Metabolomic Data Analysis with MetaboAnalyst 5.0

Name: guest5553748766599075063

May 24, 2021

1 Background

MSEA or Metabolite Set Enrichment Analysis is a way to identify biologically meaningful patterns that are significantly enriched in quantitative metabolomic data. In conventional approaches, metabolites are evaluated individually for their significance under conditions of study. Those compounds that have passed certain significance level are then combined to see if any meaningful patterns can be discerned. In contrast, MSEA directly investigates if a set of functionally related metabolites without the need to preselect compounds based on some arbitrary cut-off threshold. It has the potential to identify subtle but consistent changes among a group of related compounds, which may go undetected with the conventional approaches.

Essentially, MSEA is a metabolomic version of the popular GSEA (Gene Set Enrichment Analysis) software with its own collection of metabolite set libraries as well as an implementation of user-friendly web-interfaces. GSEA is widely used in genomics data analysis and has proven to be a powerful alternative to conventional approaches. For more information, please refer to the original paper by Subramanian A, and a nice review paper by Nam D, Kim SY. ¹. ²

2 MSEA Overview

Metabolite set enrichment analysis consists of four steps - data input, data processing, data analysis, and results download. Different analysis procedures are performed based on different input types. In addition, users can also browse and search the metabolite set libraries as well as upload their self-defined metabolite sets for enrichment analysis. Users can also perform metabolite name mapping between a variety of compound names, synonyms, and major database identifiers.

3 Data Input

There are three enrichment analysis algorithms offered by MSEA. Accordingly, three different types of data inputs are required by these three approaches:

- A list of important compound names entered as a one column data (Over Representation Analysis (ORA));
- A single measured biofluid (urine, blood, CSF) sample- entered as tab separated two-column data with the first column for compound name, and the second for concentration values (Single Sample Profiling (SSP));

 $^{^1}$ Subramanian Gene set enrichment analysis: A knowledge-based approach for interpreting genome-wide expression profiles., Proc Natl Acad Sci USA. 2005 102(43): 15545-50

²Nam D, Kim SY. Gene-set approach for expression pattern analysis, Briefings in Bioinformatics. 2008 9(3): 189-197.

• A compound concentration table - entered as a comma separated (.csv) file with the each sample per row and each metabolite concentration per column. The first column is sample names and the second column for sample phenotype labels (Quantitative Enrichment Analysis (QEA))

You selected Over Representation Analysis (ORA) which requires a list of compound names as input.

4 Data Process

The first step is to standardize the compound labels. It is an essential step since the compound labels will be subsequently compared with compounds contained in the metabolite set library. MSEA has a built-in tool to convert between compound common names, synonyms, identifiers used in HMDB ID, PubChem, ChEBI, BiGG, METLIN, KEGG, or Reactome. **Table 1** