamine_HMDB0000224	-0.036880304
## X3.Phosphoglyceric.acid_HMDB0000807	0.244104810
## Isocitric.acid_HMDB0000193	0.380404684
## Hypoxanthine_HMDB0000157	0.468531754
## Citric.acid_HMDB0000094	0.336452683
## L.Arginine_HMDB0000517	0.493160853
## Ornithine_HMDB0000214.1	0.105556928
## Dopamine_HMDB0000073	0.131874801
## Myristic.acid_HMDB0000806	-0.033878869
## X1.5.Anhydrosorbitol_HMDB0002712	0.129689356
## D.Tagatose_HMDB0003418	-0.012600992
## Psicose_1	0.202038038
## Sebacic.acid_HMDB0000792	0.088582360
## D.Fructose_HMDB0000660	-0.208652455
## Gluconolactone_HMDB0000150	-0.075357908
## L.Sorbose_HMDB0001266	-0.213816970
## D.Mannose_HMDB0000169	0.065308756
## Hydroxyphenyllactic.acid_HMDB0000755	-0.380836579
## D.Glucose_HMDB0000122	0.090699180
## N.Acetylglutamine_HMDB0006029	0.078970005
## L.Lysine_HMDB0000182.1	0.168094692
## D.Mannose_HMDB0000169.1	0.096655857
## Tyramine_HMDB0000306	0.171659551
## L.Histidine_HMDB0000177	0.167260067
## D.Glucose_HMDB0000122.1	0.111398650
## X1.Hexadecanol_HMDB0003424	-0.194816009
## L.Tyrosine_HMDB0000158	0.319653474
## Mannitol_HMDB0000765	0.102678578
## Sorbitol_HMDB0000247	0.377477900
## ITSD_Sorbitol	-0.083268779
## Galacturonic.acid_HMDB0002545	0.076932071
## Pantothenic.acid_HMDB0000210	-0.392465262
## Palmitoleic.acid_HMDB0003229	-0.203142672
## Xanthine_HMDB0000292	0.256310969
## Gluconic.acid_HMDB0000625	0.189276825
## Palmitic.acid_HMDB0000220	-0.238660840
## Glucaric.acid_HMDB0000663	-0.096421544
## N.Acetylmannosamine_HMDB0001129	0.181822245
## N.Acetyl.D.glucosamine_HMDB0000215	-0.021602644
## D.Ribulose.5.phosphate_HMDB0000618	0.051740378
## Uric.acid_HMDB0000289	0.421404588
## D.Ribose.5.phosphate_HMDB0001548	-0.030830851
## myo.Inositol_HMDB0000211	0.302661942

## D.Ribose.5.phosphate_HMDB0001548.1	-0.009219670
## Heptadecanoic.acid_HMDB0002259	0.319487988
## Octadecanol_HMDB0002350	-0.196636204
## Glutathione_HMDB0000125	1.000000000
## Linoleic.acid_HMDB0000673	-0.268385219
## Oleic.acid_HMDB0000207	-0.191855441
## Elaidic.acid_HMDB0000573	-0.164846273
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.203026987
## Stearic.acid_HMDB0000827	-0.241421689
## L.Tryptophan_HMDB0000929	-0.206868217
## Fructose.1.phosphate_HMDB0001076	0.160442116
## Mannose.6.phosphate_HMDB0001078	0.485523002
## Arachidonic.acid_HMDB0001043	-0.130158143
## Glucose.6.phosphate_HMDB0001401	-0.028183148
## X6.Phosphogluconic.acid_HMDB0001316	-0.236526844
## Inositol.phosphate_HMDB0002985	-0.095724628
## Uridine_HMDB0000296	-0.233630508
## Stigmasterol_HMDB0000937	-0.351566663
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.035912447
## Sucrose_HMDB0000258	-0.130561238
## MG.18.0e.0.0.0.0._HMD0011143	-0.324874790
## Trehalose_HMDB0000975	0.199348525
## D.Maltose_HMDB0000163	0.195976939
## Lactitol_HMDB00040937	0.094623275
## Xanthylic.acid_HMDB0001554	0.395686899
## Adenosine.monophosphate_HMDB0000045	0.114440541
## Cholesterol_HMDB0000067	0.196425498
## Lathosterol_HMDB0001170	-0.168966014
## X7b.Hydroxycholesterol_.HMD0006119	0.245484127
##	Linoleic.acid_HMDB0000673
## Dimethylglycine_HMDB0000092	-0.435494451
## Glyoxylic.acid_HMDB0000119	-0.443972713
## Pyruvic.acid_HMDB0000243	0.333712073
## L.Lactic.acid_HMDB0000190	0.264649645
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.448268612
## Glycolic.acid_HMDB0000115	0.281027106
## Caproic.acid_HMDB0000535	-0.352343563
## L.Alanine_HMDB0000161	0.055719943
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.164156618
## Glycine_HMDB0000123	0.166047207
## Oxalic.acid_HMDB0002329	0.043754650
## Hydroxylamine_HMDB0003338	0.276386670
## X2.Hydroxybutyric.acid_HMDB0000008	0.248648360
## Acetoacetic.acid_HMDB0000060	0.390383988
## Hydroxypropionic.acid_HMDB0000700	0.658594359
## Pyruvic.acid_HMDB0000243.1	0.252496791
## X3.Hydroxybutyric.acid_HMDB0000357	0.458258679
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.374739974
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.312357937
## D.Alpha.aminobutyric.acid_HMDB0000650	0.271503090
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.004203445
## Beta.Alanine_HMDB0000056	0.338969990
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.074059202
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.108196591

## Malonic.acid_HMDB0000691	0.116772694
## X3.Aminoisobutanoic.acid_HMDB0003911	0.408586642
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.571508010
## Ketoleucine_HMDB0000695	-0.087588061
## L.Valine_HMDB0000883	0.280421815
## ITSD_Valine	0.447388174
## Urea_HMDB0000294	0.071426821
## Benzoic.acid_HMDB0001870	0.383509532
## Caprylic.acid_HMDB0000482	-0.128814465
## Glycerol_HMDB0000131	0.374744116
## Ethanolamine_HMDB0000149	0.066249854
## L.Leucine_HMDB0000687	0.397163464
## Acetylglycine_HMDB0000532	0.260345670
## L.Isoleucine_HMDB0000172	0.281803995
## Nicotinic.acid_HMDB0001488	-0.034636280
## Maleic.acid_HMDB0000176	0.179139586
## L.Proline_HMDB0000162	0.219131159
## Phenylacetic.acid_HMDB0000209	-0.059290707
## Succinic.acid_HMDB0000254	0.361060917
## Glycine_HMDB0000123.1	0.312455817
## Methylsuccinic.acid_HMDB0001844	0.389822943
## Glyceric.acid_HMDB0000139	0.181897360
## Fumaric.acid_HMDB0000134	0.283244757
## Uracil_HMDB0000300	0.023178539
## Pelargonic.acid_HMDB0000847	-0.285543465
## L.Serine_HMDB0000187	0.134212342
## L.Threonine_HMDB0000167	0.087960123
## Mesaconic.acid_HMDB0000749	0.004333889
## Glutaric.acid_HMDB0000661	-0.543477115
## Thymine_HMDB0000262	0.083652171
## Beta.Alanine_HMDB0000056.1	0.399642699
## L.Homoserine_HMDB0000719	0.355631443
## Capric.acid_HMDB0000511	0.394761434
## Citramalic.acid_HMDB0000426	-0.135104886
## Malic.acid_HMDB0000744	-0.069507557
## Niacinamide_HMDB0001406	0.190113541
## Adipic.acid_HMDB0000448	-0.166085176
## D.Threitol_HMDB0004136	0.285968613
## Dihydrouracil_HMDB0000076	-0.036550962
## Erythritol_HMDB0002994	0.343765592
## N.Acetylserine_HMDB0002931	-0.026641627
## L.Aspartic.acid_HMDB0000191	0.121043205
## L.Methionine_HMDB0000696	0.250751786
## X4.Hydroxyproline_HMDB0000725	0.126860561
## Pyroglutamic.acid_HMDB0000267	0.142274290
## Cytosine_HMDB0000630	-0.336261647
## Gamma.Aminobutyric.acid_HMDB0000112	0.127349313
## Threonic.acid_HMDB0000943	0.062815054
## L.Cysteine_HMDB0000574	0.069580145
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.187228748
## Creatinine_HMDB0000562	0.439787470
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.399149526
## Oxoglutaric.acid_HMDB0000208	0.399335930
## Phenylpyruvic.acid_HMDB0000205	-0.034184752

## Pimelic.acid_HMDB0000857	-0.041172213
## Phenyllactic.acid_HMDB0000779	-0.367645229
## Phosphoenolpyruvic.acid_HMDB0000263	-0.640632447
## Ornithine_HMDB0000214	-0.138910313
## Hypotaurine_HMDB0000965	-0.037309882
## Triethanolamine_HMDB0032538	-0.185374162
## X2.Aminobenzoic.acid_HMDB0001123	0.376940892
## L.Glutamic.acid_HMDB0000148	0.116718566
## X4.Hydroxybenzoic.acid_HMDB0000500	0.271221074
## X5.Aminopentanoic.acid_HMDB0003355	-0.295790794
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.027779648
## L.Phenylalanine_HMDB0000159	0.257639325
## Dodecanoic.acid_HMDB0000638	0.863016900
## Lyxose_HMDB0003402_1	-0.249535486
## D.Xylose_HMDB0000098	-0.282625852
## Lyxose_HMDB0003402_2	-0.314827763
## D.Arabinose_HMDB0029942	-0.356458427
## L.Asparagine_HMDB0000168	-0.129788132
## D.Ribulose_HMDB0000621	-0.381961639
## D.Ribose_HMDB0000283	-0.364397977
## D.Xylulose_HMDB0001644	-0.401329085
## X3.Sulfinoalanine_HMDB0000996	0.062271051
## Suberic.acid_HMDB0000893	-0.131865628
## L.Lysine_HMDB0000182	-0.070357308
## Levoglucosan_HMDB0000640	-0.275462016
## D.Arabitol_HMDB0000568	0.205040796
## Ribitol_HMDB0000508	0.125240294
## cis.Aconitic.acid_HMDB0000072	-0.154851694
## Quinolinic.acid_HMDB0000232	-0.318166475
## Putrescine_HMDB0001414	0.082024172
## Glycerol.3.phosphate_HMDB0000126	-0.129837753
## Vanillic.acid_HMDB0000484	0.162529097
## L.Glutamine_HMDB0000641	-0.260327145
## X2.Phosphoglyceric.acid_HMDB0000362	-0.433130367
## Azelaic.acid_HMDB0000784	-0.333932303
## L.Dihydroorotic.acid_HMDB0003349	-0.331385552
## O.Phosphoethanolamine_HMDB0000224	0.894054063
## X3.Phosphoglyceric.acid_HMDB0000807	-0.451378759
## Isocitric.acid_HMDB0000193	0.039673098
## Hypoxanthine_HMDB0000157	-0.107553237
## Citric.acid_HMDB0000094	-0.487821016
## L.Arginine_HMDB0000517	-0.252828290
## Ornithine_HMDB0000214.1	0.074741805
## Dopamine_HMDB0000073	0.073023012
## Myristic.acid_HMDB0000806	0.689262468
## X1.5.Anhydrosorbitol_HMDB0002712	-0.034075697
## D.Tagatose_HMDB0003418	-0.395568773
## Psicose_1	-0.265698627
## Sebacic.acid_HMDB0000792	0.155532379
## D.Fructose_HMDB0000660	-0.335015778
## Gluconolactone_HMDB0000150	-0.348373009
## L.Sorbose_HMDB0001266	-0.333421352
## D.Mannose_HMDB0000169	0.401907877
## Hydroxyphenyllactic.acid_HMDB0000755	0.466017584

## D.Glucose_HMDB0000122	0.287869759
## N.Acetylglutamine_HMDB0006029	0.372794454
## L.Lysine_HMDB0000182.1	0.235759083
## D.Mannose_HMDB0000169.1	0.346956803
## Tyramine_HMDB0000306	0.231096302
## L.Histidine_HMDB0000177	0.273664689
## D.Glucose_HMDB0000122.1	0.362287207
## X1.Hexadecanol_HMDB0003424	0.448807060
## L.Tyrosine_HMDB0000158	0.026794023
## Mannitol_HMDB0000765	0.201579349
## Sorbitol_HMDB0000247	-0.097790258
## ITSD_Sorbitol	0.558253863
## Galacturonic.acid_HMDB0002545	0.069838634
## Pantothenic.acid_HMDB0000210	0.107742836
## Palmitoleic.acid_HMDB0003229	0.938308473
## Xanthine_HMDB0000292	-0.456128589
## Gluconic.acid_HMDB0000625	-0.560937538
## Palmitic.acid_HMDB0000220	0.908732925
## Glucaric.acid_HMDB0000663	0.170301639
## N.Acetylmannosamine_HMDB0001129	0.458793498
## N.Acetyl.D.glucosamine_HMDB0000215	0.468716161
## D.Ribulose.5.phosphate_HMDB0000618	-0.331850716
## Uric.acid_HMDB0000289	0.050519327
## D.Ribose.5.phosphate_HMDB0001548	-0.369687339
## myo.Inositol_HMDB0000211	0.295156118
## D.Ribose.5.phosphate_HMDB0001548.1	-0.370671877
## Heptadecanoic.acid_HMDB0002259	-0.316149738
## Octadecanol_HMDB0002350	0.407216061
## Glutathione_HMDB0000125	-0.268385219
## Linoleic.acid_HMDB0000673	1.000000000
## Oleic.acid_HMDB0000207	0.961422143
## Elaidic.acid_HMDB0000573	0.948303732
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.457837354
## Stearic.acid_HMDB0000827	0.723922135
## L.Tryptophan_HMDB0000929	0.665508805
## Fructose.1.phosphate_HMDB0001076	-0.305319649
## Mannose.6.phosphate_HMDB0001078	-0.206766166
## Arachidonic.acid_HMDB0001043	0.866601088
## Glucose.6.phosphate_HMDB0001401	-0.158112457
## X6.Phosphogluconic.acid_HMDB0001316	0.605319122
## Inositol.phosphate_HMDB0002985	0.562978022
## Uridine_HMDB0000296	0.320032705
## Stigmasterol_HMDB0000937	0.544728299
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.257118813
## Sucrose_HMDB0000258	0.501128749
## MG.18.Oe.0.0.0.0._HMD0011143	0.752563360
## Trehalose_HMDB0000975	-0.245723102
## D.Maltose_HMDB0000163	-0.241436782
## Lactitol_HMDB0040937	-0.071685996
## Xanthylic.acid_HMDB0001554	-0.618196445
## Adenosine.monophosphate_HMDB0000045	-0.270289460
## Cholesterol_HMDB0000067	0.483809101
## Lathosterol_HMDB0001170	0.845295945
## X7b.Hydroxycholesterol_.HMD0006119	-0.800816203

##	Oleic.acid_HMDB0000207	
## Dimethylglycine_HMDB0000092		-0.593093525
## Glyoxylic.acid_HMDB0000119		-0.602026695
## Pyruvic.acid_HMDB0000243		0.319026987
## L.Lactic.acid_HMDB0000190		0.332139391
## Alpha.Hydroxyisobutyric.acid_HMDB0000729		0.357271932
## Glycolic.acid_HMDB0000115		0.151484979
## Caproic.acid_HMDB0000535		-0.535837226
## L.Alanine_HMDB0000161		0.176963730
## Alpha.ketoisovaleric.acid_HMDB0000019		-0.236277659
## Glycine_HMDB0000123		0.180162364
## Oxalic.acid_HMDB0002329		-0.111911981
## Hydroxylamine_HMDB0003338		0.259937385
## X2.Hydroxybutyric.acid_HMDB0000008		0.101988419
## Acetoacetic.acid_HMDB0000060		0.225047199
## Hydroxypropionic.acid_HMDB0000700		0.672668517
## Pyruvic.acid_HMDB0000243.1		0.194945883
## X3.Hydroxybutyric.acid_HMDB0000357		0.271037178
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023		0.221190588
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407		0.139933231
## D.Alpha.aminobutyric.acid_HMDB0000650		0.404743266
## X3.Methyl.2.oxovaleric.acid_HMDB0000491		-0.092538881
## Beta.Alanine_HMDB0000056		0.453858886
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354		-0.128601150
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1		0.040818890
## Malonic.acid_HMDB0000691		0.122380551
## X3.Aminoisobutanoic.acid_HMDB0003911		0.564947090
## X3.Hydroxyisovaleric.acid_HMDB0000754		0.584015646
## Ketoleucine_HMDB0000695		-0.258430287
## L.Valine_HMDB0000883		0.389462478
## ITSD_Valine		0.554430847
## Urea_HMDB0000294		0.076046118
## Benzoic.acid_HMDB0001870		0.318216797
## Caprylic.acid_HMDB0000482		-0.334865628
## Glycerol_HMDB0000131		0.481484458
## Ethanolamine_HMDB0000149		0.194111903
## L.Leucine_HMDB0000687		0.492601912
## Acetyl glycine_HMDB0000532		0.164823725
## L.Isoleucine_HMDB0000172		0.376539698
## Nicotinic.acid_HMDB0001488		-0.181549387
## Maleic.acid_HMDB0000176		-0.040677979
## L.Proline_HMDB0000162		0.248933071
## Phenylacetic.acid_HMDB0000209		-0.287354501
## Succinic.acid_HMDB0000254		0.379894102
## Glycine_HMDB0000123.1		0.404448789
## Methylsuccinic.acid_HMDB0001844		0.395465421
## Glyceric.acid_HMDB0000139		-0.025886185
## Fumaric.acid_HMDB0000134		0.267909248
## Uracil_HMDB0000300		-0.005899176
## Pelargonic.acid_HMDB0000847		-0.472506009
## L.Serine_HMDB0000187		0.224867875
## L.Threonine_HMDB0000167		0.178053199
## Mesaconic.acid_HMDB0000749		-0.032250876
## Glutaric.acid_HMDB0000661		-0.607970505

## Thymine_HMDB0000262	0.085470533
## Beta.Alanine_HMDB0000056.1	0.549733080
## L.Homoserine_HMDB0000719	0.323611571
## Capric.acid_HMDB0000511	0.322374257
## Citramalic.acid_HMDB0000426	-0.080583723
## Malic.acid_HMDB0000744	-0.246979733
## Niacinamide_HMDB0001406	0.263355136
## Adipic.acid_HMDB0000448	-0.045098840
## D.Threitol_HMDB0004136	0.213689414
## Dihydrouracil_HMDB0000076	-0.032630689
## Erythritol_HMDB0002994	0.280275519
## N.Acetylserine_HMDB0002931	0.032637104
## L.Aspartic.acid_HMDB0000191	0.227460132
## L.Methionine_HMDB0000696	0.435989615
## X4.Hydroxyproline_HMDB0000725	0.192249439
## Pyroglutamic.acid_HMDB0000267	0.208597729
## Cytosine_HMDB0000630	-0.206489178
## Gamma.Aminobutyric.acid_HMDB0000112	0.059010202
## Threonic.acid_HMDB0000943	-0.131793719
## L.Cysteine_HMDB0000574	-0.081656748
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.391571473
## Creatinine_HMDB0000562	0.634679672
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.544845571
## Oxoglutaric.acid_HMDB0000208	0.246581442
## Phenylpyruvic.acid_HMDB0000205	-0.190985875
## Pimelic.acid_HMDB0000857	0.021383018
## Phenyllactic.acid_HMDB0000779	-0.495405161
## Phosphoenolpyruvic.acid_HMDB0000263	-0.776250704
## Ornithine_HMDB0000214	0.086399979
## Hypotaurine_HMDB0000965	0.084241820
## Triethanolamine_HMDB0032538	-0.075464274
## X2.Aminobenzoic.acid_HMDB0001123	0.528205479
## L.Glutamic.acid_HMDB0000148	0.306639731
## X4.Hydroxybenzoic.acid_HMDB0000500	0.400892185
## X5.Aminopentanoic.acid_HMDB0003355	-0.432157150
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.185763266
## L.Phenylalanine_HMDB0000159	0.439757695
## Dodecanoic.acid_HMDB0000638	0.841849401
## Lyxose_HMDB0003402_1	-0.436770585
## D.Xylose_HMDB0000098	-0.312105910
## Lyxose_HMDB0003402_2	-0.303152540
## D.Arabinose_HMDB0029942	-0.541488462
## L.Asparagine_HMDB0000168	0.122743488
## D.Ribulose_HMDB0000621	-0.547145950
## D.Ribose_HMDB0000283	-0.545879285
## D.Xylulose_HMDB0001644	-0.561264710
## X3.Sulfinioalanine_HMDB0000996	0.258600370
## Suberic.acid_HMDB0000893	-0.102785965
## L.Lysine_HMDB0000182	0.164755369
## Levoglucosan_HMDB0000640	-0.253990198
## D.Arabitol_HMDB0000568	0.175566440
## Ribitol_HMDB0000508	0.114900080
## cis.Aconitic.acid_HMDB0000072	-0.185028089
## Quinolinic.acid_HMDB0000232	-0.391750421

## Putrescine_HMDB0001414	-0.059011670
## Glycerol.3.phosphate_HMDB0000126	-0.280132343
## Vanillic.acid_HMDB0000484	0.212621287
## L.Glutamine_HMDB0000641	-0.030997567
## X2.Phosphoglyceric.acid_HMDB0000362	-0.495777920
## Azelaic.acid_HMDB0000784	-0.355576326
## L.Dihydroorotic.acid_HMDB0003349	-0.528197134
## O.Phosphoethanolamine_HMDB0000224	0.930665910
## X3.Phosphoglyceric.acid_HMDB0000807	-0.522965373
## Isocitric.acid_HMDB0000193	0.069923171
## Hypoxanthine_HMDB0000157	0.086811034
## Citric.acid_HMDB0000094	-0.610295616
## L.Arginine_HMDB0000517	-0.205965479
## Ornithine_HMDB0000214.1	0.265052232
## Dopamine_HMDB0000073	0.267143166
## Myristic.acid_HMDB0000806	0.774317581
## X1.5.Anhydrosorbitol_HMDB0002712	-0.158121495
## D.Tagatose_HMDB0003418	-0.574123035
## Psicose_1	-0.251663098
## Sebacic.acid_HMDB0000792	0.216647162
## D.Fructose_HMDB0000660	-0.534436513
## Gluconolactone_HMDB0000150	-0.512228053
## L.Sorbose_HMDB0001266	-0.526572174
## D.Mannose_HMDB0000169	0.545221187
## Hydroxyphenyllactic.acid_HMDB0000755	0.325427883
## D.Glucose_HMDB0000122	0.431086373
## N.Acetylglutamine_HMDB0006029	0.512882129
## L.Lysine_HMDB0000182.1	0.448725485
## D.Mannose_HMDB0000169.1	0.533461951
## Tyramine_HMDB0000306	0.446658007
## L.Histidine_HMDB0000177	0.487310925
## D.Glucose_HMDB0000122.1	0.510546137
## X1.Hexadecanol_HMDB0003424	0.332849045
## L.Tyrosine_HMDB0000158	0.256612010
## Mannitol_HMDB0000765	0.287894945
## Sorbitol_HMDB0000247	-0.128159312
## ITSD_Sorbitol	0.624189375
## Galacturonic.acid_HMDB0002545	0.003785751
## Pantothenic.acid_HMDB0000210	-0.022891895
## Palmitoleic.acid_HMDB0003229	0.987033949
## Xanthine_HMDB0000292	-0.261362437
## Gluconic.acid_HMDB0000625	-0.682612145
## Palmitic.acid_HMDB0000220	0.864449456
## Glucaric.acid_HMDB0000663	0.282384244
## N.Acetylmannosamine_HMDB0001129	0.507121025
## N.Acetyl.D.glucosamine_HMDB0000215	0.564786929
## D.Ribulose.5.phosphate_HMDB0000618	-0.518749030
## Uric.acid_HMDB0000289	0.303229370
## D.Ribose.5.phosphate_HMDB0001548	-0.539023612
## myo.Inositol_HMDB0000211	0.311555132
## D.Ribose.5.phosphate_HMDB0001548.1	-0.552925862
## Heptadecanoic.acid_HMDB0002259	-0.419775478
## Octadecanol_HMDB0002350	0.203195309
## Glutathione_HMDB0000125	-0.191855441

## Linoleic.acid_HMDB0000673	0.961422143
## Oleic.acid_HMDB0000207	1.000000000
## Elaidic.acid_HMDB0000573	0.978793520
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.652703046
## Stearic.acid_HMDB0000827	0.561750644
## L.Tryptophan_HMDB0000929	0.503372311
## Fructose.1.phosphate_HMDB0001076	-0.492574811
## Mannose.6.phosphate_HMDB0001078	-0.289512889
## Arachidonic.acid_HMDB0001043	0.937474479
## Glucose.6.phosphate_HMDB0001401	-0.353614155
## X6.Phosphogluconic.acid_HMDB0001316	0.410200305
## Inositol.phosphate_HMDB0002985	0.450852847
## Uridine_HMDB0000296	0.287689853
## Stigmasterol_HMDB0000937	0.431634313
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.152212621
## Sucrose_HMDB0000258	0.553812747
## MG.18.0e.0.0.0.0._HMDB0011143	0.582350550
## Trehalose_HMDB0000975	-0.267899870
## D.Maltose_HMDB0000163	-0.264599652
## Lactitol_HMDB00040937	-0.118797086
## Xanthylic.acid_HMDB0001554	-0.625172806
## Adenosine.monophosphate_HMDB0000045	-0.478001892
## Cholesterol_HMDB0000067	0.475347923
## Lathosterol_HMDB0001170	0.822584391
## X7b.Hydroxycholesterol._HMDB0006119	-0.891833051
## Elaidic.acid_HMDB0000573	
## Dimethylglycine_HMDB0000092	-0.5575737454
## Glyoxylic.acid_HMDB0000119	-0.5673808826
## Pyruvic.acid_HMDB0000243	0.4368787739
## L.Lactic.acid_HMDB0000190	0.3883380073
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.4895026796
## Glycolic.acid_HMDB0000115	0.2094044603
## Caproic.acid_HMDB0000535	-0.5090420641
## L.Alanine_HMDB0000161	0.2355245982
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.1559367073
## Glycine_HMDB0000123	0.2524747081
## Oxalic.acid_HMDB0002329	-0.0852578921
## Hydroxylamine_HMDB0003338	0.3110916345
## X2.Hydroxybutyric.acid_HMDB0000008	0.1998579373
## Acetoacetic.acid_HMDB0000060	0.2873469553
## Hydroxypropionic.acid_HMDB0000700	0.7153315603
## Pyruvic.acid_HMDB0000243.1	0.2788849548
## X3.Hydroxybutyric.acid_HMDB0000357	0.3602259152
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.3206929439
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.2173421257
## D.Alpha.aminobutyric.acid_HMDB0000650	0.4598569084
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.0082634901
## Beta.Alanine_HMDB0000056	0.4981310363
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.0606370132
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.1276127919
## Malonic.acid_HMDB0000691	0.2103209562
## X3.Aminoisobutanoic.acid_HMDB0003911	0.5613766056
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.6533929668
## Ketoleucine_HMDB0000695	-0.1706685064

## L.Valine_HMDB0000883	0.4478916750
## ITSD_Valine	0.6184756614
## Urea_HMDB0000294	0.1764525396
## Benzoic.acid_HMDB0001870	0.3117555564
## Caprylic.acid_HMDB0000482	-0.2742688884
## Glycerol_HMDB0000131	0.5024242115
## Ethanolamine_HMDB0000149	0.2413474280
## L.Leucine_HMDB0000687	0.5285146627
## Acetylglycine_HMDB0000532	0.2664987711
## L.Isoleucine_HMDB0000172	0.4187019801
## Nicotinic.acid_HMDB0001488	-0.1438961470
## Maleic.acid_HMDB0000176	0.0514631253
## L.Proline_HMDB0000162	0.2930678912
## Phenylacetic.acid_HMDB0000209	-0.2294563766
## Succinic.acid_HMDB0000254	0.4620085817
## Glycine_HMDB0000123.1	0.4378683631
## Methylsuccinic.acid_HMDB0001844	0.4800127681
## Glyceric.acid_HMDB0000139	-0.0257479614
## Fumaric.acid_HMDB0000134	0.3956759793
## Uracil_HMDB0000300	0.0756190466
## Pelargonic.acid_HMDB0000847	-0.4185212132
## L.Serine_HMDB0000187	0.2382003251
## L.Threonine_HMDB0000167	0.2355196842
## Mesaconic.acid_HMDB0000749	0.1189617227
## Glutaric.acid_HMDB0000661	-0.5239006943
## Thymine_HMDB0000262	0.1682076878
## Beta.Alanine_HMDB0000056.1	0.5809561530
## L.Homoserine_HMDB0000719	0.3269556749
## Capric.acid_HMDB0000511	0.3505653319
## Citramalic.acid_HMDB0000426	0.0017990635
## Malic.acid_HMDB0000744	-0.1826586621
## Niacinamide_HMDB0001406	0.3710920705
## Adipic.acid_HMDB0000448	-0.0006196701
## D.Threitol_HMDB0004136	0.2995332912
## Dihydrouracil_HMDB0000076	0.0783925025
## Erythritol_HMDB0002994	0.4161529977
## N.Acetylserine_HMDB0002931	0.0671081956
## L.Aspartic.acid_HMDB0000191	0.2624177583
## L.Methionine_HMDB0000696	0.4438289722
## X4.Hydroxyproline_HMDB0000725	0.2698946068
## Pyroglutamic.acid_HMDB0000267	0.2551368681
## Cytosine_HMDB0000630	-0.0871649953
## Gamma.Aminobutyric.acid_HMDB0000112	0.1222482259
## Threonic.acid_HMDB0000943	-0.0443455541
## L.Cysteine_HMDB0000574	0.0109403996
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.3223473701
## Creatinine_HMDB0000562	0.6224855957
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.4984135858
## Oxoglutaric.acid_HMDB0000208	0.2888522910
## Phenylpyruvic.acid_HMDB0000205	-0.2518353668
## Pimelic.acid_HMDB0000857	0.0481275299
## Phenyllactic.acid_HMDB0000779	-0.4731513770
## Phosphoenolpyruvic.acid_HMDB0000263	-0.7699330488
## Ornithine_HMDB0000214	0.0729839375

## Hypotaurine_HMDB0000965	0.1584282742
## Triethanolamine_HMDB0032538	-0.0132265878
## X2.Aminobenzoic.acid_HMDB0001123	0.5405891497
## L.Glutamic.acid_HMDB0000148	0.3502914756
## X4.Hydroxybenzoic.acid_HMDB0000500	0.4462637181
## X5.Aminopentanoic.acid_HMDB0003355	-0.3118957519
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.1681661191
## L.Phenylalanine_HMDB0000159	0.4580984061
## Dodecanoic.acid_HMDB0000638	0.9035619501
## Lyxose_HMDB0003402_1	-0.4236719267
## D.Xylose_HMDB0000098	-0.3102889329
## Lyxose_HMDB0003402_2	-0.2855805178
## D.Arabinose_HMDB0029942	-0.5328926023
## L.Asparagine_HMDB0000168	0.1096639434
## D.Ribulose_HMDB0000621	-0.5434572419
## D.Ribose_HMDB0000283	-0.5305905778
## D.Xylulose_HMDB0001644	-0.5532878828
## X3.Sulfinoalanine_HMDB0000996	0.2378136236
## Suberic.acid_HMDB0000893	-0.0226500316
## L.Lysine_HMDB0000182	0.1220663024
## Levoglucosan_HMDB0000640	-0.2493159564
## D.Arabitol_HMDB0000568	0.2736916632
## Ribitol_HMDB0000508	0.1403460188
## cis.Aconitic.acid_HMDB0000072	-0.1658118162
## Quinolinic.acid_HMDB0000232	-0.3091236250
## Putrescine_HMDB0001414	-0.0119793195
## Glycerol.3.phosphate_HMDB0000126	-0.2838988512
## Vanillic.acid_HMDB0000484	0.3008260917
## L.Glutamine_HMDB0000641	-0.0642518265
## X2.Phosphoglyceric.acid_HMDB0000362	-0.3898687953
## Azelaic.acid_HMDB0000784	-0.3055495429
## L.Dihydroorotic.acid_HMDB0003349	-0.5180869068
## O.Phosphoethanolamine_HMDB0000224	0.9192648014
## X3.Phosphoglyceric.acid_HMDB0000807	-0.4110198840
## Isocitric.acid_HMDB0000193	0.1923726499
## Hypoxanthine_HMDB0000157	-0.0180804161
## Citric.acid_HMDB0000094	-0.5459956914
## L.Arginine_HMDB0000517	-0.2076712192
## Ornithine_HMDB0000214.1	0.2780065983
## Dopamine_HMDB0000073	0.2799026371
## Myristic.acid_HMDB0000806	0.8113218274
## X1.5.Anhydrosorbitol_HMDB0002712	0.0004379648
## D.Tagatose_HMDB0003418	-0.5551694605
## Psicose_1	-0.2295963266
## Sebacic.acid_HMDB0000792	0.3645992765
## D.Fructose_HMDB0000660	-0.5131104743
## Gluconolactone_HMDB0000150	-0.4912124906
## L.Sorbose_HMDB0001266	-0.5070410858
## D.Mannose_HMDB0000169	0.5894859886
## Hydroxyphenyllactic.acid_HMDB0000755	0.4354614356
## D.Glucose_HMDB0000122	0.4722676159
## N.Acetylglutamine_HMDB0006029	0.5645531493
## L.Lysine_HMDB0000182.1	0.4494157572
## D.Mannose_HMDB0000169.1	0.5501551586

## Tyramine_HMDB0000306	0.4431061295
## L.Histidine_HMDB0000177	0.4853944506
## D.Glucose_HMDB0000122.1	0.5516422479
## X1.Hexadecanol_HMDB0003424	0.3738622637
## L.Tyrosine_HMDB0000158	0.2571850130
## Mannitol_HMDB0000765	0.3887501416
## Sorbitol_HMDB0000247	-0.1770404699
## ITSD_Sorbitol	0.7002030094
## Galacturonic.acid_HMDB0002545	0.1027526980
## Pantothenic.acid_HMDB0000210	0.0782413137
## Palmitoleic.acid_HMDB0003229	0.9826540833
## Xanthine_HMDB0000292	-0.3237149308
## Gluconic.acid_HMDB0000625	-0.6441184790
## Palmitic.acid_HMDB0000220	0.9119653759
## Glucaric.acid_HMDB0000663	0.2839224672
## N.Acetylmannosamine_HMDB0001129	0.5714744961
## N.Acetyl.D.glucosamine_HMDB0000215	0.6366743581
## D.Ribulose.5.phosphate_HMDB0000618	-0.4762592022
## Uric.acid_HMDB0000289	0.2611774445
## D.Ribose.5.phosphate_HMDB0001548	-0.5262156742
## myo.Inositol_HMDB0000211	0.4349223812
## D.Ribose.5.phosphate_HMDB0001548.1	-0.5477259631
## Heptadecanoic.acid_HMDB0002259	-0.3600672192
## Octadecanol_HMDB0002350	0.2921799311
## Glutathione_HMDB0000125	-0.1648462733
## Linoleic.acid_HMDB0000673	0.9483037320
## Oleic.acid_HMDB0000207	0.9787935196
## Elaidic.acid_HMDB0000573	1.0000000000
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.6249887307
## Stearic.acid_HMDB0000827	0.6387171016
## L.Tryptophan_HMDB0000929	0.5899140136
## Fructose.1.phosphate_HMDB0001076	-0.4321161049
## Mannose.6.phosphate_HMDB0001078	-0.3349715916
## Arachidonic.acid_HMDB0001043	0.8942172766
## Glucose.6.phosphate_HMDB0001401	-0.3115224136
## X6.Phosphogluconic.acid_HMDB0001316	0.4129833130
## Inositol.phosphate_HMDB0002985	0.5270782871
## Uridine_HMDB0000296	0.3972770301
## Stigmasterol_HMDB0000937	0.5322887686
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.1660357026
## Sucrose_HMDB0000258	0.5871562197
## MG.18.0e.0.0.0.0._HMDB0011143	0.6524544571
## Trehalose_HMDB0000975	-0.2639148020
## D.Maltose_HMDB0000163	-0.2598998312
## Lactitol_HMDB0040937	0.0116692048
## Xanthylic.acid_HMDB0001554	-0.6762387438
## Adenosine.monophosphate_HMDB0000045	-0.4602149051
## Cholesterol_HMDB0000067	0.5502944433
## Lathosterol_HMDB0001170	0.8523423640
## X7b.Hydroxycholesterol_.HMDB0006119	-0.8331060677
##	
## Dimethylglycine_HMDB0000092	0.850535882
## Glyoxylic.acid_HMDB0000119	0.854239669
## Pyruvic.acid_HMDB0000243	-0.335894453

## L.Lactic.acid_HMDB0000190	-0.576282293
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.162360635
## Glycolic.acid_HMDB0000115	0.349695426
## Caproic.acid_HMDB0000535	0.859644917
## L.Alanine_HMDB0000161	-0.634811585
## Alpha.ketoisovaleric.acid_HMDB0000019	0.140475031
## Glycine_HMDB0000123	-0.403092968
## Oxalic.acid_HMDB0002329	0.444750762
## Hydroxylamine_HMDB0003338	-0.209088000
## X2.Hydroxybutyric.acid_HMDB0000008	0.234471720
## Acetoacetic.acid_HMDB0000060	0.221940165
## Hydroxypropionic.acid_HMDB0000700	-0.561271187
## Pyruvic.acid_HMDB0000243.1	-0.223802285
## X3.Hydroxybutyric.acid_HMDB0000357	0.154636415
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.129554671
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.386436326
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.744792887
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.253496116
## Beta.Alanine_HMDB0000056	-0.716905661
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.033776066
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.030628728
## Malonic.acid_HMDB0000691	-0.260250073
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.864914828
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.533317427
## Ketoleucine_HMDB0000695	0.475949065
## L.Valine_HMDB0000883	-0.695475446
## ITSD_Valine	-0.761802380
## Urea_HMDB0000294	-0.306085419
## Benzoic.acid_HMDB0001870	0.069327794
## Caprylic.acid_HMDB0000482	0.770923866
## Glycerol_HMDB0000131	-0.736265406
## Ethanolamine_HMDB0000149	-0.626284610
## L.Leucine_HMDB0000687	-0.703724147
## Acetylglucine_HMDB0000532	0.195239840
## L.Isoleucine_HMDB0000172	-0.651958024
## Nicotinic.acid_HMDB0001488	0.409231327
## Maleic.acid_HMDB0000176	0.512533544
## L.Proline_HMDB0000162	-0.413505386
## Phenylacetic.acid_HMDB0000209	0.702033520
## Succinic.acid_HMDB0000254	-0.446882016
## Glycine_HMDB0000123.1	-0.675342201
## Methylsuccinic.acid_HMDB0001844	-0.202411272
## Glyceric.acid_HMDB0000139	0.508077558
## Fumaric.acid_HMDB0000134	-0.322136941
## Uracil_HMDB0000300	-0.196346235
## Pelargonic.acid_HMDB0000847	0.843765069
## L.Serine_HMDB0000187	-0.579764622
## L.Threonine_HMDB0000167	-0.549772537
## Mesaconic.acid_HMDB0000749	0.140691833
## Glutaric.acid_HMDB0000661	0.408347133
## Thymine_HMDB0000262	-0.269819988
## Beta.Alanine_HMDB0000056.1	-0.839299175
## L.Homoserine_HMDB0000719	0.113746216
## Capric.acid_HMDB0000511	0.216719023

## Citramalic.acid_HMDB0000426	-0.268698713
## Malic.acid_HMDB0000744	0.553523823
## Niacinamide_HMDB0001406	-0.498244940
## Adipic.acid_HMDB0000448	-0.360269166
## D.Threitol_HMDB0004136	-0.093306247
## Dihydrouracil_HMDB0000076	-0.082499815
## Erythritol_HMDB0002994	-0.097518206
## N.Acetylserine_HMDB0002931	-0.410961463
## L.Aspartic.acid_HMDB0000191	-0.576337205
## L.Methionine_HMDB0000696	-0.865474364
## X4.Hydroxyproline_HMDB0000725	-0.469865253
## Pyroglutamic.acid_HMDB0000267	-0.527832220
## Cytosine_HMDB0000630	-0.069907845
## Gamma.Aminobutyric.acid_HMDB0000112	-0.139292744
## Threonic.acid_HMDB0000943	0.597871191
## L.Cysteine_HMDB0000574	0.464648768
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.762073495
## Creatinine_HMDB0000562	-0.917086888
## X3.Hydroxyglutaric.acid_HMDB0000428	0.795943162
## Oxoglutaric.acid_HMDB0000208	0.050780972
## Phenylpyruvic.acid_HMDB0000205	0.576798275
## Pimelic.acid_HMDB0000857	-0.403126004
## Phenyllactic.acid_HMDB0000779	0.614827934
## Phosphoenolpyruvic.acid_HMDB0000263	0.930268574
## Ornithine_HMDB0000214	-0.672826064
## Hypotaurine_HMDB0000965	-0.582662357
## Triethanolamine_HMDB0032538	-0.467957182
## X2.Aminobenzoic.acid_HMDB0001123	-0.857526254
## L.Glutamic.acid_HMDB0000148	-0.711907463
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.727192278
## X5.Aminopentanoic.acid_HMDB0003355	0.442205743
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.612433103
## L.Phenylalanine_HMDB0000159	-0.838568204
## Dodecanoic.acid_HMDB0000638	-0.430843013
## Lyxose_HMDB0003402_1	0.809537436
## D.Xylose_HMDB0000098	0.385438097
## Lyxose_HMDB0003402_2	0.234279762
## D.Arabinose_HMDB0029942	0.862881262
## L.Asparagine_HMDB0000168	-0.606045700
## D.Ribulose_HMDB0000621	0.818681653
## D.Ribose_HMDB0000283	0.853999693
## D.Xylulose_HMDB0001644	0.822142177
## X3.Sulfinioalanine_HMDB0000996	-0.475958409
## Suberic.acid_HMDB0000893	-0.132770805
## L.Lysine_HMDB0000182	-0.625486587
## Levoglucosan_HMDB0000640	0.211794872
## D.Arabitool_HMDB0000568	-0.191495733
## Ribitol_HMDB0000508	-0.003453573
## cis.Aconitic.acid_HMDB0000072	0.278874745
## Quinolinic.acid_HMDB0000232	0.291356165
## Putrescine_HMDB0001414	0.219432337
## Glycerol.3.phosphate_HMDB0000126	0.696450312
## Vanillic.acid_HMDB0000484	-0.386351048
## L.Glutamine_HMDB0000641	-0.370394118

## X2.Phosphoglyceric.acid_HMDB0000362	0.392555503
## Azelaic.acid_HMDB0000784	0.203857590
## L.Dihydroorotic.acid_HMDB0003349	0.886213482
## O.Phosphoethanolamine_HMDB0000224	-0.629681804
## X3.Phosphoglyceric.acid_HMDB0000807	0.366715226
## Isocitric.acid_HMDB0000193	-0.023290859
## Hypoxanthine_HMDB0000157	-0.291113244
## Citric.acid_HMDB0000094	0.713204969
## L.Arginine_HMDB0000517	0.295763725
## Ornithine_HMDB0000214.1	-0.782008074
## Dopamine_HMDB0000073	-0.774690950
## Myristic.acid_HMDB0000806	-0.731472409
## X1.5.Anhydrosorbitol_HMDB0002712	0.417465596
## D.Tagatose_HMDB0003418	0.870580576
## Psicose_1	0.169454654
## Sebacic.acid_HMDB0000792	-0.368137284
## D.Fructose_HMDB0000660	0.813585525
## Gluconolactone_HMDB0000150	0.795976331
## L.Sorbose_HMDB0001266	0.797993462
## D.Mannose_HMDB0000169	-0.786670111
## Hydroxyphenyllactic.acid_HMDB0000755	-0.050038076
## D.Glucose_HMDB0000122	-0.733842217
## N.Acetylglutamine_HMDB0006029	-0.757209591
## L.Lysine_HMDB0000182.1	-0.863281502
## D.Mannose_HMDB0000169.1	-0.863270557
## Tyramine_HMDB0000306	-0.864253330
## L.Histidine_HMDB0000177	-0.874213001
## D.Glucose_HMDB0000122.1	-0.768094278
## X1.Hexadecanol_HMDB0003424	0.145332232
## L.Tyrosine_HMDB0000158	-0.761576224
## Mannitol_HMDB0000765	-0.528133054
## Sorbitol_HMDB0000247	0.241060609
## ITSD_Sorbitol	-0.586393487
## Galacturonic.acid_HMDB0002545	0.121700537
## Pantothenic.acid_HMDB0000210	0.257698633
## Palmitoleic.acid_HMDB0003229	-0.714662638
## Xanthine_HMDB0000292	-0.361530105
## Gluconic.acid_HMDB0000625	0.723624433
## Palmitic.acid_HMDB0000220	-0.470917072
## Glucaric.acid_HMDB0000663	-0.565229381
## N.Acetylmannosamine_HMDB0001129	-0.471285030
## N.Acetyl.D.glucosamine_HMDB0000215	-0.712088289
## D.Ribulose.5.phosphate_HMDB0000618	0.887410730
## Uric.acid_HMDB0000289	-0.670037727
## D.Ribose.5.phosphate_HMDB0001548	0.824526426
## myo.Inositol_HMDB0000211	-0.236293088
## D.Ribose.5.phosphate_HMDB0001548.1	0.900639026
## Heptadecanoic.acid_HMDB0002259	0.543239990
## Octadecanol_HMDB0002350	0.344735071
## Glutathione_HMDB0000125	0.203026987
## Linoleic.acid_HMDB0000673	-0.457837354
## Oleic.acid_HMDB0000207	-0.652703046
## Elaidic.acid_HMDB0000573	-0.624988731
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	1.000000000

## Stearic.acid_HMDB0000827	0.011076990
## L.Tryptophan_HMDB0000929	0.032460906
## Fructose.1.phosphate_HMDB0001076	0.852011454
## Mannose.6.phosphate_HMDB0001078	0.520579780
## Arachidonic.acid_HMDB0001043	-0.606137013
## Glucose.6.phosphate_HMDB0001401	0.764312990
## X6.Phosphogluconic.acid_HMDB0001316	0.246741040
## Inositol.phosphate_HMDB0002985	0.161633124
## Uridine_HMDB0000296	-0.172740830
## Stigmasterol_HMDB0000937	-0.207718213
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.168164534
## Sucrose_HMDB0000258	-0.544025876
## MG.18.0e.0.0.0.0._HMDB0011143	0.007693193
## Trehalose_HMDB0000975	0.172463195
## D.Maltose_HMDB0000163	0.170485777
## Lactitol_HMDB0040937	0.138987790
## Xanthylic.acid_HMDB0001554	0.612011242
## Adenosine.monophosphate_HMDB0000045	0.889161679
## Cholesterol_HMDB0000067	-0.086479415
## Lathosterol_HMDB0001170	-0.388086766
## X7b.Hydroxycholesterol_.HMDB0006119	0.720054360
## Stearic.acid_HMDB0000827	
## Dimethylglycine_HMDB0000092	-0.083496344
## Glyoxylic.acid_HMDB0000119	-0.087500934
## Pyruvic.acid_HMDB0000243	0.609666577
## L.Lactic.acid_HMDB0000190	0.293614942
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.725406896
## Glycolic.acid_HMDB0000115	0.463225218
## Caproic.acid_HMDB0000535	0.093353570
## L.Alanine_HMDB0000161	0.042010290
## Alpha.ketoisovaleric.acid_HMDB0000019	0.228154727
## Glycine_HMDB0000123	0.403815708
## Oxalic.acid_HMDB0002329	0.302732599
## Hydroxylamine_HMDB0003338	0.323288942
## X2.Hydroxybutyric.acid_HMDB0000008	0.507070116
## Acetoacetic.acid_HMDB0000060	0.658530313
## Hydroxypropionic.acid_HMDB0000700	0.555315597
## Pyruvic.acid_HMDB0000243.1	0.405604471
## X3.Hydroxybutyric.acid_HMDB0000357	0.738008058
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.632341308
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.511916541
## D.Alpha.aminobutyric.acid_HMDB0000650	0.058195537
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.201842420
## Beta.Alanine_HMDB0000056	0.236750732
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.290309701
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.289800097
## Malonic.acid_HMDB0000691	0.463983703
## X3.Aminoisobutanoic.acid_HMDB0003911	0.062599050
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.524261538
## Ketoleucine_HMDB0000695	0.371227693
## L.Valine_HMDB0000883	0.155935599
## ITSD_Valine	0.270888825
## Urea_HMDB0000294	0.266196119
## Benzoic.acid_HMDB0001870	0.368946769

## Caprylic.acid_HMDB0000482	0.334996527
## Glycerol_HMDB0000131	0.249925965
## Ethanolamine_HMDB0000149	0.038846816
## L.Leucine_HMDB0000687	0.230865136
## Acetylglycine_HMDB0000532	0.501367218
## L.Isoleucine_HMDB0000172	0.186930277
## Nicotinic.acid_HMDB0001488	0.284656964
## Maleic.acid_HMDB0000176	0.628872959
## L.Proline_HMDB0000162	0.178234591
## Phenylacetic.acid_HMDB0000209	0.389703622
## Succinic.acid_HMDB0000254	0.444312397
## Glycine_HMDB0000123.1	0.238827252
## Methylsuccinic.acid_HMDB0001844	0.459760508
## Glyceric.acid_HMDB0000139	0.428044965
## Fumaric.acid_HMDB0000134	0.533070841
## Uracil_HMDB0000300	0.304023480
## Pelargonic.acid_HMDB0000847	0.135050375
## L.Serine_HMDB0000187	0.118269867
## L.Threonine_HMDB0000167	0.131243125
## Mesaconic.acid_HMDB0000749	0.275366243
## Glutaric.acid_HMDB0000661	-0.027143715
## Thymine_HMDB0000262	0.249148434
## Beta.Alanine_HMDB0000056.1	0.124556344
## L.Homoserine_HMDB0000719	0.321524897
## Capric.acid_HMDB0000511	0.416103537
## Citramalic.acid_HMDB0000426	0.202479460
## Malic.acid_HMDB0000744	0.365841125
## Niacinamide_HMDB0001406	0.287868269
## Adipic.acid_HMDB0000448	-0.072290202
## D.Threitol_HMDB0004136	0.521630400
## Dihydrouracil_HMDB0000076	0.233924569
## Erythritol_HMDB0002994	0.572551873
## N.Acetylserine_HMDB0002931	0.103008242
## L.Aspartic.acid_HMDB0000191	0.090662866
## L.Methionine_HMDB0000696	-0.035125002
## X4.Hydroxyproline_HMDB0000725	0.227284004
## Pyroglutamic.acid_HMDB0000267	0.194024542
## Cytosine_HMDB0000630	-0.214923276
## Gamma.Aminobutyric.acid_HMDB0000112	0.403095011
## Threonic.acid_HMDB0000943	0.407555066
## L.Cysteine_HMDB0000574	0.343002705
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.259277285
## Creatinine_HMDB0000562	-0.013809809
## X3.Hydroxyglutaric.acid_HMDB0000428	0.065390463
## Oxoglutaric.acid_HMDB0000208	0.663953968
## Phenylpyruvic.acid_HMDB0000205	0.225957339
## Pimelic.acid_HMDB0000857	0.006643302
## Phenyllactic.acid_HMDB0000779	0.050776717
## Phosphoenolpyruvic.acid_HMDB0000263	-0.262893686
## Ornithine_HMDB0000214	-0.349207804
## Hypotaurine_HMDB0000965	-0.062103812
## Triethanolamine_HMDB0032538	-0.061209919
## X2.Aminobenzoic.acid_HMDB0001123	0.122373165
## L.Glutamic.acid_HMDB0000148	-0.095439842

## X4.Hydroxybenzoic.acid_HMDB0000500	0.148992808
## X5.Aminopentanoic.acid_HMDB0003355	0.291401227
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.322587044
## L.Phenylalanine_HMDB0000159	-0.008077781
## Dodecanoic.acid_HMDB0000638	0.759847389
## Lyxose_HMDB0003402_1	0.046217695
## D.Xylose_HMDB0000098	-0.079776379
## Lyxose_HMDB0003402_2	-0.086865263
## D.Arabinose_HMDB0029942	-0.034078512
## L.Asparagine_HMDB0000168	-0.448217284
## D.Ribulose_HMDB0000621	0.007651123
## D.Ribose_HMDB0000283	-0.046467685
## D.Xylulose_HMDB0001644	-0.007880552
## X3.Sulfinioalanine_HMDB0000996	-0.320256884
## Suberic.acid_HMDB0000893	0.242195952
## L.Lysine_HMDB0000182	-0.394253416
## Levoglucosan_HMDB0000640	-0.146987303
## D.Arabitol_HMDB0000568	0.456813123
## Ribitol_HMDB0000508	0.178975982
## cis.Aconitic.acid_HMDB0000072	0.055946206
## Quinolinic.acid_HMDB0000232	0.173990779
## Putrescine_HMDB0001414	0.411143250
## Glycerol.3.phosphate_HMDB0000126	0.069769142
## Vanillic.acid_HMDB0000484	0.246413557
## L.Glutamine_HMDB0000641	-0.597510436
## X2.Phosphoglyceric.acid_HMDB0000362	0.058005370
## Azelaic.acid_HMDB0000784	-0.002535394
## L.Dihydroorotic.acid_HMDB0003349	0.024738740
## O.Phosphoethanolamine_HMDB0000224	0.625991988
## X3.Phosphoglyceric.acid_HMDB0000807	0.084863397
## Isocitric.acid_HMDB0000193	0.293561128
## Hypoxanthine_HMDB0000157	-0.596305547
## Citric.acid_HMDB0000094	-0.041103809
## L.Arginine_HMDB0000517	-0.303499974
## Ornithine_HMDB0000214.1	-0.133640946
## Dopamine_HMDB0000073	-0.142203389
## Myristic.acid_HMDB0000806	0.485497691
## X1.5.Anhydrosorbitol_HMDB0002712	0.373656943
## D.Tagatose_HMDB0003418	-0.033734573
## Psicose_1	-0.126772921
## Sebacic.acid_HMDB0000792	0.319452641
## D.Fructose_HMDB0000660	0.110748507
## Gluconolactone_HMDB0000150	0.060482972
## L.Sorbose_HMDB0001266	0.090935330
## D.Mannose_HMDB0000169	0.174212373
## Hydroxyphenyllactic.acid_HMDB0000755	0.741375537
## D.Glucose_HMDB0000122	0.117380397
## N.Acetylglutamine_HMDB0006029	0.164401787
## L.Lysine_HMDB0000182.1	-0.109237564
## D.Mannose_HMDB0000169.1	0.021666978
## Tyramine_HMDB0000306	-0.129857268
## L.Histidine_HMDB0000177	-0.087741808
## D.Glucose_HMDB0000122.1	0.137425580
## X1.Hexadecanol_HMDB0003424	0.552476560

## L.Tyrosine_HMDB0000158	-0.284022354
## Mannitol_HMDB0000765	0.233165193
## Sorbitol_HMDB0000247	-0.143980181
## ITSD_Sorbitol	0.425087933
## Galacturonic.acid_HMDB0002545	0.261289761
## Pantothenic.acid_HMDB0000210	0.456226527
## Palmitoleic.acid_HMDB0003229	0.575231282
## Xanthine_HMDB0000292	-0.722845571
## Gluconic.acid_HMDB0000625	-0.141789048
## Palmitic.acid_HMDB0000220	0.849651528
## Glucaric.acid_HMDB0000663	-0.002839886
## N.Acetylmannosamine_HMDB0001129	0.270331821
## N.Acetyl.D.glucosamine_HMDB0000215	0.322504739
## D.Ribulose.5.phosphate_HMDB0000618	0.038636612
## Uric.acid_HMDB0000289	-0.413729768
## D.Ribose.5.phosphate_HMDB0001548	-0.069080374
## myo.Inositol_HMDB0000211	0.546199763
## D.Ribose.5.phosphate_HMDB0001548.1	-0.025601126
## Heptadecanoic.acid_HMDB0002259	0.123149857
## Octadecanol_HMDB0002350	0.825856360
## Glutathione_HMDB0000125	-0.241421689
## Linoleic.acid_HMDB0000673	0.723922135
## Oleic.acid_HMDB0000207	0.561750644
## Elaidic.acid_HMDB0000573	0.638717102
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.011076990
## Stearic.acid_HMDB0000827	1.000000000
## L.Tryptophan_HMDB0000929	0.979933879
## Fructose.1.phosphate_HMDB0001076	0.193294386
## Mannose.6.phosphate_HMDB0001078	-0.040460281
## Arachidonic.acid_HMDB0001043	0.377216764
## Glucose.6.phosphate_HMDB0001401	0.276192275
## X6.Phosphogluconic.acid_HMDB0001316	0.728809345
## Inositol.phosphate_HMDB0002985	0.547974212
## Uridine_HMDB0000296	0.436551735
## Stigmasterol_HMDB0000937	0.827589701
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.507301604
## Sucrose_HMDB0000258	0.450096623
## MG.18.0e.0.0.0.0._HMDB0011143	0.910167598
## Trehalose_HMDB0000975	-0.096118212
## D.Maltose_HMDB0000163	-0.087700505
## Lactitol_HMDB00040937	0.123950049
## Xanthylic.acid_HMDB0001554	-0.554964808
## Adenosine.monophosphate_HMDB0000045	0.135466776
## Cholesterol_HMDB0000067	0.353818160
## Lathosterol_HMDB0001170	0.568799066
## X7b.Hydroxycholesterol_.HMDB0006119	-0.284996192
## L.Tryptophan_HMDB0000929	
## Dimethylglycine_HMDB0000092	-0.1013280339
## Glyoxylic.acid_HMDB0000119	-0.1036385538
## Pyruvic.acid_HMDB0000243	0.6203522674
## L.Lactic.acid_HMDB0000190	0.3065654283
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.6965758392
## Glycolic.acid_HMDB0000115	0.3988281955
## Caproic.acid_HMDB0000535	0.0488087965

## L.Alanine_HMDB0000161	0.0773790859
## Alpha.ketoisovaleric.acid_HMDB0000019	0.2677629299
## Glycine_HMDB0000123	0.4849483153
## Oxalic.acid_HMDB0002329	0.3203549796
## Hydroxylamine_HMDB0003338	0.2716205012
## X2.Hydroxybutyric.acid_HMDB0000008	0.4983167663
## Acetoacetic.acid_HMDB0000060	0.6189552207
## Hydroxypropionic.acid_HMDB0000700	0.4982620681
## Pyruvic.acid_HMDB0000243.1	0.4087741813
## X3.Hydroxybutyric.acid_HMDB0000357	0.7260738229
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.6096042435
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.4615792692
## D.Alpha.aminobutyric.acid_HMDB0000650	0.0492372438
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.1991122866
## Beta.Alanine_HMDB0000056	0.3026347351
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.3747578599
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.3170486131
## Malonic.acid_HMDB0000691	0.4657142731
## X3.Aminoisobutanoic.acid_HMDB0003911	0.0892163006
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.4927174369
## Ketoleucine_HMDB0000695	0.3644556203
## L.Valine_HMDB0000883	0.1550856667
## ITSD_Valine	0.2748574878
## Urea_HMDB0000294	0.3333542392
## Benzoic.acid_HMDB0001870	0.2272106175
## Caprylic.acid_HMDB0000482	0.2722641711
## Glycerol_HMDB0000131	0.2539452504
## Ethanolamine_HMDB0000149	0.0703112247
## L.Leucine_HMDB0000687	0.2244515583
## Acetyl glycine_HMDB0000532	0.4375449627
## L.Isoleucine_HMDB0000172	0.2035790070
## Nicotinic.acid_HMDB0001488	0.3001572944
## Maleic.acid_HMDB0000176	0.6074506204
## L.Proline_HMDB0000162	0.1804505673
## Phenylacetic.acid_HMDB0000209	0.3677295890
## Succinic.acid_HMDB0000254	0.4148150445
## Glycine_HMDB0000123.1	0.2283563255
## Methylsuccinic.acid_HMDB0001844	0.3925560923
## Glyceric.acid_HMDB0000139	0.3703854274
## Fumaric.acid_HMDB0000134	0.5662312952
## Uracil_HMDB0000300	0.3051809047
## Pelargonic.acid_HMDB0000847	0.0939975106
## L.Serine_HMDB0000187	0.1039926562
## L.Threonine_HMDB0000167	0.1589920753
## Mesaconic.acid_HMDB0000749	0.2749088671
## Glutaric.acid_HMDB0000661	-0.0108925462
## Thymine_HMDB0000262	0.2909576314
## Beta.Alanine_HMDB0000056.1	0.1321340119
## L.Homoserine_HMDB0000719	0.2352558059
## Capric.acid_HMDB0000511	0.3240685767
## Citramalic.acid_HMDB0000426	0.2501315060
## Malic.acid_HMDB0000744	0.3365896849
## Niacinamide_HMDB0001406	0.3365002416
## Adipic.acid_HMDB0000448	-0.0391031316

## D.Threitol_HMDB0004136	0.4902148398
## Dihydrouracil_HMDB0000076	0.2539926612
## Erythritol_HMDB0002994	0.5903072380
## N.Acetylserine_HMDB0002931	0.1208260193
## L.Aspartic.acid_HMDB0000191	0.0877485956
## L.Methionine_HMDB0000696	-0.0098385168
## X4.Hydroxyproline_HMDB0000725	0.2530241725
## Pyroglutamic.acid_HMDB0000267	0.2077334036
## Cytosine_HMDB0000630	-0.1625116649
## Gamma.Aminobutyric.acid_HMDB0000112	0.4505535092
## Threonic.acid_HMDB0000943	0.3876864910
## L.Cysteine_HMDB0000574	0.3213612835
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.2230744756
## Creatinine_HMDB0000562	-0.0218917311
## X3.Hydroxyglutaric.acid_HMDB0000428	0.0804949358
## Oxoglutaric.acid_HMDB0000208	0.6283462226
## Phenylpyruvic.acid_HMDB0000205	0.2063713597
## Pimelic.acid_HMDB0000857	0.0203252313
## Phenyllactic.acid_HMDB0000779	0.0338057485
## Phosphoenolpyruvic.acid_HMDB0000263	-0.2450265505
## Ornithine_HMDB0000214	-0.3129429454
## Hypotaurine_HMDB0000965	-0.0239532564
## Triethanolamine_HMDB0032538	0.0048764583
## X2.Aminobenzoic.acid_HMDB0001123	0.1228387561
## L.Glutamic.acid_HMDB0000148	-0.0580214241
## X4.Hydroxybenzoic.acid_HMDB0000500	0.1511002920
## X5.Aminopentanoic.acid_HMDB0003355	0.3413139522
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.2758917058
## L.Phenylalanine_HMDB0000159	0.0165648568
## Dodecanoic.acid_HMDB0000638	0.7334502300
## Lyxose_HMDB0003402_1	0.0017485694
## D.Xylose_HMDB0000098	-0.0725616713
## Lyxose_HMDB0003402_2	-0.0620982235
## D.Arabinose_HMDB0029942	-0.0523199532
## L.Asparagine_HMDB0000168	-0.4178772639
## D.Ribulose_HMDB0000621	-0.0087965001
## D.Ribose_HMDB0000283	-0.0554929190
## D.Xylulose_HMDB0001644	-0.0146415642
## X3.Sulfinioalanine_HMDB0000996	-0.3182868669
## Suberic.acid_HMDB0000893	0.2996711421
## L.Lysine_HMDB0000182	-0.3687681904
## Levoglucosan_HMDB0000640	-0.1294585845
## D.Arabitol_HMDB0000568	0.5074034334
## Ribitol_HMDB0000508	0.0763745861
## cis.Aconitic.acid_HMDB0000072	0.0821265466
## Quinolinic.acid_HMDB0000232	0.1906732925
## Putrescine_HMDB0001414	0.4066914134
## Glycerol.3.phosphate_HMDB0000126	0.0634044692
## Vanillic.acid_HMDB0000484	0.2675185429
## L.Glutamine_HMDB0000641	-0.5717812595
## X2.Phosphoglyceric.acid_HMDB0000362	0.1018875092
## Azelaic.acid_HMDB0000784	0.0427341904
## L.Dihydroorotic.acid_HMDB0003349	0.0005894237
## O.Phosphoethanolamine_HMDB0000224	0.5706306602

## X3.Phosphoglyceric.acid_HMDB0000807	0.1323629650
## Isocitric.acid_HMDB0000193	0.2726255267
## Hypoxanthine_HMDB0000157	-0.6009745620
## Citric.acid_HMDB0000094	-0.0582256106
## L.Arginine_HMDB0000517	-0.3606489690
## Ornithine_HMDB0000214.1	-0.1002963916
## Dopamine_HMDB0000073	-0.1153574105
## Myristic.acid_HMDB0000806	0.4626490737
## X1.5.Anhydrosorbitol_HMDB0002712	0.3972465351
## D.Tagatose_HMDB0003418	-0.0594187799
## Psicose_1	-0.1113549995
## Sebacic.acid_HMDB0000792	0.3394001280
## D.Fructose_HMDB0000660	0.1005528403
## Gluconolactone_HMDB0000150	0.0243730184
## L.Sorbose_HMDB0001266	0.0800694671
## D.Mannose_HMDB0000169	0.2100790510
## Hydroxyphenyllactic.acid_HMDB0000755	0.7419968215
## D.Glucose_HMDB0000122	0.1664983813
## N.Acetylglutamine_HMDB0006029	0.2070359061
## L.Lysine_HMDB0000182.1	-0.0911167424
## D.Mannose_HMDB0000169.1	0.0478181964
## Tyramine_HMDB0000306	-0.1136560001
## L.Histidine_HMDB0000177	-0.0692766479
## D.Glucose_HMDB0000122.1	0.1816707530
## X1.Hexadecanol_HMDB0003424	0.4776019558
## L.Tyrosine_HMDB0000158	-0.2514009359
## Mannitol_HMDB0000765	0.2501974989
## Sorbitol_HMDB0000247	-0.1722118633
## ITSD_Sorbitol	0.4076967798
## Galacturonic.acid_HMDB0002545	0.2658910339
## Pantothenic.acid_HMDB0000210	0.4669858831
## Palmitoleic.acid_HMDB0003229	0.5243166668
## Xanthine_HMDB0000292	-0.7012331616
## Gluconic.acid_HMDB0000625	-0.1283854305
## Palmitic.acid_HMDB0000220	0.8235306157
## Glucaric.acid_HMDB0000663	-0.0100230375
## N.Acetylmannosamine_HMDB0001129	0.2971204409
## N.Acetyl.D.glucosamine_HMDB0000215	0.3237152491
## D.Ribulose.5.phosphate_HMDB0000618	0.0464519895
## Uric.acid_HMDB0000289	-0.4100207238
## D.Ribose.5.phosphate_HMDB0001548	-0.0550601086
## myo.Inositol_HMDB0000211	0.5390722453
## D.Ribose.5.phosphate_HMDB0001548.1	-0.0182021234
## Heptadecanoic.acid_HMDB0002259	0.0729067138
## Octadecanol_HMDB0002350	0.7693089758
## Glutathione_HMDB0000125	-0.2068682173
## Linoleic.acid_HMDB0000673	0.6655088053
## Oleic.acid_HMDB0000207	0.5033723106
## Elaidic.acid_HMDB0000573	0.5899140136
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.0324609058
## Stearic.acid_HMDB0000827	0.9799338787
## L.Tryptophan_HMDB0000929	1.0000000000
## Fructose.1.phosphate_HMDB0001076	0.1717540973
## Mannose.6.phosphate_HMDB0001078	-0.0255458803

## Arachidonic.acid_HMDB0001043	0.3228175830
## Glucose.6.phosphate_HMDB0001401	0.2435386789
## X6.Phosphogluconic.acid_HMDB0001316	0.6568492149
## Inositol.phosphate_HMDB0002985	0.5070832142
## Uridine_HMDB0000296	0.3403876191
## Stigmasterol_HMDB0000937	0.8265860782
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.4645085474
## Sucrose_HMDB0000258	0.4195861492
## MG.18.0e.0.0.0.0._HMDB0011143	0.8735973474
## Trehalose_HMDB0000975	-0.0373881303
## D.Maltose_HMDB0000163	-0.0294339459
## Lactitol_HMDB00040937	0.1728658138
## Xanthylic.acid_HMDB0001554	-0.5464364687
## Adenosine.monophosphate_HMDB0000045	0.1396059944
## Cholesterol_HMDB0000067	0.3329002639
## Lathosterol_HMDB0001170	0.5422514050
## X7b.Hydroxycholesterol_.HMDB0006119	-0.2597468388
## Fructose.1.phosphate_HMDB0001076	
## Dimethylglycine_HMDB0000092	0.821053349
## Glyoxylic.acid_HMDB0000119	0.823914330
## Pyruvic.acid_HMDB0000243	-0.091886016
## L.Lactic.acid_HMDB0000190	-0.400453021
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.166623243
## Glycolic.acid_HMDB0000115	0.443727496
## Caproic.acid_HMDB0000535	0.906042092
## L.Alanine_HMDB0000161	-0.454097656
## Alpha.ketoisovaleric.acid_HMDB0000019	0.128534242
## Glycine_HMDB0000123	-0.284943500
## Oxalic.acid_HMDB0002329	0.567657658
## Hydroxylamine_HMDB0003338	-0.065074530
## X2.Hydroxybutyric.acid_HMDB0000008	0.394040452
## Acetoacetic.acid_HMDB0000060	0.402408885
## Hydroxypropionic.acid_HMDB0000700	-0.268362819
## Pyruvic.acid_HMDB0000243.1	-0.127616204
## X3.Hydroxybutyric.acid_HMDB0000357	0.330809869
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.341820771
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.481633997
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.522609600
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.427444521
## Beta.Alanine_HMDB0000056	-0.521363126
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.140402917
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.001583213
## Malonic.acid_HMDB0000691	0.014510709
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.800682037
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.239273657
## Ketoleucine_HMDB0000695	0.518754371
## L.Valine_HMDB0000883	-0.438419998
## ITSD_Valine	-0.523080914
## Urea_HMDB0000294	-0.204084180
## Benzoic.acid_HMDB0001870	0.342301437
## Caprylic.acid_HMDB0000482	0.868424532
## Glycerol_HMDB0000131	-0.561269533
## Ethanolamine_HMDB0000149	-0.490725006
## L.Leucine_HMDB0000687	-0.484327199

## Acetylglycine_HMDB0000532	0.408377437
## L.Isoleucine_HMDB0000172	-0.499734591
## Nicotinic.acid_HMDB0001488	0.501196287
## Maleic.acid_HMDB0000176	0.628230518
## L.Proline_HMDB0000162	-0.195354876
## Phenylacetic.acid_HMDB0000209	0.754579290
## Succinic.acid_HMDB0000254	-0.127659635
## Glycine_HMDB0000123.1	-0.483252383
## Methylsuccinic.acid_HMDB0001844	0.169341674
## Glyceric.acid_HMDB0000139	0.500826180
## Fumaric.acid_HMDB0000134	-0.126142622
## Uracil_HMDB0000300	-0.049389266
## Pelargonic.acid_HMDB0000847	0.896163061
## L.Serine_HMDB0000187	-0.397000672
## L.Threonine_HMDB0000167	-0.387740426
## Mesaconic.acid_HMDB0000749	0.324986271
## Glutaric.acid_HMDB0000661	0.599094338
## Thymine_HMDB0000262	-0.132155937
## Beta.Alanine_HMDB0000056.1	-0.689455119
## L.Homoserine_HMDB0000719	0.192177247
## Capric.acid_HMDB0000511	0.335102292
## Citramalic.acid_HMDB0000426	-0.026746980
## Malic.acid_HMDB0000744	0.657651514
## Niacinamide_HMDB0001406	-0.316651951
## Adipic.acid_HMDB0000448	-0.241786127
## D.Threitol_HMDB0004136	0.073746901
## Dihydrouracil_HMDB0000076	0.140313159
## Erythritol_HMDB0002994	0.098893032
## N.Acetylserine_HMDB0002931	-0.265709756
## L.Aspartic.acid_HMDB0000191	-0.397929174
## L.Methionine_HMDB0000696	-0.782340822
## X4.Hydroxyproline_HMDB0000725	-0.276347964
## Pyroglutamic.acid_HMDB0000267	-0.345349492
## Cytosine_HMDB0000630	-0.053038792
## Gamma.Aminobutyric.acid_HMDB0000112	0.055811181
## Threonic.acid_HMDB0000943	0.637453225
## L.Cysteine_HMDB0000574	0.491495073
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.881145824
## Creatinine_HMDB0000562	-0.793477425
## X3.Hydroxyglutaric.acid_HMDB0000428	0.779575751
## Oxoglutaric.acid_HMDB0000208	0.268032031
## Phenylpyruvic.acid_HMDB0000205	0.426268027
## Pimelic.acid_HMDB0000857	-0.295489461
## Phenyllactic.acid_HMDB0000779	0.622237274
## Phosphoenolpyruvic.acid_HMDB0000263	0.767148408
## Ornithine_HMDB0000214	-0.573891284
## Hypotaurine_HMDB0000965	-0.438803105
## Triethanolamine_HMDB0032538	-0.398471954
## X2.Aminobenzoic.acid_HMDB0001123	-0.740631401
## L.Glutamic.acid_HMDB0000148	-0.606217444
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.547443525
## X5.Aminopentanoic.acid_HMDB0003355	0.370134467
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.569650587
## L.Phenylalanine_HMDB0000159	-0.723324314

## Dodecanoic.acid_HMDB0000638	-0.237012327
## Lyxose_HMDB0003402_1	0.843001431
## D.Xylose_HMDB0000098	0.077364266
## Lyxose_HMDB0003402_2	-0.010786161
## D.Arabinose_HMDB0029942	0.840463406
## L.Asparagine_HMDB0000168	-0.591732633
## D.Ribulose_HMDB0000621	0.627750075
## D.Ribose_HMDB0000283	0.828183514
## D.Xylulose_HMDB0001644	0.605613538
## X3.Sulfinioalanine_HMDB0000996	-0.453459552
## Suberic.acid_HMDB0000893	0.030247290
## L.Lysine_HMDB0000182	-0.574850399
## Levoglucosan_HMDB0000640	-0.094391064
## D.Arabitol_HMDB0000568	-0.050822813
## Ribitol_HMDB0000508	0.131101663
## cis.Aconitic.acid_HMDB0000072	-0.026694249
## Quinolinic.acid_HMDB0000232	0.349368372
## Putrescine_HMDB0001414	0.351128706
## Glycerol.3.phosphate_HMDB0000126	0.687490249
## Vanillic.acid_HMDB0000484	-0.320350094
## L.Glutamine_HMDB0000641	-0.449979881
## X2.Phosphoglyceric.acid_HMDB0000362	0.362060138
## Azelaic.acid_HMDB0000784	0.318614797
## L.Dihydroorotic.acid_HMDB0003349	0.861769801
## O.Phosphoethanolamine_HMDB0000224	-0.399698136
## X3.Phosphoglyceric.acid_HMDB0000807	0.364996353
## Isocitric.acid_HMDB0000193	0.249637599
## Hypoxanthine_HMDB0000157	-0.453753049
## Citric.acid_HMDB0000094	0.670873132
## L.Arginine_HMDB0000517	0.295663452
## Ornithine_HMDB0000214.1	-0.706980866
## Dopamine_HMDB0000073	-0.692927546
## Myristic.acid_HMDB0000806	-0.551719430
## X1.5.Anhydrosorbitol_HMDB0002712	0.435414778
## D.Tagatose_HMDB0003418	0.890546610
## Psicose_1	-0.191689307
## Sebacic.acid_HMDB0000792	-0.170856330
## D.Fructose_HMDB0000660	0.824620687
## Gluconolactone_HMDB0000150	0.735102758
## L.Sorbose_HMDB0001266	0.809718953
## D.Mannose_HMDB0000169	-0.786705953
## Hydroxyphenyllactic.acid_HMDB0000755	0.111957001
## D.Glucose_HMDB0000122	-0.783880233
## N.Acetylglutamine_HMDB0006029	-0.772768281
## L.Lysine_HMDB0000182.1	-0.785481930
## D.Mannose_HMDB0000169.1	-0.853584371
## Tyramine_HMDB0000306	-0.792530712
## L.Histidine_HMDB0000177	-0.800848073
## D.Glucose_HMDB0000122.1	-0.764628795
## X1.Hexadecanol_HMDB0003424	0.181005404
## L.Tyrosine_HMDB0000158	-0.728095318
## Mannitol_HMDB0000765	-0.443558468
## Sorbitol_HMDB0000247	0.254558069
## ITSD_Sorbitol	-0.482424643

## Galacturonic.acid_HMDB0002545	0.083277993
## Pantothenic.acid_HMDB0000210	0.337879950
## Palmitoleic.acid_HMDB0003229	-0.527678879
## Xanthine_HMDB0000292	-0.447342713
## Gluconic.acid_HMDB0000625	0.622197241
## Palmitic.acid_HMDB0000220	-0.295712553
## Glucaric.acid_HMDB0000663	-0.606605607
## N.Acetylmannosamine_HMDB0001129	-0.427405682
## N.Acetyl.D.glucosamine_HMDB0000215	-0.648587134
## D.Ribulose.5.phosphate_HMDB0000618	0.825939090
## Uric.acid_HMDB0000289	-0.714291333
## D.Ribose.5.phosphate_HMDB0001548	0.757743996
## myo.Inositol_HMDB0000211	0.041050220
## D.Ribose.5.phosphate_HMDB0001548.1	0.801174937
## Heptadecanoic.acid_HMDB0002259	0.663852910
## Octadecanol_HMDB0002350	0.519826661
## Glutathione_HMDB0000125	0.160442116
## Linoleic.acid_HMDB0000673	-0.305319649
## Oleic.acid_HMDB0000207	-0.492574811
## Elaidic.acid_HMDB0000573	-0.432116105
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.852011454
## Stearic.acid_HMDB0000827	0.193294386
## L.Tryptophan_HMDB0000929	0.171754097
## Fructose.1.phosphate_HMDB0001076	1.000000000
## Mannose.6.phosphate_HMDB0001078	0.344743336
## Arachidonic.acid_HMDB0001043	-0.502783728
## Glucose.6.phosphate_HMDB0001401	0.899111585
## X6.Phosphogluconic.acid_HMDB0001316	0.333010991
## Inositol.phosphate_HMDB0002985	0.215300460
## Uridine_HMDB0000296	0.028799191
## Stigmasterol_HMDB0000937	-0.011700249
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.191141979
## Sucrose_HMDB0000258	-0.398388544
## MG.18.0e.0.0.0.0._HMDB0011143	0.204740052
## Trehalose_HMDB0000975	0.169072285
## D.Maltose_HMDB0000163	0.169019620
## Lactitol_HMDB0040937	0.255650654
## Xanthylic.acid_HMDB0001554	0.378970778
## Adenosine.monophosphate_HMDB0000045	0.840577446
## Cholesterol_HMDB0000067	-0.121602512
## Lathosterol_HMDB0001170	-0.363058448
## X7b.Hydroxycholesterol_.HMDB0006119	0.682583058
## Mannose.6.phosphate_HMDB0001078	
## Dimethylglycine_HMDB0000092	0.3675461256
## Glyoxylic.acid_HMDB0000119	0.3718284574
## Pyruvic.acid_HMDB0000243	-0.4474903650
## L.Lactic.acid_HMDB0000190	-0.5220312544
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.3881392558
## Glycolic.acid_HMDB0000115	-0.1343969978
## Caproic.acid_HMDB0000535	0.2668441308
## L.Alanine_HMDB0000161	-0.4888631914
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.1505812979
## Glycine_HMDB0000123	-0.2669200450
## Oxalic.acid_HMDB0002329	-0.0061802237

## Hydroxylamine_HMDB0003338	-0.5639826779
## X2.Hydroxybutyric.acid_HMDB0000008	-0.1963492127
## Acetoacetic.acid_HMDB0000060	-0.3840320422
## Hydroxypropionic.acid_HMDB0000700	-0.5781534587
## Pyruvic.acid_HMDB0000243.1	-0.4988945671
## X3.Hydroxybutyric.acid_HMDB0000357	-0.2507424216
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.3065222565
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.0900898901
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.6526584878
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.0965815866
## Beta.Alanine_HMDB0000056	-0.2186301075
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.0960315885
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.2857020572
## Malonic.acid_HMDB0000691	-0.3124567805
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.4249500794
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.5386983271
## Ketoleucine_HMDB0000695	-0.0383453773
## L.Valine_HMDB0000883	-0.6084422661
## ITSD_Valine	-0.6582951037
## Urea_HMDB0000294	-0.3669952290
## Benzoic.acid_HMDB0001870	0.2144254476
## Caprylic.acid_HMDB0000482	0.3360992982
## Glycerol_HMDB0000131	-0.4949799137
## Ethanolamine_HMDB0000149	-0.5588388544
## L.Leucine_HMDB0000687	-0.5460148718
## Acetyl glycine_HMDB0000532	-0.2775956043
## L.Isoleucine_HMDB0000172	-0.5154554133
## Nicotinic.acid_HMDB0001488	0.5722817959
## Maleic.acid_HMDB0000176	-0.1626682397
## L.Proline_HMDB0000162	-0.4850196028
## Phenylacetic.acid_HMDB0000209	0.0122743734
## Succinic.acid_HMDB0000254	-0.6491121787
## Glycine_HMDB0000123.1	-0.5874999466
## Methylsuccinic.acid_HMDB0001844	-0.3782292522
## Glyceric.acid_HMDB0000139	-0.0537655550
## Fumaric.acid_HMDB0000134	-0.4327853440
## Uracil_HMDB0000300	-0.3631353238
## Pelargonic.acid_HMDB0000847	0.4371015986
## L.Serine_HMDB0000187	-0.3750050511
## L.Threonine_HMDB0000167	-0.4961147487
## Mesaconic.acid_HMDB0000749	0.2145849497
## Glutaric.acid_HMDB0000661	0.1037806679
## Thymine_HMDB0000262	-0.4878611667
## Beta.Alanine_HMDB0000056.1	-0.5047346933
## L.Homoserine_HMDB0000719	0.0767608007
## Capric.acid_HMDB0000511	0.0798132399
## Citramalic.acid_HMDB0000426	-0.1765668503
## Malic.acid_HMDB0000744	-0.1417370012
## Niacinamide_HMDB0001406	-0.3239698265
## Adipic.acid_HMDB0000448	-0.1777134250
## D.Threitol_HMDB0004136	0.0561825265
## Dihydrouracil_HMDB0000076	-0.3691856794
## Erythritol_HMDB0002994	-0.4036086537
## N.Acetylserine_HMDB0002931	-0.4279073699

## L.Aspartic.acid_HMDB0000191	-0.3720240832
## L.Methionine_HMDB0000696	-0.4626187749
## X4.Hydroxyproline_HMDB0000725	-0.3715462840
## Pyroglutamic.acid_HMDB0000267	-0.2499787030
## Cytosine_HMDB0000630	-0.0195666246
## Gamma.Aminobutyric.acid_HMDB0000112	0.0580012256
## Threonic.acid_HMDB0000943	0.0010987235
## L.Cysteine_HMDB0000574	-0.0933924857
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.1477207453
## Creatinine_HMDB0000562	-0.5439436118
## X3.Hydroxyglutaric.acid_HMDB0000428	0.5204559436
## Oxoglutaric.acid_HMDB0000208	-0.0048860408
## Phenylpyruvic.acid_HMDB0000205	0.7161518807
## Pimelic.acid_HMDB0000857	-0.2083191476
## Phenyllactic.acid_HMDB0000779	0.5035501758
## Phosphoenolpyruvic.acid_HMDB0000263	0.5741274926
## Ornithine_HMDB0000214	-0.2999009242
## Hypotaurine_HMDB0000965	-0.5264482397
## Triethanolamine_HMDB0032538	-0.4441655508
## X2.Aminobenzoic.acid_HMDB0001123	-0.5994626999
## L.Glutamic.acid_HMDB0000148	-0.2452085752
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.6194031462
## X5.Aminopentanoic.acid_HMDB0003355	-0.0910482186
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.1913119747
## L.Phenylalanine_HMDB0000159	-0.4988900728
## Dodecanoic.acid_HMDB0000638	-0.3970538794
## Lyxose_HMDB0003402_1	0.2640720369
## D.Xylose_HMDB0000098	0.5104961666
## Lyxose_HMDB0003402_2	0.3866976948
## D.Arabinose_HMDB0029942	0.2609816037
## L.Asparagine_HMDB0000168	-0.1314569193
## D.Ribulose_HMDB0000621	0.3331804715
## D.Ribose_HMDB0000283	0.2438571176
## D.Xylulose_HMDB0001644	0.3467794652
## X3.Sulfinoalanine_HMDB0000996	0.2148706698
## Suberic.acid_HMDB0000893	-0.0234117186
## L.Lysine_HMDB0000182	-0.1288072496
## Levoglucosan_HMDB0000640	0.3862669219
## D.Arabitool_HMDB0000568	0.0112035124
## Ribitol_HMDB0000508	-0.0190508712
## cis.Aconitic.acid_HMDB0000072	0.4995246908
## Quinolinic.acid_HMDB0000232	0.3782077292
## Putrescine_HMDB0001414	0.1393983909
## Glycerol.3.phosphate_HMDB0000126	0.7271559806
## Vanillic.acid_HMDB0000484	-0.4350247448
## L.Glutamine_HMDB0000641	-0.0009279813
## X2.Phosphoglyceric.acid_HMDB0000362	0.0068794720
## Azelaic.acid_HMDB0000784	0.5369952933
## L.Dihydroorotic.acid_HMDB0003349	0.2707742663
## O.Phosphoethanolamine_HMDB0000224	-0.2455367016
## X3.Phosphoglyceric.acid_HMDB0000807	-0.0167170504
## Isocitric.acid_HMDB0000193	-0.1977242867
## Hypoxanthine_HMDB0000157	0.2621411883
## Citric.acid_HMDB0000094	0.2328473459

## L.Arginine_HMDB0000517	0.0761592603
## Ornithine_HMDB0000214.1	-0.4853112424
## Dopamine_HMDB0000073	-0.4890826938
## Myristic.acid_HMDB0000806	-0.4798842490
## X1.5.Anhydrosorbitol_HMDB0002712	0.0143529934
## D.Tagatose_HMDB0003418	0.3292581138
## Psicose_1	0.2956694682
## Sebacic.acid_HMDB0000792	-0.5051005709
## D.Fructose_HMDB0000660	0.2307272291
## Gluconolactone_HMDB0000150	0.2162128290
## L.Sorbose_HMDB0001266	0.2274736076
## D.Mannose_HMDB0000169	-0.3639041201
## Hydroxyphenyllactic.acid_HMDB0000755	-0.4205799371
## D.Glucose_HMDB0000122	-0.2321678708
## N.Acetylglutamine_HMDB0006029	-0.3381164184
## L.Lysine_HMDB0000182.1	-0.4410576957
## D.Mannose_HMDB0000169.1	-0.4105662144
## Tyramine_HMDB0000306	-0.4389208139
## L.Histidine_HMDB0000177	-0.4225002692
## D.Glucose_HMDB0000122.1	-0.2553866148
## X1.Hexadecanol_HMDB0003424	0.2083793119
## L.Tyrosine_HMDB0000158	-0.3210223603
## Mannitol_HMDB0000765	-0.3462006869
## Sorbitol_HMDB0000247	0.2854339928
## ITSD_Sorbitol	-0.6029307800
## Galacturonic.acid_HMDB0002545	-0.2160775997
## Pantothenic.acid_HMDB0000210	-0.2473151662
## Palmitoleic.acid_HMDB0003229	-0.3643306965
## Xanthine_HMDB0000292	-0.1305171318
## Gluconic.acid_HMDB0000625	0.1437322778
## Palmitic.acid_HMDB0000220	-0.3051953156
## Glucaric.acid_HMDB0000663	-0.4818885011
## N.Acetylmannosamine_HMDB0001129	-0.1917555495
## N.Acetyl.D.glucosamine_HMDB0000215	-0.4657309521
## D.Ribulose.5.phosphate_HMDB0000618	0.4545182774
## Uric.acid_HMDB0000289	-0.1243603885
## D.Ribose.5.phosphate_HMDB0001548	0.4580593003
## myo.Inositol_HMDB0000211	-0.0800434822
## D.Ribose.5.phosphate_HMDB0001548.1	0.4450699325
## Heptadecanoic.acid_HMDB0002259	0.0795910186
## Octadecanol_HMDB0002350	0.0163501014
## Glutathione_HMDB0000125	0.4855230025
## Linoleic.acid_HMDB0000673	-0.2067661656
## Oleic.acid_HMDB0000207	-0.2895128895
## Elaidic.acid_HMDB0000573	-0.3349715916
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.5205797801
## Stearic.acid_HMDB0000827	-0.0404602809
## L.Tryptophan_HMDB0000929	-0.0255458803
## Fructose.1.phosphate_HMDB0001076	0.3447433365
## Mannose.6.phosphate_HMDB0001078	1.0000000000
## Arachidonic.acid_HMDB0001043	-0.1682912672
## Glucose.6.phosphate_HMDB0001401	0.1950860929
## X6.Phosphogluconic.acid_HMDB0001316	0.1735169928
## Inositol.phosphate_HMDB0002985	-0.0054286850

## Uridine_HMDB0000296	-0.4984895400
## Stigmasterol_HMDB0000937	-0.3594543506
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.2306143521
## Sucrose_HMDB0000258	-0.0157695117
## MG.18.0e.0.0.0.0._HMDB0011143	-0.1415421782
## Trehalose_HMDB0000975	0.6628775654
## D.Maltose_HMDB0000163	0.6623237220
## Lactitol_HMDB0040937	-0.0388090547
## Xanthylic.acid_HMDB0001554	0.6255601810
## Adenosine.monophosphate_HMDB0000045	0.4930917378
## Cholesterol_HMDB0000067	0.0180996869
## Lathosterol_HMDB0001170	-0.1063578514
## X7b.Hydroxycholesterol_.HMDB0006119	0.1884663920
##	Arachidonic.acid_HMDB0001043
## Dimethylglycine_HMDB0000092	-0.524569572
## Glyoxylic.acid_HMDB0000119	-0.534128940
## Pyruvic.acid_HMDB0000243	0.081774448
## L.Lactic.acid_HMDB0000190	0.050293536
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.101259215
## Glycolic.acid_HMDB0000115	0.089474212
## Caproic.acid_HMDB0000535	-0.532422931
## L.Alanine_HMDB0000161	-0.051956687
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.518376304
## Glycine_HMDB0000123	-0.067407221
## Oxalic.acid_HMDB0002329	-0.100288718
## Hydroxylamine_HMDB0003338	0.068216733
## X2.Hydroxybutyric.acid_HMDB0000008	-0.138370458
## Acetoacetic.acid_HMDB0000060	0.045091469
## Hydroxypropionic.acid_HMDB0000700	0.409920714
## Pyruvic.acid_HMDB0000243.1	-0.068021652
## X3.Hydroxybutyric.acid_HMDB0000357	0.017743978
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.047530558
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.007400341
## D.Alpha.aminobutyric.acid_HMDB0000650	0.214475149
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.288605417
## Beta.Alanine_HMDB0000056	0.330749392
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.336769962
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.233654461
## Malonic.acid_HMDB0000691	-0.048521928
## X3.Aminoisobutanoic.acid_HMDB0003911	0.430845018
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.310593195
## Ketoleucine_HMDB0000695	-0.511231459
## L.Valine_HMDB0000883	0.150362021
## ITSD_Valine	0.338854729
## Urea_HMDB0000294	-0.201111777
## Benzoic.acid_HMDB0001870	0.263928326
## Caprylic.acid_HMDB0000482	-0.363060623
## Glycerol_HMDB0000131	0.241106575
## Ethanolamine_HMDB0000149	-0.033442693
## L.Leucine_HMDB0000687	0.238936351
## Acetyl glycine_HMDB0000532	0.046401616
## L.Isoleucine_HMDB0000172	0.113547551
## Nicotinic.acid_HMDB0001488	-0.281009308
## Maleic.acid_HMDB0000176	-0.213976326

## L.Proline_HMDB0000162	-0.034291259
## Phenylacetic.acid_HMDB0000209	-0.389613317
## Succinic.acid_HMDB0000254	0.091712826
## Glycine_HMDB0000123.1	0.141279215
## Methylsuccinic.acid_HMDB0001844	0.394068716
## Glyceric.acid_HMDB0000139	-0.143050096
## Fumaric.acid_HMDB0000134	-0.019647422
## Uracil_HMDB0000300	-0.329161623
## Pelargonic.acid_HMDB0000847	-0.442059467
## L.Serine_HMDB0000187	-0.038783322
## L.Threonine_HMDB0000167	-0.088742899
## Mesaconic.acid_HMDB0000749	-0.099832126
## Glutaric.acid_HMDB0000661	-0.759008389
## Thymine_HMDB0000262	-0.159254763
## Beta.Alanine_HMDB0000056.1	0.371500674
## L.Homoserine_HMDB0000719	0.336158128
## Capric.acid_HMDB0000511	0.338362343
## Citramalic.acid_HMDB0000426	-0.226996138
## Malic.acid_HMDB0000744	-0.416905447
## Niacinamide_HMDB0001406	0.023425699
## Adipic.acid_HMDB0000448	-0.231618577
## D.Threitol_HMDB0004136	0.042149889
## Dihydrouracil_HMDB0000076	-0.271652994
## Erythritol_HMDB0002994	0.021415890
## N.Acetylserine_HMDB0002931	-0.247317320
## L.Aspartic.acid_HMDB0000191	-0.027050575
## L.Methionine_HMDB0000696	0.302319813
## X4.Hydroxyproline_HMDB0000725	-0.081921649
## Pyroglutamic.acid_HMDB0000267	-0.051283233
## Cytosine_HMDB0000630	-0.137296499
## Gamma.Aminobutyric.acid_HMDB0000112	-0.154661446
## Threonic.acid_HMDB0000943	-0.264688407
## L.Cysteine_HMDB0000574	-0.226905120
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.489858663
## Creatinine_HMDB0000562	0.573478248
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.477700629
## Oxoglutaric.acid_HMDB0000208	0.024586514
## Phenylpyruvic.acid_HMDB0000205	-0.207390113
## Pimelic.acid_HMDB0000857	-0.135508052
## Phenyllactic.acid_HMDB0000779	-0.503582765
## Phosphoenolpyruvic.acid_HMDB0000263	-0.649990537
## Ornithine_HMDB0000214	0.066072294
## Hypotaurine_HMDB0000965	-0.119124071
## Triethanolamine_HMDB0032538	-0.289334873
## X2.Aminobenzoic.acid_HMDB0001123	0.343320720
## L.Glutamic.acid_HMDB0000148	0.196416053
## X4.Hydroxybenzoic.acid_HMDB0000500	0.169588773
## X5.Aminopentanoic.acid_HMDB0003355	-0.642463070
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.252321864
## L.Phenylalanine_HMDB0000159	0.287657742
## Dodecanoic.acid_HMDB0000638	0.675009389
## Lyxose_HMDB0003402_1	-0.412685767
## D.Xylose_HMDB0000098	-0.173693997
## Lyxose_HMDB0003402_2	-0.175553079

## D.Arabinose_HMDB0029942	-0.478575366
## L.Asparagine_HMDB0000168	0.184730807
## D.Ribulose_HMDB0000621	-0.455698100
## D.Ribose_HMDB0000283	-0.473366253
## D.Xylulose_HMDB0001644	-0.463513903
## X3.Sulfinioalanine_HMDB0000996	0.387794174
## Suberic.acid_HMDB0000893	-0.301464517
## L.Lysine_HMDB0000182	0.233307923
## Levoglucosan_HMDB0000640	-0.113462904
## D.Arabitol_HMDB0000568	0.088703592
## Ribitol_HMDB0000508	0.021587579
## cis.Aconitic.acid_HMDB0000072	-0.122501977
## Quinolinic.acid_HMDB0000232	-0.538146825
## Putrescine_HMDB0001414	-0.301329011
## Glycerol.3.phosphate_HMDB0000126	-0.165645858
## Vanillic.acid_HMDB0000484	0.026372972
## L.Glutamine_HMDB0000641	0.097691680
## X2.Phosphoglyceric.acid_HMDB0000362	-0.690455894
## Azelaic.acid_HMDB0000784	-0.353635854
## L.Dihydroorotic.acid_HMDB0003349	-0.486521448
## O.Phosphoethanolamine_HMDB0000224	0.802777085
## X3.Phosphoglyceric.acid_HMDB0000807	-0.732503232
## Isocitric.acid_HMDB0000193	-0.043694295
## Hypoxanthine_HMDB0000157	0.342861781
## Citric.acid_HMDB0000094	-0.723678131
## L.Arginine_HMDB0000517	-0.085857610
## Ornithine_HMDB0000214.1	0.118871613
## Dopamine_HMDB0000073	0.124563106
## Myristic.acid_HMDB0000806	0.576705374
## X1.5.Anhydrosorbitol_HMDB0002712	-0.281521316
## D.Tagatose_HMDB0003418	-0.511152308
## Psicose_1	-0.187309231
## Sebacic.acid_HMDB0000792	0.004825921
## D.Fructose_HMDB0000660	-0.519222507
## Gluconolactone_HMDB0000150	-0.474907770
## L.Sorbose_HMDB0001266	-0.499845331
## D.Mannose_HMDB0000169	0.414924210
## Hydroxyphenyllactic.acid_HMDB0000755	0.043960458
## D.Glucose_HMDB0000122	0.328995750
## N.Acetylglutamine_HMDB0006029	0.390503136
## L.Lysine_HMDB0000182.1	0.355699200
## D.Mannose_HMDB0000169.1	0.433346701
## Tyramine_HMDB0000306	0.358546352
## L.Histidine_HMDB0000177	0.406060127
## D.Glucose_HMDB0000122.1	0.420788211
## X1.Hexadecanol_HMDB0003424	0.322533475
## L.Tyrosine_HMDB0000158	0.197043486
## Mannitol_HMDB0000765	0.082901146
## Sorbitol_HMDB0000247	-0.142216303
## ITSD_Sorbitol	0.422284567
## Galacturonic.acid_HMDB0002545	-0.180362171
## Pantothenic.acid_HMDB0000210	-0.140398551
## Palmitoleic.acid_HMDB0003229	0.890397298
## Xanthine_HMDB0000292	-0.245209113

## Gluconic.acid_HMDB0000625	-0.737461167
## Palmitic.acid_HMDB0000220	0.680374007
## Glucaric.acid_HMDB0000663	0.104497384
## N.Acetylmannosamine_HMDB0001129	0.393976370
## N.Acetyl.D.glucosamine_HMDB0000215	0.367867129
## D.Ribulose.5.phosphate_HMDB0000618	-0.425343726
## Uric.acid_HMDB0000289	0.402989138
## D.Ribose.5.phosphate_HMDB0001548	-0.411165469
## myo.Inositol_HMDB0000211	0.127591487
## D.Ribose.5.phosphate_HMDB0001548.1	-0.425464519
## Heptadecanoic.acid_HMDB0002259	-0.588710640
## Octadecanol_HMDB0002350	0.001088057
## Glutathione_HMDB0000125	-0.130158143
## Linoleic.acid_HMDB0000673	0.866601088
## Oleic.acid_HMDB0000207	0.937474479
## Elaidic.acid_HMDB0000573	0.894217277
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.606137013
## Stearic.acid_HMDB0000827	0.377216764
## L.Tryptophan_HMDB0000929	0.322817583
## Fructose.1.phosphate_HMDB0001076	-0.502783728
## Mannose.6.phosphate_HMDB0001078	-0.168291267
## Arachidonic.acid_HMDB0001043	1.000000000
## Glucose.6.phosphate_HMDB0001401	-0.377137355
## X6.Phosphogluconic.acid_HMDB0001316	0.289363399
## Inositol.phosphate_HMDB0002985	0.453745808
## Uridine_HMDB0000296	0.107747884
## Stigmasterol_HMDB0000937	0.157050391
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.056336199
## Sucrose_HMDB0000258	0.470793798
## MG.18.0e.0.0.0.0._HMDB0011143	0.408122097
## Trehalose_HMDB0000975	-0.181638854
## D.Maltose_HMDB0000163	-0.181287147
## Lactitol_HMDB00040937	-0.160845290
## Xanthylic.acid_HMDB0001554	-0.383373023
## Adenosine.monophosphate_HMDB0000045	-0.463285251
## Cholesterol_HMDB0000067	0.493500393
## Lathosterol_HMDB0001170	0.799278671
## X7b.Hydroxycholesterol._HMDB0006119	-0.948997594
##	Glucose.6.phosphate_HMDB0001401
## Dimethylglycine_HMDB0000092	0.833661753
## Glyoxylic.acid_HMDB0000119	0.833065538
## Pyruvic.acid_HMDB0000243	-0.048146015
## L.Lactic.acid_HMDB0000190	-0.353401761
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.220384412
## Glycolic.acid_HMDB0000115	0.620906297
## Caproic.acid_HMDB0000535	0.896123541
## L.Alanine_HMDB0000161	-0.446160914
## Alpha.ketoisovaleric.acid_HMDB0000019	0.170550021
## Glycine_HMDB0000123	-0.273877279
## Oxalic.acid_HMDB0002329	0.596293875
## Hydroxylamine_HMDB0003338	0.042330556
## X2.Hydroxybutyric.acid_HMDB0000008	0.512802214
## Acetoacetic.acid_HMDB0000060	0.579734847
## Hydroxypropionic.acid_HMDB0000700	-0.151081186

## Pyruvic.acid_HMDB0000243.1	-0.060897056
## X3.Hydroxybutyric.acid_HMDB0000357	0.480253246
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.446362710
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.624727612
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.462049987
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.369160220
## Beta.Alanine_HMDB0000056	-0.550874593
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.261521854
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.039208382
## Malonic.acid_HMDB0000691	0.004135455
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.697873011
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.168624821
## Ketoleucine_HMDB0000695	0.591100136
## L.Valine_HMDB0000883	-0.377058283
## ITSD_Valine	-0.456819936
## Urea_HMDB0000294	-0.161236312
## Benzoic.acid_HMDB0001870	0.456511337
## Caprylic.acid_HMDB0000482	0.910979340
## Glycerol_HMDB0000131	-0.491869026
## Ethanolamine_HMDB0000149	-0.446222253
## L.Leucine_HMDB0000687	-0.418216571
## Acetylglycine_HMDB0000532	0.533166324
## L.Isoleucine_HMDB0000172	-0.453274359
## Nicotinic.acid_HMDB0001488	0.214779845
## Maleic.acid_HMDB0000176	0.763207062
## L.Proline_HMDB0000162	-0.146225697
## Phenylacetic.acid_HMDB0000209	0.891632613
## Succinic.acid_HMDB0000254	-0.091834662
## Glycine_HMDB0000123.1	-0.381293164
## Methylsuccinic.acid_HMDB0001844	0.242882904
## Glyceric.acid_HMDB0000139	0.718258870
## Fumaric.acid_HMDB0000134	-0.054105615
## Uracil_HMDB0000300	-0.048072245
## Pelargonic.acid_HMDB0000847	0.887826671
## L.Serine_HMDB0000187	-0.385274924
## L.Threonine_HMDB0000167	-0.358985481
## Mesaconic.acid_HMDB0000749	0.174143572
## Glutaric.acid_HMDB0000661	0.421861154
## Thymine_HMDB0000262	-0.256515526
## Beta.Alanine_HMDB0000056.1	-0.677660527
## L.Homoserine_HMDB0000719	0.403416482
## Capric.acid_HMDB0000511	0.527524691
## Citramalic.acid_HMDB0000426	-0.164798023
## Malic.acid_HMDB0000744	0.771096903
## Niacinamide_HMDB0001406	-0.369989300
## Adipic.acid_HMDB0000448	-0.344782695
## D.Threitol_HMDB0004136	0.183428238
## Dihydrouracil_HMDB0000076	0.124553893
## Erythritol_HMDB0002994	0.197808543
## N.Acetylserine_HMDB0002931	-0.243119070
## L.Aspartic.acid_HMDB0000191	-0.394394276
## L.Methionine_HMDB0000696	-0.735104040
## X4.Hydroxyproline_HMDB0000725	-0.260558378
## Pyroglutamic.acid_HMDB0000267	-0.323927237

## Cytosine_HMDB0000630	-0.188455663
## Gamma.Aminobutyric.acid_HMDB0000112	-0.129424121
## Threonic.acid_HMDB0000943	0.755871368
## L.Cysteine_HMDB0000574	0.647527970
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.827298565
## Creatinine_HMDB0000562	-0.668106995
## X3.Hydroxyglutaric.acid_HMDB0000428	0.715787196
## Oxoglutaric.acid_HMDB0000208	0.300892762
## Phenylpyruvic.acid_HMDB0000205	0.510739928
## Pimelic.acid_HMDB0000857	-0.474169278
## Phenyllactic.acid_HMDB0000779	0.618385211
## Phosphoenolpyruvic.acid_HMDB0000263	0.628340940
## Ornithine_HMDB0000214	-0.584525795
## Hypotaurine_HMDB0000965	-0.399963977
## Triethanolamine_HMDB0032538	-0.441486940
## X2.Aminobenzoic.acid_HMDB0001123	-0.693759511
## L.Glutamic.acid_HMDB0000148	-0.675037976
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.513470158
## X5.Aminopentanoic.acid_HMDB0003355	0.335669683
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.659731254
## L.Phenylalanine_HMDB0000159	-0.696265866
## Dodecanoic.acid_HMDB0000638	-0.059970818
## Lyxose_HMDB0003402_1	0.868187112
## D.Xylose_HMDB0000098	0.092596770
## Lyxose_HMDB0003402_2	-0.025783814
## D.Arabinose_HMDB0029942	0.833571722
## L.Asparagine_HMDB0000168	-0.712153868
## D.Ribulose_HMDB0000621	0.706058662
## D.Ribose_HMDB0000283	0.805052799
## D.Xylulose_HMDB0001644	0.685741707
## X3.Sulfinoalanine_HMDB0000996	-0.602490726
## Suberic.acid_HMDB0000893	-0.076856689
## L.Lysine_HMDB0000182	-0.585534277
## Levoglucosan_HMDB0000640	-0.073921969
## D.Arabitool_HMDB0000568	-0.055700584
## Ribitol_HMDB0000508	0.333938777
## cis.Aconitic.acid_HMDB0000072	-0.061152062
## Quinolinic.acid_HMDB0000232	0.227849959
## Putrescine_HMDB0001414	0.137115970
## Glycerol.3.phosphate_HMDB0000126	0.491145824
## Vanillic.acid_HMDB0000484	-0.076475116
## L.Glutamine_HMDB0000641	-0.598752287
## X2.Phosphoglyceric.acid_HMDB0000362	0.303888182
## Azelaic.acid_HMDB0000784	0.043840680
## L.Dihydroorotic.acid_HMDB0003349	0.873053208
## O.Phosphoethanolamine_HMDB0000224	-0.320940565
## X3.Phosphoglyceric.acid_HMDB0000807	0.278091524
## Isocitric.acid_HMDB0000193	0.283036935
## Hypoxanthine_HMDB0000157	-0.477109652
## Citric.acid_HMDB0000094	0.646067838
## L.Arginine_HMDB0000517	0.272631973
## Ornithine_HMDB0000214.1	-0.692363988
## Dopamine_HMDB0000073	-0.688397103
## Myristic.acid_HMDB0000806	-0.449609353

## X1.5.Anhydrosorbitol_HMDB0002712	0.446409681
## D.Tagatose_HMDB0003418	0.874528542
## Psicose_1	-0.222826358
## Sebacic.acid_HMDB0000792	-0.175970016
## D.Fructose_HMDB0000660	0.830158215
## Gluconolactone_HMDB0000150	0.839546363
## L.Sorbose_HMDB0001266	0.817816504
## D.Mannose_HMDB0000169	-0.739117061
## Hydroxyphenyllactic.acid_HMDB0000755	0.235611340
## D.Glucose_HMDB0000122	-0.738877574
## N.Acetylglutamine_HMDB0006029	-0.726069145
## L.Lysine_HMDB0000182.1	-0.767596062
## D.Mannose_HMDB0000169.1	-0.806458570
## Tyramine_HMDB0000306	-0.772493097
## L.Histidine_HMDB0000177	-0.790773976
## D.Glucose_HMDB0000122.1	-0.708447396
## X1.Hexadecanol_HMDB0003424	0.332801912
## L.Tyrosine_HMDB0000158	-0.775284367
## Mannitol_HMDB0000765	-0.532312047
## Sorbitol_HMDB0000247	-0.002893467
## ITSD_Sorbitol	-0.319850134
## Galacturonic.acid_HMDB0002545	0.275468860
## Pantothenic.acid_HMDB0000210	0.523729228
## Palmitoleic.acid_HMDB0003229	-0.379853996
## Xanthine_HMDB0000292	-0.504593938
## Gluconic.acid_HMDB0000625	0.662071622
## Palmitic.acid_HMDB0000220	-0.158902088
## Glucaric.acid_HMDB0000663	-0.409654803
## N.Acetylmannosamine_HMDB0001129	-0.395468019
## N.Acetyl.D.glucosamine_HMDB0000215	-0.615994959
## D.Ribulose.5.phosphate_HMDB0000618	0.798101812
## Uric.acid_HMDB0000289	-0.755743335
## D.Ribose.5.phosphate_HMDB0001548	0.721810079
## myo.Inositol_HMDB0000211	-0.018051271
## D.Ribose.5.phosphate_HMDB0001548.1	0.814280327
## Heptadecanoic.acid_HMDB0002259	0.553299607
## Octadecanol_HMDB0002350	0.629796428
## Glutathione_HMDB0000125	-0.028183148
## Linoleic.acid_HMDB0000673	-0.158112457
## Oleic.acid_HMDB0000207	-0.353614155
## Elaidic.acid_HMDB0000573	-0.311522414
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.764312990
## Stearic.acid_HMDB0000827	0.276192275
## L.Tryptophan_HMDB0000929	0.243538679
## Fructose.1.phosphate_HMDB0001076	0.899111585
## Mannose.6.phosphate_HMDB0001078	0.195086093
## Arachidonic.acid_HMDB0001043	-0.377137355
## Glucose.6.phosphate_HMDB0001401	1.000000000
## X6.Phosphogluconic.acid_HMDB0001316	0.558697248
## Inositol.phosphate_HMDB0002985	0.295681623
## Uridine_HMDB0000296	0.069965911
## Stigmasterol_HMDB0000937	0.090612304
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.304673413
## Sucrose_HMDB0000258	-0.481651024

## MG.18.0e.0.0.0.0._HMDB0011143	0.334286967
## Trehalose_HMDB0000975	-0.097651109
## D.Maltose_HMDB0000163	-0.096202378
## Lactitol_HMDB0040937	0.279678724
## Xanthylic.acid_HMDB0001554	0.172823947
## Adenosine.monophosphate_HMDB0000045	0.881241726
## Cholesterol_HMDB0000067	0.044924515
## Lathosterol_HMDB0001170	-0.209440376
## X7b.Hydroxycholesterol_.HMDB0006119	0.537222915
## X6.Phosphogluconic.acid_HMDB0001316	
## Dimethylglycine_HMDB0000092	0.3079602229
## Glyoxylic.acid_HMDB0000119	0.2999241329
## Pyruvic.acid_HMDB0000243	0.1962653587
## L.Lactic.acid_HMDB0000190	-0.0489731995
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.4555554870
## Glycolic.acid_HMDB0000115	0.6542828001
## Caproic.acid_HMDB0000535	0.3541990328
## L.Alanine_HMDB0000161	-0.2721136391
## Alpha.ketoisovaleric.acid_HMDB0000019	0.1683667952
## Glycine_HMDB0000123	-0.0413600694
## Oxalic.acid_HMDB0002329	0.3136636916
## Hydroxylamine_HMDB0003338	0.1626818930
## X2.Hydroxybutyric.acid_HMDB0000008	0.6185557074
## Acetoacetic.acid_HMDB0000060	0.6047592850
## Hydroxypropionic.acid_HMDB0000700	0.3437807456
## Pyruvic.acid_HMDB0000243.1	0.1882205131
## X3.Hydroxybutyric.acid_HMDB0000357	0.7376821815
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.6311829549
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.7296614282
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.1482766404
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.2623649118
## Beta.Alanine_HMDB0000056	-0.1759166956
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.1874916825
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.2590899640
## Malonic.acid_HMDB0000691	0.0253827397
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.1498247790
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.2768211805
## Ketoleucine_HMDB0000695	0.4947856072
## L.Valine_HMDB0000883	-0.0819469577
## ITSD_Valine	-0.0437990372
## Urea_HMDB0000294	0.0375933363
## Benzoic.acid_HMDB0001870	0.6755544809
## Caprylic.acid_HMDB0000482	0.6052912173
## Glycerol_HMDB0000131	-0.0649308637
## Ethanolamine_HMDB0000149	-0.2713605016
## L.Leucine_HMDB0000687	0.0083820531
## Acetylglutamine_HMDB0000532	0.5338386199
## L.Isoleucine_HMDB0000172	-0.0822628483
## Nicotinic.acid_HMDB0001488	0.2047191251
## Maleic.acid_HMDB0000176	0.6811808193
## L.Proline_HMDB0000162	0.0968664512
## Phenylacetic.acid_HMDB0000209	0.6409821415
## Succinic.acid_HMDB0000254	0.1199832546
## Glycine_HMDB0000123.1	-0.0126933109

## Methylsuccinic.acid_HMDB0001844	0.2523845682
## Glyceric.acid_HMDB0000139	0.7477715996
## Fumaric.acid_HMDB0000134	0.1986194891
## Uracil_HMDB0000300	0.0857289226
## Pelargonic.acid_HMDB0000847	0.4644502500
## L.Serine_HMDB0000187	-0.1203931004
## L.Threonine_HMDB0000167	-0.1639890571
## Mesaconic.acid_HMDB0000749	0.1888868657
## Glutaric.acid_HMDB0000661	-0.0991807800
## Thymine_HMDB0000262	-0.2190252105
## Beta.Alanine_HMDB0000056.1	-0.1856660417
## L.Homoserine_HMDB0000719	0.5870083463
## Capric.acid_HMDB0000511	0.6757976151
## Citramalic.acid_HMDB0000426	-0.3112038122
## Malic.acid_HMDB0000744	0.5164326517
## Niacinamide_HMDB0001406	-0.1102716559
## Adipic.acid_HMDB0000448	-0.3648525765
## D.Threitol_HMDB0004136	0.5265338664
## Dihydrouracil_HMDB0000076	-0.0240381075
## Erythritol_HMDB0002994	0.4033533546
## N.Acetylserine_HMDB0002931	-0.1562453899
## L.Aspartic.acid_HMDB0000191	-0.1365204974
## L.Methionine_HMDB0000696	-0.3060288254
## X4.Hydroxyproline_HMDB0000725	-0.0446742307
## Pyroglutamic.acid_HMDB0000267	-0.0179300918
## Cytosine_HMDB0000630	-0.4572576718
## Gamma.Aminobutyric.acid_HMDB0000112	0.0501642212
## Threonic.acid_HMDB0000943	0.6557825931
## L.Cysteine_HMDB0000574	0.6154515134
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.4416389460
## Creatinine_HMDB0000562	-0.1725138995
## X3.Hydroxyglutaric.acid_HMDB0000428	0.2500019624
## Oxoglutaric.acid_HMDB0000208	0.5438094690
## Phenylpyruvic.acid_HMDB0000205	0.5811585148
## Pimelic.acid_HMDB0000857	-0.3602964523
## Phenyllactic.acid_HMDB0000779	0.2612367899
## Phosphoenolpyruvic.acid_HMDB0000263	-0.0002526985
## Ornithine_HMDB0000214	-0.5777839496
## Hypotaurine_HMDB0000965	-0.2688645499
## Triethanolamine_HMDB0032538	-0.4382165034
## X2.Aminobenzoic.acid_HMDB0001123	-0.2221530714
## L.Glutamic.acid_HMDB0000148	-0.3826407014
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.1945458675
## X5.Aminopentanoic.acid_HMDB0003355	0.0986015462
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.5481226358
## L.Phenylalanine_HMDB0000159	-0.3148743254
## Dodecanoic.acid_HMDB0000638	0.5485492480
## Lyxose_HMDB0003402_1	0.4429654673
## D.Xylose_HMDB0000098	0.0091416701
## Lyxose_HMDB0003402_2	-0.1636091487
## D.Arabinose_HMDB0029942	0.3091376611
## L.Asparagine_HMDB0000168	-0.6898532929
## D.Ribulose_HMDB0000621	0.2986265845
## D.Ribose_HMDB0000283	0.2678055687

## D.Xylulose_HMDB0001644	0.2765093701
## X3.Sulfinoalanine_HMDB0000996	-0.4036583126
## Suberic.acid_HMDB0000893	-0.1582532077
## L.Lysine_HMDB0000182	-0.5264797106
## Levoglucosan_HMDB0000640	-0.1303722560
## D.Arabitol_HMDB0000568	0.1901734546
## Ribitol_HMDB0000508	0.4747177084
## cis.Aconitic.acid_HMDB0000072	0.0190258664
## Quinolinic.acid_HMDB0000232	0.1322514664
## Putrescine_HMDB0001414	0.2233498642
## Glycerol.3.phosphate_HMDB0000126	0.2670239210
## Vanillic.acid_HMDB0000484	0.1732890943
## L.Glutamine_HMDB0000641	-0.7268349537
## X2.Phosphoglyceric.acid_HMDB0000362	-0.0122819246
## Azelaic.acid_HMDB0000784	-0.1839800379
## L.Dihydroorotic.acid_HMDB0003349	0.3723105224
## O.Phosphoethanolamine_HMDB0000224	0.3620508238
## X3.Phosphoglyceric.acid_HMDB0000807	-0.0503632551
## Isocitric.acid_HMDB0000193	0.1440155835
## Hypoxanthine_HMDB0000157	-0.4383254704
## Citric.acid_HMDB0000094	0.2346780843
## L.Arginine_HMDB0000517	-0.0901347818
## Ornithine_HMDB0000214.1	-0.4319120846
## Dopamine_HMDB0000073	-0.4405693652
## Myristic.acid_HMDB0000806	0.1824238844
## X1.5.Anhydrosorbitol_HMDB0002712	0.3829022146
## D.Tagatose_HMDB0003418	0.3173020128
## Psicose_1	-0.1672583018
## Sebacic.acid_HMDB0000792	-0.0525787309
## D.Fructose_HMDB0000660	0.3446081824
## Gluconolactone_HMDB0000150	0.3863554257
## L.Sorbose_HMDB0001266	0.3346977252
## D.Mannose_HMDB0000169	-0.1548940854
## Hydroxyphenyllactic.acid_HMDB0000755	0.5551182287
## D.Glucose_HMDB0000122	-0.1901272371
## N.Acetylglutamine_HMDB0006029	-0.1605136182
## L.Lysine_HMDB0000182.1	-0.3863715218
## D.Mannose_HMDB0000169.1	-0.2784845474
## Tyramine_HMDB0000306	-0.3897646611
## L.Histidine_HMDB0000177	-0.3829279501
## D.Glucose_HMDB0000122.1	-0.1586466753
## X1.Hexadecanol_HMDB0003424	0.7265091627
## L.Tyrosine_HMDB0000158	-0.5452247411
## Mannitol_HMDB0000765	-0.1724573790
## Sorbitol_HMDB0000247	-0.1294010509
## ITSD_Sorbitol	0.2062696159
## Galacturonic.acid_HMDB0002545	0.4230210834
## Pantothenic.acid_HMDB0000210	0.5131363392
## Palmitoleic.acid_HMDB0003229	0.3812155402
## Xanthine_HMDB0000292	-0.6498503052
## Gluconic.acid_HMDB0000625	0.1321558961
## Palmitic.acid_HMDB0000220	0.5521301879
## Glucaric.acid_HMDB0000663	-0.0158272459
## N.Acetylmannosamine_HMDB0001129	0.1204607170

## N.Acetyl.D.glucosamine_HMDB0000215	-0.0243544812
## D.Ribulose.5.phosphate_HMDB0000618	0.3628849681
## Uric.acid_HMDB0000289	-0.5503020310
## D.Ribose.5.phosphate_HMDB0001548	0.2531284555
## myo.Inositol_HMDB0000211	0.1948976368
## D.Ribose.5.phosphate_HMDB0001548.1	0.3152745744
## Heptadecanoic.acid_HMDB0002259	0.1426057952
## Octadecanol_HMDB0002350	0.8160854900
## Glutathione_HMDB0000125	-0.2365268443
## Linoleic.acid_HMDB0000673	0.6053191217
## Oleic.acid_HMDB0000207	0.4102003053
## Elaidic.acid_HMDB0000573	0.4129833130
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.2467410405
## Stearic.acid_HMDB0000827	0.7288093449
## L.Tryptophan_HMDB0000929	0.6568492149
## Fructose.1.phosphate_HMDB0001076	0.3330109909
## Mannose.6.phosphate_HMDB0001078	0.1735169928
## Arachidonic.acid_HMDB0001043	0.2893633994
## Glucose.6.phosphate_HMDB0001401	0.5586972478
## X6.Phosphogluconic.acid_HMDB0001316	1.0000000000
## Inositol.phosphate_HMDB0002985	0.6441915637
## Uridine_HMDB0000296	0.2893641457
## Stigmasterol_HMDB0000937	0.4889686136
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.5303077083
## Sucrose_HMDB0000258	0.0543023654
## MG.18.0e.0.0.0.0._HMDB0011143	0.7948709965
## Trehalose_HMDB0000975	-0.1816449999
## D.Maltose_HMDB0000163	-0.1748699152
## Lactitol_HMDB00040937	0.1823171807
## Xanthylic.acid_HMDB0001554	-0.3534421804
## Adenosine.monophosphate_HMDB0000045	0.5229892650
## Cholesterol_HMDB0000067	0.4903443549
## Lathosterol_HMDB0001170	0.5382123120
## X7b.Hydroxycholesterol_.HMDB0006119	-0.1912249053
##	Inositol.phosphate_HMDB0002985
## Dimethylglycine_HMDB0000092	0.273493059
## Glyoxylic.acid_HMDB0000119	0.259940959
## Pyruvic.acid_HMDB0000243	0.168716168
## L.Lactic.acid_HMDB0000190	-0.260349421
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.378661233
## Glycolic.acid_HMDB0000115	0.621142366
## Caproic.acid_HMDB0000535	0.190963921
## L.Alanine_HMDB0000161	-0.380916008
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.133480019
## Glycine_HMDB0000123	-0.283942276
## Oxalic.acid_HMDB0002329	0.190831559
## Hydroxylamine_HMDB0003338	0.092642236
## X2.Hydroxybutyric.acid_HMDB0000008	0.439928433
## Acetoacetic.acid_HMDB0000060	0.395249497
## Hydroxypropionic.acid_HMDB0000700	0.171398612
## Pyruvic.acid_HMDB0000243.1	0.103045510
## X3.Hydroxybutyric.acid_HMDB0000357	0.504518638
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.448203593
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.648377742

## D.Alpha.aminobutyric.acid_HMDB0000650	-0.113221884
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.229749892
## Beta.Alanine_HMDB0000056	-0.167413262
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.247245714
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.132539495
## Malonic.acid_HMDB0000691	-0.086863524
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.154383099
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.148013204
## Ketoleucine_HMDB0000695	0.156824858
## L.Valine_HMDB0000883	-0.132641087
## ITSD_Valine	0.010544540
## Urea_HMDB0000294	-0.101227847
## Benzoic.acid_HMDB0001870	0.369083902
## Caprylic.acid_HMDB0000482	0.377071172
## Glycerol_HMDB0000131	-0.266255540
## Ethanolamine_HMDB0000149	-0.360729069
## L.Leucine_HMDB0000687	-0.095279871
## Acetyl glycine_HMDB0000532	0.535918487
## L.Isoleucine_HMDB0000172	-0.211013549
## Nicotinic.acid_HMDB0001488	0.118364335
## Maleic.acid_HMDB0000176	0.497180314
## L.Proline_HMDB0000162	-0.050269831
## Phenylacetic.acid_HMDB0000209	0.412690852
## Succinic.acid_HMDB0000254	0.021206057
## Glycine_HMDB0000123.1	-0.203400433
## Methylsuccinic.acid_HMDB0001844	0.436495360
## Glyceric.acid_HMDB0000139	0.442557034
## Fumaric.acid_HMDB0000134	0.072957846
## Uracil_HMDB0000300	-0.156110283
## Pelargonic.acid_HMDB0000847	0.332046022
## L.Serine_HMDB0000187	-0.420033697
## L.Threonine_HMDB0000167	-0.333998169
## Mesaconic.acid_HMDB0000749	0.474455740
## Glutaric.acid_HMDB0000661	-0.272461051
## Thymine_HMDB0000262	-0.158015822
## Beta.Alanine_HMDB0000056.1	-0.120343364
## L.Homoserine_HMDB0000719	0.442136685
## Capric.acid_HMDB0000511	0.627297883
## Citramalic.acid_HMDB0000426	-0.388014261
## Malic.acid_HMDB0000744	0.248294788
## Niacinamide_HMDB0001406	-0.104554206
## Adipic.acid_HMDB0000448	-0.449754041
## D.Threitol_HMDB0004136	0.386356491
## Dihydrouracil_HMDB0000076	-0.158536129
## Erythritol_HMDB0002994	0.358444437
## N.Acetylserine_HMDB0002931	-0.476104095
## L.Aspartic.acid_HMDB0000191	-0.336559069
## L.Methionine_HMDB0000696	-0.261442600
## X4.Hydroxyproline_HMDB0000725	-0.227862489
## Pyroglutamic.acid_HMDB0000267	-0.292664293
## Cytosine_HMDB0000630	0.078049824
## Gamma.Aminobutyric.acid_HMDB0000112	-0.121189657
## Threonic.acid_HMDB0000943	0.534891402
## L.Cysteine_HMDB0000574	0.552721149

## L.2.Hydroxyglutaric.acid_HMDB0000694	0.308584525
## Creatinine_HMDB0000562	-0.011000752
## X3.Hydroxyglutaric.acid_HMDB0000428	0.181182231
## Oxoglutaric.acid_HMDB0000208	0.070022924
## Phenylpyruvic.acid_HMDB0000205	0.033714601
## Pimelic.acid_HMDB0000857	-0.494387548
## Phenyllactic.acid_HMDB0000779	-0.144840474
## Phosphoenolpyruvic.acid_HMDB0000263	-0.029811502
## Ornithine_HMDB0000214	-0.506249017
## Hypotaurine_HMDB0000965	-0.261315717
## Triethanolamine_HMDB0032538	-0.530290951
## X2.Aminobenzoic.acid_HMDB0001123	-0.224376457
## L.Glutamic.acid_HMDB0000148	-0.232990484
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.239149744
## X5.Aminopentanoic.acid_HMDB0003355	-0.058591857
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.358354743
## L.Phenylalanine_HMDB0000159	-0.266342513
## Dodecanoic.acid_HMDB0000638	0.577505234
## Lyxose_HMDB0003402_1	0.287090826
## D.Xylose_HMDB0000098	0.010577731
## Lyxose_HMDB0003402_2	-0.123061402
## D.Arabinose_HMDB0029942	0.222898784
## L.Asparagine_HMDB0000168	-0.410174655
## D.Ribulose_HMDB0000621	0.179218636
## D.Ribose_HMDB0000283	0.247372579
## D.Xylulose_HMDB0001644	0.171126480
## X3.Sulfinoalanine_HMDB0000996	-0.038006872
## Suberic.acid_HMDB0000893	-0.362418567
## L.Lysine_HMDB0000182	-0.374111226
## Levoglucosan_HMDB0000640	-0.059809179
## D.Arabitool_HMDB0000568	0.221771449
## Ribitol_HMDB0000508	0.304925002
## cis.Aconitic.acid_HMDB0000072	0.007545763
## Quinolinic.acid_HMDB0000232	-0.127789332
## Putrescine_HMDB0001414	0.044829744
## Glycerol.3.phosphate_HMDB0000126	0.325983600
## Vanillic.acid_HMDB0000484	0.078421781
## L.Glutamine_HMDB0000641	-0.394646876
## X2.Phosphoglyceric.acid_HMDB0000362	-0.164113118
## Azelaic.acid_HMDB0000784	-0.245368533
## L.Dihydroorotic.acid_HMDB0003349	0.244242391
## O.Phosphoethanolamine_HMDB0000224	0.266443923
## X3.Phosphoglyceric.acid_HMDB0000807	-0.255811504
## Isocitric.acid_HMDB0000193	0.251636041
## Hypoxanthine_HMDB0000157	-0.231755711
## Citric.acid_HMDB0000094	0.054842211
## L.Arginine_HMDB0000517	0.146999365
## Ornithine_HMDB0000214.1	-0.416522346
## Dopamine_HMDB0000073	-0.401422118
## Myristic.acid_HMDB0000806	0.181167143
## X1.5.Anhydrosorbitol_HMDB0002712	0.491487220
## D.Tagatose_HMDB0003418	0.204069100
## Psicose_1	-0.095976584
## Sebacic.acid_HMDB0000792	0.148540493

## D.Fructose_HMDB0000660	0.191297453
## Gluconolactone_HMDB0000150	0.247430185
## L.Sorbose_HMDB0001266	0.204634546
## D.Mannose_HMDB0000169	-0.023622850
## Hydroxyphenyllactic.acid_HMDB0000755	0.390314475
## D.Glucose_HMDB0000122	-0.099559665
## N.Acetylglutamine_HMDB0006029	-0.021547254
## L.Lysine_HMDB0000182.1	-0.265860635
## D.Mannose_HMDB0000169.1	-0.148367879
## Tyramine_HMDB0000306	-0.268564878
## L.Histidine_HMDB0000177	-0.243056869
## D.Glucose_HMDB0000122.1	-0.047417952
## X1.Hexadecanol_HMDB0003424	0.737701698
## L.Tyrosine_HMDB0000158	-0.384558766
## Mannitol_HMDB0000765	-0.065034219
## Sorbitol_HMDB0000247	-0.045451907
## ITSD_Sorbitol	0.267097117
## Galacturonic.acid_HMDB0002545	0.307329468
## Pantothenic.acid_HMDB0000210	0.525176547
## Palmitoleic.acid_HMDB0003229	0.401431661
## Xanthine_HMDB0000292	-0.578993784
## Gluconic.acid_HMDB0000625	-0.017356719
## Palmitic.acid_HMDB0000220	0.478895931
## Glucaric.acid_HMDB0000663	-0.168129100
## N.Acetylmannosamine_HMDB0001129	0.370597983
## N.Acetyl.D.glucosamine_HMDB0000215	0.110594712
## D.Ribulose.5.phosphate_HMDB0000618	0.431260823
## Uric.acid_HMDB0000289	-0.249571849
## D.Ribose.5.phosphate_HMDB0001548	0.229296926
## myo.Inositol_HMDB0000211	0.248134849
## D.Ribose.5.phosphate_HMDB0001548.1	0.249367593
## Heptadecanoic.acid_HMDB0002259	-0.121063932
## Octadecanol_HMDB0002350	0.516266981
## Glutathione_HMDB0000125	-0.095724628
## Linoleic.acid_HMDB0000673	0.562978022
## Oleic.acid_HMDB0000207	0.450852847
## Elaidic.acid_HMDB0000573	0.527078287
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.161633124
## Stearic.acid_HMDB0000827	0.547974212
## L.Tryptophan_HMDB0000929	0.507083214
## Fructose.1.phosphate_HMDB0001076	0.215300460
## Mannose.6.phosphate_HMDB0001078	-0.005428685
## Arachidonic.acid_HMDB0001043	0.453745808
## Glucose.6.phosphate_HMDB0001401	0.295681623
## X6.Phosphogluconic.acid_HMDB0001316	0.644191564
## Inositol.phosphate_HMDB0002985	1.000000000
## Uridine_HMDB0000296	0.396053686
## Stigmasterol_HMDB0000937	0.266779204
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.074368646
## Sucrose_HMDB0000258	0.141628395
## MG.18.Oe.0.0.0.0._HMDB0011143	0.641034396
## Trehalose_HMDB0000975	-0.150198772
## D.Maltose_HMDB0000163	-0.147750369
## Lactitol_HMDB0040937	0.409431224

## Xanthylic.acid_HMDB0001554	-0.210172490
## Adenosine.monophosphate_HMDB0000045	0.306554836
## Cholesterol_HMDB0000067	0.789683020
## Lathosterol_HMDB0001170	0.743499931
## X7b.Hydroxycholesterol_.HMDB0006119	-0.325385271
##	Uridine_HMDB0000296
## Dimethylglycine_HMDB0000092	-0.042021768
## Glyoxylic.acid_HMDB0000119	-0.056025917
## Pyruvic.acid_HMDB0000243	0.532986668
## L.Lactic.acid_HMDB0000190	0.431732468
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.764926646
## Glycolic.acid_HMDB0000115	0.581057620
## Caproic.acid_HMDB0000535	0.093578254
## L.Alanine_HMDB0000161	0.300634112
## Alpha.ketoisovaleric.acid_HMDB0000019	0.344793735
## Glycine_HMDB0000123	0.171044551
## Oxalic.acid_HMDB0002329	0.155904112
## Hydroxylamine_HMDB0003338	0.671562533
## X2.Hydroxybutyric.acid_HMDB0000008	0.514361269
## Acetoacetic.acid_HMDB0000060	0.559886311
## Hydroxypropionic.acid_HMDB0000700	0.631830971
## Pyruvic.acid_HMDB0000243.1	0.698558970
## X3.Hydroxybutyric.acid_HMDB0000357	0.541019700
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.622014524
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.606843902
## D.Alpha.aminobutyric.acid_HMDB0000650	0.479915637
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.456670337
## Beta.Alanine_HMDB0000056	0.022069178
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.064117750
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.556367347
## Malonic.acid_HMDB0000691	0.344079987
## X3.Aminoisobutanoic.acid_HMDB0003911	0.173017955
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.621468018
## Ketoleucine_HMDB0000695	0.452857766
## L.Valine_HMDB0000883	0.439580837
## ITSD_Valine	0.494572669
## Urea_HMDB0000294	0.389546583
## Benzoic.acid_HMDB0001870	0.362374363
## Caprylic.acid_HMDB0000482	0.271332976
## Glycerol_HMDB0000131	0.300872117
## Ethanolamine_HMDB0000149	0.285799020
## L.Leucine_HMDB0000687	0.399172254
## Acetylglutamine_HMDB0000532	0.695464066
## L.Isoleucine_HMDB0000172	0.365991307
## Nicotinic.acid_HMDB0001488	-0.022551962
## Maleic.acid_HMDB0000176	0.512578153
## L.Proline_HMDB0000162	0.409611800
## Phenylacetic.acid_HMDB0000209	0.310493871
## Succinic.acid_HMDB0000254	0.649997295
## Glycine_HMDB0000123.1	0.434475651
## Methylsuccinic.acid_HMDB0001844	0.577420872
## Glyceric.acid_HMDB0000139	0.324193320
## Fumaric.acid_HMDB0000134	0.549662078
## Uracil_HMDB0000300	0.543444336

## Pelargonic.acid_HMDB0000847	0.102312417
## L.Serine_HMDB0000187	0.284795681
## L.Threonine_HMDB0000167	0.333427971
## Mesaconic.acid_HMDB0000749	0.376101185
## Glutaric.acid_HMDB0000661	0.149702284
## Thymine_HMDB0000262	0.364585300
## Beta.Alanine_HMDB0000056.1	0.328212863
## L.Homoserine_HMDB0000719	0.363959612
## Capric.acid_HMDB0000511	0.425648457
## Citramalic.acid_HMDB0000426	0.118648296
## Malic.acid_HMDB0000744	0.459361271
## Niacinamide_HMDB0001406	0.370581870
## Adipic.acid_HMDB0000448	0.078610599
## D.Threitol_HMDB0004136	0.498221912
## Dihydrouracil_HMDB0000076	0.482635415
## Erythritol_HMDB0002994	0.618531854
## N.Acetylserine_HMDB0002931	0.269192995
## L.Aspartic.acid_HMDB0000191	0.288968603
## L.Methionine_HMDB0000696	0.135104844
## X4.Hydroxyproline_HMDB0000725	0.349960993
## Pyroglutamic.acid_HMDB0000267	0.224682931
## Cytosine_HMDB0000630	0.087218287
## Gamma.Aminobutyric.acid_HMDB0000112	0.130801006
## Threonic.acid_HMDB0000943	0.454021004
## L.Cysteine_HMDB0000574	0.507990285
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.331496763
## Creatinine_HMDB0000562	0.189186718
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.018190173
## Oxoglutaric.acid_HMDB0000208	0.450417275
## Phenylpyruvic.acid_HMDB0000205	-0.226958866
## Pimelic.acid_HMDB0000857	0.162497876
## Phenyllactic.acid_HMDB0000779	0.018035146
## Phosphoenolpyruvic.acid_HMDB0000263	-0.287585365
## Ornithine_HMDB0000214	-0.164589795
## Hypotaurine_HMDB0000965	0.290503660
## Triethanolamine_HMDB0032538	0.196444232
## X2.Aminobenzoic.acid_HMDB0001123	0.333223718
## L.Glutamic.acid_HMDB0000148	0.126264200
## X4.Hydroxybenzoic.acid_HMDB0000500	0.411320108
## X5.Aminopentanoic.acid_HMDB0003355	0.323810156
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.269302165
## L.Phenylalanine_HMDB0000159	0.195023382
## Dodecanoic.acid_HMDB0000638	0.506254957
## Lyxose_HMDB0003402_1	0.085697968
## D.Xylose_HMDB0000098	-0.196356903
## Lyxose_HMDB0003402_2	-0.190466969
## D.Arabinose_HMDB0029942	-0.021889107
## L.Asparagine_HMDB0000168	-0.168519266
## D.Ribulose_HMDB0000621	-0.020297116
## D.Ribose_HMDB0000283	-0.019685201
## D.Xylulose_HMDB0001644	-0.044430244
## X3.Sulfinioalanine_HMDB0000996	-0.161838830
## Suberic.acid_HMDB0000893	0.032746992
## L.Lysine_HMDB0000182	-0.274605134

## Levoglucosan_HMDB0000640	-0.197482567
## D.Arabitol_HMDB0000568	0.283475597
## Ribitol_HMDB0000508	0.387502874
## cis.Aconitic.acid_HMDB0000072	-0.168566722
## Quinolinic.acid_HMDB0000232	0.175288573
## Putrescine_HMDB0001414	0.254801825
## Glycerol.3.phosphate_HMDB0000126	-0.244648672
## Vanillic.acid_HMDB0000484	0.433989664
## L.Glutamine_HMDB0000641	-0.250268214
## X2.Phosphoglyceric.acid_HMDB0000362	0.321652392
## Azelaic.acid_HMDB0000784	-0.252573981
## L.Dihydroorotic.acid_HMDB0003349	0.014795497
## O.Phosphoethanolamine_HMDB0000224	0.313722336
## X3.Phosphoglyceric.acid_HMDB0000807	0.330776416
## Isocitric.acid_HMDB0000193	0.428375670
## Hypoxanthine_HMDB0000157	-0.433831463
## Citric.acid_HMDB0000094	0.215779436
## L.Arginine_HMDB0000517	0.136500716
## Ornithine_HMDB0000214.1	0.132965275
## Dopamine_HMDB0000073	0.152350478
## Myristic.acid_HMDB0000806	0.432485220
## X1.5.Anhydrosorbitol_HMDB0002712	0.497231678
## D.Tagatose_HMDB0003418	-0.023243491
## Psicose_1	0.041602947
## Sebacic.acid_HMDB0000792	0.566837215
## D.Fructose_HMDB0000660	0.040194466
## Gluconolactone_HMDB0000150	0.078944897
## L.Sorbose_HMDB0001266	0.035334016
## D.Mannose_HMDB0000169	0.249679592
## Hydroxyphenyllactic.acid_HMDB0000755	0.620556458
## D.Glucose_HMDB0000122	0.166848924
## N.Acetylglutamine_HMDB0006029	0.238023196
## L.Lysine_HMDB0000182.1	0.127500827
## D.Mannose_HMDB0000169.1	0.191981071
## Tyramine_HMDB0000306	0.121879850
## L.Histidine_HMDB0000177	0.110834264
## D.Glucose_HMDB0000122.1	0.127955409
## X1.Hexadecanol_HMDB0003424	0.402603544
## L.Tyrosine_HMDB0000158	0.007665042
## Mannitol_HMDB0000765	0.556402288
## Sorbitol_HMDB0000247	-0.134190081
## ITSD_Sorbitol	0.587361688
## Galacturonic.acid_HMDB0002545	0.493821316
## Pantothenic.acid_HMDB0000210	0.339156448
## Palmitoleic.acid_HMDB0003229	0.356790638
## Xanthine_HMDB0000292	-0.349783527
## Gluconic.acid_HMDB0000625	-0.014095701
## Palmitic.acid_HMDB0000220	0.478236232
## Glucaric.acid_HMDB0000663	0.242400600
## N.Acetylmannosamine_HMDB0001129	0.290205999
## N.Acetyl.D.glucosamine_HMDB0000215	0.539367012
## D.Ribulose.5.phosphate_HMDB0000618	-0.109069829
## Uric.acid_HMDB0000289	-0.180075492
## D.Ribose.5.phosphate_HMDB0001548	-0.184180795

## myo.Inositol_HMDB0000211	0.436014599
## D.Ribose.5.phosphate_HMDB0001548.1	-0.207198460
## Heptadecanoic.acid_HMDB0002259	0.344406092
## Octadecanol_HMDB0002350	0.554029023
## Glutathione_HMDB0000125	-0.233630508
## Linoleic.acid_HMDB0000673	0.320032705
## Oleic.acid_HMDB0000207	0.287689853
## Elaidic.acid_HMDB0000573	0.397277030
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.172740830
## Stearic.acid_HMDB0000827	0.436551735
## L.Tryptophan_HMDB0000929	0.340387619
## Fructose.1.phosphate_HMDB0001076	0.028799191
## Mannose.6.phosphate_HMDB0001078	-0.498489540
## Arachidonic.acid_HMDB0001043	0.107747884
## Glucose.6.phosphate_HMDB0001401	0.069965911
## X6.Phosphogluconic.acid_HMDB0001316	0.289364146
## Inositol.phosphate_HMDB0002985	0.396053686
## Uridine_HMDB0000296	1.000000000
## Stigmasterol_HMDB0000937	0.644023142
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.194652198
## Sucrose_HMDB0000258	0.143342427
## MG.18.0e.0.0.0.0._HMDB0011143	0.552134319
## Trehalose_HMDB0000975	-0.422790077
## D.Maltose_HMDB0000163	-0.417220625
## Lactitol_HMDB00040937	0.157231732
## Xanthylic.acid_HMDB0001554	-0.526466503
## Adenosine.monophosphate_HMDB0000045	-0.114875326
## Cholesterol_HMDB0000067	0.347570198
## Lathosterol_HMDB0001170	0.333518765
## X7b.Hydroxycholesterol_.HMDB0006119	0.009495216
## Stigmasterol_HMDB0000937	
## Dimethylglycine_HMDB0000092	-0.220040125
## Glyoxylic.acid_HMDB0000119	-0.223993320
## Pyruvic.acid_HMDB0000243	0.732625395
## L.Lactic.acid_HMDB0000190	0.648916884
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.904286567
## Glycolic.acid_HMDB0000115	0.343447258
## Caproic.acid_HMDB0000535	-0.065278795
## L.Alanine_HMDB0000161	0.464589667
## Alpha.ketoisovaleric.acid_HMDB0000019	0.510060998
## Glycine_HMDB0000123	0.670477876
## Oxalic.acid_HMDB0002329	0.244146662
## Hydroxylamine_HMDB0003338	0.597043534
## X2.Hydroxybutyric.acid_HMDB0000008	0.602857874
## Acetoacetic.acid_HMDB0000060	0.687574804
## Hydroxypropionic.acid_HMDB0000700	0.727932073
## Pyruvic.acid_HMDB0000243.1	0.799327399
## X3.Hydroxybutyric.acid_HMDB0000357	0.794854497
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.740708416
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.491947970
## D.Alpha.aminobutyric.acid_HMDB0000650	0.439086900
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.388579115
## Beta.Alanine_HMDB0000056	0.407477430
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.511957751

## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.605223755
## Malonic.acid_HMDB0000691	0.531966244
## X3.Aminoisobutanoic.acid_HMDB0003911	0.352738620
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.750632883
## Ketoleucine_HMDB0000695	0.521080327
## L.Valine_HMDB0000883	0.526192129
## ITSD_Valine	0.585017482
## Urea_HMDB0000294	0.646845783
## Benzoic.acid_HMDB0001870	0.197389994
## Caprylic.acid_HMDB0000482	0.168919233
## Glycerol_HMDB0000131	0.539453376
## Ethanolamine_HMDB0000149	0.421664879
## L.Leucine_HMDB0000687	0.535543405
## Acetylglycine_HMDB0000532	0.466339335
## L.Isoleucine_HMDB0000172	0.540636662
## Nicotinic.acid_HMDB0001488	0.188598277
## Maleic.acid_HMDB0000176	0.597479317
## L.Proline_HMDB0000162	0.508012937
## Phenylacetic.acid_HMDB0000209	0.321398387
## Succinic.acid_HMDB0000254	0.711470484
## Glycine_HMDB0000123.1	0.571387199
## Methylsuccinic.acid_HMDB0001844	0.385018626
## Glyceric.acid_HMDB0000139	0.325293529
## Fumaric.acid_HMDB0000134	0.815642502
## Uracil_HMDB0000300	0.680998005
## Pelargonic.acid_HMDB0000847	-0.042307417
## L.Serine_HMDB0000187	0.454232516
## L.Threonine_HMDB0000167	0.513545599
## Mesaconic.acid_HMDB0000749	0.243151940
## Glutaric.acid_HMDB0000661	0.121378754
## Thymine_HMDB0000262	0.571660266
## Beta.Alanine_HMDB0000056.1	0.414467981
## L.Homoserine_HMDB0000719	0.124163244
## Capric.acid_HMDB0000511	0.179026408
## Citramalic.acid_HMDB0000426	0.370951667
## Malic.acid_HMDB0000744	0.401200530
## Niacinamide_HMDB0001406	0.587282419
## Adipic.acid_HMDB0000448	0.178006544
## D.Threitol_HMDB0004136	0.617426319
## Dihydrouracil_HMDB0000076	0.559363591
## Erythritol_HMDB0002994	0.748627258
## N.Acetylserine_HMDB0002931	0.481805704
## L.Aspartic.acid_HMDB0000191	0.414952171
## L.Methionine_HMDB0000696	0.246640089
## X4.Hydroxyproline_HMDB0000725	0.556770020
## Pyroglutamic.acid_HMDB0000267	0.499430368
## Cytosine_HMDB0000630	-0.166362547
## Gamma.Aminobutyric.acid_HMDB0000112	0.541190085
## Threonic.acid_HMDB0000943	0.387533399
## L.Cysteine_HMDB0000574	0.373421226
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.201253862
## Creatinine_HMDB0000562	0.162457332
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.113745760
## Oxoglutaric.acid_HMDB0000208	0.766305487

## Phenylpyruvic.acid_HMDB0000205	-0.027976564
## Pimelic.acid_HMDB0000857	0.284559309
## Phenyllactic.acid_HMDB0000779	0.051707989
## Phosphoenolpyruvic.acid_HMDB0000263	-0.439422160
## Ornithine_HMDB0000214	-0.135120378
## Hypotaurine_HMDB0000965	0.368016598
## Triethanolamine_HMDB0032538	0.366593472
## X2.Aminobenzoic.acid_HMDB0001123	0.425503230
## L.Glutamic.acid_HMDB0000148	0.163931582
## X4.Hydroxybenzoic.acid_HMDB0000500	0.490500692
## X5.Aminopentanoic.acid_HMDB0003355	0.482937748
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.132750885
## L.Phenylalanine_HMDB0000159	0.289461723
## Dodecanoic.acid_HMDB0000638	0.702610751
## Lyxose_HMDB0003402_1	-0.100129043
## D.Xylose_HMDB0000098	-0.239793232
## Lyxose_HMDB0003402_2	-0.183352307
## D.Arabinose_HMDB0029942	-0.191035596
## L.Asparagine_HMDB0000168	-0.324772213
## D.Ribulose_HMDB0000621	-0.159751494
## D.Ribose_HMDB0000283	-0.193157803
## D.Xylulose_HMDB0001644	-0.172895533
## X3.Sulfinioalanine_HMDB0000996	-0.360417435
## Suberic.acid_HMDB0000893	0.360406821
## L.Lysine_HMDB0000182	-0.327081518
## Levoglucosan_HMDB0000640	-0.245118035
## D.Arabitol_HMDB0000568	0.498938946
## Ribitol_HMDB0000508	0.177537298
## cis.Aconitic.acid_HMDB0000072	-0.083667546
## Quinolinic.acid_HMDB0000232	0.246814200
## Putrescine_HMDB0001414	0.460452032
## Glycerol.3.phosphate_HMDB0000126	-0.267900859
## Vanillic.acid_HMDB0000484	0.547597343
## L.Glutamine_HMDB0000641	-0.510498728
## X2.Phosphoglyceric.acid_HMDB0000362	0.297159222
## Azelaic.acid_HMDB0000784	-0.071011592
## L.Dihydroorotic.acid_HMDB0003349	-0.138970324
## O.Phosphoethanolamine_HMDB0000224	0.533838779
## X3.Phosphoglyceric.acid_HMDB0000807	0.359362992
## Isocitric.acid_HMDB0000193	0.300758463
## Hypoxanthine_HMDB0000157	-0.702418519
## Citric.acid_HMDB0000094	0.005258196
## L.Arginine_HMDB0000517	-0.395780629
## Ornithine_HMDB0000214.1	0.211697707
## Dopamine_HMDB0000073	0.192442919
## Myristic.acid_HMDB0000806	0.577317044
## X1.5.Anhydrosorbitol_HMDB0002712	0.418750490
## D.Tagatose_HMDB0003418	-0.194805516
## Psicose_1	-0.090239503
## Sebacic.acid_HMDB0000792	0.556425433
## D.Fructose_HMDB0000660	-0.024323962
## Gluconolactone_HMDB0000150	-0.096365768
## L.Sorbose_HMDB0001266	-0.046506644
## D.Mannose_HMDB0000169	0.398191643

## Hydroxyphenyllactic.acid_HMDB0000755	0.891522664
## D.Glucose_HMDB0000122	0.341269034
## N.Acetylglutamine_HMDB0006029	0.392641912
## L.Lysine_HMDB0000182.1	0.141240642
## D.Mannose_HMDB0000169.1	0.265268747
## Tyramine_HMDB0000306	0.120582582
## L.Histidine_HMDB0000177	0.133541783
## D.Glucose_HMDB0000122.1	0.329197063
## X1.Hexadecanol_HMDB0003424	0.323674908
## L.Tyrosine_HMDB0000158	-0.024546462
## Mannitol_HMDB0000765	0.542799255
## Sorbitol_HMDB0000247	-0.229262799
## ITSD_Sorbitol	0.599627577
## Galacturonic.acid_HMDB0002545	0.448155971
## Pantothenic.acid_HMDB0000210	0.405876926
## Palmitoleic.acid_HMDB0003229	0.518584086
## Xanthine_HMDB0000292	-0.509572068
## Gluconic.acid_HMDB0000625	-0.090630985
## Palmitic.acid_HMDB0000220	0.798383015
## Glucaric.acid_HMDB0000663	0.252170438
## N.Acetylmannosamine_HMDB0001129	0.417484415
## N.Acetyl.D.glucosamine_HMDB0000215	0.594760096
## D.Ribulose.5.phosphate_HMDB0000618	-0.209490649
## Uric.acid_HMDB0000289	-0.366936629
## D.Ribose.5.phosphate_HMDB0001548	-0.261370507
## myo.Inositol_HMDB0000211	0.535050986
## D.Ribose.5.phosphate_HMDB0001548.1	-0.271632147
## Heptadecanoic.acid_HMDB0002259	0.183314136
## Octadecanol_HMDB0002350	0.706821343
## Glutathione_HMDB0000125	-0.351566663
## Linoleic.acid_HMDB0000673	0.544728299
## Oleic.acid_HMDB0000207	0.431634313
## Elaidic.acid_HMDB0000573	0.532288769
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.207718213
## Stearic.acid_HMDB0000827	0.827589701
## L.Tryptophan_HMDB0000929	0.826586078
## Fructose.1.phosphate_HMDB0001076	-0.011700249
## Mannose.6.phosphate_HMDB0001078	-0.359454351
## Arachidonic.acid_HMDB0001043	0.157050391
## Glucose.6.phosphate_HMDB0001401	0.090612304
## X6.Phosphogluconic.acid_HMDB0001316	0.488968614
## Inositol.phosphate_HMDB0002985	0.266779204
## Uridine_HMDB0000296	0.644023142
## Stigmasterol_HMDB0000937	1.000000000
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.391676900
## Sucrose_HMDB0000258	0.351717471
## MG.18.0e.0.0.0.0._HMD0011143	0.820469791
## Trehalose_HMDB0000975	-0.219852573
## D.Maltose_HMDB0000163	-0.211486664
## Lactitol_HMDB0040937	0.195819873
## Xanthylic.acid_HMDB0001554	-0.769737408
## Adenosine.monophosphate_HMDB0000045	-0.086296501
## Cholesterol_HMDB0000067	0.215242944
## Lathosterol_HMDB0001170	0.437652126

## X7b.Hydroxycholesterol_HMDB0006119	-0.135892293
## D.Sedoheptulose.7.phosphate_HMDB0001068	
## Dimethylglycine_HMDB0000092	0.1337067623
## Glyoxylic.acid_HMDB0000119	0.1349455242
## Pyruvic.acid_HMDB0000243	0.1506439590
## L.Lactic.acid_HMDB0000190	0.1107708630
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.3070099929
## Glycolic.acid_HMDB0000115	0.2666164985
## Caproic.acid_HMDB0000535	0.1006385966
## L.Alanine_HMDB0000161	-0.0660036614
## Alpha.ketoisovaleric.acid_HMDB0000019	0.3819739672
## Glycine_HMDB0000123	0.1054622075
## Oxalic.acid_HMDB0002329	0.1500342208
## Hydroxylamine_HMDB0003338	0.2016078720
## X2.Hydroxybutyric.acid_HMDB0000008	0.2435775386
## Acetoacetic.acid_HMDB0000060	0.3710169789
## Hydroxypropionic.acid_HMDB0000700	0.2217376810
## Pyruvic.acid_HMDB0000243.1	0.1047612934
## X3.Hydroxybutyric.acid_HMDB0000357	0.3300799746
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.2624525025
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.2980588563
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.0044551778
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.1500218015
## Beta.Alanine_HMDB0000056	-0.1167304277
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.3380631109
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.1962956464
## Malonic.acid_HMDB0000691	0.2347362162
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.1754596250
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.1976018913
## Ketoleucine_HMDB0000695	0.4057505132
## L.Valine_HMDB0000883	-0.0666670070
## ITSD_Valine	-0.0893627460
## Urea_HMDB0000294	0.1083729791
## Benzoic.acid_HMDB0001870	0.2915351116
## Caprylic.acid_HMDB0000482	0.3899217074
## Glycerol_HMDB0000131	0.0648739120
## Ethanolamine_HMDB0000149	-0.1051519151
## L.Leucine_HMDB0000687	-0.0073540559
## Acetyl glycine_HMDB0000532	0.1645443874
## L.Isoleucine_HMDB0000172	-0.0009118531
## Nicotinic.acid_HMDB0001488	0.0440250090
## Maleic.acid_HMDB0000176	0.2831414427
## L.Proline_HMDB0000162	-0.0503176554
## Phenylacetic.acid_HMDB0000209	0.3000402475
## Succinic.acid_HMDB0000254	0.0434111368
## Glycine_HMDB0000123.1	0.1140727009
## Methylsuccinic.acid_HMDB0001844	0.0993538267
## Glyceric.acid_HMDB0000139	0.1879300035
## Fumaric.acid_HMDB0000134	0.1895219611
## Uracil_HMDB0000300	0.1186167714
## Pelargonic.acid_HMDB0000847	0.2566393625
## L.Serine_HMDB0000187	0.0465978735
## L.Threonine_HMDB0000167	-0.0015970196
## Mesaconic.acid_HMDB0000749	-0.0120349517

## Glutaric.acid_HMDB0000661	-0.0009628181
## Thymine_HMDB0000262	-0.0382037000
## Beta.Alanine_HMDB0000056.1	-0.0091696356
## L.Homoserine_HMDB0000719	0.3792161705
## Capric.acid_HMDB0000511	0.3217118559
## Citramalic.acid_HMDB0000426	0.1556842467
## Malic.acid_HMDB0000744	0.2220062789
## Niacinamide_HMDB0001406	0.1156396277
## Adipic.acid_HMDB0000448	-0.1043913820
## D.Threitol_HMDB0004136	0.1622206657
## Dihydrouracil_HMDB0000076	0.2405660751
## Erythritol_HMDB0002994	0.2845237927
## N.Acetylserine_HMDB0002931	0.0375147701
## L.Aspartic.acid_HMDB0000191	0.0504270350
## L.Methionine_HMDB0000696	-0.1085004660
## X4.Hydroxyproline_HMDB0000725	0.0818215460
## Pyroglutamic.acid_HMDB0000267	0.0770385333
## Cytosine_HMDB0000630	-0.4399707268
## Gamma.Aminobutyric.acid_HMDB0000112	0.0460844952
## Threonic.acid_HMDB0000943	0.2987876019
## L.Cysteine_HMDB0000574	0.2510531472
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.1129656506
## Creatinine_HMDB0000562	-0.2067195601
## X3.Hydroxyglutaric.acid_HMDB0000428	0.0836828825
## Oxoglutaric.acid_HMDB0000208	0.5036193963
## Phenylpyruvic.acid_HMDB0000205	0.4767787244
## Pimelic.acid_HMDB0000857	0.1580946766
## Phenyllactic.acid_HMDB0000779	0.2200429042
## Phosphoenolpyruvic.acid_HMDB0000263	0.0005635251
## Ornithine_HMDB0000214	-0.3000829668
## Hypotaurine_HMDB0000965	-0.0384391672
## Triethanolamine_HMDB0032538	-0.0547385233
## X2.Aminobenzoic.acid_HMDB0001123	-0.0240720145
## L.Glutamic.acid_HMDB0000148	-0.1777206366
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.0440139716
## X5.Aminopentanoic.acid_HMDB0003355	0.2081041624
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.4055924920
## L.Phenylalanine_HMDB0000159	-0.1602349351
## Dodecanoic.acid_HMDB0000638	0.2436646996
## Lyxose_HMDB0003402_1	0.0726489689
## D.Xylose_HMDB0000098	0.3555445155
## Lyxose_HMDB0003402_2	0.3370741977
## D.Arabinose_HMDB0029942	0.0240775324
## L.Asparagine_HMDB0000168	-0.3741457847
## D.Ribulose_HMDB0000621	0.1978920000
## D.Ribose_HMDB0000283	-0.0506269937
## D.Xylulose_HMDB0001644	0.2008156899
## X3.Sulfinioalanine_HMDB0000996	-0.3957457056
## Suberic.acid_HMDB0000893	0.2386791032
## L.Lysine_HMDB0000182	-0.3348551394
## Levoglucosan_HMDB0000640	0.2734971107
## D.Arabitool_HMDB0000568	0.1061774875
## Ribitol_HMDB0000508	0.1455542845
## cis.Aconitic.acid_HMDB0000072	0.4877612972

## Quinolinic.acid_HMDB0000232	0.3587957596
## Putrescine_HMDB0001414	-0.0515172237
## Glycerol.3.phosphate_HMDB0000126	-0.0973943591
## Vanillic.acid_HMDB0000484	0.1674792357
## L.Glutamine_HMDB0000641	-0.4628517032
## X2.Phosphoglyceric.acid_HMDB0000362	0.0945194016
## Azelaic.acid_HMDB0000784	-0.0150282977
## L.Dihydroorotic.acid_HMDB0003349	0.0842267785
## O.Phosphoethanolamine_HMDB0000224	0.2512237705
## X3.Phosphoglyceric.acid_HMDB0000807	0.2270723535
## Isocitric.acid_HMDB0000193	0.0344100561
## Hypoxanthine_HMDB0000157	-0.2192319802
## Citric.acid_HMDB0000094	0.1601300850
## L.Arginine_HMDB0000517	-0.2737335130
## Ornithine_HMDB0000214.1	-0.1664000474
## Dopamine_HMDB0000073	-0.1889894187
## Myristic.acid_HMDB0000806	0.1485917405
## X1.5.Anhydrosorbitol_HMDB0002712	0.2703677204
## D.Tagatose_HMDB0003418	0.0659523434
## Psicose_1	0.3339759650
## Sebacic.acid_HMDB0000792	-0.1073727788
## D.Fructose_HMDB0000660	0.0090575382
## Gluconolactone_HMDB0000150	0.1301035049
## L.Sorbose_HMDB0001266	-0.0267215877
## D.Mannose_HMDB0000169	0.0749274579
## Hydroxyphenyllactic.acid_HMDB0000755	0.4267900472
## D.Glucose_HMDB0000122	0.1311829108
## N.Acetylglutamine_HMDB0006029	0.0963851105
## L.Lysine_HMDB0000182.1	-0.1965143923
## D.Mannose_HMDB0000169.1	-0.0472240669
## Tyramine_HMDB0000306	-0.1948418908
## L.Histidine_HMDB0000177	-0.1880794122
## D.Glucose_HMDB0000122.1	0.1415481179
## X1.Hexadecanol_HMDB0003424	0.1294668706
## L.Tyrosine_HMDB0000158	-0.3019660138
## Mannitol_HMDB0000765	0.0766400483
## Sorbitol_HMDB0000247	-0.3282803869
## ITSD_Sorbitol	0.2021979312
## Galacturonic.acid_HMDB0002545	0.4376297156
## Pantothenic.acid_HMDB0000210	0.0449616845
## Palmitoleic.acid_HMDB0003229	0.1673747441
## Xanthine_HMDB0000292	-0.5078797152
## Gluconic.acid_HMDB0000625	0.0981214273
## Palmitic.acid_HMDB0000220	0.3485764394
## Glucaric.acid_HMDB0000663	0.0590621803
## N.Acetylmannosamine_HMDB0001129	-0.0131167564
## N.Acetyl.D.glucosamine_HMDB0000215	0.0811847124
## D.Ribulose.5.phosphate_HMDB0000618	0.0420940514
## Uric.acid_HMDB0000289	-0.3192172708
## D.Ribose.5.phosphate_HMDB0001548	0.0019254226
## myo.Inositol_HMDB0000211	0.2168614515
## D.Ribose.5.phosphate_HMDB0001548.1	0.1526558929
## Heptadecanoic.acid_HMDB0002259	0.2024273760
## Octadecanol_HMDB0002350	0.5392111763

## Glutathione_HMDB0000125	0.0359124474
## Linoleic.acid_HMDB0000673	0.2571188127
## Oleic.acid_HMDB0000207	0.1522126214
## Elaidic.acid_HMDB0000573	0.1660357026
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.1681645338
## Stearic.acid_HMDB0000827	0.5073016040
## L.Tryptophan_HMDB0000929	0.4645085474
## Fructose.1.phosphate_HMDB0001076	0.1911419791
## Mannose.6.phosphate_HMDB0001078	0.2306143521
## Arachidonic.acid_HMDB0001043	0.0563361993
## Glucose.6.phosphate_HMDB0001401	0.3046734132
## X6.Phosphogluconic.acid_HMDB0001316	0.5303077083
## Inositol.phosphate_HMDB0002985	0.0743686457
## Uridine_HMDB0000296	0.1946521983
## Stigmasterol_HMDB0000937	0.3916769003
## D.Sedoheptulose.7.phosphate_HMDB0001068	1.0000000000
## Sucrose_HMDB0000258	0.0691951769
## MG.18.0e.0.0.0.0._HMDB0011143	0.4209394059
## Trehalose_HMDB0000975	-0.1790621485
## D.Maltose_HMDB0000163	-0.1733716725
## Lactitol_HMDB00040937	0.1750934965
## Xanthylic.acid_HMDB0001554	-0.1926624591
## Adenosine.monophosphate_HMDB0000045	0.1973170904
## Cholesterol_HMDB0000067	0.1846949629
## Lathosterol_HMDB0001170	0.1469439716
## X7b.Hydroxycholesterol_.HMDB0006119	-0.0114327888
##	Sucrose_HMDB0000258
## Dimethylglycine_HMDB0000092	-0.603569274
## Glyoxylic.acid_HMDB0000119	-0.601430506
## Pyruvic.acid_HMDB0000243	0.534190135
## L.Lactic.acid_HMDB0000190	0.355446629
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.259264195
## Glycolic.acid_HMDB0000115	-0.338626963
## Caproic.acid_HMDB0000535	-0.516141572
## L.Alanine_HMDB0000161	0.309201504
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.101990442
## Glycine_HMDB0000123	0.434739698
## Oxalic.acid_HMDB0002329	-0.524278397
## Hydroxylamine_HMDB0003338	-0.040727822
## X2.Hydroxybutyric.acid_HMDB0000008	-0.197021829
## Acetoacetic.acid_HMDB0000060	-0.196751931
## Hydroxypropionic.acid_HMDB0000700	0.360110303
## Pyruvic.acid_HMDB0000243.1	0.035406503
## X3.Hydroxybutyric.acid_HMDB0000357	-0.005760940
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.056531381
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.352003497
## D.Alpha.aminobutyric.acid_HMDB0000650	0.263603389
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.327236783
## Beta.Alanine_HMDB0000056	0.596266256
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.147625414
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.133797712
## Malonic.acid_HMDB0000691	0.517283907
## X3.Aminoisobutanoic.acid_HMDB0003911	0.419634963
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.346674447

## Ketoleucine_HMDB0000695	-0.311171610
## L.Valine_HMDB0000883	0.323255750
## ITSD_Valine	0.403579655
## Urea_HMDB0000294	0.137352844
## Benzoic.acid_HMDB0001870	0.061739316
## Caprylic.acid_HMDB0000482	-0.358911341
## Glycerol_HMDB0000131	0.479177254
## Ethanolamine_HMDB0000149	0.319386628
## L.Leucine_HMDB0000687	0.387925581
## Acetylglycine_HMDB0000532	-0.126530836
## L.Isoleucine_HMDB0000172	0.352183105
## Nicotinic.acid_HMDB0001488	0.134076172
## Maleic.acid_HMDB0000176	-0.247889912
## L.Proline_HMDB0000162	0.096386812
## Phenylacetic.acid_HMDB0000209	-0.475859172
## Succinic.acid_HMDB0000254	0.312346630
## Glycine_HMDB0000123.1	0.376175208
## Methylsuccinic.acid_HMDB0001844	0.168284161
## Glyceric.acid_HMDB0000139	-0.340212743
## Fumaric.acid_HMDB0000134	0.328234680
## Uracil_HMDB0000300	0.202415558
## Pelargonic.acid_HMDB0000847	-0.468502914
## L.Serine_HMDB0000187	0.406441874
## L.Threonine_HMDB0000167	0.312743720
## Mesaconic.acid_HMDB0000749	0.264505347
## Glutaric.acid_HMDB0000661	-0.169259063
## Thymine_HMDB0000262	0.269213769
## Beta.Alanine_HMDB0000056.1	0.493669519
## L.Homoserine_HMDB0000719	-0.211401826
## Capric.acid_HMDB0000511	-0.191259035
## Citramalic.acid_HMDB0000426	0.435727198
## Malic.acid_HMDB0000744	-0.455839627
## Niacinamide_HMDB0001406	0.425881622
## Adipic.acid_HMDB0000448	0.317786158
## D.Threitol_HMDB0004136	0.316917655
## Dihydrouracil_HMDB0000076	-0.098079163
## Erythritol_HMDB0002994	0.065880498
## N.Acetylserine_HMDB0002931	0.239064650
## L.Aspartic.acid_HMDB0000191	0.391336652
## L.Methionine_HMDB0000696	0.507145407
## X4.Hydroxyproline_HMDB0000725	0.340253179
## Pyroglutamic.acid_HMDB0000267	0.466887468
## Cytosine_HMDB0000630	0.192547197
## Gamma.Aminobutyric.acid_HMDB0000112	0.445765270
## Threonic.acid_HMDB0000943	-0.467587335
## L.Cysteine_HMDB0000574	-0.427054528
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.466101707
## Creatinine_HMDB0000562	0.437497360
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.476252601
## Oxoglutaric.acid_HMDB0000208	0.073493317
## Phenylpyruvic.acid_HMDB0000205	-0.228003646
## Pimelic.acid_HMDB0000857	0.378426038
## Phenyllactic.acid_HMDB0000779	-0.391852754
## Phosphoenolpyruvic.acid_HMDB0000263	-0.577291793

## Ornithine_HMDB0000214	0.329977976
## Hypotaurine_HMDB0000965	0.249019667
## Triethanolamine_HMDB0032538	0.246495435
## X2.Aminobenzoic.acid_HMDB0001123	0.509797971
## L.Glutamic.acid_HMDB0000148	0.440794646
## X4.Hydroxybenzoic.acid_HMDB0000500	0.417986181
## X5.Aminopentanoic.acid_HMDB0003355	-0.065994889
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.332674642
## L.Phenylalanine_HMDB0000159	0.458564566
## Dodecanoic.acid_HMDB0000638	0.425748799
## Lyxose_HMDB0003402_1	-0.635349681
## D.Xylose_HMDB0000098	-0.007108297
## Lyxose_HMDB0003402_2	0.100630797
## D.Arabinose_HMDB0029942	-0.681715076
## L.Asparagine_HMDB0000168	0.290808999
## D.Ribulose_HMDB0000621	-0.510651646
## D.Ribose_HMDB0000283	-0.679535034
## D.Xylulose_HMDB0001644	-0.513736004
## X3.Sulfinoalanine_HMDB0000996	0.319419277
## Suberic.acid_HMDB0000893	0.394329136
## L.Lysine_HMDB0000182	0.286857974
## Levoglucosan_HMDB0000640	0.067721807
## D.Arabitol_HMDB0000568	0.368462241
## Ribitol_HMDB0000508	0.075346594
## cis.Aconitic.acid_HMDB0000072	0.174719733
## Quinolinic.acid_HMDB0000232	0.102099716
## Putrescine_HMDB0001414	0.247389554
## Glycerol.3.phosphate_HMDB0000126	-0.207778654
## Vanillic.acid_HMDB0000484	0.147029347
## L.Glutamine_HMDB0000641	0.037732502
## X2.Phosphoglyceric.acid_HMDB0000362	-0.272964361
## Azelaic.acid_HMDB0000784	0.267677064
## L.Dihydroorotic.acid_HMDB0003349	-0.670099734
## O.Phosphoethanolamine_HMDB0000224	0.592405655
## X3.Phosphoglyceric.acid_HMDB0000807	-0.230153866
## Isocitric.acid_HMDB0000193	0.146941839
## Hypoxanthine_HMDB0000157	-0.098145932
## Citric.acid_HMDB0000094	-0.476534365
## L.Arginine_HMDB0000517	-0.441775976
## Ornithine_HMDB0000214.1	0.396227904
## Dopamine_HMDB0000073	0.393790104
## Myristic.acid_HMDB0000806	0.607931612
## X1.5.Anhydrosorbitol_HMDB0002712	-0.160095515
## D.Tagatose_HMDB0003418	-0.640078804
## Psicose_1	0.047770688
## Sebacic.acid_HMDB0000792	0.406816969
## D.Fructose_HMDB0000660	-0.522572275
## Gluconolactone_HMDB0000150	-0.506186632
## L.Sorbose_HMDB0001266	-0.524810899
## D.Mannose_HMDB0000169	0.583505475
## Hydroxyphenyllactic.acid_HMDB0000755	0.180432619
## D.Glucose_HMDB0000122	0.567698807
## N.Acetylglutamine_HMDB0006029	0.563233074
## L.Lysine_HMDB0000182.1	0.456178710

## D.Mannose_HMDB0000169.1	0.524596170
## Tyramine_HMDB0000306	0.438514214
## L.Histidine_HMDB0000177	0.488105021
## D.Glucose_HMDB0000122.1	0.579442391
## X1.Hexadecanol_HMDB0003424	0.241319338
## L.Tyrosine_HMDB0000158	0.386792399
## Mannitol_HMDB0000765	0.458085818
## Sorbitol_HMDB0000247	-0.047734258
## ITSD_Sorbitol	0.388831187
## Galacturonic.acid_HMDB0002545	-0.226152107
## Pantothenic.acid_HMDB0000210	0.007003457
## Palmitoleic.acid_HMDB0003229	0.571859553
## Xanthine_HMDB0000292	0.047632583
## Gluconic.acid_HMDB0000625	-0.556299914
## Palmitic.acid_HMDB0000220	0.586658790
## Glucaric.acid_HMDB0000663	0.269821738
## N.Acetylmannosamine_HMDB0001129	0.357017859
## N.Acetyl.D.glucosamine_HMDB0000215	0.571079017
## D.Ribulose.5.phosphate_HMDB0000618	-0.486991088
## Uric.acid_HMDB0000289	0.343483968
## D.Ribose.5.phosphate_HMDB0001548	-0.594522276
## myo.Inositol_HMDB0000211	0.566221239
## D.Ribose.5.phosphate_HMDB0001548.1	-0.622365885
## Heptadecanoic.acid_HMDB0002259	-0.283905497
## Octadecanol_HMDB0002350	0.105491825
## Glutathione_HMDB0000125	-0.130561238
## Linoleic.acid_HMDB0000673	0.501128749
## Oleic.acid_HMDB0000207	0.553812747
## Elaidic.acid_HMDB0000573	0.587156220
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.544025876
## Stearic.acid_HMDB0000827	0.450096623
## L.Tryptophan_HMDB0000929	0.419586149
## Fructose.1.phosphate_HMDB0001076	-0.398388544
## Mannose.6.phosphate_HMDB0001078	-0.015769512
## Arachidonic.acid_HMDB0001043	0.470793798
## Glucose.6.phosphate_HMDB0001401	-0.481651024
## X6.Phosphogluconic.acid_HMDB0001316	0.054302365
## Inositol.phosphate_HMDB0002985	0.141628395
## Uridine_HMDB0000296	0.143342427
## Stigmasterol_HMDB0000937	0.351717471
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.069195177
## Sucrose_HMDB0000258	1.000000000
## MG.18.0e.0.0.0.0._HMDB0011143	0.212793021
## Trehalose_HMDB0000975	0.226131887
## D.Maltose_HMDB0000163	0.233006080
## Lactitol_HMDB0040937	-0.074243096
## Xanthylic.acid_HMDB0001554	-0.366546156
## Adenosine.monophosphate_HMDB0000045	-0.554969684
## Cholesterol_HMDB0000067	0.132365824
## Lathosterol_HMDB0001170	0.417622577
## X7b.Hydroxycholesterol_.HMDB0006119	-0.532626718
##	MG.18.0e.0.0.0.0._HMDB0011143
## Dimethylglycine_HMDB0000092	0.0169708132
## Glyoxylic.acid_HMDB0000119	0.0081938623

## Pyruvic.acid_HMDB0000243	0.4625195395
## L.Lactic.acid_HMDB0000190	0.2402876492
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.7791310226
## Glycolic.acid_HMDB0000115	0.5954739299
## Caproic.acid_HMDB0000535	0.1262686133
## L.Alanine_HMDB0000161	0.0072786964
## Alpha.ketoisovaleric.acid_HMDB0000019	0.1693697867
## Glycine_HMDB0000123	0.2555090932
## Oxalic.acid_HMDB0002329	0.4764180667
## Hydroxylamine_HMDB0003338	0.3892930333
## X2.Hydroxybutyric.acid_HMDB0000008	0.6660872366
## Acetoacetic.acid_HMDB0000060	0.7389859117
## Hydroxypropionic.acid_HMDB0000700	0.6018622073
## Pyruvic.acid_HMDB0000243.1	0.5164861204
## X3.Hydroxybutyric.acid_HMDB0000357	0.8607922768
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.7736317556
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.7332044156
## D.Alpha.aminobutyric.acid_HMDB0000650	0.1490457126
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.3956488045
## Beta.Alanine_HMDB0000056	0.1450455291
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.2673423105
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.4204031732
## Malonic.acid_HMDB0000691	0.2188498691
## X3.Aminoisobutanoic.acid_HMDB0003911	0.0701975958
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.5904438783
## Ketoleucine_HMDB0000695	0.4393640356
## L.Valine_HMDB0000883	0.1897685103
## ITSD_Valine	0.3109342947
## Urea_HMDB0000294	0.2822136839
## Benzoic.acid_HMDB0001870	0.4760025622
## Caprylic.acid_HMDB0000482	0.4127357682
## Glycerol_HMDB0000131	0.1740512121
## Ethanolamine_HMDB0000149	-0.0496388608
## L.Leucine_HMDB0000687	0.2368985685
## Acetylglycine_HMDB0000532	0.6036998006
## L.Isoleucine_HMDB0000172	0.1647068389
## Nicotinic.acid_HMDB0001488	0.2579632050
## Maleic.acid_HMDB0000176	0.7072982047
## L.Proline_HMDB0000162	0.2551940626
## Phenylacetic.acid_HMDB0000209	0.4936795313
## Succinic.acid_HMDB0000254	0.4348330813
## Glycine_HMDB0000123.1	0.1829908428
## Methylsuccinic.acid_HMDB0001844	0.4871164962
## Glyceric.acid_HMDB0000139	0.5290148148
## Fumaric.acid_HMDB0000134	0.5010210772
## Uracil_HMDB0000300	0.2586803117
## Pelargonic.acid_HMDB0000847	0.2421621340
## L.Serine_HMDB0000187	0.0203278200
## L.Threonine_HMDB0000167	0.0618388096
## Mesaconic.acid_HMDB0000749	0.2912764004
## Glutaric.acid_HMDB0000661	-0.0933875082
## Thymine_HMDB0000262	0.1731987594
## Beta.Alanine_HMDB0000056.1	0.1058268155
## L.Homoserine_HMDB0000719	0.4045295237

## Capric.acid_HMDB0000511	0.5200221861
## Citramalic.acid_HMDB0000426	-0.0573577335
## Malic.acid_HMDB0000744	0.4479117916
## Niacinamide_HMDB0001406	0.2131392022
## Adipic.acid_HMDB0000448	-0.2635788002
## D.Threitol_HMDB0004136	0.5215040111
## Dihydrouracil_HMDB0000076	0.2471625861
## Erythritol_HMDB0002994	0.6413656535
## N.Acetylserine_HMDB0002931	0.0007925741
## L.Aspartic.acid_HMDB0000191	0.0019294986
## L.Methionine_HMDB0000696	-0.1205900926
## X4.Hydroxyproline_HMDB0000725	0.1639977783
## Pyroglutamic.acid_HMDB0000267	0.1134338714
## Cytosine_HMDB0000630	-0.3417023491
## Gamma.Aminobutyric.acid_HMDB0000112	0.3324196933
## Threonic.acid_HMDB0000943	0.5830497558
## L.Cysteine_HMDB0000574	0.5136487617
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.3868201761
## Creatinine_HMDB0000562	-0.0234415226
## X3.Hydroxyglutaric.acid_HMDB0000428	0.0825663633
## Oxoglutaric.acid_HMDB0000208	0.7626641586
## Phenylpyruvic.acid_HMDB0000205	0.1682315738
## Pimelic.acid_HMDB0000857	-0.0527567551
## Phenyllactic.acid_HMDB0000779	0.1172754382
## Phosphoenolpyruvic.acid_HMDB0000263	-0.2356957165
## Ornithine_HMDB0000214	-0.5148931908
## Hypotaurine_HMDB0000965	-0.0707917481
## Triethanolamine_HMDB0032538	-0.1797974219
## X2.Aminobenzoic.acid_HMDB0001123	0.0557880798
## L.Glutamic.acid_HMDB0000148	-0.1635723754
## X4.Hydroxybenzoic.acid_HMDB0000500	0.0937505601
## X5.Aminopentanoic.acid_HMDB0003355	0.2116509393
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.2663618514
## L.Phenylalanine_HMDB0000159	-0.0742802947
## Dodecanoic.acid_HMDB0000638	0.7578479865
## Lyxose_HMDB0003402_1	0.2295194764
## D.Xylose_HMDB0000098	-0.2408233075
## Lyxose_HMDB0003402_2	-0.3075492426
## D.Arabinose_HMDB0029942	0.1173918471
## L.Asparagine_HMDB0000168	-0.5776151937
## D.Ribulose_HMDB0000621	0.0088525281
## D.Ribose_HMDB0000283	0.1112788061
## D.Xylulose_HMDB0001644	-0.0117308531
## X3.Sulfinioalanine_HMDB0000996	-0.3624998241
## Suberic.acid_HMDB0000893	-0.0397482476
## L.Lysine_HMDB0000182	-0.5495191056
## Levoglucosan_HMDB0000640	-0.3231850680
## D.Arabitol_HMDB0000568	0.4066552539
## Ribitol_HMDB0000508	0.1753420336
## cis.Aconitic.acid_HMDB0000072	-0.1511969313
## Quinolinic.acid_HMDB0000232	0.0659607953
## Putrescine_HMDB0001414	0.3625146437
## Glycerol.3.phosphate_HMDB0000126	0.1195544904
## Vanillic.acid_HMDB0000484	0.2353486487

## L.Glutamine_HMDB0000641	-0.6681582884
## X2.Phosphoglyceric.acid_HMDB0000362	0.0192928742
## Azelaic.acid_HMDB0000784	-0.1341042013
## L.Dihydroorotic.acid_HMDB0003349	0.1536524598
## O.Phosphoethanolamine_HMDB0000224	0.5707480278
## X3.Phosphoglyceric.acid_HMDB0000807	0.0454390685
## Isocitric.acid_HMDB0000193	0.1823114058
## Hypoxanthine_HMDB0000157	-0.5913397675
## Citric.acid_HMDB0000094	-0.0146902204
## L.Arginine_HMDB0000517	-0.2466893093
## Ornithine_HMDB0000214.1	-0.2318235434
## Dopamine_HMDB0000073	-0.2441155717
## Myristic.acid_HMDB0000806	0.4049093905
## X1.5.Anhydrosorbitol_HMDB0002712	0.4694138959
## D.Tagatose_HMDB0003418	0.0998722770
## Psicose_1	-0.2451011969
## Sebacic.acid_HMDB0000792	0.2474448798
## D.Fructose_HMDB0000660	0.1777817780
## Gluconolactone_HMDB0000150	0.0704622916
## L.Sorbose_HMDB0001266	0.1664763555
## D.Mannose_HMDB0000169	0.0914366263
## Hydroxyphenyllactic.acid_HMDB0000755	0.7956086545
## D.Glucose_HMDB0000122	0.0081237965
## N.Acetylglutamine_HMDB0006029	0.0897333558
## L.Lysine_HMDB0000182.1	-0.1883389784
## D.Mannose_HMDB0000169.1	-0.0476756646
## Tyramine_HMDB0000306	-0.2017392601
## L.Histidine_HMDB0000177	-0.1749246731
## D.Glucose_HMDB0000122.1	0.0487263630
## X1.Hexadecanol_HMDB0003424	0.5819597772
## L.Tyrosine_HMDB0000158	-0.3802636838
## Mannitol_HMDB0000765	0.1968958399
## Sorbitol_HMDB0000247	-0.1731432789
## ITSD_Sorbitol	0.4270566019
## Galacturonic.acid_HMDB0002545	0.3799766067
## Pantothenic.acid_HMDB0000210	0.4495975819
## Palmitoleic.acid_HMDB0003229	0.5952078946
## Xanthine_HMDB0000292	-0.8091158980
## Gluconic.acid_HMDB0000625	-0.1486797699
## Palmitic.acid_HMDB0000220	0.8048316166
## Glucaric.acid_HMDB0000663	-0.0557618916
## N.Acetylmannosamine_HMDB0001129	0.3155170966
## N.Acetyl.D.glucosamine_HMDB0000215	0.2869464516
## D.Ribulose.5.phosphate_HMDB0000618	0.1158967632
## Uric.acid_HMDB0000289	-0.5224775690
## D.Ribose.5.phosphate_HMDB0001548	0.0805814933
## myo.Inositol_HMDB0000211	0.3535524625
## D.Ribose.5.phosphate_HMDB0001548.1	0.0553312187
## Heptadecanoic.acid_HMDB0002259	0.0961625024
## Octadecanol_HMDB0002350	0.8262223726
## Glutathione_HMDB0000125	-0.3248747904
## Linoleic.acid_HMDB0000673	0.7525633595
## Oleic.acid_HMDB0000207	0.5823505504
## Elaidic.acid_HMDB0000573	0.6524544571

## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.0076931934
## Stearic.acid_HMDB0000827	0.9101675985
## L.Tryptophan_HMDB0000929	0.8735973474
## Fructose.1.phosphate_HMDB0001076	0.2047400525
## Mannose.6.phosphate_HMDB0001078	-0.1415421782
## Arachidonic.acid_HMDB0001043	0.4081220967
## Glucose.6.phosphate_HMDB0001401	0.3342869669
## X6.Phosphogluconic.acid_HMDB0001316	0.7948709965
## Inositol.phosphate_HMDB0002985	0.6410343964
## Uridine_HMDB0000296	0.5521343190
## Stigmasterol_HMDB0000937	0.8204697908
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.4209394059
## Sucrose_HMDB0000258	0.2127930212
## MG.18.0e.0.0.0.0._HMDB0011143	1.0000000000
## Trehalose_HMDB0000975	-0.1604092636
## D.Maltose_HMDB0000163	-0.1544204025
## Lactitol_HMDB00040937	0.2291335187
## Xanthylic.acid_HMDB0001554	-0.5893581228
## Adenosine.monophosphate_HMDB0000045	0.2042691479
## Cholesterol_HMDB0000067	0.4429240926
## Lathosterol_HMDB0001170	0.6644483969
## X7b.Hydroxycholesterol._HMDB0006119	-0.2914482088
##	
## Dimethylglycine_HMDB0000092	Trehalose_HMDB0000975
## Glyoxylic.acid_HMDB0000119	-0.0058046206
## Pyruvic.acid_HMDB0000243	0.0003855510
## L.Lactic.acid_HMDB0000190	-0.0961904303
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.2618507572
## Glycolic.acid_HMDB0000115	-0.2161807326
## Caproic.acid_HMDB0000535	-0.4088048056
## L.Alanine_HMDB0000161	-0.0485521569
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.1145752734
## Glycine_HMDB0000123	-0.2559112759
## Oxalic.acid_HMDB0002329	0.0990870246
## Hydroxylamine_HMDB0003338	0.0681737212
## X2.Hydroxybutyric.acid_HMDB0000008	-0.7338306279
## Acetoacetic.acid_HMDB0000060	-0.2123537032
## Hydroxypropionic.acid_HMDB0000700	-0.5985049460
## Pyruvic.acid_HMDB0000243.1	-0.3966281575
## X3.Hydroxybutyric.acid_HMDB0000357	-0.3965137907
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.2095234307
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.2323959853
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.3262298970
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.2716224240
## Beta.Alanine_HMDB0000056	-0.1092455789
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.2787043855
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.0132075042
## Malonic.acid_HMDB0000691	-0.1853780679
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.0044467971
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.1735980329
## Ketoleucine_HMDB0000695	-0.2646674795
## L.Valine_HMDB0000883	-0.2366928711
## ITSD_Valine	-0.2625177873
## Urea_HMDB0000294	-0.2572410640
	-0.0667958647

## Benzoic.acid_HMDB0001870	-0.0224481974
## Caprylic.acid_HMDB0000482	0.0221059774
## Glycerol_HMDB0000131	-0.2312407790
## Ethanolamine_HMDB0000149	-0.2744895222
## L.Leucine_HMDB0000687	-0.2678202401
## Acetylglycine_HMDB0000532	-0.2852951049
## L.Isoleucine_HMDB0000172	-0.2473586187
## Nicotinic.acid_HMDB0001488	0.6574847974
## Maleic.acid_HMDB0000176	-0.2878964593
## L.Proline_HMDB0000162	-0.2428335331
## Phenylacetic.acid_HMDB0000209	-0.2203534386
## Succinic.acid_HMDB0000254	-0.3390006470
## Glycine_HMDB0000123.1	-0.3837038770
## Methylsuccinic.acid_HMDB0001844	-0.2028553299
## Glyceric.acid_HMDB0000139	-0.3642066723
## Fumaric.acid_HMDB0000134	-0.1646877631
## Uracil_HMDB0000300	-0.2179001218
## Pelargonic.acid_HMDB0000847	0.1559962621
## L.Serine_HMDB0000187	-0.1688864491
## L.Threonine_HMDB0000167	-0.1968842546
## Mesaconic.acid_HMDB0000749	0.4307861456
## Glutaric.acid_HMDB0000661	0.2993724904
## Thymine_HMDB0000262	-0.2430910526
## Beta.Alanine_HMDB0000056.1	-0.1994819038
## L.Homoserine_HMDB0000719	-0.3495365250
## Capric.acid_HMDB0000511	-0.3373440659
## Citramalic.acid_HMDB0000426	0.1575335105
## Malic.acid_HMDB0000744	-0.3122490667
## Niacinamide_HMDB0001406	-0.0227625820
## Adipic.acid_HMDB0000448	-0.0258655527
## D.Threitol_HMDB0004136	0.0115313006
## Dihydrouracil_HMDB0000076	-0.3316953284
## Erythritol_HMDB0002994	-0.2791203055
## N.Acetylserine_HMDB0002931	-0.2061061666
## L.Aspartic.acid_HMDB0000191	-0.1704517067
## L.Methionine_HMDB0000696	-0.1662703863
## X4.Hydroxyproline_HMDB0000725	-0.0939591511
## Pyroglutamic.acid_HMDB0000267	0.0456486095
## Cytosine_HMDB0000630	0.1458384776
## Gamma.Aminobutyric.acid_HMDB0000112	0.5631019685
## Threonic.acid_HMDB0000943	-0.2589040269
## L.Cysteine_HMDB0000574	-0.3713663875
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.0373709995
## Creatinine_HMDB0000562	-0.2999760790
## X3.Hydroxyglutaric.acid_HMDB0000428	0.3375498248
## Oxoglutaric.acid_HMDB0000208	0.0659890528
## Phenylpyruvic.acid_HMDB0000205	0.2085832262
## Pimelic.acid_HMDB0000857	0.2696500836
## Phenyllactic.acid_HMDB0000779	0.3000890253
## Phosphoenolpyruvic.acid_HMDB0000263	0.3461768550
## Ornithine_HMDB0000214	-0.0569239776
## Hypotaurine_HMDB0000965	-0.1946992135
## Triethanolamine_HMDB0032538	-0.0903774170
## X2.Aminobenzoic.acid_HMDB0001123	-0.3095901796

## L.Glutamic.acid_HMDB0000148	0.0427482768
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.3070105051
## X5.Aminopentanoic.acid_HMDB0003355	-0.0688133950
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.3389277271
## L.Phenylalanine_HMDB0000159	-0.1809309136
## Dodecanoic.acid_HMDB0000638	-0.4250737364
## Lyxose_HMDB0003402_1	0.0578914185
## D.Xylose_HMDB0000098	-0.0128795331
## Lyxose_HMDB0003402_2	-0.0170638549
## D.Arabinose_HMDB0029942	0.0889581827
## L.Asparagine_HMDB0000168	0.0517556784
## D.Ribulose_HMDB0000621	-0.1106453206
## D.Ribose_HMDB0000283	0.1085561830
## D.Xylulose_HMDB0001644	-0.0999876139
## X3.Sulfinoalanine_HMDB0000996	0.2914703808
## Suberic.acid_HMDB0000893	0.1463134834
## L.Lysine_HMDB0000182	-0.0026938832
## Levoglucosan_HMDB0000640	-0.0734467909
## D.Arabitol_HMDB0000568	0.4311515634
## Ribitol_HMDB0000508	-0.3994395698
## cis.Aconitic.acid_HMDB0000072	0.0254636213
## Quinolinic.acid_HMDB0000232	0.4696546533
## Putrescine_HMDB0001414	0.3520512046
## Glycerol.3.phosphate_HMDB0000126	0.6072386251
## Vanillic.acid_HMDB0000484	-0.4764096556
## L.Glutamine_HMDB0000641	-0.0006862762
## X2.Phosphoglyceric.acid_HMDB0000362	-0.0588969275
## Azelaic.acid_HMDB0000784	0.8982656810
## L.Dihydroorotic.acid_HMDB0003349	0.0202567890
## O.Phosphoethanolamine_HMDB0000224	-0.2322923346
## X3.Phosphoglyceric.acid_HMDB0000807	0.0254906479
## Isocitric.acid_HMDB0000193	-0.2459714716
## Hypoxanthine_HMDB0000157	0.0629337030
## Citric.acid_HMDB0000094	-0.0837377575
## L.Arginine_HMDB0000517	-0.2914263081
## Ornithine_HMDB0000214.1	-0.1904561971
## Dopamine_HMDB0000073	-0.2102388111
## Myristic.acid_HMDB0000806	-0.3410346396
## X1.5.Anhydrosorbitol_HMDB0002712	0.0135404581
## D.Tagatose_HMDB0003418	0.1431451071
## Psicose_1	-0.0860413546
## Sebacic.acid_HMDB0000792	-0.1843836921
## D.Fructose_HMDB0000660	0.1302515291
## Gluconolactone_HMDB0000150	-0.1922429957
## L.Sorbose_HMDB0001266	0.1393763286
## D.Mannose_HMDB0000169	-0.1702055237
## Hydroxyphenyllactic.acid_HMDB0000755	-0.3027584452
## D.Glucose_HMDB0000122	-0.0627658464
## N.Acetylglutamine_HMDB0006029	-0.1435284690
## L.Lysine_HMDB0000182.1	-0.1842675558
## D.Mannose_HMDB0000169.1	-0.1955217495
## Tyramine_HMDB0000306	-0.1918457140
## L.Histidine_HMDB0000177	-0.1643551768
## D.Glucose_HMDB0000122.1	-0.0879723454

## X1.Hexadecanol_HMDB0003424	0.0006670886
## L.Tyrosine_HMDB0000158	-0.0688454777
## Mannitol_HMDB0000765	0.0017371813
## Sorbitol_HMDB0000247	0.1158539690
## ITSD_Sorbitol	-0.5099660263
## Galacturonic.acid_HMDB0002545	-0.4224391520
## Pantothenic.acid_HMDB0000210	-0.1561159401
## Palmitoleic.acid_HMDB0003229	-0.2829067163
## Xanthine_HMDB0000292	-0.0082223003
## Gluconic.acid_HMDB0000625	-0.2664831357
## Palmitic.acid_HMDB0000220	-0.2755736265
## Glucaric.acid_HMDB0000663	-0.4341697251
## N.Acetylmannosamine_HMDB0001129	-0.1915639019
## N.Acetyl.D.glucosamine_HMDB0000215	-0.2804730877
## D.Ribulose.5.phosphate_HMDB0000618	0.2214882234
## Uric.acid_HMDB0000289	-0.0952316521
## D.Ribose.5.phosphate_HMDB0001548	0.3633427525
## myo.Inositol_HMDB0000211	0.0297466179
## D.Ribose.5.phosphate_HMDB0001548.1	0.1458482195
## Heptadecanoic.acid_HMDB0002259	-0.1252500371
## Octadecanol_HMDB0002350	-0.1401740135
## Glutathione_HMDB0000125	0.1993485255
## Linoleic.acid_HMDB0000673	-0.2457231016
## Oleic.acid_HMDB0000207	-0.2678998696
## Elaidic.acid_HMDB0000573	-0.2639148020
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.1724631955
## Stearic.acid_HMDB0000827	-0.0961182119
## L.Tryptophan_HMDB0000929	-0.0373881303
## Fructose.1.phosphate_HMDB0001076	0.1690722846
## Mannose.6.phosphate_HMDB0001078	0.6628775654
## Arachidonic.acid_HMDB0001043	-0.1816388541
## Glucose.6.phosphate_HMDB0001401	-0.0976511092
## X6.Phosphogluconic.acid_HMDB0001316	-0.1816449999
## Inositol.phosphate_HMDB0002985	-0.1501987722
## Uridine_HMDB0000296	-0.4227900768
## Stigmasterol_HMDB0000937	-0.2198525727
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.1790621485
## Sucrose_HMDB0000258	0.2261318871
## MG.18.0e.0.0.0.0._HMDB0011143	-0.1604092636
## Trehalose_HMDB0000975	1.0000000000
## D.Maltose_HMDB0000163	0.9999054499
## Lactitol_HMDB00040937	0.0769724853
## Xanthylic.acid_HMDB0001554	0.3681739071
## Adenosine.monophosphate_HMDB0000045	0.1591166981
## Cholesterol_HMDB0000067	-0.2712541127
## Lathosterol_HMDB0001170	-0.1701972651
## X7b.Hydroxycholesterol_.HMDB0006119	0.1108117415
## D.Maltose_HMDB0000163	
## Dimethylglycine_HMDB0000092	-0.008492628
## Glyoxylic.acid_HMDB0000119	-0.002352652
## Pyruvic.acid_HMDB0000243	-0.085145382
## L.Lactic.acid_HMDB0000190	-0.255393461
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.208727954
## Glycolic.acid_HMDB0000115	-0.404339617

## Caproic.acid_HMDB0000535	-0.048476406
## L.Alanine_HMDB0000161	-0.109748873
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.248883295
## Glycine_HMDB0000123	0.107015564
## Oxalic.acid_HMDB0002329	0.067247076
## Hydroxylamine_HMDB0003338	-0.732125816
## X2.Hydroxybutyric.acid_HMDB0000008	-0.207102780
## Acetoacetic.acid_HMDB0000060	-0.595107217
## Hydroxypropionic.acid_HMDB0000700	-0.389575883
## Pyruvic.acid_HMDB0000243.1	-0.392443134
## X3.Hydroxybutyric.acid_HMDB0000357	-0.202813340
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.226069700
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.323386170
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.268098544
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.108987487
## Beta.Alanine_HMDB0000056	0.283573826
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.019362873
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.179826214
## Malonic.acid_HMDB0000691	0.006206800
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.170438824
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.258086288
## Ketoleucine_HMDB0000695	-0.231248272
## L.Valine_HMDB0000883	-0.257581543
## ITSD_Valine	-0.252228029
## Urea_HMDB0000294	-0.060033115
## Benzoic.acid_HMDB0001870	-0.017849539
## Caprylic.acid_HMDB0000482	0.024475088
## Glycerol_HMDB0000131	-0.224973929
## Ethanolamine_HMDB0000149	-0.269099362
## L.Leucine_HMDB0000687	-0.262047517
## Acetyl glycine_HMDB0000532	-0.279070431
## L.Isoleucine_HMDB0000172	-0.241789504
## Nicotinic.acid_HMDB0001488	0.659424797
## Maleic.acid_HMDB0000176	-0.282451532
## L.Proline_HMDB0000162	-0.237401398
## Phenylacetic.acid_HMDB0000209	-0.216655070
## Succinic.acid_HMDB0000254	-0.331621518
## Glycine_HMDB0000123.1	-0.376402285
## Methylsuccinic.acid_HMDB0001844	-0.198225510
## Glyceric.acid_HMDB0000139	-0.359542397
## Fumaric.acid_HMDB0000134	-0.156480973
## Uracil_HMDB0000300	-0.209982097
## Pelargonic.acid_HMDB0000847	0.155666578
## L.Serine_HMDB0000187	-0.162289986
## L.Threonine_HMDB0000167	-0.190518801
## Mesaconic.acid_HMDB0000749	0.435346422
## Glutaric.acid_HMDB0000661	0.303928238
## Thymine_HMDB0000262	-0.241121369
## Beta.Alanine_HMDB0000056.1	-0.195602903
## L.Homoserine_HMDB0000719	-0.345812726
## Capric.acid_HMDB0000511	-0.334131526
## Citramalic.acid_HMDB0000426	0.164349440
## Malic.acid_HMDB0000744	-0.307147983
## Niacinamide_HMDB0001406	-0.016938773

## Adipic.acid_HMDB0000448	-0.021248192
## D.Threitol_HMDB0004136	0.020575534
## Dihydrouracil_HMDB0000076	-0.329004312
## Erythritol_HMDB0002994	-0.272470778
## N.Acetylserine_HMDB0002931	-0.199614002
## L.Aspartic.acid_HMDB0000191	-0.164217313
## L.Methionine_HMDB0000696	-0.161990622
## X4.Hydroxyproline_HMDB0000725	-0.086899923
## Pyroglutamic.acid_HMDB0000267	0.053187006
## Cytosine_HMDB0000630	0.145926905
## Gamma.Aminobutyric.acid_HMDB0000112	0.569641799
## Threonic.acid_HMDB0000943	-0.256333862
## L.Cysteine_HMDB0000574	-0.368008934
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.038673385
## Creatinine_HMDB0000562	-0.296773049
## X3.Hydroxyglutaric.acid_HMDB0000428	0.338828875
## Oxoglutaric.acid_HMDB0000208	0.071038004
## Phenylpyruvic.acid_HMDB0000205	0.212903268
## Pimelic.acid_HMDB0000857	0.272505909
## Phenyllactic.acid_HMDB0000779	0.300505688
## Phosphoenolpyruvic.acid_HMDB0000263	0.341766637
## Ornithine_HMDB0000214	-0.055086313
## Hypotaurine_HMDB0000965	-0.190511167
## Triethanolamine_HMDB0032538	-0.085718792
## X2.Aminobenzoic.acid_HMDB0001123	-0.304848992
## L.Glutamic.acid_HMDB0000148	0.045270663
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.301691516
## X5.Aminopentanoic.acid_HMDB0003355	-0.064441274
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.333532970
## L.Phenylalanine_HMDB0000159	-0.177123710
## Dodecanoic.acid_HMDB0000638	-0.418856593
## Lyxose_HMDB0003402_1	0.056351381
## D.Xylose_HMDB0000098	-0.013996055
## Lyxose_HMDB0003402_2	-0.017631869
## D.Arabinose_HMDB0029942	0.086311133
## L.Asparagine_HMDB0000168	0.049983181
## D.Ribulose_HMDB0000621	-0.111146474
## D.Ribose_HMDB0000283	0.105406301
## D.Xylulose_HMDB0001644	-0.100706776
## X3.Sulfinioalanine_HMDB0000996	0.288933500
## Suberic.acid_HMDB0000893	0.154081215
## L.Lysine_HMDB0000182	-0.002169138
## Levoglucosan_HMDB0000640	-0.075041907
## D.Arabitool_HMDB0000568	0.440233244
## Ribitol_HMDB0000508	-0.393357691
## cis.Aconitic.acid_HMDB0000072	0.025758283
## Quinolinic.acid_HMDB0000232	0.478067530
## Putrescine_HMDB0001414	0.357448124
## Glycerol.3.phosphate_HMDB0000126	0.604497608
## Vanillic.acid_HMDB0000484	-0.469853704
## L.Glutamine_HMDB0000641	-0.006825994
## X2.Phosphoglyceric.acid_HMDB0000362	-0.054827537
## Azelaic.acid_HMDB0000784	0.901022890
## L.Dihydroorotic.acid_HMDB0003349	0.018497561

## O.Phosphoethanolamine_HMDB0000224	-0.227265506
## X3.Phosphoglyceric.acid_HMDB0000807	0.029892628
## Isocitric.acid_HMDB0000193	-0.239696886
## Hypoxanthine_HMDB0000157	0.056217125
## Citric.acid_HMDB0000094	-0.081395793
## L.Arginine_HMDB0000517	-0.295387089
## Ornithine_HMDB0000214.1	-0.186910151
## Dopamine_HMDB0000073	-0.206787136
## Myristic.acid_HMDB0000806	-0.333853605
## X1.5.Anhydrosorbitol_HMDB0002712	0.017363462
## D.Tagatose_HMDB0003418	0.141037650
## Psicose_1	-0.086948818
## Sebacic.acid_HMDB0000792	-0.177858922
## D.Fructose_HMDB0000660	0.131355096
## Gluconolactone_HMDB0000150	-0.191042413
## L.Sorbose_HMDB0001266	0.140288184
## D.Mannose_HMDB0000169	-0.165860764
## Hydroxyphenyllactic.acid_HMDB0000755	-0.295417265
## D.Glucose_HMDB0000122	-0.058004243
## N.Acetylglutamine_HMDB0006029	-0.139549807
## L.Lysine_HMDB0000182.1	-0.181585158
## D.Mannose_HMDB0000169.1	-0.192422867
## Tyramine_HMDB0000306	-0.189365226
## L.Histidine_HMDB0000177	-0.161809571
## D.Glucose_HMDB0000122.1	-0.084373267
## X1.Hexadecanol_HMDB0003424	0.007347841
## L.Tyrosine_HMDB0000158	-0.067823134
## Mannitol_HMDB0000765	0.007448774
## Sorbitol_HMDB0000247	0.111682954
## ITSD_Sorbitol	-0.503840373
## Galacturonic.acid_HMDB0002545	-0.417967036
## Pantothenic.acid_HMDB0000210	-0.148064220
## Palmitoleic.acid_HMDB0003229	-0.278572687
## Xanthine_HMDB0000292	-0.010183914
## Gluconic.acid_HMDB0000625	-0.267063395
## Palmitic.acid_HMDB0000220	-0.268243053
## Glucaric.acid_HMDB0000663	-0.428009878
## N.Acetylmannosamine_HMDB0001129	-0.190325464
## N.Acetyl.D.glucosamine_HMDB0000215	-0.275154338
## D.Ribulose.5.phosphate_HMDB0000618	0.219923434
## Uric.acid_HMDB0000289	-0.097708604
## D.Ribose.5.phosphate_HMDB0001548	0.359858925
## myo.Inositol_HMDB0000211	0.039315838
## D.Ribose.5.phosphate_HMDB0001548.1	0.142904866
## Heptadecanoic.acid_HMDB0002259	-0.122967384
## Octadecanol_HMDB0002350	-0.131677692
## Glutathione_HMDB0000125	0.195976939
## Linoleic.acid_HMDB0000673	-0.241436782
## Oleic.acid_HMDB0000207	-0.264599652
## Elaidic.acid_HMDB0000573	-0.259899831
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.170485777
## Stearic.acid_HMDB0000827	-0.087700505
## L.Tryptophan_HMDB0000929	-0.029433946
## Fructose.1.phosphate_HMDB0001076	0.169019620

## Mannose.6.phosphate_HMDB0001078	0.662323722
## Arachidonic.acid_HMDB0001043	-0.181287147
## Glucose.6.phosphate_HMDB0001401	-0.096202378
## X6.Phosphogluconic.acid_HMDB0001316	-0.174869915
## Inositol.phosphate_HMDB0002985	-0.147750369
## Uridine_HMDB0000296	-0.417220625
## Stigmasterol_HMDB0000937	-0.211486664
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.173371673
## Sucrose_HMDB0000258	0.233006080
## MG.18.0e.0.0.0.0._HMDB0011143	-0.154420402
## Trehalose_HMDB0000975	0.999905450
## D.Maltose_HMDB0000163	1.000000000
## Lactitol_HMDB00040937	0.077807181
## Xanthylic.acid_HMDB0001554	0.359697434
## Adenosine.monophosphate_HMDB0000045	0.159969040
## Cholesterol_HMDB0000067	-0.269508187
## Lathosterol_HMDB0001170	-0.167826947
## X7b.Hydroxycholesterol_.HMDB0006119	0.109623205
## Lactitol_HMDB00040937	
## Dimethylglycine_HMDB0000092	0.396501340
## Glyoxylic.acid_HMDB0000119	0.395113696
## Pyruvic.acid_HMDB0000243	0.168190867
## L.Lactic.acid_HMDB0000190	-0.014494571
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.413365815
## Glycolic.acid_HMDB0000115	0.116154353
## Caproic.acid_HMDB0000535	0.034884587
## L.Alanine_HMDB0000161	0.107848871
## Alpha.ketoisovaleric.acid_HMDB0000019	0.309342954
## Glycine_HMDB0000123	0.040716840
## Oxalic.acid_HMDB0002329	0.076492182
## Hydroxylamine_HMDB0003338	0.016867536
## X2.Hydroxybutyric.acid_HMDB0000008	0.472639038
## Acetoacetic.acid_HMDB0000060	0.128487155
## Hydroxypropionic.acid_HMDB0000700	0.018020441
## Pyruvic.acid_HMDB0000243.1	0.190469708
## X3.Hydroxybutyric.acid_HMDB0000357	0.398719981
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.393279434
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.356216287
## D.Alpha.aminobutyric.acid_HMDB0000650	0.249011936
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.534632401
## Beta.Alanine_HMDB0000056	0.095191763
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.299683107
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.370292153
## Malonic.acid_HMDB0000691	0.038847685
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.071470045
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.172593217
## Ketoleucine_HMDB0000695	0.350623533
## L.Valine_HMDB0000883	0.184548880
## ITSD_Valine	0.133810993
## Urea_HMDB0000294	0.381691420
## Benzoic.acid_HMDB0001870	-0.003319206
## Caprylic.acid_HMDB0000482	0.277853000
## Glycerol_HMDB0000131	-0.102637823
## Ethanolamine_HMDB0000149	-0.018996278

## L.Leucine_HMDB0000687	0.084864331
## Acetylglycine_HMDB0000532	0.162949357
## L.Isoleucine_HMDB0000172	0.043029833
## Nicotinic.acid_HMDB0001488	0.176935183
## Maleic.acid_HMDB0000176	0.249315088
## L.Proline_HMDB0000162	0.217482284
## Phenylacetic.acid_HMDB0000209	0.308139426
## Succinic.acid_HMDB0000254	0.043084970
## Glycine_HMDB0000123.1	0.003625297
## Methylsuccinic.acid_HMDB0001844	0.125905660
## Glyceric.acid_HMDB0000139	-0.041267521
## Fumaric.acid_HMDB0000134	0.311769455
## Uracil_HMDB0000300	0.137717714
## Pelargonic.acid_HMDB0000847	0.346955853
## L.Serine_HMDB0000187	-0.131040714
## L.Threonine_HMDB0000167	0.054474583
## Mesaconic.acid_HMDB0000749	0.613570900
## Glutaric.acid_HMDB0000661	0.205725843
## Thymine_HMDB0000262	0.133803732
## Beta.Alanine_HMDB0000056.1	0.089602451
## L.Homoserine_HMDB0000719	-0.062693198
## Capric.acid_HMDB0000511	0.061039739
## Citramalic.acid_HMDB0000426	0.097174459
## Malic.acid_HMDB0000744	0.110286503
## Niacinamide_HMDB0001406	0.325167210
## Adipic.acid_HMDB0000448	-0.069910838
## D.Threitol_HMDB0004136	0.330696827
## Dihydrouracil_HMDB0000076	0.295227831
## Erythritol_HMDB0002994	0.490809257
## N.Acetylserine_HMDB0002931	-0.089155160
## L.Aspartic.acid_HMDB0000191	0.021083072
## L.Methionine_HMDB0000696	-0.004317221
## X4.Hydroxyproline_HMDB0000725	0.177101703
## Pyroglutamic.acid_HMDB0000267	0.129920224
## Cytosine_HMDB0000630	0.203287820
## Gamma.Aminobutyric.acid_HMDB0000112	0.175935192
## Threonic.acid_HMDB0000943	0.427323086
## L.Cysteine_HMDB0000574	0.471610873
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.216231988
## Creatinine_HMDB0000562	-0.046658339
## X3.Hydroxyglutaric.acid_HMDB0000428	0.112108141
## Oxoglutaric.acid_HMDB0000208	0.075620833
## Phenylpyruvic.acid_HMDB0000205	-0.192441595
## Pimelic.acid_HMDB0000857	-0.005525386
## Phenyllactic.acid_HMDB0000779	-0.018085888
## Phosphoenolpyruvic.acid_HMDB0000263	0.049526890
## Ornithine_HMDB0000214	-0.140399088
## Hypotaurine_HMDB0000965	0.388900607
## Triethanolamine_HMDB0032538	0.040970611
## X2.Aminobenzoic.acid_HMDB0001123	-0.117556222
## L.Glutamic.acid_HMDB0000148	0.099748596
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.047730221
## X5.Aminopentanoic.acid_HMDB0003355	0.194792570
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.006009824

## L.Phenylalanine_HMDB0000159	-0.057002523
## Dodecanoic.acid_HMDB0000638	0.127491667
## Lyxose_HMDB0003402_1	0.150751711
## D.Xylose_HMDB0000098	-0.009514375
## Lyxose_HMDB0003402_2	-0.005555008
## D.Arabinose_HMDB0029942	0.124705887
## L.Asparagine_HMDB0000168	-0.236224278
## D.Ribulose_HMDB0000621	-0.027494217
## D.Ribose_HMDB0000283	0.139968001
## D.Xylulose_HMDB0001644	-0.010882271
## X3.Sulfinoalanine_HMDB0000996	-0.119539751
## Suberic.acid_HMDB0000893	0.100603172
## L.Lysine_HMDB0000182	-0.227602017
## Levoglucosan_HMDB0000640	-0.023953321
## D.Arabitol_HMDB0000568	0.301679008
## Ribitol_HMDB0000508	0.125690093
## cis.Aconitic.acid_HMDB0000072	0.078910580
## Quinolinic.acid_HMDB0000232	0.291336580
## Putrescine_HMDB0001414	-0.046843033
## Glycerol.3.phosphate_HMDB0000126	0.056362978
## Vanillic.acid_HMDB0000484	0.342795503
## L.Glutamine_HMDB0000641	-0.320027789
## X2.Phosphoglyceric.acid_HMDB0000362	0.150413503
## Azelaic.acid_HMDB0000784	0.150269357
## L.Dihydroorotic.acid_HMDB0003349	0.110255366
## O.Phosphoethanolamine_HMDB0000224	-0.201803863
## X3.Phosphoglyceric.acid_HMDB0000807	0.222438854
## Isocitric.acid_HMDB0000193	0.244758352
## Hypoxanthine_HMDB0000157	-0.330194176
## Citric.acid_HMDB0000094	0.227873385
## L.Arginine_HMDB0000517	-0.210502613
## Ornithine_HMDB0000214.1	-0.081130604
## Dopamine_HMDB0000073	-0.107202141
## Myristic.acid_HMDB0000806	-0.023861826
## X1.5.Anhydrosorbitol_HMDB0002712	0.630031923
## D.Tagatose_HMDB0003418	0.185362506
## Psicose_1	-0.037209466
## Sebacic.acid_HMDB0000792	0.278395769
## D.Fructose_HMDB0000660	0.038959622
## Gluconolactone_HMDB0000150	0.043822765
## L.Sorbose_HMDB0001266	0.037153386
## D.Mannose_HMDB0000169	0.125872446
## Hydroxyphenyllactic.acid_HMDB0000755	0.437433338
## D.Glucose_HMDB0000122	0.144388543
## N.Acetylglutamine_HMDB0006029	0.174814608
## L.Lysine_HMDB0000182.1	-0.119563274
## D.Mannose_HMDB0000169.1	-0.024784851
## Tyramine_HMDB0000306	-0.121035121
## L.Histidine_HMDB0000177	-0.137251806
## D.Glucose_HMDB0000122.1	0.224839091
## X1.Hexadecanol_HMDB0003424	0.079226359
## L.Tyrosine_HMDB0000158	-0.139902663
## Mannitol_HMDB0000765	0.126219297
## Sorbitol_HMDB0000247	-0.289697370

## ITSD_Sorbitol	0.163810149
## Galacturonic.acid_HMDB0002545	0.561788261
## Pantothenic.acid_HMDB0000210	0.380595629
## Palmitoleic.acid_HMDB0003229	-0.064584398
## Xanthine_HMDB0000292	-0.212556159
## Gluconic.acid_HMDB0000625	0.250541305
## Palmitic.acid_HMDB0000220	0.042526394
## Glucaric.acid_HMDB0000663	-0.057912833
## N.Acetylmannosamine_HMDB0001129	0.432601689
## N.Acetyl.D.glucosamine_HMDB0000215	0.133581970
## D.Ribulose.5.phosphate_HMDB0000618	0.377764031
## Uric.acid_HMDB0000289	-0.264761218
## D.Ribose.5.phosphate_HMDB0001548	0.227779448
## myo.Inositol_HMDB0000211	0.256223234
## D.Ribose.5.phosphate_HMDB0001548.1	0.208534839
## Heptadecanoic.acid_HMDB0002259	-0.066274064
## Octadecanol_HMDB0002350	0.209989598
## Glutathione_HMDB0000125	0.094623275
## Linoleic.acid_HMDB0000673	-0.071685996
## Oleic.acid_HMDB0000207	-0.118797086
## Elaidic.acid_HMDB0000573	0.011669205
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.138987790
## Stearic.acid_HMDB0000827	0.123950049
## L.Tryptophan_HMDB0000929	0.172865814
## Fructose.1.phosphate_HMDB0001076	0.255650654
## Mannose.6.phosphate_HMDB0001078	-0.038809055
## Arachidonic.acid_HMDB0001043	-0.160845290
## Glucose.6.phosphate_HMDB0001401	0.279678724
## X6.Phosphogluconic.acid_HMDB0001316	0.182317181
## Inositol.phosphate_HMDB0002985	0.409431224
## Uridine_HMDB0000296	0.157231732
## Stigmasterol_HMDB0000937	0.195819873
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.175093496
## Sucrose_HMDB0000258	-0.074243096
## MG.18.Oe.0.0.0.0._HMDB0011143	0.229133519
## Trehalose_HMDB0000975	0.076972485
## D.Maltose_HMDB0000163	0.077807181
## Lactitol_HMDB0040937	1.000000000
## Xanthylic.acid_HMDB0001554	-0.206570456
## Adenosine.monophosphate_HMDB0000045	0.251836452
## Cholesterol_HMDB0000067	0.469406170
## Lathosterol_HMDB0001170	0.242051285
## X7b.Hydroxycholesterol_.HMDB0006119	0.141072403
##	Xanthylic.acid_HMDB0001554
## Dimethylglycine_HMDB0000092	0.50200122
## Glyoxylic.acid_HMDB0000119	0.50852582
## Pyruvic.acid_HMDB0000243	-0.77370680
## L.Lactic.acid_HMDB0000190	-0.76085026
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-0.72988191
## Glycolic.acid_HMDB0000115	-0.25332616
## Caproic.acid_HMDB0000535	0.41403134
## L.Alanine_HMDB0000161	-0.66486628
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.42009714
## Glycine_HMDB0000123	-0.65955071

## Oxalic.acid_HMDB0002329	-0.01227448
## Hydroxylamine_HMDB0003338	-0.47433160
## X2.Hydroxybutyric.acid_HMDB0000008	-0.51087594
## Acetoacetic.acid_HMDB0000060	-0.43483560
## Hydroxypropionic.acid_HMDB0000700	-0.88620773
## Pyruvic.acid_HMDB0000243.1	-0.63284676
## X3.Hydroxybutyric.acid_HMDB0000357	-0.62767252
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	-0.62236490
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	-0.28931629
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.76854156
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	-0.24177006
## Beta.Alanine_HMDB0000056	-0.61970050
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.48836169
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	-0.59355818
## Malonic.acid_HMDB0000691	-0.55603777
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.68116084
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.87457667
## Ketoleucine_HMDB0000695	-0.26397320
## L.Valine_HMDB0000883	-0.79805421
## ITSD_Valine	-0.85758137
## Urea_HMDB0000294	-0.71431191
## Benzoic.acid_HMDB0001870	-0.15634923
## Caprylic.acid_HMDB0000482	0.22694615
## Glycerol_HMDB0000131	-0.77096712
## Ethanolamine_HMDB0000149	-0.66169683
## L.Leucine_HMDB0000687	-0.82136804
## Acetyl glycine_HMDB0000532	-0.39632882
## L.Isoleucine_HMDB0000172	-0.76357428
## Nicotinic.acid_HMDB0001488	0.17510545
## Maleic.acid_HMDB0000176	-0.29566358
## L.Proline_HMDB0000162	-0.74513258
## Phenylacetic.acid_HMDB0000209	-0.05829326
## Succinic.acid_HMDB0000254	-0.81107426
## Glycine_HMDB0000123.1	-0.82662452
## Methylsuccinic.acid_HMDB0001844	-0.42514876
## Glyceric.acid_HMDB0000139	-0.15511088
## Fumaric.acid_HMDB0000134	-0.78362649
## Uracil_HMDB0000300	-0.60790631
## Pelargonic.acid_HMDB0000847	0.40788298
## L.Serine_HMDB0000187	-0.61759077
## L.Threonine_HMDB0000167	-0.69730037
## Mesaconic.acid_HMDB0000749	-0.11754355
## Glutaric.acid_HMDB0000661	0.03493263
## Thymine_HMDB0000262	-0.44879453
## Beta.Alanine_HMDB0000056.1	-0.72791416
## L.Homoserine_HMDB0000719	-0.16965420
## Capric.acid_HMDB0000511	-0.13596620
## Citramalic.acid_HMDB0000426	-0.35466407
## Malic.acid_HMDB0000744	-0.19735106
## Niacinamide_HMDB0001406	-0.66177218
## Adipic.acid_HMDB0000448	-0.30885053
## D.Threitol_HMDB0004136	-0.48664078
## Dihydrouracil_HMDB0000076	-0.44734936
## Erythritol_HMDB0002994	-0.72907573

## N.Acetylserine_HMDB0002931	-0.58617769
## L.Aspartic.acid_HMDB0000191	-0.62484402
## L.Methionine_HMDB0000696	-0.64600812
## X4.Hydroxyproline_HMDB0000725	-0.69069741
## Pyroglutamic.acid_HMDB0000267	-0.64919735
## Cytosine_HMDB0000630	0.13656540
## Gamma.Aminobutyric.acid_HMDB0000112	-0.40428297
## Threonic.acid_HMDB0000943	-0.14188910
## L.Cysteine_HMDB0000574	-0.24067264
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.14848509
## Creatinine_HMDB0000562	-0.66865912
## X3.Hydroxyglutaric.acid_HMDB0000428	0.42284639
## Oxoglutaric.acid_HMDB0000208	-0.43944488
## Phenylpyruvic.acid_HMDB0000205	0.25284105
## Pimelic.acid_HMDB0000857	-0.30730318
## Phenyllactic.acid_HMDB0000779	0.36774341
## Phosphoenolpyruvic.acid_HMDB0000263	0.79532534
## Ornithine_HMDB0000214	-0.27080982
## Hypotaurine_HMDB0000965	-0.63721259
## Triethanolamine_HMDB0032538	-0.49780663
## X2.Aminobenzoic.acid_HMDB0001123	-0.73582695
## L.Glutamic.acid_HMDB0000148	-0.45419172
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.74220713
## X5.Aminopentanoic.acid_HMDB0003355	-0.08620141
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.04666657
## L.Phenylalanine_HMDB0000159	-0.65113604
## Dodecanoic.acid_HMDB0000638	-0.78164456
## Lyxose_HMDB0003402_1	0.35625850
## D.Xylose_HMDB0000098	0.54383928
## Lyxose_HMDB0003402_2	0.45402642
## D.Arabinose_HMDB0029942	0.45460402
## L.Asparagine_HMDB0000168	-0.01538866
## D.Ribulose_HMDB0000621	0.51176398
## D.Ribose_HMDB0000283	0.46419888
## D.Xylulose_HMDB0001644	0.52674653
## X3.Sulfinioalanine_HMDB0000996	0.12172490
## Suberic.acid_HMDB0000893	-0.33569074
## L.Lysine_HMDB0000182	-0.12095093
## Levoglucosan_HMDB0000640	0.47700710
## D.Arabitol_HMDB0000568	-0.50614535
## Ribitol_HMDB0000508	-0.23026792
## cis.Aconitic.acid_HMDB0000072	0.38652645
## Quinolinic.acid_HMDB0000232	-0.07729460
## Putrescine_HMDB0001414	-0.16965417
## Glycerol.3.phosphate_HMDB0000126	0.59303586
## Vanillic.acid_HMDB0000484	-0.67591551
## L.Glutamine_HMDB0000641	0.29780742
## X2.Phosphoglyceric.acid_HMDB0000362	-0.05775529
## Azelaic.acid_HMDB0000784	0.24206019
## L.Dihydroorotic.acid_HMDB0003349	0.42836472
## O.Phosphoethanolamine_HMDB0000224	-0.65895414
## X3.Phosphoglyceric.acid_HMDB0000807	-0.09747611
## Isocitric.acid_HMDB0000193	-0.33219873
## Hypoxanthine_HMDB0000157	0.41648575

## Citric.acid_HMDB0000094	0.22944482
## L.Arginine_HMDB0000517	0.40403305
## Ornithine_HMDB0000214.1	-0.56056559
## Dopamine_HMDB0000073	-0.54274421
## Myristic.acid_HMDB0000806	-0.83026409
## X1.5.Anhydrosorbitol_HMDB0002712	-0.18064477
## D.Tagatose_HMDB0003418	0.47522667
## Psicose_1	0.36700738
## Sebacic.acid_HMDB0000792	-0.61873416
## D.Fructose_HMDB0000660	0.31698597
## Gluconolactone_HMDB0000150	0.36740668
## L.Sorbose_HMDB0001266	0.32236541
## D.Mannose_HMDB0000169	-0.64154901
## Hydroxyphenyllactic.acid_HMDB0000755	-0.74570669
## D.Glucose_HMDB0000122	-0.55718423
## N.Acetylglutamine_HMDB0006029	-0.61411544
## L.Lysine_HMDB0000182.1	-0.54389821
## D.Mannose_HMDB0000169.1	-0.59149867
## Tyramine_HMDB0000306	-0.53516229
## L.Histidine_HMDB0000177	-0.53356499
## D.Glucose_HMDB0000122.1	-0.56967290
## X1.Hexadecanol_HMDB0003424	-0.17397073
## L.Tyrosine_HMDB0000158	-0.34348907
## Mannitol_HMDB0000765	-0.58582997
## Sorbitol_HMDB0000247	0.39673102
## ITSD_Sorbitol	-0.81101511
## Galacturonic.acid_HMDB0002545	-0.43679173
## Pantothenic.acid_HMDB0000210	-0.40734588
## Palmitoleic.acid_HMDB0003229	-0.72697008
## Xanthine_HMDB0000292	0.11754350
## Gluconic.acid_HMDB0000625	0.32945191
## Palmitic.acid_HMDB0000220	-0.78428967
## Glucaric.acid_HMDB0000663	-0.61260296
## N.Acetylmannosamine_HMDB0001129	-0.49150609
## N.Acetyl.D.glucosamine_HMDB0000215	-0.71823367
## D.Ribulose.5.phosphate_HMDB0000618	0.49495234
## Uric.acid_HMDB0000289	-0.01168712
## D.Ribose.5.phosphate_HMDB0001548	0.54187208
## myo.Inositol_HMDB0000211	-0.52955265
## D.Ribose.5.phosphate_HMDB0001548.1	0.56510753
## Heptadecanoic.acid_HMDB0002259	0.13866466
## Octadecanol_HMDB0002350	-0.39213697
## Glutathione_HMDB0000125	0.39568690
## Linoleic.acid_HMDB0000673	-0.61819645
## Oleic.acid_HMDB0000207	-0.62517281
## Elaidic.acid_HMDB0000573	-0.67623874
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.61201124
## Stearic.acid_HMDB0000827	-0.55496481
## L.Tryptophan_HMDB0000929	-0.54643647
## Fructose.1.phosphate_HMDB0001076	0.37897078
## Mannose.6.phosphate_HMDB0001078	0.62556018
## Arachidonic.acid_HMDB0001043	-0.38337302
## Glucose.6.phosphate_HMDB0001401	0.17282395
## X6.Phosphogluconic.acid_HMDB0001316	-0.35344218

## Inositol.phosphate_HMDB0002985	-0.21017249
## Uridine_HMDB0000296	-0.52646650
## Stigmasterol_HMDB0000937	-0.76973741
## D.Sedoheptulose.7.phosphate_HMDB0001068	-0.19266246
## Sucrose_HMDB0000258	-0.36654616
## MG.18.0e.0.0.0.0._HMDB0011143	-0.58935812
## Trehalose_HMDB0000975	0.36817391
## D.Maltose_HMDB0000163	0.35969743
## Lactitol_HMDB00040937	-0.20657046
## Xanthylic.acid_HMDB0001554	1.00000000
## Adenosine.monophosphate_HMDB0000045	0.35260691
## Cholesterol_HMDB0000067	-0.25675343
## Lathosterol_HMDB0001170	-0.48473954
## X7b.Hydroxycholesterol_.HMDB0006119	0.44470298
##	Adenosine.monophosphate_HMDB0000045
## Dimethylglycine_HMDB0000092	0.858060407
## Glyoxylic.acid_HMDB0000119	0.856759578
## Pyruvic.acid_HMDB0000243	-0.212719985
## L.Lactic.acid_HMDB0000190	-0.502188335
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.000835186
## Glycolic.acid_HMDB0000115	0.550053894
## Caproic.acid_HMDB0000535	0.856778882
## L.Alanine_HMDB0000161	-0.554193354
## Alpha.ketoisovaleric.acid_HMDB0000019	0.171360814
## Glycine_HMDB0000123	-0.331253820
## Oxalic.acid_HMDB0002329	0.544681324
## Hydroxylamine_HMDB0003338	-0.214390606
## X2.Hydroxybutyric.acid_HMDB0000008	0.458654575
## Acetoacetic.acid_HMDB0000060	0.317870248
## Hydroxypropionic.acid_HMDB0000700	-0.367308853
## Pyruvic.acid_HMDB0000243.1	-0.167923401
## X3.Hydroxybutyric.acid_HMDB0000357	0.373719536
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.337195364
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.579355108
## D.Alpha.aminobutyric.acid_HMDB0000650	-0.613895362
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.341019998
## Beta.Alanine_HMDB0000056	-0.579620605
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	0.213542954
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.098165546
## Malonic.acid_HMDB0000691	-0.203959113
## X3.Aminoisobutanoic.acid_HMDB0003911	-0.714718270
## X3.Hydroxyisovaleric.acid_HMDB0000754	-0.351170458
## Ketoleucine_HMDB0000695	0.560697553
## L.Valine_HMDB0000883	-0.538222655
## ITSD_Valine	-0.607632979
## Urea_HMDB0000294	-0.173714292
## Benzoic.acid_HMDB0001870	0.357412656
## Caprylic.acid_HMDB0000482	0.853144304
## Glycerol_HMDB0000131	-0.630273427
## Ethanolamine_HMDB0000149	-0.568307381
## L.Leucine_HMDB0000687	-0.541768595
## Acetyl glycine_HMDB0000532	0.394903718
## L.Isoleucine_HMDB0000172	-0.546593855
## Nicotinic.acid_HMDB0001488	0.397837307

## Maleic.acid_HMDB0000176	0.641632544
## L.Proline_HMDB0000162	-0.214864996
## Phenylacetic.acid_HMDB0000209	0.832370136
## Succinic.acid_HMDB0000254	-0.323601568
## Glycine_HMDB0000123.1	-0.546602620
## Methylsuccinic.acid_HMDB0001844	-0.029390192
## Glyceric.acid_HMDB0000139	0.684723743
## Fumaric.acid_HMDB0000134	-0.192424151
## Uracil_HMDB0000300	-0.135269221
## Pelargonic.acid_HMDB0000847	0.896876142
## L.Serine_HMDB0000187	-0.504165612
## L.Threonine_HMDB0000167	-0.470199414
## Mesaconic.acid_HMDB0000749	0.245287969
## Glutaric.acid_HMDB0000661	0.415428244
## Thymine_HMDB0000262	-0.408844074
## Beta.Alanine_HMDB0000056.1	-0.762956795
## L.Homoserine_HMDB0000719	0.352410526
## Capric.acid_HMDB0000511	0.451262465
## Citramalic.acid_HMDB0000426	-0.319345234
## Malic.acid_HMDB0000744	0.686522465
## Niacinamide_HMDB0001406	-0.444313901
## Adipic.acid_HMDB0000448	-0.385018144
## D.Threitol_HMDB0004136	0.173072800
## Dihydrouracil_HMDB0000076	-0.071543809
## Erythritol_HMDB0002994	0.074137545
## N.Acetylserine_HMDB0002931	-0.366158994
## L.Aspartic.acid_HMDB0000191	-0.495490591
## L.Methionine_HMDB0000696	-0.786982779
## X4.Hydroxyproline_HMDB0000725	-0.355620165
## Pyroglutamic.acid_HMDB0000267	-0.389554270
## Cytosine_HMDB0000630	-0.149982891
## Gamma.Aminobutyric.acid_HMDB0000112	-0.080835190
## Threonic.acid_HMDB0000943	0.740623010
## L.Cysteine_HMDB0000574	0.637383439
## L.2.Hydroxyglutaric.acid_HMDB0000694	0.812597718
## Creatinine_HMDB0000562	-0.749698158
## X3.Hydroxyglutaric.acid_HMDB0000428	0.854304314
## Oxoglutaric.acid_HMDB0000208	0.182568298
## Phenylpyruvic.acid_HMDB0000205	0.703735534
## Pimelic.acid_HMDB0000857	-0.521776529
## Phenyllactic.acid_HMDB0000779	0.665550260
## Phosphoenolpyruvic.acid_HMDB0000263	0.785158958
## Ornithine_HMDB0000214	-0.647961788
## Hypotaurine_HMDB0000965	-0.504917507
## Triethanolamine_HMDB0032538	-0.511262853
## X2.Aminobenzoic.acid_HMDB0001123	-0.814827986
## L.Glutamic.acid_HMDB0000148	-0.662857977
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.667836702
## X5.Aminopentanoic.acid_HMDB0003355	0.302719120
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.679174712
## L.Phenylalanine_HMDB0000159	-0.764635659
## Dodecanoic.acid_HMDB0000638	-0.228570085
## Lyxose_HMDB0003402_1	0.892902860
## D.Xylose_HMDB0000098	0.185809612

## Lyxose_HMDB0003402_2	0.002915255
## D.Arabinose_HMDB0029942	0.878432913
## L.Asparagine_HMDB0000168	-0.681964359
## D.Ribulose_HMDB0000621	0.753040301
## D.Ribose_HMDB0000283	0.860587276
## D.Xylulose_HMDB0001644	0.745754199
## X3.Sulfinoalanine_HMDB0000996	-0.454802002
## Suberic.acid_HMDB0000893	-0.157502465
## L.Lysine_HMDB0000182	-0.577326477
## Levoglucosan_HMDB0000640	-0.006666917
## D.Arabitol_HMDB0000568	0.013458444
## Ribitol_HMDB0000508	0.226997892
## cis.Aconitic.acid_HMDB0000072	0.047965354
## Quinolinic.acid_HMDB0000232	0.353548566
## Putrescine_HMDB0001414	0.215906927
## Glycerol.3.phosphate_HMDB0000126	0.700836601
## Vanillic.acid_HMDB0000484	-0.202769068
## L.Glutamine_HMDB0000641	-0.527005219
## X2.Phosphoglyceric.acid_HMDB0000362	0.352897054
## Azelaic.acid_HMDB0000784	0.178568884
## L.Dihydroorotic.acid_HMDB0003349	0.907049379
## O.Phosphoethanolamine_HMDB0000224	-0.478100966
## X3.Phosphoglyceric.acid_HMDB0000807	0.296303560
## Isocitric.acid_HMDB0000193	0.108730136
## Hypoxanthine_HMDB0000157	-0.331934451
## Citric.acid_HMDB0000094	0.715055101
## L.Arginine_HMDB0000517	0.279302615
## Ornithine_HMDB0000214.1	-0.755680480
## Dopamine_HMDB0000073	-0.754647033
## Myristic.acid_HMDB0000806	-0.590264984
## X1.5.Anhydrosorbitol_HMDB0002712	0.477571614
## D.Tagatose_HMDB0003418	0.902364418
## Psicose_1	-0.098121693
## Sebacic.acid_HMDB0000792	-0.315430725
## D.Fructose_HMDB0000660	0.864168322
## Gluconolactone_HMDB0000150	0.820154592
## L.Sorbose_HMDB0001266	0.857653801
## D.Mannose_HMDB0000169	-0.755464891
## Hydroxyphenyllactic.acid_HMDB0000755	0.071181626
## D.Glucose_HMDB0000122	-0.708210643
## N.Acetylglutamine_HMDB0006029	-0.734982668
## L.Lysine_HMDB0000182.1	-0.811351790
## D.Mannose_HMDB0000169.1	-0.830076898
## Tyramine_HMDB0000306	-0.811302283
## L.Histidine_HMDB0000177	-0.830399878
## D.Glucose_HMDB0000122.1	-0.726302224
## X1.Hexadecanol_HMDB0003424	0.375185911
## L.Tyrosine_HMDB0000158	-0.768267788
## Mannitol_HMDB0000765	-0.543442503
## Sorbitol_HMDB0000247	0.101688600
## ITSD_Sorbitol	-0.473641212
## Galacturonic.acid_HMDB0002545	0.251537920
## Pantothenic.acid_HMDB0000210	0.460589691
## Palmitoleic.acid_HMDB0003229	-0.523135051

## Xanthine_HMDB0000292	-0.420644901
## Gluconic.acid_HMDB0000625	0.663653549
## Palmitic.acid_HMDB0000220	-0.309426808
## Glucaric.acid_HMDB0000663	-0.458814869
## N.Acetylmannosamine_HMDB0001129	-0.381281369
## N.Acetyl.D.glucosamine_HMDB0000215	-0.682067215
## D.Ribulose.5.phosphate_HMDB0000618	0.910756556
## Uric.acid_HMDB0000289	-0.728668304
## D.Ribose.5.phosphate_HMDB0001548	0.850545795
## myo.Inositol_HMDB0000211	-0.124103333
## D.Ribose.5.phosphate_HMDB0001548.1	0.891994365
## Heptadecanoic.acid_HMDB0002259	0.465436990
## Octadecanol_HMDB0002350	0.501079364
## Glutathione_HMDB0000125	0.114440541
## Linoleic.acid_HMDB0000673	-0.270289460
## Oleic.acid_HMDB0000207	-0.478001892
## Elaidic.acid_HMDB0000573	-0.460214905
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	0.889161679
## Stearic.acid_HMDB0000827	0.135466776
## L.Tryptophan_HMDB0000929	0.139605994
## Fructose.1.phosphate_HMDB0001076	0.840577446
## Mannose.6.phosphate_HMDB0001078	0.493091738
## Arachidonic.acid_HMDB0001043	-0.463285251
## Glucose.6.phosphate_HMDB0001401	0.881241726
## X6.Phosphogluconic.acid_HMDB0001316	0.522989265
## Inositol.phosphate_HMDB0002985	0.306554836
## Uridine_HMDB0000296	-0.114875326
## Stigmasterol_HMDB0000937	-0.086296501
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.197317090
## Sucrose_HMDB0000258	-0.554969684
## MG.18.0e.0.0.0.0._HMDB0011143	0.204269148
## Trehalose_HMDB0000975	0.159116698
## D.Maltose_HMDB0000163	0.159969040
## Lactitol_HMDB00040937	0.251836452
## Xanthylic.acid_HMDB0001554	0.352606915
## Adenosine.monophosphate_HMDB0000045	1.000000000
## Cholesterol_HMDB0000067	0.077120698
## Lathosterol_HMDB0001170	-0.209615008
## X7b.Hydroxycholesterol_.HMDB0006119	0.569049587
## Cholesterol_HMDB0000067	
## Dimethylglycine_HMDB0000092	0.124813010
## Glyoxylic.acid_HMDB0000119	0.109641224
## Pyruvic.acid_HMDB0000243	0.094185583
## L.Lactic.acid_HMDB0000190	-0.048731830
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.308281408
## Glycolic.acid_HMDB0000115	0.462255705
## Caproic.acid_HMDB0000535	-0.112177048
## L.Alanine_HMDB0000161	-0.099235665
## Alpha.ketoisovaleric.acid_HMDB0000019	0.009539852
## Glycine_HMDB0000123	-0.153009640
## Oxalic.acid_HMDB0002329	-0.130307517
## Hydroxylamine_HMDB0003338	0.189853012
## X2.Hydroxybutyric.acid_HMDB0000008	0.355445796
## Acetoacetic.acid_HMDB0000060	0.213951394

## Hydroxypropionic.acid_HMDB0000700	0.195371124
## Pyruvic.acid_HMDB0000243.1	0.162926699
## X3.Hydroxybutyric.acid_HMDB0000357	0.310308329
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.284146002
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.520484398
## D.Alpha.aminobutyric.acid_HMDB0000650	0.123393422
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.233698461
## Beta.Alanine_HMDB0000056	0.015128734
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.081200273
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.202905880
## Malonic.acid_HMDB0000691	-0.187661477
## X3.Aminoisobutanoic.acid_HMDB0003911	0.195912341
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.195938904
## Ketoleucine_HMDB0000695	0.121540860
## L.Valine_HMDB0000883	0.085826726
## ITSD_Valine	0.176411408
## Urea_HMDB0000294	0.083502777
## Benzoic.acid_HMDB0001870	0.341770607
## Caprylic.acid_HMDB0000482	0.160471782
## Glycerol_HMDB0000131	-0.028125241
## Ethanolamine_HMDB0000149	-0.089587192
## L.Leucine_HMDB0000687	0.100755163
## Acetylglycine_HMDB0000532	0.368933506
## L.Isoleucine_HMDB0000172	0.031100163
## Nicotinic.acid_HMDB0001488	-0.142670023
## Maleic.acid_HMDB0000176	0.208554040
## L.Proline_HMDB0000162	0.039110894
## Phenylacetic.acid_HMDB0000209	0.119082620
## Succinic.acid_HMDB0000254	-0.005405126
## Glycine_HMDB0000123.1	0.014375316
## Methylsuccinic.acid_HMDB0001844	0.275764523
## Glyceric.acid_HMDB0000139	0.163220405
## Fumaric.acid_HMDB0000134	0.203394253
## Uracil_HMDB0000300	-0.076240610
## Pelargonic.acid_HMDB0000847	0.128358503
## L.Serine_HMDB0000187	-0.200101246
## L.Threonine_HMDB0000167	-0.101796940
## Mesaconic.acid_HMDB0000749	0.443933534
## Glutaric.acid_HMDB0000661	-0.415702794
## Thymine_HMDB0000262	-0.171573122
## Beta.Alanine_HMDB0000056.1	0.149721410
## L.Homoserine_HMDB0000719	0.544074428
## Capric.acid_HMDB0000511	0.631524534
## Citramalic.acid_HMDB0000426	-0.357008156
## Malic.acid_HMDB0000744	0.022252518
## Niacinamide_HMDB0001406	0.143447109
## Adipic.acid_HMDB0000448	-0.190669024
## D.Threitol_HMDB0004136	0.482763351
## Dihydrouracil_HMDB0000076	0.034268440
## Erythritol_HMDB0002994	0.407844211
## N.Acetylserine_HMDB0002931	-0.291811646
## L.Aspartic.acid_HMDB0000191	-0.069702591
## L.Methionine_HMDB0000696	0.065328041
## X4.Hydroxyproline_HMDB0000725	0.005621638

## Pyroglutamic.acid_HMDB0000267	-0.057109990
## Cytosine_HMDB0000630	0.273898000
## Gamma.Aminobutyric.acid_HMDB0000112	-0.301607347
## Threonic.acid_HMDB0000943	0.396525104
## L.Cysteine_HMDB0000574	0.514276640
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.032199964
## Creatinine_HMDB0000562	0.256075514
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.010120057
## Oxoglutaric.acid_HMDB0000208	-0.035649395
## Phenylpyruvic.acid_HMDB0000205	0.027169510
## Pimelic.acid_HMDB0000857	-0.466352237
## Phenyllactic.acid_HMDB0000779	-0.121445666
## Phosphoenolpyruvic.acid_HMDB0000263	-0.234504644
## Ornithine_HMDB0000214	-0.183663386
## Hypotaurine_HMDB0000965	0.039489034
## Triethanolamine_HMDB0032538	-0.282747507
## X2.Aminobenzoic.acid_HMDB0001123	0.014468257
## L.Glutamic.acid_HMDB0000148	0.142512460
## X4.Hydroxybenzoic.acid_HMDB0000500	-0.014083199
## X5.Aminopentanoic.acid_HMDB0003355	-0.113580859
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	0.198985824
## L.Phenylalanine_HMDB0000159	0.045801446
## Dodecanoic.acid_HMDB0000638	0.612281337
## Lyxose_HMDB0003402_1	-0.022196594
## D.Xylose_HMDB0000098	0.233397466
## Lyxose_HMDB0003402_2	0.126582556
## D.Arabinose_HMDB0029942	-0.132960239
## L.Asparagine_HMDB0000168	-0.060060204
## D.Ribulose_HMDB0000621	0.013457379
## D.Ribose_HMDB0000283	-0.121380996
## D.Xylulose_HMDB0001644	0.035437960
## X3.Sulfinioalanine_HMDB0000996	0.240765178
## Suberic.acid_HMDB0000893	-0.245353977
## L.Lysine_HMDB0000182	-0.058280385
## Levoglucosan_HMDB0000640	0.239418153
## D.Arabitol_HMDB0000568	0.162760843
## Ribitol_HMDB0000508	0.484801287
## cis.Aconitic.acid_HMDB0000072	0.258961322
## Quinolinic.acid_HMDB0000232	-0.112448593
## Putrescine_HMDB0001414	-0.271173937
## Glycerol.3.phosphate_HMDB0000126	0.003015851
## Vanillic.acid_HMDB0000484	0.463569227
## L.Glutamine_HMDB0000641	-0.050059248
## X2.Phosphoglyceric.acid_HMDB0000362	-0.053057905
## Azelaic.acid_HMDB0000784	-0.351248189
## L.Dihydroorotic.acid_HMDB0003349	-0.096253423
## O.Phosphoethanolamine_HMDB0000224	0.309424219
## X3.Phosphoglyceric.acid_HMDB0000807	-0.180416123
## Isocitric.acid_HMDB0000193	0.354417987
## Hypoxanthine_HMDB0000157	0.095261458
## Citric.acid_HMDB0000094	0.034780426
## L.Arginine_HMDB0000517	0.205767977
## Ornithine_HMDB0000214.1	-0.077630478
## Dopamine_HMDB0000073	-0.072037320

## Myristic.acid_HMDB0000806	0.342184931
## X1.5.Anhydrosorbitol_HMDB0002712	0.477073811
## D.Tagatose_HMDB0003418	-0.110385814
## Psicose_1	0.213372605
## Sebacic.acid_HMDB0000792	0.274797752
## D.Fructose_HMDB0000660	-0.208123122
## Gluconolactone_HMDB0000150	0.046512781
## L.Sorbose_HMDB0001266	-0.194881138
## D.Mannose_HMDB0000169	0.338539659
## Hydroxyphenyllactic.acid_HMDB0000755	0.275911301
## D.Glucose_HMDB0000122	0.309746022
## N.Acetylglutamine_HMDB0006029	0.359490514
## L.Lysine_HMDB0000182.1	0.081577020
## D.Mannose_HMDB0000169.1	0.237126284
## Tyramine_HMDB0000306	0.082990252
## L.Histidine_HMDB0000177	0.092689798
## D.Glucose_HMDB0000122.1	0.364010805
## X1.Hexadecanol_HMDB0003424	0.629427306
## L.Tyrosine_HMDB0000158	-0.004000166
## Mannitol_HMDB0000765	0.143027273
## Sorbitol_HMDB0000247	-0.227533182
## ITSD_Sorbitol	0.481747251
## Galacturonic.acid_HMDB0002545	0.534731582
## Pantothenic.acid_HMDB0000210	0.299309307
## Palmitoleic.acid_HMDB0003229	0.464695904
## Xanthine_HMDB0000292	-0.322488029
## Gluconic.acid_HMDB0000625	-0.027141866
## Palmitic.acid_HMDB0000220	0.470719759
## Glucaric.acid_HMDB0000663	0.149306925
## N.Acetylmannosamine_HMDB0001129	0.628498902
## N.Acetyl.D.glucosamine_HMDB0000215	0.378979002
## D.Ribulose.5.phosphate_HMDB0000618	0.138390045
## Uric.acid_HMDB0000289	0.134512411
## D.Ribose.5.phosphate_HMDB0001548	-0.060360063
## myo.Inositol_HMDB0000211	0.312230684
## D.Ribose.5.phosphate_HMDB0001548.1	-0.018678064
## Heptadecanoic.acid_HMDB0002259	-0.220370959
## Octadecanol_HMDB0002350	0.305488366
## Glutathione_HMDB0000125	0.196425498
## Linoleic.acid_HMDB0000673	0.483809101
## Oleic.acid_HMDB0000207	0.475347923
## Elaidic.acid_HMDB0000573	0.550294443
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.086479415
## Stearic.acid_HMDB0000827	0.353818160
## L.Tryptophan_HMDB0000929	0.332900264
## Fructose.1.phosphate_HMDB0001076	-0.121602512
## Mannose.6.phosphate_HMDB0001078	0.018099687
## Arachidonic.acid_HMDB0001043	0.493500393
## Glucose.6.phosphate_HMDB0001401	0.044924515
## X6.Phosphogluconic.acid_HMDB0001316	0.490344355
## Inositol.phosphate_HMDB0002985	0.789683020
## Uridine_HMDB0000296	0.347570198
## Stigmasterol_HMDB0000937	0.215242944
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.184694963

## Sucrose_HMDB0000258	0.132365824
## MG.18.0e.0.0.0.0._HMDB0011143	0.442924093
## Trehalose_HMDB0000975	-0.271254113
## D.Maltose_HMDB0000163	-0.269508187
## Lactitol_HMDB00040937	0.469406170
## Xanthylic.acid_HMDB0001554	-0.256753429
## Adenosine.monophosphate_HMDB0000045	0.077120698
## Cholesterol_HMDB0000067	1.000000000
## Lathosterol_HMDB0001170	0.802746994
## X7b.Hydroxycholesterol_.HMDB0006119	-0.407233399
##	Lathosterol_HMDB0001170
## Dimethylglycine_HMDB0000092	-0.2522952735
## Glyoxylic.acid_HMDB0000119	-0.2648262775
## Pyruvic.acid_HMDB0000243	0.1888985649
## L.Lactic.acid_HMDB0000190	0.0806777713
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	0.3956889537
## Glycolic.acid_HMDB0000115	0.2674199098
## Caproic.acid_HMDB0000535	-0.3884908589
## L.Alanine_HMDB0000161	-0.0305874444
## Alpha.ketoisovaleric.acid_HMDB0000019	-0.1896361118
## Glycine_HMDB0000123	0.0198680667
## Oxalic.acid_HMDB0002329	-0.0607194106
## Hydroxylamine_HMDB0003338	0.2072428878
## X2.Hydroxybutyric.acid_HMDB0000008	0.2376720862
## Acetoacetic.acid_HMDB0000060	0.2451782212
## Hydroxypropionic.acid_HMDB0000700	0.4106229309
## Pyruvic.acid_HMDB0000243.1	0.2733031067
## X3.Hydroxybutyric.acid_HMDB0000357	0.3894587578
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	0.2928663646
## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	0.3748161855
## D.Alpha.aminobutyric.acid_HMDB0000650	0.2247447844
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	0.0462986619
## Beta.Alanine_HMDB0000056	0.2620648202
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	-0.1706317468
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	0.1390603401
## Malonic.acid_HMDB0000691	-0.1113891971
## X3.Aminoisobutanoic.acid_HMDB0003911	0.3907195518
## X3.Hydroxyisovaleric.acid_HMDB0000754	0.3878111013
## Ketoleucine_HMDB0000695	-0.1067647750
## L.Valine_HMDB0000883	0.1831689045
## ITSD_Valine	0.3537176461
## Urea_HMDB0000294	0.0795571879
## Benzoic.acid_HMDB0001870	0.2758075374
## Caprylic.acid_HMDB0000482	-0.0910911841
## Glycerol_HMDB0000131	0.1663363658
## Ethanolamine_HMDB0000149	-0.0537873458
## L.Leucine_HMDB0000687	0.2469278896
## Acetylglucine_HMDB0000532	0.2065821303
## L.Isoleucine_HMDB0000172	0.1497790693
## Nicotinic.acid_HMDB0001488	-0.0584043323
## Maleic.acid_HMDB0000176	0.1214034427
## L.Proline_HMDB0000162	0.0878196101
## Phenylacetic.acid_HMDB0000209	-0.0665407751
## Succinic.acid_HMDB0000254	0.1196687033

## Glycine_HMDB0000123.1	0.1297882623
## Methylsuccinic.acid_HMDB0001844	0.3015256142
## Glyceric.acid_HMDB0000139	0.0937166535
## Fumaric.acid_HMDB0000134	0.2322088049
## Uracil_HMDB0000300	-0.0732030742
## Pelargonic.acid_HMDB0000847	-0.1763143237
## L.Serine_HMDB0000187	-0.0858980929
## L.Threonine_HMDB0000167	-0.0524057766
## Mesaconic.acid_HMDB0000749	0.2312085078
## Glutaric.acid_HMDB0000661	-0.6458526204
## Thymine_HMDB0000262	-0.0182559990
## Beta.Alanine_HMDB0000056.1	0.3311239082
## L.Homoserine_HMDB0000719	0.3188265300
## Capric.acid_HMDB0000511	0.4100272036
## Citramalic.acid_HMDB0000426	-0.3121230560
## Malic.acid_HMDB0000744	-0.1846722193
## Niacinamide_HMDB0001406	0.1698501120
## Adipic.acid_HMDB0000448	-0.2942302936
## D.Threitol_HMDB00004136	0.4197098341
## Dihydrouracil_HMDB0000076	-0.1158758388
## Erythritol_HMDB0002994	0.3315611043
## N.Acetylserine_HMDB0002931	-0.2423440099
## L.Aspartic.acid_HMDB0000191	-0.0349281994
## L.Methionine_HMDB0000696	0.2003270617
## X4.Hydroxyproline_HMDB0000725	0.0153065163
## Pyroglutamic.acid_HMDB0000267	0.0280760915
## Cytosine_HMDB0000630	-0.0687706551
## Gamma.Aminobutyric.acid_HMDB0000112	-0.0160982125
## Threonic.acid_HMDB0000943	0.1434202453
## L.Cysteine_HMDB0000574	0.1983044796
## L.2.Hydroxyglutaric.acid_HMDB0000694	-0.2275210240
## Creatinine_HMDB0000562	0.4017304530
## X3.Hydroxyglutaric.acid_HMDB0000428	-0.3182755948
## Oxoglutaric.acid_HMDB0000208	0.2016747237
## Phenylpyruvic.acid_HMDB0000205	-0.1126762412
## Pimelic.acid_HMDB0000857	-0.2144843023
## Phenyllactic.acid_HMDB0000779	-0.3347960664
## Phosphoenolpyruvic.acid_HMDB0000263	-0.5321474443
## Ornithine_HMDB0000214	-0.2070783212
## Hypotaurine_HMDB0000965	0.0077941629
## Triethanolamine_HMDB0032538	-0.2690872255
## X2.Aminobenzoic.acid_HMDB0001123	0.2343329076
## L.Glutamic.acid_HMDB0000148	0.1477768979
## X4.Hydroxybenzoic.acid_HMDB0000500	0.1108436374
## X5.Aminopentanoic.acid_HMDB0003355	-0.2706971028
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	-0.0883627751
## L.Phenylalanine_HMDB0000159	0.1727090290
## Dodecanoic.acid_HMDB0000638	0.7680397851
## Lyxose_HMDB0003402_1	-0.2383399175
## D.Xylose_HMDB0000098	-0.0281765472
## Lyxose_HMDB0003402_2	-0.0980359002
## D.Arabinose_HMDB0029942	-0.3364709730
## L.Asparagine_HMDB0000168	-0.1262194450
## D.Ribulose_HMDB0000621	-0.2659249507

## D.Ribose_HMDB0000283	-0.3165296364
## D.Xylulose_HMDB0001644	-0.2622241394
## X3.Sulfinioalanine_HMDB0000996	0.1987284659
## Suberic.acid_HMDB0000893	-0.3143576901
## L.Lysine_HMDB0000182	-0.1085629517
## Levoglucosan_HMDB0000640	-0.0061920348
## D.Arabitol_HMDB0000568	0.2569997105
## Ribitol_HMDB0000508	0.1931823107
## cis.Aconitic.acid_HMDB0000072	0.0636293299
## Quinolinic.acid_HMDB0000232	-0.3061746250
## Putrescine_HMDB0001414	-0.1033647998
## Glycerol.3.phosphate_HMDB0000126	-0.0621811693
## Vanillic.acid_HMDB0000484	0.2920333813
## L.Glutamine_HMDB0000641	-0.1902597806
## X2.Phosphoglyceric.acid_HMDB0000362	-0.3981548922
## Azelaic.acid_HMDB0000784	-0.3521230633
## L.Dihydroorotic.acid_HMDB0003349	-0.3221685576
## O.Phosphoethanolamine_HMDB0000224	0.6411680053
## X3.Phosphoglyceric.acid_HMDB0000807	-0.4509027519
## Isocitric.acid_HMDB0000193	0.0276592639
## Hypoxanthine_HMDB0000157	0.0018418919
## Citric.acid_HMDB0000094	-0.4188051637
## L.Arginine_HMDB0000517	-0.1772619326
## Ornithine_HMDB0000214.1	-0.0009910529
## Dopamine_HMDB0000073	-0.0088374877
## Myristic.acid_HMDB0000806	0.5305888807
## X1.5.Anhydrosorbitol_HMDB0002712	0.1857503864
## D.Tagatose_HMDB0003418	-0.3599998111
## Psicose_1	0.0080597299
## Sebacic.acid_HMDB0000792	0.1802695295
## D.Fructose_HMDB0000660	-0.3648081577
## Gluconolactone_HMDB0000150	-0.2896106402
## L.Sorbose_HMDB0001266	-0.3512197931
## D.Mannose_HMDB0000169	0.4666906827
## Hydroxyphenyllactic.acid_HMDB0000755	0.4024197920
## D.Glucose_HMDB0000122	0.4007191118
## N.Acetylglutamine_HMDB0006029	0.4689019165
## L.Lysine_HMDB0000182.1	0.1810168674
## D.Mannose_HMDB0000169.1	0.3673261185
## Tyramine_HMDB0000306	0.1788875351
## L.Histidine_HMDB0000177	0.2140390457
## D.Glucose_HMDB0000122.1	0.4704510698
## X1.Hexadecanol_HMDB0003424	0.5862392895
## L.Tyrosine_HMDB0000158	0.0150623379
## Mannitol_HMDB0000765	0.2130189806
## Sorbitol_HMDB0000247	-0.1974248419
## ITSD_Sorbitol	0.5253547256
## Galacturonic.acid_HMDB0002545	0.2415634706
## Pantothenic.acid_HMDB0000210	0.1600207270
## Palmitoleic.acid_HMDB0003229	0.8027192104
## Xanthine_HMDB0000292	-0.4485668678
## Gluconic.acid_HMDB0000625	-0.4489892186
## Palmitic.acid_HMDB0000220	0.7715537458
## Glucaric.acid_HMDB0000663	0.1168405289

## N.Acetylmannosamine_HMDB0001129	0.6780396512
## N.Acetyl.D.glucosamine_HMDB0000215	0.5172200208
## D.Ribulose.5.phosphate_HMDB0000618	-0.1471660403
## Uric.acid_HMDB0000289	0.0990113353
## D.Ribose.5.phosphate_HMDB0001548	-0.2380973471
## myo.Inositol_HMDB0000211	0.2242492071
## D.Ribose.5.phosphate_HMDB0001548.1	-0.2633513044
## Heptadecanoic.acid_HMDB0002259	-0.4881068592
## Octadecanol_HMDB0002350	0.2891595555
## Glutathione_HMDB0000125	-0.1689660144
## Linoleic.acid_HMDB0000673	0.8452959446
## Oleic.acid_HMDB0000207	0.8225843910
## Elaidic.acid_HMDB0000573	0.8523423640
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	-0.3880867664
## Stearic.acid_HMDB0000827	0.5687990662
## L.Tryptophan_HMDB0000929	0.5422514050
## Fructose.1.phosphate_HMDB0001076	-0.3630584476
## Mannose.6.phosphate_HMDB0001078	-0.1063578514
## Arachidonic.acid_HMDB0001043	0.7992786706
## Glucose.6.phosphate_HMDB0001401	-0.2094403756
## X6.Phosphogluconic.acid_HMDB0001316	0.5382123120
## Inositol.phosphate_HMDB0002985	0.7434999307
## Uridine_HMDB0000296	0.3335187651
## Stigmasterol_HMDB0000937	0.4376521262
## D.Sedoheptulose.7.phosphate_HMDB0001068	0.1469439716
## Sucrose_HMDB0000258	0.4176225766
## MG.18.0e.0.0.0.0._HMDB0011143	0.6644483969
## Trehalose_HMDB0000975	-0.1701972651
## D.Maltose_HMDB0000163	-0.1678269474
## Lactitol_HMDB00040937	0.2420512850
## Xanthylic.acid_HMDB0001554	-0.4847395391
## Adenosine.monophosphate_HMDB0000045	-0.2096150079
## Cholesterol_HMDB0000067	0.8027469939
## Lathosterol_HMDB0001170	1.0000000000
## X7b.Hydroxycholesterol_.HMDB0006119	-0.7654718285
##	X7b.Hydroxycholesterol_.HMDB0006119
## Dimethylglycine_HMDB0000092	6.447298e-01
## Glyoxylic.acid_HMDB0000119	6.516683e-01
## Pyruvic.acid_HMDB0000243	-1.143865e-01
## L.Lactic.acid_HMDB0000190	-1.003352e-01
## Alpha.Hydroxyisobutyric.acid_HMDB0000729	-1.889555e-02
## Glycolic.acid_HMDB0000115	9.623231e-02
## Caproic.acid_HMDB0000535	7.001150e-01
## L.Alanine_HMDB0000161	-4.610171e-02
## Alpha.ketoisovaleric.acid_HMDB0000019	4.709913e-01
## Glycine_HMDB0000123	-4.644577e-02
## Oxalic.acid_HMDB0002329	2.210011e-01
## Hydroxylamine_HMDB0003338	2.556446e-02
## X2.Hydroxybutyric.acid_HMDB0000008	2.392344e-01
## Acetoacetic.acid_HMDB0000060	1.081543e-01
## Hydroxypropionic.acid_HMDB0000700	-3.623617e-01
## Pyruvic.acid_HMDB0000243.1	6.765151e-02
## X3.Hydroxybutyric.acid_HMDB0000357	5.281634e-02
## X.S..3.Hydroxyisobutyric.acid_HMDB0000023	1.450563e-01

## X2.Hydroxy.3.methylbutyric.acid_HMDB0000407	1.713924e-01
## D.Alpha.aminobutyric.acid_HMDB0000650	-2.775382e-01
## X3.Methyl.2.oxovaleric.acid_HMDB0000491	4.219704e-01
## Beta.Alanine_HMDB0000056	-4.432281e-01
## X2.Methyl.3.hydroxybutyric.acid_HMDB0000354	2.875041e-01
## X3.Methyl.2.oxovaleric.acid_HMDB0000491.1	2.177468e-01
## Malonic.acid_HMDB0000691	2.342090e-03
## X3.Aminoisobutanoic.acid_HMDB0003911	-5.441993e-01
## X3.Hydroxyisovaleric.acid_HMDB0000754	-2.793634e-01
## Ketoleucine_HMDB0000695	5.889179e-01
## L.Valine_HMDB0000883	-2.021369e-01
## ITSD_Valine	-3.814726e-01
## Urea_HMDB0000294	1.076661e-01
## Benzoic.acid_HMDB0001870	-7.781903e-02
## Caprylic.acid_HMDB0000482	5.392430e-01
## Glycerol_HMDB0000131	-3.166326e-01
## Ethanolamine_HMDB0000149	-6.307458e-02
## L.Leucine_HMDB0000687	-2.929519e-01
## Acetylglycine_HMDB0000532	1.308766e-01
## L.Isoleucine_HMDB0000172	-1.868022e-01
## Nicotinic.acid_HMDB0001488	3.293159e-01
## Maleic.acid_HMDB0000176	3.466944e-01
## L.Proline_HMDB0000162	-7.672031e-05
## Phenylacetic.acid_HMDB0000209	4.963166e-01
## Succinic.acid_HMDB0000254	-5.695714e-02
## Glycine_HMDB0000123.1	-2.162110e-01
## Methylsuccinic.acid_HMDB0001844	-2.517859e-01
## Glyceric.acid_HMDB0000139	2.430819e-01
## Fumaric.acid_HMDB0000134	4.773762e-03
## Uracil_HMDB0000300	2.853705e-01
## Pelargonic.acid_HMDB0000847	6.064793e-01
## L.Serine_HMDB0000187	-3.830932e-02
## L.Threonine_HMDB0000167	2.237732e-03
## Mesaconic.acid_HMDB0000749	1.752513e-01
## Glutaric.acid_HMDB0000661	7.884596e-01
## Thymine_HMDB0000262	1.281436e-01
## Beta.Alanine_HMDB0000056.1	-4.596095e-01
## L.Homoserine_HMDB0000719	-1.480197e-01
## Capric.acid_HMDB0000511	-1.190234e-01
## Citramalic.acid_HMDB0000426	1.511854e-01
## Malic.acid_HMDB0000744	5.500598e-01
## Niacinamide_HMDB0001406	-7.484368e-02
## Adipic.acid_HMDB0000448	1.808052e-01
## D.Threitol_HMDB0004136	-3.060283e-02
## Dihydrouracil_HMDB0000076	3.549241e-01
## Erythritol_HMDB0002994	4.316272e-02
## N.Acetylserine_HMDB0002931	1.644674e-01
## L.Aspartic.acid_HMDB0000191	-4.330301e-02
## L.Methionine_HMDB0000696	-4.522006e-01
## X4.Hydroxyproline_HMDB0000725	2.422774e-02
## Pyroglutamic.acid_HMDB0000267	-5.296716e-02
## Cytosine_HMDB0000630	1.611694e-01
## Gamma.Aminobutyric.acid_HMDB0000112	7.036807e-02
## Threonic.acid_HMDB0000943	4.203352e-01

## L.Cysteine_HMDB0000574	3.595912e-01
## L.2.Hydroxyglutaric.acid_HMDB0000694	6.685704e-01
## Creatinine_HMDB0000562	-6.703497e-01
## X3.Hydroxyglutaric.acid_HMDB0000428	5.961306e-01
## Oxoglutaric.acid_HMDB0000208	6.125518e-02
## Phenylpyruvic.acid_HMDB0000205	2.550000e-01
## Pimelic.acid_HMDB0000857	2.285502e-02
## Phenyllactic.acid_HMDB0000779	6.173002e-01
## Phosphoenolpyruvic.acid_HMDB0000263	7.396244e-01
## Ornithine_HMDB0000214	-1.966154e-01
## Hypotaurine_HMDB0000965	-1.582992e-02
## Triethanolamine_HMDB0032538	1.520532e-01
## X2.Aminobenzoic.acid_HMDB0001123	-4.489106e-01
## L.Glutamic.acid_HMDB0000148	-2.765630e-01
## X4.Hydroxybenzoic.acid_HMDB0000500	-2.309976e-01
## X5.Aminopentanoic.acid_HMDB0003355	6.481459e-01
## X2.3.Dihydroxybutanedioic.acid_HMDB0059916	3.754209e-01
## L.Phenylalanine_HMDB0000159	-3.946974e-01
## Dodecanoic.acid_HMDB0000638	-5.895361e-01
## Lyxose_HMDB0003402_1	5.730205e-01
## D.Xylose_HMDB0000098	1.671914e-01
## Lyxose_HMDB0003402_2	1.406827e-01
## D.Arabinose_HMDB0029942	6.080254e-01
## L.Asparagine_HMDB0000168	-2.408021e-01
## D.Ribulose_HMDB0000621	5.337934e-01
## D.Ribose_HMDB0000283	5.998337e-01
## D.Xylulose_HMDB0001644	5.354477e-01
## X3.Sulfinoalanine_HMDB0000996	-3.871536e-01
## Suberic.acid_HMDB0000893	2.457749e-01
## L.Lysine_HMDB0000182	-3.304841e-01
## Levoglucosan_HMDB0000640	8.075507e-02
## D.Arabitol_HMDB0000568	-1.674569e-01
## Ribitol_HMDB0000508	6.405360e-02
## cis.Aconitic.acid_HMDB0000072	9.050255e-02
## Quinolinic.acid_HMDB0000232	4.998515e-01
## Putrescine_HMDB0001414	3.359477e-01
## Glycerol.3.phosphate_HMDB0000126	2.961631e-01
## Vanillic.acid_HMDB0000484	-8.081663e-02
## L.Glutamine_HMDB0000641	-9.353215e-02
## X2.Phosphoglyceric.acid_HMDB0000362	7.387794e-01
## Azelaic.acid_HMDB0000784	3.168222e-01
## L.Dihydroorotic.acid_HMDB0003349	6.253946e-01
## O.Phosphoethanolamine_HMDB0000224	-7.365746e-01
## X3.Phosphoglyceric.acid_HMDB0000807	7.503401e-01
## Isocitric.acid_HMDB0000193	1.753896e-01
## Hypoxanthine_HMDB0000157	-3.543817e-01
## Citric.acid_HMDB0000094	8.290626e-01
## L.Arginine_HMDB0000517	2.827416e-01
## Ornithine_HMDB0000214.1	-2.559078e-01
## Dopamine_HMDB0000073	-2.479727e-01
## Myristic.acid_HMDB0000806	-5.899773e-01
## X1.5.Anhydrosorbitol_HMDB0002712	3.746857e-01
## D.Tagatose_HMDB0003418	6.498879e-01
## Psicose_1	1.441763e-01

## Sebacic.acid_HMDB0000792	9.603345e-03
## D.Fructose_HMDB0000660	6.128600e-01
## Gluconolactone_HMDB0000150	5.883949e-01
## L.Sorbose_HMDB0001266	5.921493e-01
## D.Mannose_HMDB0000169	-5.383320e-01
## Hydroxyphenyllactic.acid_HMDB0000755	-2.727106e-02
## D.Glucose_HMDB0000122	-4.860956e-01
## N.Acetylglutamine_HMDB0006029	-5.155621e-01
## L.Lysine_HMDB0000182.1	-4.607482e-01
## D.Mannose_HMDB0000169.1	-5.527198e-01
## Tyramine_HMDB0000306	-4.645721e-01
## L.Histidine_HMDB0000177	-5.084888e-01
## D.Glucose_HMDB0000122.1	-5.567477e-01
## X1.Hexadecanol_HMDB0003424	-2.315911e-01
## L.Tyrosine_HMDB0000158	-3.027292e-01
## Mannitol_HMDB0000765	-1.293366e-01
## Sorbitol_HMDB0000247	2.408572e-01
## ITSD_Sorbitol	-4.212501e-01
## Galacturonic.acid_HMDB0002545	2.050927e-01
## Pantothenic.acid_HMDB0000210	1.405115e-01
## Palmitoleic.acid_HMDB0003229	-8.619301e-01
## Xanthine_HMDB0000292	9.845024e-02
## Gluconic.acid_HMDB0000625	7.912051e-01
## Palmitic.acid_HMDB0000220	-6.399098e-01
## Glucaric.acid_HMDB0000663	-2.258549e-01
## N.Acetylmannosamine_HMDB0001129	-4.227104e-01
## N.Acetyl.D.glucosamine_HMDB0000215	-4.322157e-01
## D.Ribulose.5.phosphate_HMDB0000618	5.249490e-01
## Uric.acid_HMDB0000289	-4.570015e-01
## D.Ribose.5.phosphate_HMDB0001548	4.992401e-01
## myo.Inositol_HMDB0000211	-7.179233e-02
## D.Ribose.5.phosphate_HMDB0001548.1	5.229009e-01
## Heptadecanoic.acid_HMDB0002259	7.672107e-01
## Octadecanol_HMDB0002350	1.406662e-01
## Glutathione_HMDB0000125	2.454841e-01
## Linoleic.acid_HMDB0000673	-8.008162e-01
## Oleic.acid_HMDB0000207	-8.918331e-01
## Elaidic.acid_HMDB0000573	-8.331061e-01
## alpha.Glucose.1.6.bisphosphate_HMDB0003514	7.200544e-01
## Stearic.acid_HMDB0000827	-2.849962e-01
## L.Tryptophan_HMDB0000929	-2.597468e-01
## Fructose.1.phosphate_HMDB0001076	6.825831e-01
## Mannose.6.phosphate_HMDB0001078	1.884664e-01
## Arachidonic.acid_HMDB0001043	-9.489976e-01
## Glucose.6.phosphate_HMDB0001401	5.372229e-01
## X6.Phosphogluconic.acid_HMDB0001316	-1.912249e-01
## Inositol.phosphate_HMDB0002985	-3.253853e-01
## Uridine_HMDB0000296	9.495216e-03
## Stigmasterol_HMDB0000937	-1.358923e-01
## D.Sedoheptulose.7.phosphate_HMDB0001068	-1.143279e-02
## Sucrose_HMDB0000258	-5.326267e-01
## MG.18.0e.0.0.0.0._HMDB0011143	-2.914482e-01
## Trehalose_HMDB0000975	1.108117e-01
## D.Maltose_HMDB0000163	1.096232e-01

```
## Lactitol_HMDB0040937 1.410724e-01
## Xanthylic.acid_HMDB0001554 4.447030e-01
## Adenosine.monophosphate_HMDB0000045 5.690496e-01
## Cholesterol_HMDB0000067 -4.072334e-01
## Lathosterol_HMDB0001170 -7.654718e-01
## X7b.Hydroxycholesterol_.HMDB0006119 1.000000e+00
```

```
aov1 <- aov(x ~ Group,data=study_sc)
summary(aov1)
```

```
## Response Dimethylglycine_HMDB0000092 :
##      Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 2.4390e+12 8.1300e+11  13.055 0.0006046 ***
## Residuals  11 6.8505e+11 6.2277e+10
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Glyoxylic.acid_HMDB0000119 :
##      Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 3.0598e+12 1.0199e+12  13.433 0.0005359 ***
## Residuals  11 8.3520e+11 7.5927e+10
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Pyruvic.acid_HMDB0000243 :
##      Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 3013760155 1004586718  2.1445 0.1525
## Residuals  11 5152860453 468441859
##
## Response L.Lactic.acid_HMDB0000190 :
##      Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 9.9815e+12 3.3272e+12  16.423 0.0002245 ***
## Residuals  11 2.2285e+12 2.0259e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Alpha.Hydroxyisobutyric.acid_HMDB0000729 :
##      Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 192233153 64077718  0.4565 0.7181
## Residuals  11 1544173101 140379373
##
## Response Glycolic.acid_HMDB0000115 :
##      Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 2.8814e+12 9.6048e+11  0.8924 0.4755
## Residuals  11 1.1840e+13 1.0763e+12
##
## Response Caproic.acid_HMDB0000535 :
##      Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 7.3099e+12 2.4366e+12  14.06 0.0004413 ***
## Residuals  11 1.9063e+12 1.7330e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Alanine_HMDB0000161 :
```

```

##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 2.2643e+11 7.5478e+10  27.881 1.937e-05 ***
## Residuals  11 2.9778e+10 2.7071e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Alpha.ketoisovaleric.acid_HMDB0000019 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 67465048 22488349  3.1568 0.06831 .
## Residuals  11 78362273 7123843
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Glycine_HMDB0000123 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 1.1324e+11 3.7746e+10  5.4557 0.01524 *
## Residuals  11 7.6104e+10 6.9186e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Oxalic.acid_HMDB0002329 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 1.3158e+10 4386119535  1.1471 0.3732
## Residuals  11 4.2061e+10 3823732428
##
## Response Hydroxylamine_HMDB0003338 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 1.2520e+13 4.1734e+12  0.8686 0.4864
## Residuals  11 5.2852e+13 4.8047e+12
##
## Response X2.Hydroxybutyric.acid_HMDB0000008 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 3.4030e+09 1134324921  0.155 0.9243
## Residuals  11 8.0492e+10 7317409893
##
## Response Acetoacetic.acid_HMDB0000060 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 1.1768e+11 3.9226e+10  0.4533 0.7202
## Residuals  11 9.5181e+11 8.6528e+10
##
## Response Hydroxypropionic.acid_HMDB0000700 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 2.6457e+12 8.8191e+11  7.8777 0.004394 **
## Residuals  11 1.2315e+12 1.1195e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Pyruvic.acid_HMDB0000243.1 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 136875731 45625244  0.8135 0.5127
## Residuals  11 616971773 56088343
##
## Response X3.Hydroxybutyric.acid_HMDB0000357 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)

```

```

## Group      3 4.3990e+10 1.4663e+10 0.0448 0.9867
## Residuals  11 3.6023e+12 3.2748e+11
##
## Response X.S..3.Hydroxyisobutyric.acid_HMDB0000023 :
##      Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 2.6429e+10 8.8095e+09 0.2166 0.8828
## Residuals  11 4.4739e+11 4.0672e+10
##
## Response X2.Hydroxy.3.methylbutyric.acid_HMDB0000407 :
##      Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 728265203 242755068 0.7002 0.5713
## Residuals  11 3813791390 346708308
##
## Response D.Alpha.aminobutyric.acid_HMDB0000650 :
##      Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 1556820679 518940226 11.516 0.001016 **
## Residuals  11 495701699 45063791
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response X3.Methyl.2.oxovaleric.acid_HMDB0000491 :
##      Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 167346493 55782164 0.6426 0.6035
## Residuals  11 954873919 86806720
##
## Response Beta.Alanine_HMDB0000056 :
##      Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 6226319264 2075439755 7.9896 0.004175 **
## Residuals  11 2857442015 259767456
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response X2.Methyl.3.hydroxybutyric.acid_HMDB0000354 :
##      Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 1624879 541626 1.3081 0.3209
## Residuals  11 4554518 414047
##
## Response X3.Methyl.2.oxovaleric.acid_HMDB0000491.1 :
##      Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 240335851 80111950 1.1156 0.3844
## Residuals  11 789893982 71808544
##
## Response Malonic.acid_HMDB0000691 :
##      Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 573344576 191114859 1.481 0.2735
## Residuals  11 1419520445 129047313
##
## Response X3.Aminoisobutanoic.acid_HMDB0003911 :
##      Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 184927824 61642608 19.829 9.613e-05 ***
## Residuals  11 34195707 3108701
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##

```

```

## Response X3.Hydroxyisovaleric.acid_HMDB0000754 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group       3 5.1296e+10 1.7099e+10  5.3087 0.01659 *
## Residuals   11 3.5429e+10 3.2209e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Ketoleucine_HMDB0000695 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group       3 1246145120 415381707  1.2096 0.3518
## Residuals   11 3777348198 343395291
##
## Response L.Valine_HMDB0000883 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group       3 2.5317e+13 8.4389e+12  15.108 0.0003237 ***
## Residuals   11 6.1444e+12 5.5858e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response ITSD_Valine :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group       3 6.7107e+12 2.2369e+12  16.038 0.0002493 ***
## Residuals   11 1.5342e+12 1.3947e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Urea_HMDB0000294 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group       3 5.9562e+12 1.9854e+12  5.3245 0.01644 *
## Residuals   11 4.1017e+12 3.7288e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Benzoic.acid_HMDB0001870 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group       3 4.2312e+13 1.4104e+13  2.5207 0.1118
## Residuals   11 6.1549e+13 5.5954e+12
##
## Response Caprylic.acid_HMDB0000482 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group       3 1.3554e+11 4.5180e+10  5.1549 0.01816 *
## Residuals   11 9.6411e+10 8.7646e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Glycerol_HMDB0000131 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group       3 2.8043e+13 9.3477e+12  37.773 4.379e-06 ***
## Residuals   11 2.7222e+12 2.4747e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Ethanolamine_HMDB0000149 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)

```

```

## Group          3 1.0862e+13 3.6207e+12 46.362 1.565e-06 ***
## Residuals      11 8.5905e+11 7.8095e+10
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Leucine_HMDB0000687 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 7.4445e+13 2.4815e+13  19.906 9.444e-05 ***
## Residuals  11 1.3713e+13 1.2466e+12
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Acetylglycine_HMDB0000532 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 92985032 30995011  0.4701 0.7092
## Residuals  11 725252755 65932069
##
## Response L.Isoleucine_HMDB0000172 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 9.6143e+13 3.2048e+13  23.075 4.761e-05 ***
## Residuals  11 1.5277e+13 1.3888e+12
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Nicotinic.acid_HMDB0001488 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 21503145 7167715  0.468 0.7106
## Residuals  11 168479629 15316330
##
## Response Maleic.acid_HMDB0000176 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 85580688 28526896  0.5634 0.6503
## Residuals  11 556953942 50632177
##
## Response L.Proline_HMDB0000162 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 2.162e+13 7.2068e+12  4.9393 0.02066 *
## Residuals  11 1.605e+13 1.4591e+12
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Phenylacetic.acid_HMDB0000209 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 273351025 91117008  1.9469 0.1806
## Residuals  11 514818330 46801666
##
## Response Succinic.acid_HMDB0000254 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 1.2138e+11 4.0460e+10  6.6721 0.007884 **
## Residuals  11 6.6705e+10 6.0641e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Glycine_HMDB0000123.1 :

```

```

##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group           3 9.8430e+13 3.2810e+13  25.144 3.175e-05 ***
## Residuals      11 1.4354e+13 1.3049e+12
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Methylsuccinic.acid_HMDB0001844 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group           3 85717859 28572620  0.7679 0.5356
## Residuals      11 409315566 37210506
##
## Response Glyceric.acid_HMDB0000139 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group           3 6.3453e+11 2.1151e+11  1.0928 0.3928
## Residuals      11 2.1290e+12 1.9354e+11
##
## Response Fumaric.acid_HMDB0000134 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group           3 1.4243e+10 4747552677  2.8035 0.08937 .
## Residuals      11 1.8628e+10 1693436098
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Uracil_HMDB0000300 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group           3 1787459123 595819708  4.5299 0.02663 *
## Residuals      11 1446836416 131530583
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Pelargonic.acid_HMDB0000847 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group           3 3.4946e+12 1.1649e+12  10.47 0.00149 **
## Residuals      11 1.2239e+12 1.1126e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Serine_HMDB0000187 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group           3 4.1543e+14 1.3848e+14  21.756 6.267e-05 ***
## Residuals      11 7.0015e+13 6.3650e+12
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Threonine_HMDB0000167 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group           3 3.0044e+13 1.0015e+13  29.478 1.481e-05 ***
## Residuals      11 3.7371e+12 3.3973e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Mesaconic.acid_HMDB0000749 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group           3 1303742 434581 0.1357 0.9367

```

```

## Residuals    11 35229070 3202643
##
## Response Glutaric.acid_HMDB0000661 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 3978819986 1326273329   7.1709 0.006145 **
## Residuals  11 2034485699  184953245
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Thymine_HMDB0000262 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 22047538 7349179   2.5076 0.113
## Residuals  11 32237895 2930718
##
## Response Beta.Alanine_HMDB0000056.1 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 2.4789e+11 8.2629e+10  40.156 3.227e-06 ***
## Residuals  11 2.2635e+10 2.0577e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Homoserine_HMDB0000719 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 218927017 72975672   1.4915 0.2709
## Residuals  11 538216054 48928732
##
## Response Capric.acid_HMDB0000511 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 2.5597e+11 8.5324e+10  2.2608 0.1383
## Residuals  11 4.1514e+11 3.7740e+10
##
## Response Citramalic.acid_HMDB0000426 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 3437412897 1145804299   3.1223 0.07009 .
## Residuals  11 4036715461 366974133
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Malic.acid_HMDB0000744 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 3954913184 1318304395   1.5268 0.2623
## Residuals  11 9498162544 863469322
##
## Response Niacinamide_HMDB0001406 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 2.1176e+11 7.0587e+10  7.3759 0.005564 **
## Residuals  11 1.0527e+11 9.5700e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Adipic.acid_HMDB0000448 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 5487266643 1829088881  11.564 0.0009989 ***
## Residuals  11 1739837376 158167034

```



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## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response D.Threitol_HMDB0004136 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 192277328  64092443  0.2314 0.8726
## Residuals 11 3046622126 276965648
##
## Response Dihydrouracil_HMDB0000076 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 139164168  46388056  2.5416 0.1099
## Residuals 11 200767589 18251599
##
## Response Erythritol_HMDB0002994 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 1.0196e+10 3398610609  0.6975 0.5728
## Residuals 11 5.3600e+10 4872764010
##
## Response N.Acetylserine_HMDB0002931 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 6741942120 2247314040  22.135 5.783e-05 ***
## Residuals 11 1116814779 101528616
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Aspartic.acid_HMDB0000191 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 7.1197e+13 2.3732e+13  23.428 4.434e-05 ***
## Residuals 11 1.1143e+13 1.0130e+12
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Methionine_HMDB0000696 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 4.3936e+10 1.4645e+10  83.481 7.495e-08 ***
## Residuals 11 1.9298e+09 1.7543e+08
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response X4.Hydroxyproline_HMDB0000725 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 1.1797e+13 3.9323e+12  10.777 0.001328 **
## Residuals 11 4.0138e+12 3.6489e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Pyroglutamic.acid_HMDB0000267 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 2.2091e+13 7.3638e+12  8.4309 0.003425 **
## Residuals 11 9.6078e+12 8.7343e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Cytosine_HMDB0000630 :

```

```

##           Df      Sum Sq  Mean Sq F value Pr(>F)
## Group           3  87672038 29224013  0.5758 0.6427
## Residuals       11 558272876 50752080
##
## Response Gamma.Aminobutyric.acid_HMDB0000112 :
##           Df      Sum Sq  Mean Sq F value Pr(>F)
## Group           3  4.8744e+09 1624810142  0.8492 0.4955
## Residuals       11  2.1046e+10 1913266561
##
## Response Threonic.acid_HMDB0000943 :
##           Df      Sum Sq  Mean Sq F value Pr(>F)
## Group           3  2.3377e+11 7.7924e+10  0.9848 0.4353
## Residuals       11  8.7042e+11 7.9129e+10
##
## Response L.Cysteine_HMDB0000574 :
##           Df      Sum Sq  Mean Sq F value Pr(>F)
## Group           3  3.2839e+10 1.0946e+10  0.4113 0.7481
## Residuals       11  2.9274e+11 2.6613e+10
##
## Response L.2.Hydroxyglutaric.acid_HMDB0000694 :
##           Df      Sum Sq  Mean Sq F value Pr(>F)
## Group           3  3.0055e+10 1.0018e+10  4.9234 0.02086 *
## Residuals       11  2.2383e+10 2.0348e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Creatinine_HMDB0000562 :
##           Df      Sum Sq  Mean Sq F value Pr(>F)
## Group           3 3581362630 1193787543 20.999 7.385e-05 ***
## Residuals       11  625343520  56849411
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response X3.Hydroxyglutaric.acid_HMDB0000428 :
##           Df      Sum Sq  Mean Sq F value Pr(>F)
## Group           3 50590527 16863509  5.7075 0.01321 *
## Residuals       11 32501043  2954640
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Oxoglutaric.acid_HMDB0000208 :
##           Df      Sum Sq  Mean Sq F value Pr(>F)
## Group           3  33835566 11278522  0.2835 0.8363
## Residuals       11 437681268 39789206
##
## Response Phenylpyruvic.acid_HMDB0000205 :
##           Df      Sum Sq  Mean Sq F value Pr(>F)
## Group           3  2791224  930408  1.2279 0.3458
## Residuals       11 8334723  757702
##
## Response Pimelic.acid_HMDB0000857 :
##           Df      Sum Sq  Mean Sq F value Pr(>F)
## Group           3 50960807 16986936  3.004 0.07662 .
## Residuals       11 62202973  5654816

```

```

## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Phenyllactic.acid_HMDB0000779 :
##           Df      Sum Sq  Mean Sq F value    Pr(>F)
## Group       3 222629530 74209843   3.062 0.07333 .
## Residuals   11 266594554 24235869
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Phosphoenolpyruvic.acid_HMDB0000263 :
##           Df      Sum Sq  Mean Sq F value    Pr(>F)
## Group       3 6.4699e+11 2.1566e+11  97.184 3.366e-08 ***
## Residuals   11 2.4410e+10 2.2191e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Ornithine_HMDB0000214 :
##           Df      Sum Sq  Mean Sq F value    Pr(>F)
## Group       3 1.0899e+12 3.6329e+11  5.7876 0.01263 *
## Residuals   11 6.9048e+11 6.2771e+10
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Hypotaurine_HMDB0000965 :
##           Df      Sum Sq  Mean Sq F value    Pr(>F)
## Group       3 1.8956e+10 6318778672  17.024 0.0001914 ***
## Residuals   11 4.0829e+09 371174624
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Triethanolamine_HMDB0032538 :
##           Df      Sum Sq  Mean Sq F value    Pr(>F)
## Group       3 2.5674e+14 8.5581e+13  94.727 3.853e-08 ***
## Residuals   11 9.9379e+12 9.0344e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response X2.Aminobenzoic.acid_HMDB0001123 :
##           Df      Sum Sq  Mean Sq F value    Pr(>F)
## Group       3 750503419 250167806  190.52 9.234e-10 ***
## Residuals   11 14444058  1313096
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Glutamic.acid_HMDB0000148 :
##           Df      Sum Sq  Mean Sq F value    Pr(>F)
## Group       3 6.4038e+11 2.1346e+11  9.4331 0.00224 **
## Residuals   11 2.4892e+11 2.2629e+10
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response X4.Hydroxybenzoic.acid_HMDB0000500 :
##           Df      Sum Sq  Mean Sq F value    Pr(>F)

```

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## Group      3 2.3604e+11 7.8681e+10 74.055 1.404e-07 ***
## Residuals  11 1.1687e+10 1.0625e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response X5.Aminopentanoic.acid_HMDB0003355 :
##      Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 316929510 105643170  2.4703 0.1164
## Residuals  11 470424029  42765821
##
## Response X2.3.Dihydroxybutanedioic.acid_HMDB0059916 :
##      Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 197575977  65858659   1.146 0.3735
## Residuals  11 632146713  57467883
##
## Response L.Phenylalanine_HMDB0000159 :
##      Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 3.1044e+13 1.0348e+13  69.074 2.018e-07 ***
## Residuals  11 1.6479e+12 1.4981e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Dodecanoic.acid_HMDB0000638 :
##      Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 1.0179e+11 3.3931e+10  4.6901 0.02408 *
## Residuals  11 7.9579e+10 7.2345e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Lyxose_HMDB0003402_1 :
##      Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 9663623093 3221207698  11.003 0.001222 **
## Residuals  11 3220419600  292765418
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response D.Xylose_HMDB0000098 :
##      Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 7.7816e+09 2593863059  1.7786 0.2093
## Residuals  11 1.6042e+10 1458374318
##
## Response Lyxose_HMDB0003402_2 :
##      Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 1.9091e+10 6363510732  1.1709 0.3649
## Residuals  11 5.9780e+10 5434531406
##
## Response D.Arabinose_HMDB0029942 :
##      Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 5.5309e+11 1.8436e+11  15.556 0.000285 ***
## Residuals  11 1.3037e+11 1.1851e+10
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Asparagine_HMDB0000168 :

```

```

##           Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 1.4662e+11 4.8873e+10  2.3586 0.1276
## Residuals 11 2.2793e+11 2.0721e+10
##
## Response D.Ribulose_HMDB0000621 :
##           Df      Sum Sq    Mean Sq F value  Pr(>F)
## Group      3 1.9506e+11 6.5020e+10  9.5723 0.002117 **
## Residuals 11 7.4718e+10 6.7926e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response D.Ribose_HMDB0000283 :
##           Df      Sum Sq    Mean Sq F value  Pr(>F)
## Group      3 3.4618e+10 1.1539e+10  14.78 0.000356 ***
## Residuals 11 8.5881e+09 7.8074e+08
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response D.Xylulose_HMDB0001644 :
##           Df      Sum Sq    Mean Sq F value  Pr(>F)
## Group      3 4.5139e+11 1.5046e+11  9.7711 0.001955 **
## Residuals 11 1.6939e+11 1.5399e+10
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response X3.Sulfinoalanine_HMDB0000996 :
##           Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 78454133 26151378  0.6467 0.6011
## Residuals 11 444829693 40439063
##
## Response Suberic.acid_HMDB0000893 :
##           Df      Sum Sq    Mean Sq F value  Pr(>F)
## Group      3 576613522 192204507  3.8814 0.04078 *
## Residuals 11 544717158 49519742
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Lysine_HMDB0000182 :
##           Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 8.9946e+09 2998209482  2.0672 0.1628
## Residuals 11 1.5954e+10 1450392697
##
## Response Levoglucosan_HMDB0000640 :
##           Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 1.4841e+13 4.9469e+12  1.112 0.3857
## Residuals 11 4.8934e+13 4.4485e+12
##
## Response D.Arabitol_HMDB0000568 :
##           Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 735010206 2.45e+08  1.3315 0.3139
## Residuals 11 2024000865 1.84e+08
##
## Response Ribitol_HMDB0000508 :
##           Df      Sum Sq    Mean Sq F value Pr(>F)

```

```

## Group      3 2581533 860511 0.177 0.9097
## Residuals 11 53466732 4860612
##
## Response cis.Aconitic.acid_HMDB0000072 :
##      Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 146198747 48732916 0.9838 0.4357
## Residuals 11 544874853 49534078
##
## Response Quinolinic.acid_HMDB0000232 :
##      Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 4212497 1404166 1.7437 0.2158
## Residuals 11 8858282 805298
##
## Response Putrescine_HMDB0001414 :
##      Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 384202418 128067473 0.6961 0.5736
## Residuals 11 2023851027 183986457
##
## Response Glycerol.3.phosphate_HMDB0000126 :
##      Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 9.9198e+10 3.3066e+10 6.8855 0.007077 **
## Residuals 11 5.2825e+10 4.8023e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Vanillic.acid_HMDB0000484 :
##      Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 812144318 270714773 2.2791 0.1362
## Residuals 11 1306569849 118779077
##
## Response L.Glutamine_HMDB0000641 :
##      Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 1.0365e+11 3.4551e+10 0.5513 0.6577
## Residuals 11 6.8939e+11 6.2672e+10
##
## Response X2.Phosphoglyceric.acid_HMDB0000362 :
##      Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 3505444336 1168481445 4.8145 0.0223 *
## Residuals 11 2669722578 242702053
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Azelaic.acid_HMDB0000784 :
##      Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 2.3213e+09 773756945 0.6568 0.5954
## Residuals 11 1.2958e+10 1177995358
##
## Response L.Dihydroorotic.acid_HMDB0003349 :
##      Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 1.7390e+11 5.7966e+10 16.125 0.0002434 ***
## Residuals 11 3.9541e+10 3.5947e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##

```

```

## Response 0.Phosphoethanolamine_HMDB0000224 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group       3 580686607 193562202  21.522 6.59e-05 ***
## Residuals   11  98931884   8993808
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response X3.Phosphoglyceric.acid_HMDB0000807 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group       3 1.1502e+11 3.8341e+10   6.1597 0.01031 *
## Residuals   11 6.8469e+10 6.2244e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Isocitric.acid_HMDB0000193 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group       3 177365785 59121928   0.5456 0.6612
## Residuals   11 1191882610 108352965
##
## Response Hypoxanthine_HMDB0000157 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group       3 7.9468e+09 2648941206   0.328 0.8053
## Residuals   11 8.8844e+10 8076721927
##
## Response Citric.acid_HMDB0000094 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group       3 4.8713e+11 1.6238e+11   6.2442 0.009855 **
## Residuals   11 2.8605e+11 2.6004e+10
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Arginine_HMDB0000517 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group       3 1.0955e+10 3651663884   1.7111 0.2222
## Residuals   11 2.3476e+10 2134137439
##
## Response Ornithine_HMDB0000214.1 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group       3 2.2318e+14 7.4393e+13  68.652 2.083e-07 ***
## Residuals   11 1.1920e+13 1.0836e+12
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Dopamine_HMDB0000073 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group       3 4.5445e+11 1.5148e+11  50.345 1.029e-06 ***
## Residuals   11 3.3098e+10 3.0089e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Myristic.acid_HMDB0000806 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group       3 1.4952e+12 4.9839e+11  19.47 0.0001045 ***
## Residuals   11 2.8158e+11 2.5598e+10

```

```

## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response X1.5.Anhydrosorbitol_HMDB0002712 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group       3  445934867 148644956  0.4432 0.7269
## Residuals   11 3689343983 335394908
##
## Response D.Tagatose_HMDB0003418 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group       3 1.3319e+14 4.4395e+13   19.42 0.0001057 ***
## Residuals   11 2.5147e+13 2.2861e+12
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Psicose_1 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group       3 2.2962e+12 7.6540e+11  0.7357 0.5523
## Residuals   11 1.1444e+13 1.0403e+12
##
## Response Sebacic.acid_HMDB0000792 :
##           Df      Sum Sq   Mean Sq F value  Pr(>F)
## Group       3  929911754 309970585  3.1099 0.07075 .
## Residuals   11 1096402822 99672984
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response D.Fructose_HMDB0000660 :
##           Df      Sum Sq   Mean Sq F value  Pr(>F)
## Group       3 5.1427e+12 1.7142e+12  7.0222 0.006611 **
## Residuals   11 2.6853e+12 2.4411e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Gluconolactone_HMDB0000150 :
##           Df      Sum Sq   Mean Sq F value  Pr(>F)
## Group       3 1.1801e+10 3933712465  6.2323 0.009917 **
## Residuals   11 6.9430e+09 631178791
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Sorbose_HMDB0001266 :
##           Df      Sum Sq   Mean Sq F value  Pr(>F)
## Group       3 2.2822e+12 7.6073e+11  6.8205 0.007312 **
## Residuals   11 1.2269e+12 1.1154e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response D.Mannose_HMDB0000169 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group       3 1.9241e+12 6.4138e+11  24.918 3.314e-05 ***
## Residuals   11 2.8314e+11 2.5740e+10
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```



```

##
## Response Hydroxyphenyllactic.acid_HMDB0000755 :
##           Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 3.1000e+09 1033320135  0.3371  0.799
## Residuals  11 3.3723e+10 3065731288
##
## Response D.Glucose_HMDB0000122 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 2.9948e+13 9.9827e+12  20.356 8.523e-05 ***
## Residuals  11 5.3944e+12 4.9040e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response N.Acetylglutamine_HMDB0006029 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 9.642e+12 3.214e+12  19.246 0.0001102 ***
## Residuals  11 1.837e+12 1.670e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Lysine_HMDB0000182.1 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 1.1242e+13 3.7475e+12  26.754 2.362e-05 ***
## Residuals  11 1.5408e+12 1.4007e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response D.Mannose_HMDB0000169.1 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 3.2973e+11 1.0991e+11  30.922 1.174e-05 ***
## Residuals  11 3.9098e+10 3.5544e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Tyramine_HMDB0000306 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 6.5908e+13 2.1969e+13   24.6 3.522e-05 ***
## Residuals  11 9.8236e+12 8.9306e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Histidine_HMDB0000177 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 3.8911e+11 1.2970e+11  25.648 2.889e-05 ***
## Residuals  11 5.5628e+10 5.0571e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response D.Glucose_HMDB0000122.1 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 9.2856e+13 3.0952e+13  19.012 0.0001165 ***
## Residuals  11 1.7909e+13 1.6281e+12
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

##
## Response X1.Hexadecanol_HMDB0003424 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 324435632 108145211  1.5734 0.2515
## Residuals  11 756065111  68733192
##
## Response L.Tyrosine_HMDB0000158 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 2.1427e+14 7.1422e+13  10.536 0.001453 **
## Residuals  11 7.4567e+13 6.7788e+12
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Mannitol_HMDB0000765 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 5.8011e+10 1.9337e+10  5.4374 0.0154 *
## Residuals  11 3.9120e+10 3.5563e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Sorbitol_HMDB0000247 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 1.6014e+13 5.3380e+12  1.0898 0.3939
## Residuals  11 5.3881e+13 4.8982e+12
##
## Response ITSD_Sorbitol :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 2.3745e+12 7.9149e+11  5.4644 0.01516 *
## Residuals  11 1.5933e+12 1.4484e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Galacturonic.acid_HMDB0002545 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 5.5409e+09 1846966321  0.2623 0.8511
## Residuals  11 7.7461e+10 7041891731
##
## Response Pantothenic.acid_HMDB0000210 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 6120423 2040141  0.2363 0.8692
## Residuals  11 94962252 8632932
##
## Response Palmitoleic.acid_HMDB0003229 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 2.0517e+11 6.8391e+10  53.48 7.559e-07 ***
## Residuals  11 1.4067e+10 1.2788e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Xanthine_HMDB0000292 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 445976539 148658846  2.5266 0.1113
## Residuals  11 647212671  58837516
##

```

```

## Response Gluconic.acid_HMDB0000625 :
##           Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 9.3599e+10 3.1200e+10  5.5551 0.01439 *
## Residuals  11 6.1781e+10 5.6165e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Palmitic.acid_HMDB0000220 :
##           Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 1.7634e+13 5.8780e+12  5.5215 0.01467 *
## Residuals  11 1.1710e+13 1.0646e+12
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Glucaric.acid_HMDB0000663 :
##           Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 484395240 161465080  5.8656 0.0121 *
## Residuals  11 302802365 27527488
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response N.Acetylmannosamine_HMDB0001129 :
##           Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 1385644355 461881452  2.4191 0.1214
## Residuals  11 2100266281 190933298
##
## Response N.Acetyl.D.glucosamine_HMDB0000215 :
##           Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 2380876238 793625413  9.5697 0.002119 **
## Residuals  11 912240521 82930956
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response D.Ribulose.5.phosphate_HMDB0000618 :
##           Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 1.3686e+10 4562080103  20.216 8.796e-05 ***
## Residuals  11 2.4823e+09 225660743
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Uric.acid_HMDB0000289 :
##           Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 4.9701e+12 1.6567e+12  1.9919 0.1737
## Residuals  11 9.1489e+12 8.3172e+11
##
## Response D.Ribose.5.phosphate_HMDB0001548 :
##           Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 1.2409e+10 4136456246  18.231 0.0001408 ***
## Residuals  11 2.4958e+09 226887460
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response myo.Inositol_HMDB0000211 :
##           Df      Sum Sq    Mean Sq F value Pr(>F)

```

```

## Group      3 4.8196e+11 1.6065e+11 1.0773 0.3986
## Residuals  11 1.6404e+12 1.4913e+11
##
## Response D.Ribose.5.phosphate_HMDB0001548.1 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 3.0048e+10 1.0016e+10  36.182 5.422e-06 ***
## Residuals  11 3.0451e+09 2.7682e+08
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Heptadecanoic.acid_HMDB0002259 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 2.8093e+10 9364306447  11.835 0.0009085 ***
## Residuals  11 8.7032e+09 791203358
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Octadecanol_HMDB0002350 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 2.2937e+09 764565414  0.3283 0.805
## Residuals  11 2.5614e+10 2328572647
##
## Response Glutathione_HMDB0000125 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 1.431e+10 4.7701e+09  0.265 0.8492
## Residuals  11 1.980e+11 1.8000e+10
##
## Response Linoleic.acid_HMDB0000673 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 5.1708e+12 1.7236e+12  16.999 0.0001927 ***
## Residuals  11 1.1154e+12 1.0140e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Oleic.acid_HMDB0000207 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 3.0787e+13 1.0262e+13  78.384 1.043e-07 ***
## Residuals  11 1.4402e+12 1.3092e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Elaidic.acid_HMDB0000573 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 9.6792e+10 3.2264e+10  25.384 3.035e-05 ***
## Residuals  11 1.3981e+10 1.2710e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response alpha.Glucose.1.6.bisphosphate_HMDB0003514 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 1.2672e+10 4224071090  26.029 2.693e-05 ***
## Residuals  11 1.7851e+09 162282664
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

##
## Response Stearic.acid_HMDB0000827 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 4.4072e+12 1.4691e+12  0.8433 0.4983
## Residuals 11 1.9162e+13 1.7420e+12
##
## Response L.Tryptophan_HMDB0000929 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 423768196 141256065  0.6843  0.58
## Residuals 11 2270819505 206438137
##
## Response Fructose.1.phosphate_HMDB0001076 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 4230279724 1410093241  8.5006 0.003322 **
## Residuals 11 1824692269 165881115
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Mannose.6.phosphate_HMDB0001078 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 109881616 36627205  2.0631 0.1634
## Residuals 11 195287525 17753411
##
## Response Arachidonic.acid_HMDB0001043 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 4.0364e+11 1.3455e+11  223.57 3.894e-10 ***
## Residuals 11 6.6199e+09 6.0181e+08
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Glucose.6.phosphate_HMDB0001401 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 261885957 87295319  4.2691 0.03149 *
## Residuals 11 224927754 20447978
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response X6.Phosphogluconic.acid_HMDB0001316 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 284767011 94922337  1.4523 0.2808
## Residuals 11 718976083 65361462
##
## Response Inositol.phosphate_HMDB0002985 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 4531685265 1510561755  2.5229 0.1116
## Residuals 11 6586114997 598737727
##
## Response Uridine_HMDB0000296 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 635910717 211970239  0.5587 0.6532
## Residuals 11 4173366338 379396940
##
## Response Stigmasterol_HMDB0000937 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)

```

```

## Group      3 2.4469e+12 8.1565e+11 0.7176 0.5619
## Residuals  11 1.2504e+13 1.1367e+12
##
## Response D.Sedoheptulose.7.phosphate_HMDB0001068 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3   839849   279950   0.0742 0.9726
## Residuals  11 41498114 3772556
##
## Response Sucrose_HMDB0000258 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 1.8612e+12 6.2039e+11 2.2917 0.1348
## Residuals  11 2.9778e+12 2.7071e+11
##
## Response MG.18.0e.0.0.0.0._HMDB0011143 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 4.8359e+09 1611964284 1.2246 0.3469
## Residuals  11 1.4480e+10 1316321085
##
## Response Trehalose_HMDB0000975 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 1.0782e+13 3.5942e+12 0.7043 0.5691
## Residuals  11 5.6132e+13 5.1029e+12
##
## Response D.Maltose_HMDB0000163 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 1.5217e+12 5.0724e+11 0.6982 0.5724
## Residuals  11 7.9916e+12 7.2651e+11
##
## Response Lactitol_HMDB0040937 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 518432763 172810921 1.1119 0.3858
## Residuals  11 1709597286 155417935
##
## Response Xanthylic.acid_HMDB0001554 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 1.9817e+11 6.6058e+10 5.1992 0.01769 *
## Residuals  11 1.3976e+11 1.2705e+10
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Adenosine.monophosphate_HMDB0000045 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 177830046 59276682 7.8286 0.004495 **
## Residuals  11 83289971 7571816
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Cholesterol_HMDB0000067 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 1.7706e+12 5.9019e+11 1.8795 0.1915
## Residuals  11 3.4541e+12 3.1401e+11
##
## Response Lathosterol_HMDB0001170 :
##           Df      Sum Sq Mean Sq F value Pr(>F)

```

```
## Group      3 306699013 102233004 11.471 0.001032 **
## Residuals  11 98036190 8912381
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response X7b.Hydroxycholesterol_HMDB0006119 :
##      Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 4.9747e+11 1.6582e+11  100.42 2.831e-08 ***
## Residuals  11 1.8165e+10 1.6514e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
fit <- manova(x ~ Group,data=study_sc)
summary.aov(fit)
```

```
## Response Dimethylglycine_HMDB0000092 :
##      Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 2.4390e+12 8.1300e+11  13.055 0.0006046 ***
## Residuals  11 6.8505e+11 6.2277e+10
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Glyoxylic.acid_HMDB0000119 :
##      Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 3.0598e+12 1.0199e+12  13.433 0.0005359 ***
## Residuals  11 8.3520e+11 7.5927e+10
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Pyruvic.acid_HMDB0000243 :
##      Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 3013760155 1004586718  2.1445 0.1525
## Residuals  11 5152860453 468441859
##
## Response L.Lactic.acid_HMDB0000190 :
##      Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 9.9815e+12 3.3272e+12  16.423 0.0002245 ***
## Residuals  11 2.2285e+12 2.0259e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Alpha.Hydroxyisobutyric.acid_HMDB0000729 :
##      Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 192233153 64077718  0.4565 0.7181
## Residuals  11 1544173101 140379373
##
## Response Glycolic.acid_HMDB0000115 :
##      Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 2.8814e+12 9.6048e+11  0.8924 0.4755
## Residuals  11 1.1840e+13 1.0763e+12
##
## Response Caproic.acid_HMDB0000535 :
##      Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 7.3099e+12 2.4366e+12  14.06 0.0004413 ***
```

```

## Residuals    11 1.9063e+12 1.7330e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Alanine_HMDB0000161 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 2.2643e+11 7.5478e+10  27.881 1.937e-05 ***
## Residuals  11 2.9778e+10 2.7071e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Alpha.ketoisovaleric.acid_HMDB0000019 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 67465048 22488349  3.1568 0.06831 .
## Residuals  11 78362273 7123843
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Glycine_HMDB0000123 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 1.1324e+11 3.7746e+10  5.4557 0.01524 *
## Residuals  11 7.6104e+10 6.9186e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Oxalic.acid_HMDB00002329 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 1.3158e+10 4386119535  1.1471 0.3732
## Residuals  11 4.2061e+10 3823732428
##
## Response Hydroxylamine_HMDB00003338 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 1.2520e+13 4.1734e+12  0.8686 0.4864
## Residuals  11 5.2852e+13 4.8047e+12
##
## Response X2.Hydroxybutyric.acid_HMDB00000008 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 3.4030e+09 1134324921  0.155 0.9243
## Residuals  11 8.0492e+10 7317409893
##
## Response Acetoacetic.acid_HMDB00000060 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 1.1768e+11 3.9226e+10  0.4533 0.7202
## Residuals  11 9.5181e+11 8.6528e+10
##
## Response Hydroxypropionic.acid_HMDB0000700 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 2.6457e+12 8.8191e+11  7.8777 0.004394 **
## Residuals  11 1.2315e+12 1.1195e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Pyruvic.acid_HMDB0000243.1 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)

```



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## Group      3 136875731 45625244 0.8135 0.5127
## Residuals  11 616971773 56088343
##
## Response X3.Hydroxybutyric.acid_HMDB0000357 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 4.3990e+10 1.4663e+10  0.0448 0.9867
## Residuals  11 3.6023e+12 3.2748e+11
##
## Response X.S..3.Hydroxyisobutyric.acid_HMDB0000023 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 2.6429e+10 8.8095e+09  0.2166 0.8828
## Residuals  11 4.4739e+11 4.0672e+10
##
## Response X2.Hydroxy.3.methylbutyric.acid_HMDB0000407 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 728265203 242755068  0.7002 0.5713
## Residuals  11 3813791390 346708308
##
## Response D.Alpha.aminobutyric.acid_HMDB0000650 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 1556820679 518940226 11.516 0.001016 **
## Residuals  11 495701699 45063791
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response X3.Methyl.2.oxovaleric.acid_HMDB0000491 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 167346493 55782164  0.6426 0.6035
## Residuals  11 954873919 86806720
##
## Response Beta.Alanine_HMDB0000056 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 6226319264 2075439755 7.9896 0.004175 **
## Residuals  11 2857442015 259767456
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response X2.Methyl.3.hydroxybutyric.acid_HMDB0000354 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 1624879 541626 1.3081 0.3209
## Residuals  11 4554518 414047
##
## Response X3.Methyl.2.oxovaleric.acid_HMDB0000491.1 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 240335851 80111950 1.1156 0.3844
## Residuals  11 789893982 71808544
##
## Response Malonic.acid_HMDB0000691 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 573344576 191114859 1.481 0.2735
## Residuals  11 1419520445 129047313
##
## Response X3.Aminoisobutanoic.acid_HMDB0003911 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)

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## Group      3 184927824 61642608 19.829 9.613e-05 ***
## Residuals  11 34195707 3108701
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response X3.Hydroxyisovaleric.acid_HMDB0000754 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 5.1296e+10 1.7099e+10  5.3087 0.01659 *
## Residuals  11 3.5429e+10 3.2209e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Ketoleucine_HMDB0000695 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group      3 1246145120 415381707  1.2096 0.3518
## Residuals  11 3777348198 343395291
##
## Response L.Valine_HMDB0000883 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 2.5317e+13 8.4389e+12  15.108 0.0003237 ***
## Residuals  11 6.1444e+12 5.5858e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response ITSD_Valine :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 6.7107e+12 2.2369e+12  16.038 0.0002493 ***
## Residuals  11 1.5342e+12 1.3947e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Urea_HMDB0000294 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 5.9562e+12 1.9854e+12  5.3245 0.01644 *
## Residuals  11 4.1017e+12 3.7288e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Benzoic.acid_HMDB0001870 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 4.2312e+13 1.4104e+13  2.5207 0.1118
## Residuals  11 6.1549e+13 5.5954e+12
##
## Response Caprylic.acid_HMDB0000482 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 1.3554e+11 4.5180e+10  5.1549 0.01816 *
## Residuals  11 9.6411e+10 8.7646e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Glycerol_HMDB0000131 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 2.8043e+13 9.3477e+12  37.773 4.379e-06 ***
## Residuals  11 2.7222e+12 2.4747e+11

```

```

## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Ethanolamine_HMDB0000149 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group       3 1.0862e+13 3.6207e+12  46.362 1.565e-06 ***
## Residuals   11 8.5905e+11 7.8095e+10
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Leucine_HMDB0000687 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group       3 7.4445e+13 2.4815e+13  19.906 9.444e-05 ***
## Residuals   11 1.3713e+13 1.2466e+12
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Acetylglycine_HMDB0000532 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group       3 92985032 30995011  0.4701 0.7092
## Residuals   11 725252755 65932069
##
## Response L.Isoleucine_HMDB0000172 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group       3 9.6143e+13 3.2048e+13  23.075 4.761e-05 ***
## Residuals   11 1.5277e+13 1.3888e+12
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Nicotinic.acid_HMDB0001488 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group       3 21503145 7167715  0.468 0.7106
## Residuals   11 168479629 15316330
##
## Response Maleic.acid_HMDB0000176 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group       3 85580688 28526896  0.5634 0.6503
## Residuals   11 556953942 50632177
##
## Response L.Proline_HMDB0000162 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group       3 2.162e+13 7.2068e+12  4.9393 0.02066 *
## Residuals   11 1.605e+13 1.4591e+12
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Phenylacetic.acid_HMDB0000209 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group       3 273351025 91117008  1.9469 0.1806
## Residuals   11 514818330 46801666
##
## Response Succinic.acid_HMDB0000254 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group       3 1.2138e+11 4.0460e+10  6.6721 0.007884 **

```

```

## Residuals    11 6.6705e+10 6.0641e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Glycine_HMDB0000123.1 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 9.8430e+13 3.2810e+13  25.144 3.175e-05 ***
## Residuals  11 1.4354e+13 1.3049e+12
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Methylsuccinic.acid_HMDB0001844 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 85717859 28572620  0.7679 0.5356
## Residuals  11 409315566 37210506
##
## Response Glyceric.acid_HMDB0000139 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 6.3453e+11 2.1151e+11  1.0928 0.3928
## Residuals  11 2.1290e+12 1.9354e+11
##
## Response Fumaric.acid_HMDB0000134 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 1.4243e+10 4747552677  2.8035 0.08937 .
## Residuals  11 1.8628e+10 1693436098
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Uracil_HMDB0000300 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 1787459123 595819708  4.5299 0.02663 *
## Residuals  11 1446836416 131530583
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Pelargonic.acid_HMDB0000847 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 3.4946e+12 1.1649e+12  10.47 0.00149 **
## Residuals  11 1.2239e+12 1.1126e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Serine_HMDB0000187 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 4.1543e+14 1.3848e+14  21.756 6.267e-05 ***
## Residuals  11 7.0015e+13 6.3650e+12
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Threonine_HMDB0000167 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 3.0044e+13 1.0015e+13  29.478 1.481e-05 ***
## Residuals  11 3.7371e+12 3.3973e+11
## ---

```

```

## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Mesaconic.acid_HMDB0000749 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3  1303742  434581  0.1357 0.9367
## Residuals  11 35229070 3202643
##
## Response Glutaric.acid_HMDB0000661 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 3978819986 1326273329  7.1709 0.006145 **
## Residuals  11 2034485699  184953245
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Thymine_HMDB0000262 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 22047538 7349179  2.5076  0.113
## Residuals  11 32237895 2930718
##
## Response Beta.Alanine_HMDB0000056.1 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 2.4789e+11 8.2629e+10  40.156 3.227e-06 ***
## Residuals  11 2.2635e+10 2.0577e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Homoserine_HMDB0000719 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 218927017 72975672  1.4915 0.2709
## Residuals  11 538216054 48928732
##
## Response Capric.acid_HMDB0000511 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 2.5597e+11 8.5324e+10  2.2608 0.1383
## Residuals  11 4.1514e+11 3.7740e+10
##
## Response Citramalic.acid_HMDB0000426 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 3437412897 1145804299  3.1223 0.07009 .
## Residuals  11 4036715461 366974133
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Malic.acid_HMDB0000744 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 3954913184 1318304395  1.5268 0.2623
## Residuals  11 9498162544 863469322
##
## Response Niacinamide_HMDB0001406 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 2.1176e+11 7.0587e+10  7.3759 0.005564 **
## Residuals  11 1.0527e+11 9.5700e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

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##
## Response Adipic.acid_HMDB0000448 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 5487266643 1829088881  11.564 0.0009989 ***
## Residuals  11 1739837376  158167034
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response D.Threitol_HMDB0004136 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3  192277328  64092443  0.2314 0.8726
## Residuals  11 3046622126 276965648
##
## Response Dihydrouracil_HMDB0000076 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 139164168 46388056  2.5416 0.1099
## Residuals  11 200767589 18251599
##
## Response Erythritol_HMDB0002994 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 1.0196e+10 3398610609  0.6975 0.5728
## Residuals  11 5.3600e+10 4872764010
##
## Response N.Acetylserine_HMDB0002931 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 6741942120 2247314040  22.135 5.783e-05 ***
## Residuals  11 1116814779 101528616
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Aspartic.acid_HMDB0000191 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 7.1197e+13 2.3732e+13  23.428 4.434e-05 ***
## Residuals  11 1.1143e+13 1.0130e+12
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Methionine_HMDB0000696 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 4.3936e+10 1.4645e+10  83.481 7.495e-08 ***
## Residuals  11 1.9298e+09 1.7543e+08
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response X4.Hydroxyproline_HMDB0000725 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 1.1797e+13 3.9323e+12  10.777 0.001328 **
## Residuals  11 4.0138e+12 3.6489e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Pyroglutamic.acid_HMDB0000267 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 2.2091e+13 7.3638e+12  8.4309 0.003425 **

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```

## Residuals    11 9.6078e+12 8.7343e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Cytosine_HMDB0000630 :
##           Df      Sum Sq  Mean Sq F value Pr(>F)
## Group      3  87672038 29224013  0.5758 0.6427
## Residuals  11 558272876 50752080
##
## Response Gamma.Aminobutyric.acid_HMDB0000112 :
##           Df      Sum Sq  Mean Sq F value Pr(>F)
## Group      3 4.8744e+09 1624810142  0.8492 0.4955
## Residuals  11 2.1046e+10 1913266561
##
## Response Threonic.acid_HMDB0000943 :
##           Df      Sum Sq  Mean Sq F value Pr(>F)
## Group      3 2.3377e+11 7.7924e+10  0.9848 0.4353
## Residuals  11 8.7042e+11 7.9129e+10
##
## Response L.Cysteine_HMDB0000574 :
##           Df      Sum Sq  Mean Sq F value Pr(>F)
## Group      3 3.2839e+10 1.0946e+10  0.4113 0.7481
## Residuals  11 2.9274e+11 2.6613e+10
##
## Response L.2.Hydroxyglutaric.acid_HMDB0000694 :
##           Df      Sum Sq  Mean Sq F value Pr(>F)
## Group      3 3.0055e+10 1.0018e+10  4.9234 0.02086 *
## Residuals  11 2.2383e+10 2.0348e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Creatinine_HMDB0000562 :
##           Df      Sum Sq  Mean Sq F value Pr(>F)
## Group      3 3581362630 1193787543 20.999 7.385e-05 ***
## Residuals  11 625343520 56849411
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response X3.Hydroxyglutaric.acid_HMDB0000428 :
##           Df      Sum Sq  Mean Sq F value Pr(>F)
## Group      3 50590527 16863509  5.7075 0.01321 *
## Residuals  11 32501043 2954640
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Oxoglutaric.acid_HMDB0000208 :
##           Df      Sum Sq  Mean Sq F value Pr(>F)
## Group      3 33835566 11278522  0.2835 0.8363
## Residuals  11 437681268 39789206
##
## Response Phenylpyruvic.acid_HMDB0000205 :
##           Df      Sum Sq  Mean Sq F value Pr(>F)
## Group      3 2791224 930408  1.2279 0.3458
## Residuals  11 8334723 757702

```

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##
## Response Pimelic.acid_HMDB0000857 :
##           Df      Sum Sq  Mean Sq F value  Pr(>F)
## Group           3 50960807 16986936   3.004 0.07662 .
## Residuals      11 62202973  5654816
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Phenyllactic.acid_HMDB0000779 :
##           Df      Sum Sq  Mean Sq F value  Pr(>F)
## Group           3 222629530 74209843   3.062 0.07333 .
## Residuals      11 266594554 24235869
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Phosphoenolpyruvic.acid_HMDB0000263 :
##           Df      Sum Sq  Mean Sq F value  Pr(>F)
## Group           3 6.4699e+11 2.1566e+11  97.184 3.366e-08 ***
## Residuals      11 2.4410e+10 2.2191e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Ornithine_HMDB0000214 :
##           Df      Sum Sq  Mean Sq F value  Pr(>F)
## Group           3 1.0899e+12 3.6329e+11  5.7876 0.01263 *
## Residuals      11 6.9048e+11 6.2771e+10
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Hypotaurine_HMDB0000965 :
##           Df      Sum Sq  Mean Sq F value  Pr(>F)
## Group           3 1.8956e+10 6318778672  17.024 0.0001914 ***
## Residuals      11 4.0829e+09  371174624
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Triethanolamine_HMDB0032538 :
##           Df      Sum Sq  Mean Sq F value  Pr(>F)
## Group           3 2.5674e+14 8.5581e+13  94.727 3.853e-08 ***
## Residuals      11 9.9379e+12 9.0344e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response X2.Aminobenzoic.acid_HMDB0001123 :
##           Df      Sum Sq  Mean Sq F value  Pr(>F)
## Group           3 750503419 250167806  190.52 9.234e-10 ***
## Residuals      11 14444058  1313096
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Glutamic.acid_HMDB0000148 :
##           Df      Sum Sq  Mean Sq F value  Pr(>F)
## Group           3 6.4038e+11 2.1346e+11  9.4331 0.00224 **
## Residuals      11 2.4892e+11 2.2629e+10

```



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## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response X4.Hydroxybenzoic.acid_HMDB0000500 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 2.3604e+11  7.8681e+10   74.055 1.404e-07 ***
## Residuals 11 1.1687e+10  1.0625e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response X5.Aminopentanoic.acid_HMDB0003355 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 316929510 105643170   2.4703 0.1164
## Residuals 11 470424029  42765821
##
## Response X2.3.Dihydroxybutanedioic.acid_HMDB0059916 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 197575977  65858659   1.146 0.3735
## Residuals 11 632146713  57467883
##
## Response L.Phenylalanine_HMDB0000159 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 3.1044e+13  1.0348e+13  69.074 2.018e-07 ***
## Residuals 11 1.6479e+12  1.4981e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Dodecanoic.acid_HMDB0000638 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 1.0179e+11  3.3931e+10   4.6901 0.02408 *
## Residuals 11 7.9579e+10  7.2345e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Lyxose_HMDB0003402_1 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 9663623093 3221207698  11.003 0.001222 **
## Residuals 11 3220419600  292765418
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response D.Xylose_HMDB0000098 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 7.7816e+09 2593863059   1.7786 0.2093
## Residuals 11 1.6042e+10 1458374318
##
## Response Lyxose_HMDB0003402_2 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 1.9091e+10 6363510732   1.1709 0.3649
## Residuals 11 5.9780e+10 5434531406
##
## Response D.Arabinose_HMDB0029942 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 5.5309e+11 1.8436e+11  15.556 0.000285 ***

```

```

## Residuals    11 1.3037e+11 1.1851e+10
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Asparagine_HMDB0000168 :
##           Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 1.4662e+11 4.8873e+10  2.3586 0.1276
## Residuals  11 2.2793e+11 2.0721e+10
##
## Response D.Ribulose_HMDB0000621 :
##           Df      Sum Sq    Mean Sq F value  Pr(>F)
## Group      3 1.9506e+11 6.5020e+10  9.5723 0.002117 **
## Residuals  11 7.4718e+10 6.7926e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response D.Ribose_HMDB0000283 :
##           Df      Sum Sq    Mean Sq F value  Pr(>F)
## Group      3 3.4618e+10 1.1539e+10  14.78 0.000356 ***
## Residuals  11 8.5881e+09 7.8074e+08
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response D.Xylulose_HMDB0001644 :
##           Df      Sum Sq    Mean Sq F value  Pr(>F)
## Group      3 4.5139e+11 1.5046e+11  9.7711 0.001955 **
## Residuals  11 1.6939e+11 1.5399e+10
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response X3.Sulfinioalanine_HMDB0000996 :
##           Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 78454133 26151378  0.6467 0.6011
## Residuals  11 444829693 40439063
##
## Response Suberic.acid_HMDB0000893 :
##           Df      Sum Sq    Mean Sq F value  Pr(>F)
## Group      3 576613522 192204507  3.8814 0.04078 *
## Residuals  11 544717158 49519742
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Lysine_HMDB0000182 :
##           Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 8.9946e+09 2998209482  2.0672 0.1628
## Residuals  11 1.5954e+10 1450392697
##
## Response Levoglucosan_HMDB0000640 :
##           Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 1.4841e+13 4.9469e+12  1.112 0.3857
## Residuals  11 4.8934e+13 4.4485e+12
##
## Response D.Arabitol_HMDB0000568 :
##           Df      Sum Sq    Mean Sq F value Pr(>F)

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## Group      3  735010206  2.45e+08  1.3315  0.3139
## Residuals  11 2024000865  1.84e+08
##
## Response Ribitol_HMDB0000508 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3   2581533   860511    0.177  0.9097
## Residuals  11  53466732  4860612
##
## Response cis.Aconitic.acid_HMDB0000072 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3  146198747  48732916   0.9838  0.4357
## Residuals  11  544874853  49534078
##
## Response Quinolinic.acid_HMDB0000232 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3  4212497  1404166   1.7437  0.2158
## Residuals  11  8858282   805298
##
## Response Putrescine_HMDB0001414 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3  384202418  128067473   0.6961  0.5736
## Residuals  11 2023851027  183986457
##
## Response Glycerol.3.phosphate_HMDB0000126 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3  9.9198e+10  3.3066e+10   6.8855  0.007077 **
## Residuals  11  5.2825e+10  4.8023e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Vanillic.acid_HMDB0000484 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3  812144318  270714773   2.2791  0.1362
## Residuals  11 1306569849  118779077
##
## Response L.Glutamine_HMDB0000641 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3  1.0365e+11  3.4551e+10   0.5513  0.6577
## Residuals  11  6.8939e+11  6.2672e+10
##
## Response X2.Phosphoglyceric.acid_HMDB0000362 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3  3505444336  1168481445   4.8145  0.0223 *
## Residuals  11 2669722578  242702053
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Azelaic.acid_HMDB0000784 :
##           Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3  2.3213e+09  773756945   0.6568  0.5954
## Residuals  11  1.2958e+10  1177995358
##
## Response L.Dihydroorotic.acid_HMDB0003349 :
##           Df      Sum Sq Mean Sq F value Pr(>F)

```

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## Group          3 1.7390e+11 5.7966e+10 16.125 0.0002434 ***
## Residuals      11 3.9541e+10 3.5947e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response 0.Phosphoethanolamine_HMDB0000224 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 580686607 193562202  21.522 6.59e-05 ***
## Residuals  11 98931884 8993808
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response X3.Phosphoglyceric.acid_HMDB0000807 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 1.1502e+11 3.8341e+10  6.1597 0.01031 *
## Residuals  11 6.8469e+10 6.2244e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Isocitric.acid_HMDB0000193 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 177365785 59121928  0.5456 0.6612
## Residuals  11 1191882610 108352965
##
## Response Hypoxanthine_HMDB0000157 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 7.9468e+09 2648941206  0.328 0.8053
## Residuals  11 8.8844e+10 8076721927
##
## Response Citric.acid_HMDB0000094 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 4.8713e+11 1.6238e+11  6.2442 0.009855 **
## Residuals  11 2.8605e+11 2.6004e+10
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Arginine_HMDB0000517 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 1.0955e+10 3651663884  1.7111 0.2222
## Residuals  11 2.3476e+10 2134137439
##
## Response Ornithine_HMDB0000214.1 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 2.2318e+14 7.4393e+13  68.652 2.083e-07 ***
## Residuals  11 1.1920e+13 1.0836e+12
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Dopamine_HMDB0000073 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 4.5445e+11 1.5148e+11  50.345 1.029e-06 ***
## Residuals  11 3.3098e+10 3.0089e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

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##
## Response Myristic.acid_HMDB0000806 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 1.4952e+12 4.9839e+11   19.47 0.0001045 ***
## Residuals  11 2.8158e+11 2.5598e+10
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response X1.5.Anhydrosorbitol_HMDB0002712 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 445934867 148644956   0.4432 0.7269
## Residuals  11 3689343983 335394908
##
## Response D.Tagatose_HMDB0003418 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 1.3319e+14 4.4395e+13   19.42 0.0001057 ***
## Residuals  11 2.5147e+13 2.2861e+12
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Psicose_1 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 2.2962e+12 7.6540e+11   0.7357 0.5523
## Residuals  11 1.1444e+13 1.0403e+12
##
## Response Sebacic.acid_HMDB0000792 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 929911754 309970585   3.1099 0.07075 .
## Residuals  11 1096402822 99672984
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response D.Fructose_HMDB0000660 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 5.1427e+12 1.7142e+12   7.0222 0.006611 **
## Residuals  11 2.6853e+12 2.4411e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Gluconolactone_HMDB0000150 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 1.1801e+10 3933712465   6.2323 0.009917 **
## Residuals  11 6.9430e+09 631178791
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Sorbose_HMDB0001266 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group      3 2.2822e+12 7.6073e+11   6.8205 0.007312 **
## Residuals  11 1.2269e+12 1.1154e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response D.Mannose_HMDB0000169 :

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##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group       3 1.9241e+12 6.4138e+11  24.918 3.314e-05 ***
## Residuals   11 2.8314e+11 2.5740e+10
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Hydroxyphenyllactic.acid_HMDB0000755 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group       3 3.1000e+09 1033320135  0.3371 0.799
## Residuals   11 3.3723e+10 3065731288
##
## Response D.Glucose_HMDB0000122 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group       3 2.9948e+13 9.9827e+12  20.356 8.523e-05 ***
## Residuals   11 5.3944e+12 4.9040e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response N.Acetylglutamine_HMDB0006029 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group       3 9.642e+12 3.214e+12  19.246 0.0001102 ***
## Residuals   11 1.837e+12 1.670e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Lysine_HMDB0000182.1 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group       3 1.1242e+13 3.7475e+12  26.754 2.362e-05 ***
## Residuals   11 1.5408e+12 1.4007e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response D.Mannose_HMDB0000169.1 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group       3 3.2973e+11 1.0991e+11  30.922 1.174e-05 ***
## Residuals   11 3.9098e+10 3.5544e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Tyramine_HMDB0000306 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group       3 6.5908e+13 2.1969e+13  24.6 3.522e-05 ***
## Residuals   11 9.8236e+12 8.9306e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response L.Histidine_HMDB0000177 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group       3 3.8911e+11 1.2970e+11  25.648 2.889e-05 ***
## Residuals   11 5.5628e+10 5.0571e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response D.Glucose_HMDB0000122.1 :

```

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##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group          3 9.2856e+13 3.0952e+13  19.012 0.0001165 ***
## Residuals     11 1.7909e+13 1.6281e+12
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response X1.Hexadecanol_HMDB0003424 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group          3 324435632 108145211  1.5734 0.2515
## Residuals     11 756065111 68733192
##
## Response L.Tyrosine_HMDB0000158 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group          3 2.1427e+14 7.1422e+13  10.536 0.001453 **
## Residuals     11 7.4567e+13 6.7788e+12
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Mannitol_HMDB0000765 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group          3 5.8011e+10 1.9337e+10  5.4374 0.0154 *
## Residuals     11 3.9120e+10 3.5563e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Sorbitol_HMDB0000247 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group          3 1.6014e+13 5.3380e+12  1.0898 0.3939
## Residuals     11 5.3881e+13 4.8982e+12
##
## Response ITSD_Sorbitol :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group          3 2.3745e+12 7.9149e+11  5.4644 0.01516 *
## Residuals     11 1.5933e+12 1.4484e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Galacturonic.acid_HMDB0002545 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group          3 5.5409e+09 1846966321  0.2623 0.8511
## Residuals     11 7.7461e+10 7041891731
##
## Response Pantothenic.acid_HMDB0000210 :
##           Df      Sum Sq Mean Sq F value    Pr(>F)
## Group          3 6120423 2040141  0.2363 0.8692
## Residuals     11 94962252 8632932
##
## Response Palmitoleic.acid_HMDB0003229 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group          3 2.0517e+11 6.8391e+10  53.48 7.559e-07 ***
## Residuals     11 1.4067e+10 1.2788e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##

```

```

## Response Xanthine_HMDB0000292 :
##           Df      Sum Sq   Mean Sq F value Pr(>F)
## Group       3 445976539 148658846  2.5266 0.1113
## Residuals   11 647212671  58837516
##
## Response Gluconic.acid_HMDB0000625 :
##           Df      Sum Sq   Mean Sq F value  Pr(>F)
## Group       3 9.3599e+10 3.1200e+10  5.5551 0.01439 *
## Residuals   11 6.1781e+10 5.6165e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Palmitic.acid_HMDB0000220 :
##           Df      Sum Sq   Mean Sq F value  Pr(>F)
## Group       3 1.7634e+13 5.8780e+12  5.5215 0.01467 *
## Residuals   11 1.1710e+13 1.0646e+12
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Glucaric.acid_HMDB0000663 :
##           Df      Sum Sq   Mean Sq F value  Pr(>F)
## Group       3 484395240 161465080  5.8656 0.0121 *
## Residuals   11 302802365  27527488
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response N.Acetylmannosamine_HMDB0001129 :
##           Df      Sum Sq   Mean Sq F value  Pr(>F)
## Group       3 1385644355 461881452  2.4191 0.1214
## Residuals   11 2100266281 190933298
##
## Response N.Acetyl.D.glucosamine_HMDB0000215 :
##           Df      Sum Sq   Mean Sq F value  Pr(>F)
## Group       3 2380876238 793625413  9.5697 0.002119 **
## Residuals   11 912240521  82930956
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response D.Ribulose.5.phosphate_HMDB0000618 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group       3 1.3686e+10 4562080103  20.216 8.796e-05 ***
## Residuals   11 2.4823e+09  225660743
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Uric.acid_HMDB0000289 :
##           Df      Sum Sq   Mean Sq F value  Pr(>F)
## Group       3 4.9701e+12 1.6567e+12  1.9919 0.1737
## Residuals   11 9.1489e+12 8.3172e+11
##
## Response D.Ribose.5.phosphate_HMDB0001548 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group       3 1.2409e+10 4136456246  18.231 0.0001408 ***
## Residuals   11 2.4958e+09  226887460

```



```

## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response myo.Inositol_HMDB0000211 :
##           Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 4.8196e+11 1.6065e+11  1.0773 0.3986
## Residuals  11 1.6404e+12 1.4913e+11
##
## Response D.Ribose.5.phosphate_HMDB0001548.1 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 3.0048e+10 1.0016e+10  36.182 5.422e-06 ***
## Residuals  11 3.0451e+09 2.7682e+08
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Heptadecanoic.acid_HMDB0002259 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 2.8093e+10 9364306447  11.835 0.0009085 ***
## Residuals  11 8.7032e+09 791203358
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Octadecanol_HMDB0002350 :
##           Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 2.2937e+09 764565414  0.3283 0.805
## Residuals  11 2.5614e+10 2328572647
##
## Response Glutathione_HMDB0000125 :
##           Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3 1.431e+10 4.7701e+09  0.265 0.8492
## Residuals  11 1.980e+11 1.8000e+10
##
## Response Linoleic.acid_HMDB0000673 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 5.1708e+12 1.7236e+12  16.999 0.0001927 ***
## Residuals  11 1.1154e+12 1.0140e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Oleic.acid_HMDB0000207 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 3.0787e+13 1.0262e+13  78.384 1.043e-07 ***
## Residuals  11 1.4402e+12 1.3092e+11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Elaidic.acid_HMDB0000573 :
##           Df      Sum Sq    Mean Sq F value    Pr(>F)
## Group      3 9.6792e+10 3.2264e+10  25.384 3.035e-05 ***
## Residuals  11 1.3981e+10 1.2710e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response alpha.Glucose.1.6.bisphosphate_HMDB0003514 :

```

```

##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group          3 1.2672e+10 4224071090  26.029 2.693e-05 ***
## Residuals     11 1.7851e+09  162282664
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Stearic.acid_HMDB0000827 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group          3 4.4072e+12 1.4691e+12  0.8433 0.4983
## Residuals     11 1.9162e+13 1.7420e+12
##
## Response L.Tryptophan_HMDB0000929 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group          3 423768196 141256065  0.6843 0.58
## Residuals     11 2270819505 206438137
##
## Response Fructose.1.phosphate_HMDB0001076 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group          3 4230279724 1410093241  8.5006 0.003322 **
## Residuals     11 1824692269 165881115
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Mannose.6.phosphate_HMDB0001078 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group          3 109881616 36627205  2.0631 0.1634
## Residuals     11 195287525 17753411
##
## Response Arachidonic.acid_HMDB0001043 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group          3 4.0364e+11 1.3455e+11  223.57 3.894e-10 ***
## Residuals     11 6.6199e+09 6.0181e+08
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Glucose.6.phosphate_HMDB0001401 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group          3 261885957 87295319  4.2691 0.03149 *
## Residuals     11 224927754 20447978
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response X6.Phosphogluconic.acid_HMDB0001316 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group          3 284767011 94922337  1.4523 0.2808
## Residuals     11 718976083 65361462
##
## Response Inositol.phosphate_HMDB0002985 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)
## Group          3 4531685265 1510561755  2.5229 0.1116
## Residuals     11 6586114997 598737727
##
## Response Uridine_HMDB0000296 :
##           Df      Sum Sq   Mean Sq F value    Pr(>F)

```

```

## Group      3  635910717 211970239  0.5587 0.6532
## Residuals  11 4173366338 379396940
##
## Response Stigmasterol_HMDB0000937 :
##      Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3  2.4469e+12 8.1565e+11  0.7176 0.5619
## Residuals  11 1.2504e+13 1.1367e+12
##
## Response D.Sedoheptulose.7.phosphate_HMDB0001068 :
##      Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3   839849  279950  0.0742 0.9726
## Residuals  11 41498114 3772556
##
## Response Sucrose_HMDB0000258 :
##      Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3  1.8612e+12 6.2039e+11  2.2917 0.1348
## Residuals  11 2.9778e+12 2.7071e+11
##
## Response MG.18.0e.0.0.0.0._HMDB0011143 :
##      Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3  4.8359e+09 1611964284  1.2246 0.3469
## Residuals  11 1.4480e+10 1316321085
##
## Response Trehalose_HMDB0000975 :
##      Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3  1.0782e+13 3.5942e+12  0.7043 0.5691
## Residuals  11 5.6132e+13 5.1029e+12
##
## Response D.Maltose_HMDB0000163 :
##      Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3  1.5217e+12 5.0724e+11  0.6982 0.5724
## Residuals  11 7.9916e+12 7.2651e+11
##
## Response Lactitol_HMDB0040937 :
##      Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3  518432763 172810921  1.1119 0.3858
## Residuals  11 1709597286 155417935
##
## Response Xanthylic.acid_HMDB0001554 :
##      Df      Sum Sq    Mean Sq F value Pr(>F)
## Group      3  1.9817e+11 6.6058e+10  5.1992 0.01769 *
## Residuals  11 1.3976e+11 1.2705e+10
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Adenosine.monophosphate_HMDB0000045 :
##      Df      Sum Sq Mean Sq F value Pr(>F)
## Group      3 177830046 59276682  7.8286 0.004495 **
## Residuals  11 83289971 7571816
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response Cholesterol_HMDB0000067 :
##      Df      Sum Sq    Mean Sq F value Pr(>F)

```

```
## Group      3 1.7706e+12 5.9019e+11 1.8795 0.1915
## Residuals  11 3.4541e+12 3.1401e+11
##
## Response Lathosterol_HMDB0001170 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 306699013 102233004  11.471 0.001032 **
## Residuals  11  98036190   8912381
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Response X7b.Hydroxycholesterol_.HMDB0006119 :
##           Df      Sum Sq   Mean Sq F value   Pr(>F)
## Group      3 4.9747e+11 1.6582e+11  100.42 2.831e-08 ***
## Residuals  11 1.8165e+10 1.6514e+09
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
pca_sc <- read.csv(file="~/Desktop/PCA_features.csv")
pca_sc$Group <- factor(c(rep(1,4),rep(2,4),rep(3,3),rep(4,4)))
pca_sc
```

```
##      X      Feature1      Feature2      Feature3      Feature4 Group
## 1    0 -0.03036827 -0.036481014 -0.019810567  0.011389457      1
## 2    1 -0.06412527 -0.104754747  0.012552447  0.009536681      1
## 3    2 -0.07462957 -0.071985308  0.011124426  0.002018468      1
## 4    3 -0.08825687  0.027205519 -0.024886137 -0.020154323      1
## 5    4  0.13013338 -0.021191589 -0.030200533 -0.018204582      2
## 6    5  0.15285006  0.016845499 -0.027686558  0.008177668      2
## 7    6  0.16736135 -0.010779676 -0.024760622 -0.011687454      2
## 8    7  0.13147677 -0.010234490 -0.011449489 -0.027391678      2
## 9    8  0.01433749 -0.003425561  0.062721815  0.007755420      3
## 10   9  0.01944222  0.039955345  0.071995838  0.030185329      3
## 11  10  0.05137297  0.031297320  0.058445896  0.027686659      3
## 12  11 -0.08793372  0.041278527 -0.065980480  0.094402851      4
## 13  12 -0.06705617  0.114241747 -0.002615322 -0.045020537      4
## 14  13 -0.11265692 -0.007112962  0.000959303 -0.019913871      4
## 15  14 -0.14194745 -0.004858609 -0.010410017 -0.048780088      4
```

```
fit2 <- manova(cbind(Feature1,Feature2,Feature3,Feature4) ~ Group, data = pca_sc)
summary(fit2)
```

```
##           Df Pillai approx F num Df den Df      Pr(>F)
## Group      3  2.288   8.0343     12    30 1.885e-06 ***
## Residuals 11
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
# do pca
data = scale(study_sc[, 3:188])
pcx = prcomp(data, retx = T)
lambda = pcx$sdev^2
gamma = pcx$rotation
```

```
# calculate cumulative variance
library("factoextra")
```

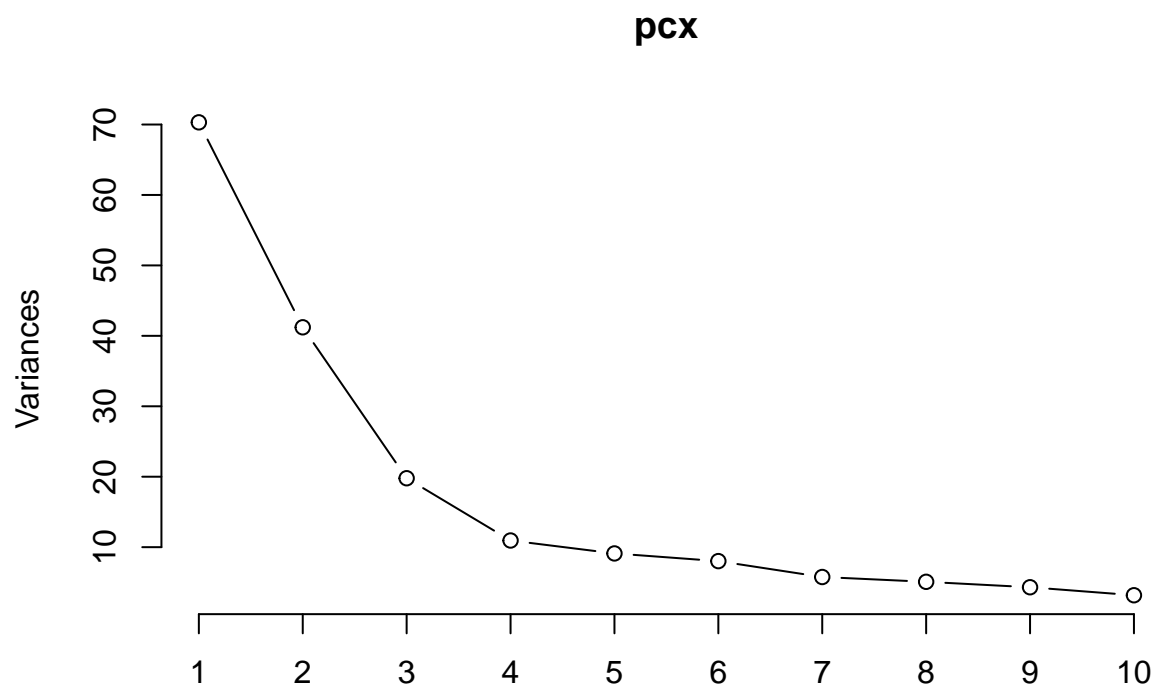
```
## Loading required package: ggplot2
```

```
## Welcome! Want to learn more? See two factoextra-related books at https://goo.gl/ve3WBa
```

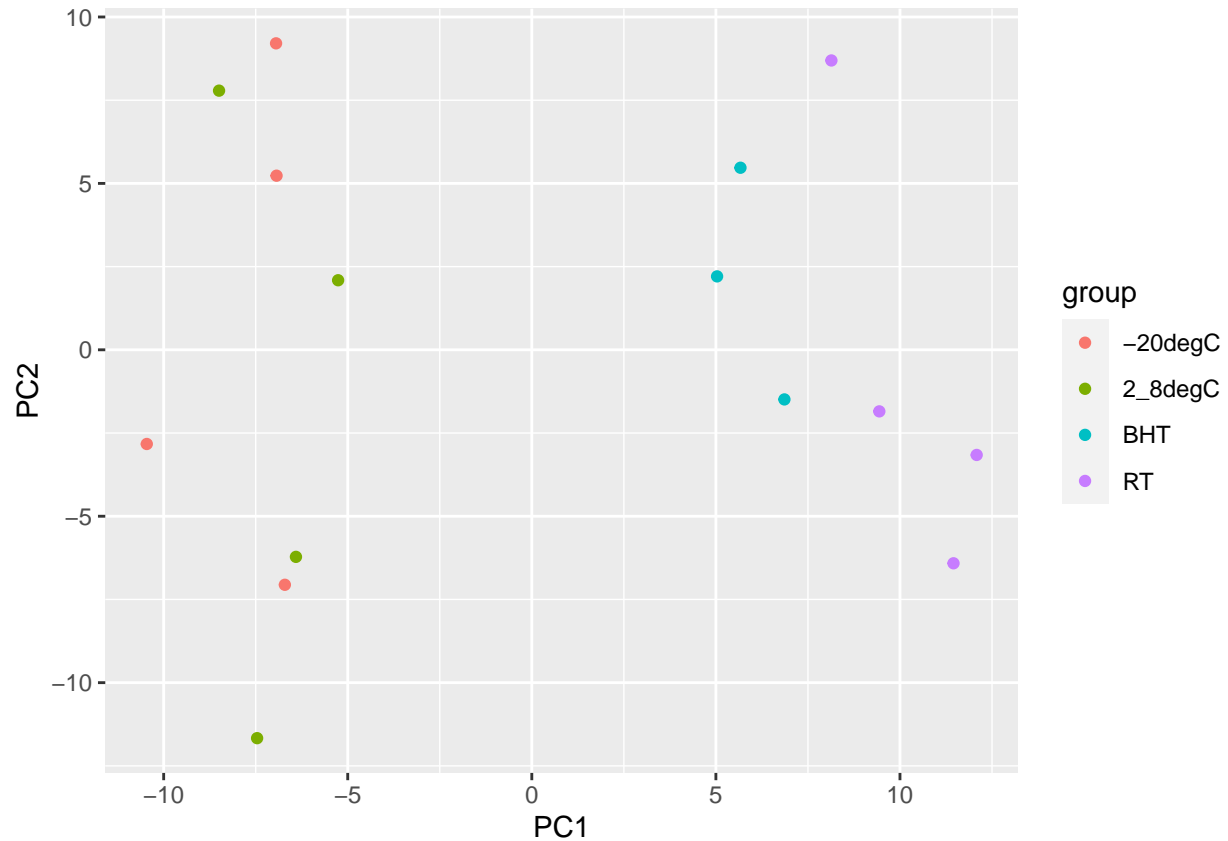
```
eig.val <- get_eigenvalue(pcx)
eig.val
```

```
##           eigenvalue variance.percent cumulative.variance.percent
## Dim.1  7.030869e+01      3.780037e+01          37.80037
## Dim.2  4.121101e+01      2.215646e+01          59.95683
## Dim.3  1.978574e+01      1.063749e+01          70.59432
## Dim.4  1.094347e+01      5.883584e+00          76.47791
## Dim.5  9.108551e+00      4.897070e+00          81.37498
## Dim.6  8.020590e+00      4.312145e+00          85.68712
## Dim.7  5.762585e+00      3.098164e+00          88.78529
## Dim.8  5.081075e+00      2.731760e+00          91.51705
## Dim.9  4.309486e+00      2.316928e+00          93.83397
## Dim.10 3.174442e+00      1.706689e+00          95.54066
## Dim.11 2.597505e+00      1.396508e+00          96.93717
## Dim.12 2.158866e+00      1.160680e+00          98.09785
## Dim.13 2.076790e+00      1.116554e+00          99.21441
## Dim.14 1.461205e+00      7.855939e-01         100.00000
## Dim.15 1.030989e-30      5.542953e-31         100.00000
```

```
screeplot(pcx, type = 'lines')
```



```
# cluster of pca dataset
library(ggplot2)
V8 = group = rep(c("2_8degC", "RT", "BHT", "-20degC"), c(4, 4, 3, 4))
df = data.frame(pcx$x, group = V8)
group = as.factor(df$group)
ggplot(df[,1:2], aes(x=PC1, y=PC2, color=group)) + geom_point()
```



```
# fit random forest
library(randomForest)

## randomForest 4.6-14

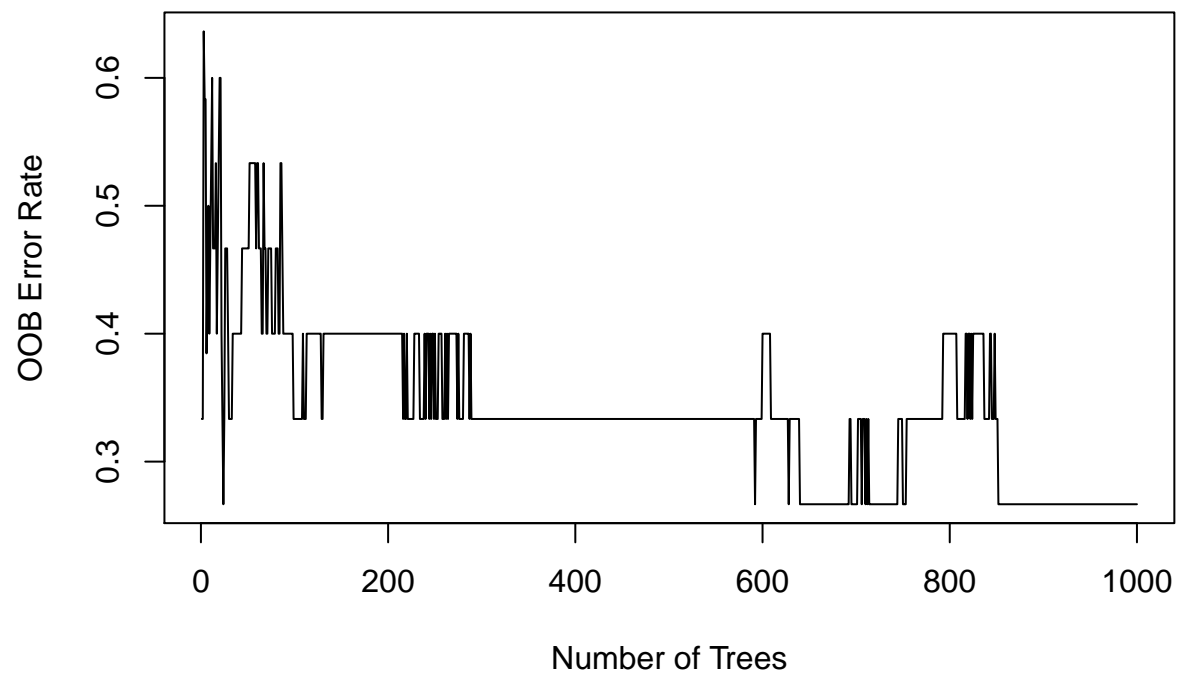
## Type rfNews() to see new features/changes/bug fixes.

##
## Attaching package: 'randomForest'

## The following object is masked from 'package:ggplot2':
##
##   margin

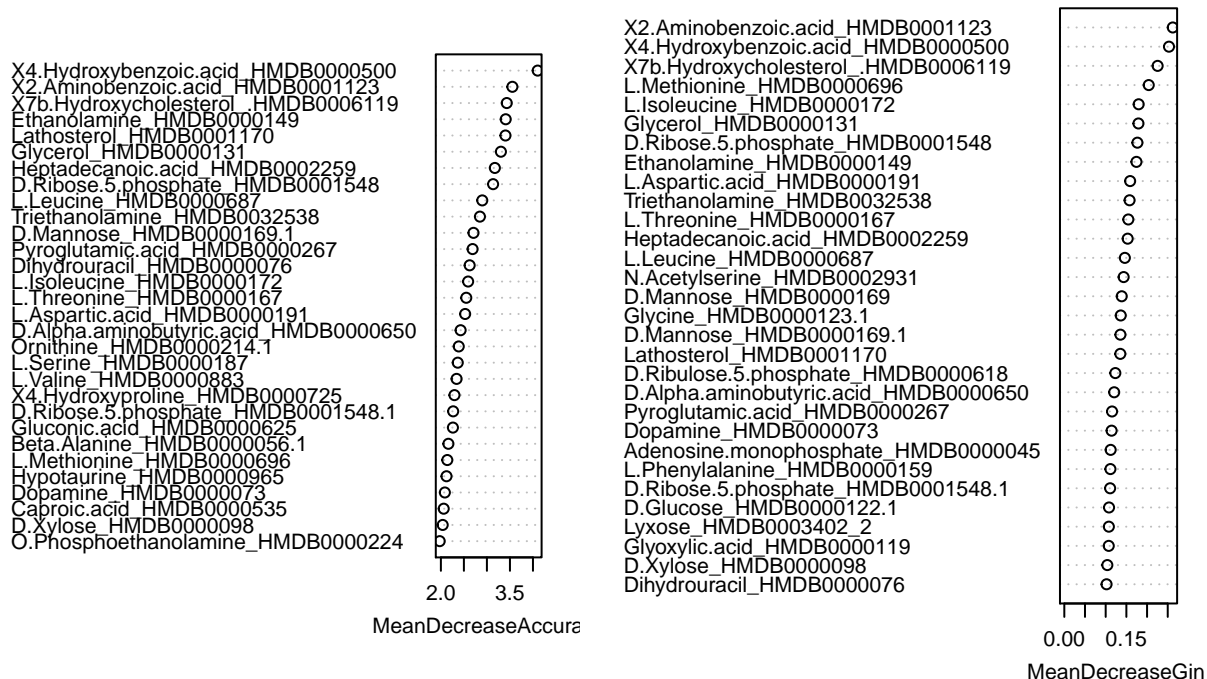
my_data = study_sc[, 2:188]

# try to find best number of trees
rf1<- randomForest(factor(Group) ~ ., data=my_data, ntree=1000, importance=T)
plot(rf1$err.rate[,1], type = "l", ylab = "OOB Error Rate", xlab = "Number of Trees")
```



```
# feature importance  
rf1<- randomForest(factor(Group) ~ ., data=my_data, ntree=500, importance=T)  
varImpPlot(rf1, main = "randomForest with B = 500", cex=0.7)
```


randomForest with B = 500



top 20

```
rf1$importance[order(rf1$importance[,5],decreasing=T)[1:20],5:6]
```

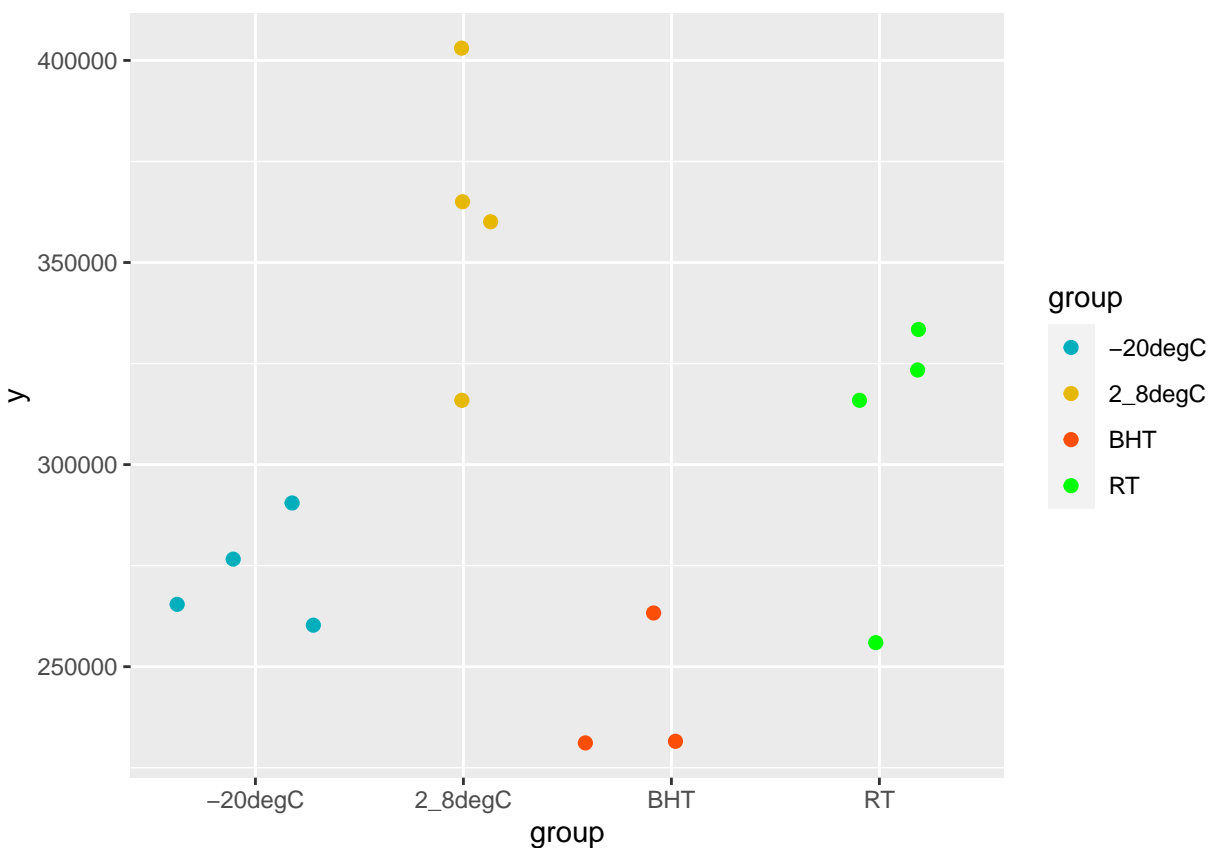
	MeanDecreaseAccuracy	MeanDecreaseGini
## X4.Hydroxybenzoic.acid_HMDB0000500	0.009585714	0.25300390
## X2.Aminobenzoic.acid_HMDB0001123	0.009090476	0.26218052
## X7b.Hydroxycholesterol_HMDB0006119	0.008909524	0.22553752
## Glycerol_HMDB0000131	0.008823810	0.17920606
## Ethanolamine_HMDB0000149	0.008216667	0.17434603
## Heptadecanoic.acid_HMDB0002259	0.007490476	0.15314084
## Lathosterol_HMDB0001170	0.007252381	0.13536118
## L.Leucine_HMDB0000687	0.006028571	0.14635743
## D.Mannose_HMDB0000169.1	0.005852381	0.13561833
## D.Ribose.5.phosphate_HMDB0001548	0.005538095	0.17669149
## L.Threonine_HMDB0000167	0.005119048	0.15470000
## L.Aspartic.acid_HMDB0000191	0.005109524	0.15907980
## Triethanolamine_HMDB0032538	0.004971429	0.15772828
## L.Valine_HMDB0000883	0.004371429	0.08593261
## Pyroglutamic.acid_HMDB0000267	0.004285714	0.11541025
## L.Phenylalanine_HMDB0000159	0.004219048	0.11146089
## D.Alpha.aminobutyric.acid_HMDB0000650	0.004133333	0.12057648
## L.Methionine_HMDB0000696	0.004038095	0.20407547
## Dihydrouracil_HMDB0000076	0.003885714	0.10210072
## L.Isoleucine_HMDB0000172	0.003752381	0.17972771

```

library(MASS)
library(ggpubr)
library(ggforce)

# for the top 1 important metabolite
d1 <- data.frame(
  y = study_sc$Heptadecanoic.acid_HMDB0002259,
  group = study_sc$Group
)
# Sinaplot
ggplot(d1, aes(group, y)) +
  geom_sina(aes(color = group), size = 2) +
  scale_color_manual(values = c("#00AFBB", "#E7B800", "#FC4E07", 'green'))

```



```

# t test between every two groups
compare_means(y ~ group, data = d1, method = 't.test')

```

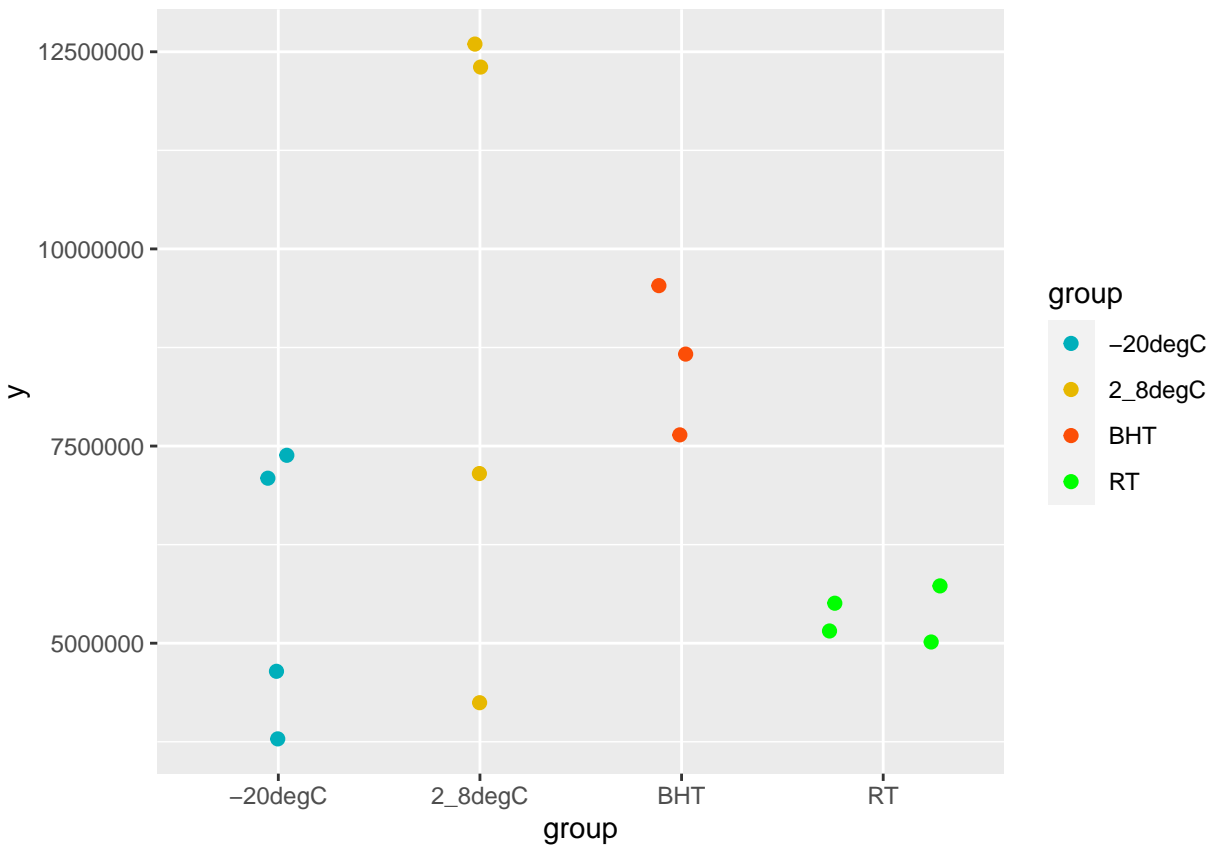
```

## # A tibble: 6 x 8
##   .y.    group1 group2      p p.adj p.format p.signif method
##   <chr> <chr>  <chr>    <dbl> <dbl> <chr>    <chr>    <chr>
## 1 y     2_8degC RT      0.0745  0.22  0.0745    ns      T-test
## 2 y     2_8degC BHT     0.00289 0.017  0.0029    **      T-test
## 3 y     2_8degC -20degC 0.0111  0.055  0.0111    *       T-test
## 4 y     RT      BHT     0.0267  0.11  0.0267    *       T-test
## 5 y     RT      -20degC 0.146   0.22  0.1461    ns      T-test

```

```
## 6 y      BHT      -20degC 0.0762 0.22 0.0762 ns      T-test
```

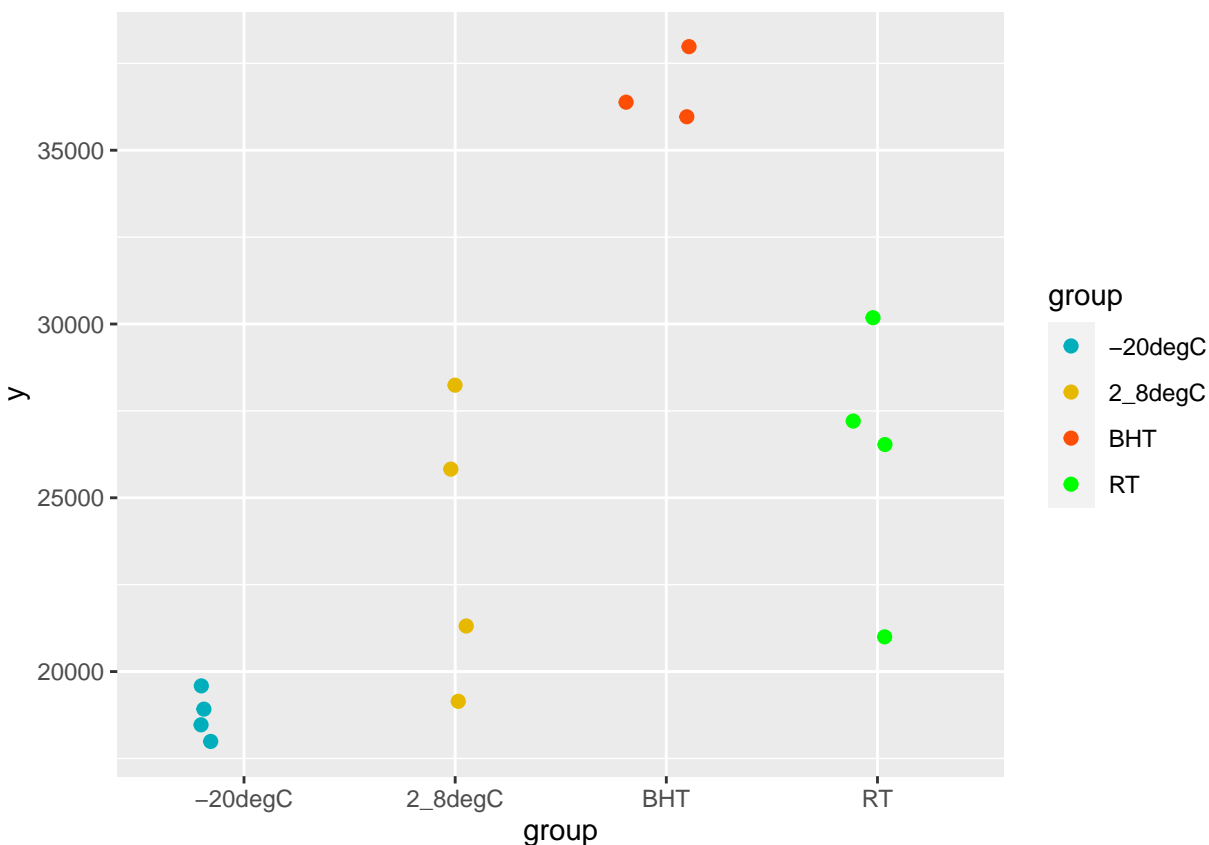
```
# for the top 2 important metabolite
d2 <- data.frame(
  y = study_sc$Benzoic.acid_HMDB0001870,
  group = study_sc$Group
)
# Sinaplot
ggplot(d2, aes(group, y)) +
  geom_sina(aes(color = group), size = 2) +
  scale_color_manual(values = c("#00AFBB", "#E7B800", "#FC4E07", 'green'))
```



```
compare_means(y ~ group, data = d2, method = 't.test')
```

```
## # A tibble: 6 x 8
##   .y. group1 group2      p p.adj p.format p.signif method
##   <chr> <chr> <chr>    <dbl> <dbl> <chr>    <chr>    <chr>
## 1 y    2_8degC RT      0.165  0.66 0.165    ns      T-test
## 2 y    2_8degC BHT     0.841  1    0.841    ns      T-test
## 3 y    2_8degC -20degC 0.205  0.66 0.205    ns      T-test
## 4 y    RT      BHT     0.0200 0.12 0.020    *      T-test
## 5 y    RT      -20degC 0.710  1    0.710    ns      T-test
## 6 y    BHT     -20degC 0.0425 0.21 0.042    *      T-test
```

```
# for the top 3 important metabolite
d3 <- data.frame(
  y = study_sc$0.Phosphoethanolamine_HMDB0000224,
  group = study_sc$Group
)
# Sinaplot
ggplot(d3, aes(group, y)) +
  geom_sina(aes(color = group), size = 2)+
  scale_color_manual(values = c("#00AFBB", "#E7B800", "#FC4E07", 'green'))
```



```
compare_means(y ~ group, data = d3, method = 't.test')
```

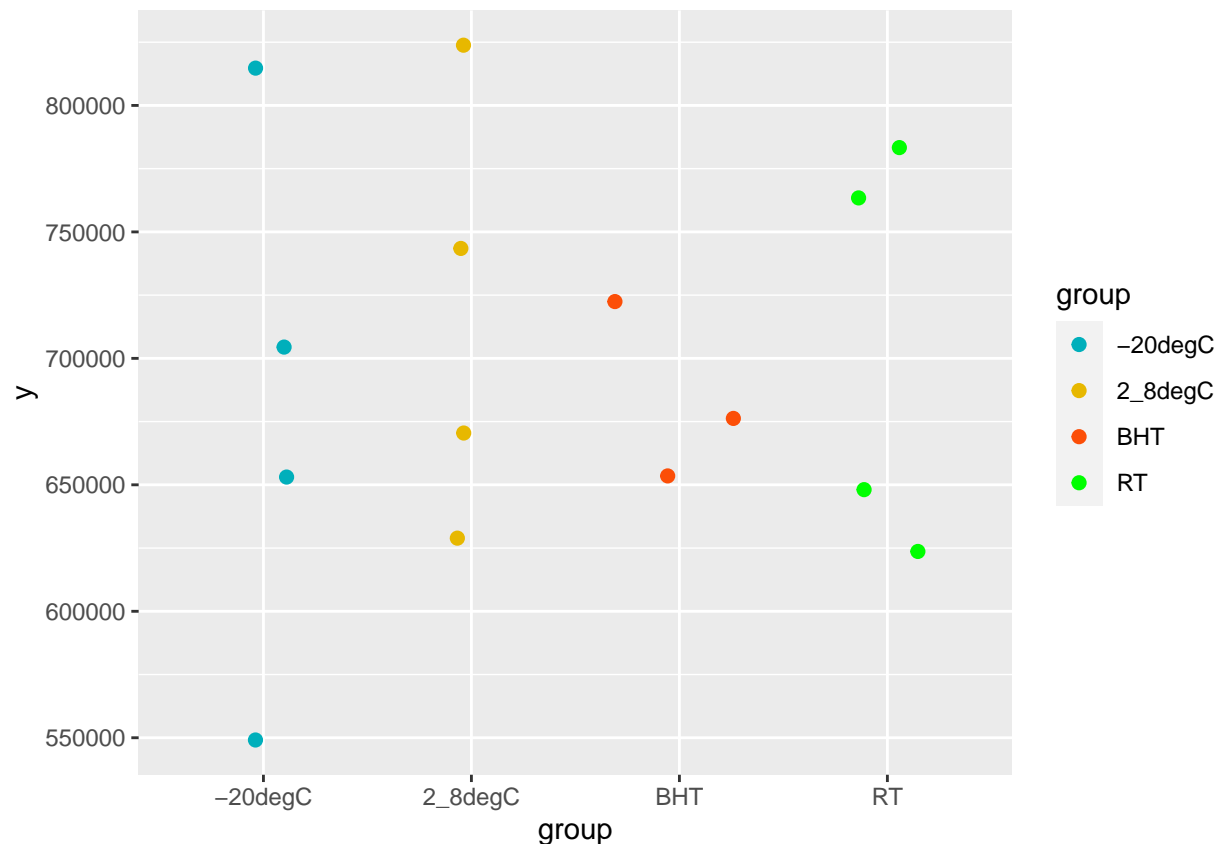
```
## # A tibble: 6 x 8
##   .y.  group1 group2      p  p.adj p.format p.signif method
##   <chr> <chr>  <chr>    <dbl>  <dbl> <chr>    <chr>    <chr>
## 1 y    2_8degC RT      0.391  0.39  0.3911  ns      T-test
## 2 y    2_8degC BHT     0.00560 0.028  0.0056  **      T-test
## 3 y    2_8degC -20degC 0.0977  0.2    0.0977  ns      T-test
## 4 y    RT      BHT     0.00834 0.033  0.0083  **      T-test
## 5 y    RT      -20degC 0.0273  0.082  0.0273  *       T-test
## 6 y    BHT     -20degC 0.0000890 0.00053 8.9e-05 ****   T-test
```

```
# for the bottom 1 important metabolite
d4 <- data.frame(
```

```

y = study_sc$X2.Hydroxybutyric.acid_HMDB0000008,
group = study_sc$Group
)
# Sinaplot
ggplot(d4, aes(group, y)) +
  geom_sina(aes(color = group), size = 2)+
  scale_color_manual(values = c("#00AFBB", "#E7B800", "#FC4E07", 'green'))

```



```

compare_means(y ~ group, data = d4, method = 't.test')

```

```

## # A tibble: 6 x 8
##   .y.   group1 group2      p p.adj p.format p.signif method
##   <chr> <chr>   <chr>   <dbl> <dbl> <chr>    <chr>   <chr>
## 1 y     2_8degC RT      0.844  1 0.84    ns      T-test
## 2 y     2_8degC BHT     0.528  1 0.53    ns      T-test
## 3 y     2_8degC -20degC 0.622  1 0.62    ns      T-test
## 4 y     RT      BHT     0.670  1 0.67    ns      T-test
## 5 y     RT      -20degC 0.735  1 0.73    ns      T-test
## 6 y     BHT     -20degC 0.952  1 0.95    ns      T-test

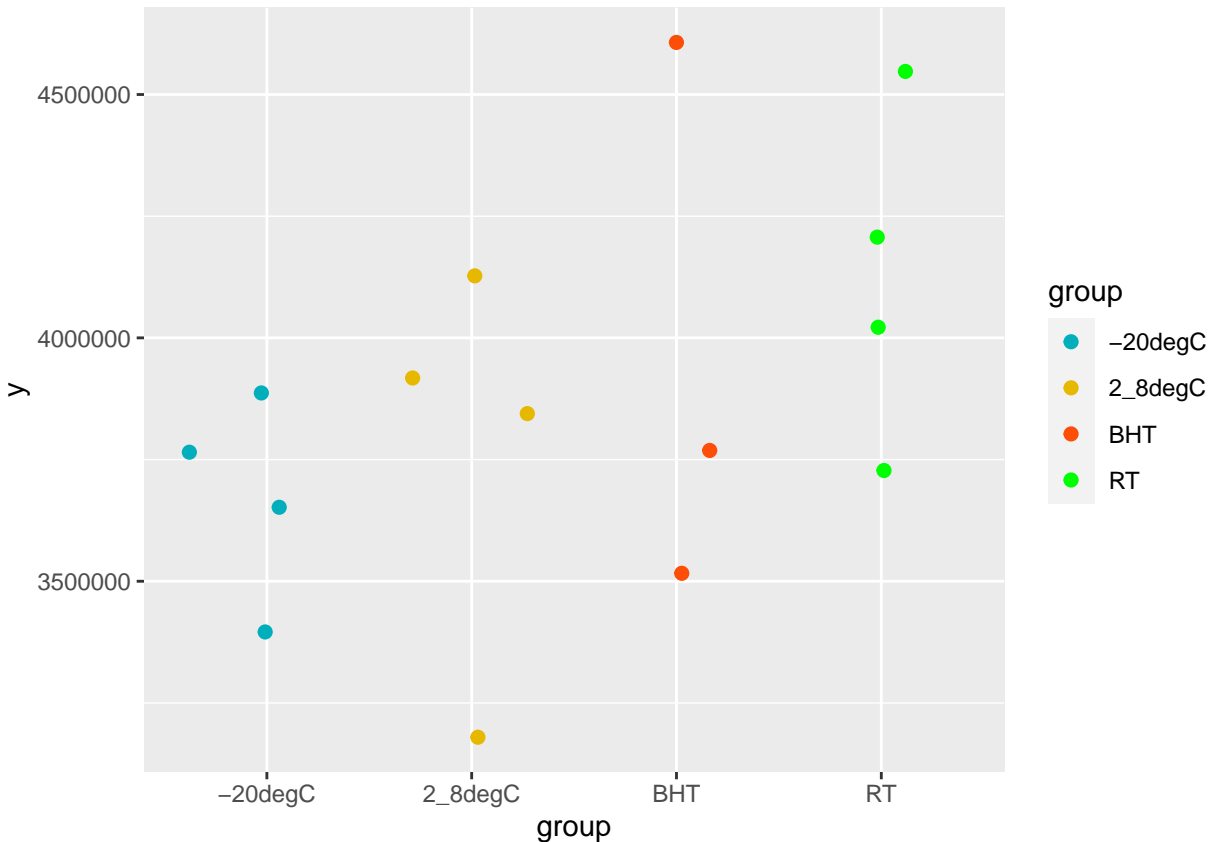
```

```

# for the bottom 2 important metabolite
d5 <- data.frame(
  y = study_sc$myo.Inositol_HMDB0000211,
  group = study_sc$Group
)

```

```
)
# Sinaplot
ggplot(d5, aes(group, y)) +
  geom_sina(aes(color = group), size = 2)+
  scale_color_manual(values = c("#00AFBB", "#E7B800", "#FC4E07", 'green'))
```

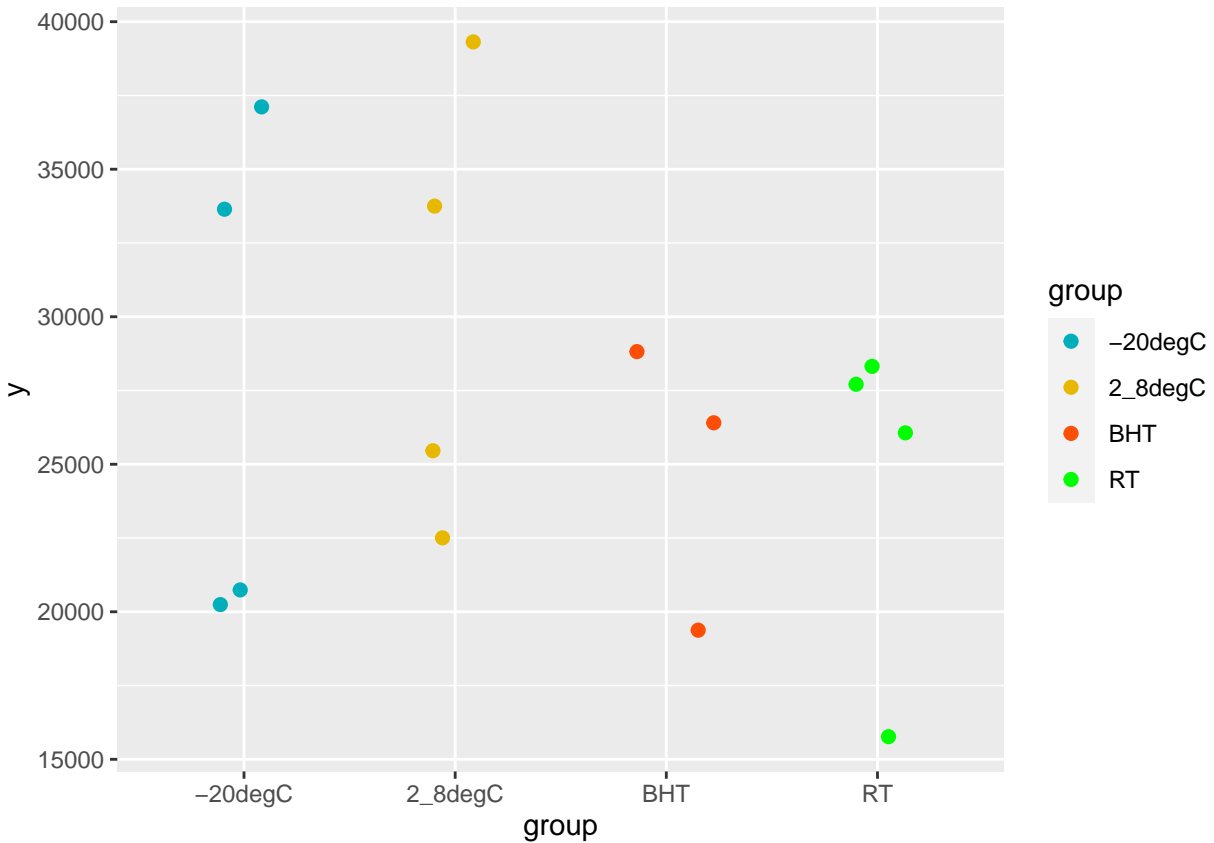


```
compare_means(y ~ group, data = d5, method = 't.test')
```

```
## # A tibble: 6 x 8
##   .y. group1 group2      p p.adj p.format p.signif method
##   <chr> <chr> <chr>    <dbl> <dbl> <chr>    <chr>    <chr>
## 1 y    2_8degC RT      0.229  1    0.229    ns      T-test
## 2 y    2_8degC BHT     0.643  1    0.643    ns      T-test
## 3 y    2_8degC -20degC 0.707  1    0.707    ns      T-test
## 4 y    RT      BHT     0.691  1    0.691    ns      T-test
## 5 y    RT      -20degC 0.0754 0.45 0.075    ns      T-test
## 6 y    BHT     -20degC 0.478  1    0.478    ns      T-test
```

```
# for the bottom 3 important metabolite
d6 <- data.frame(
  y = study_sc$Maleic.acid_HMDB0000176,
  group = study_sc$Group
)
# Sinaplot
```

```
ggplot(d6, aes(group, y)) +
  geom_sina(aes(color = group), size = 2)+
  scale_color_manual(values = c("#00AFBB", "#E7B800", "#FC4E07", 'green'))
```



```
compare_means(y ~ group, data = d6, method = 't.test')
```

```
## # A tibble: 6 x 8
##   .y.  group1 group2      p p.adj p.format p.signif method
##   <chr> <chr> <chr>   <dbl> <dbl> <chr>    <chr>    <chr>
## 1 y    2_8degC RT      0.278     1 0.28     ns      T-test
## 2 y    2_8degC BHT     0.310     1 0.31     ns      T-test
## 3 y    2_8degC -20degC 0.703     1 0.70     ns      T-test
## 4 y    RT      BHT     0.924     1 0.92     ns      T-test
## 5 y    RT      -20degC 0.536     1 0.54     ns      T-test
## 6 y    BHT     -20degC 0.582     1 0.58     ns      T-test
```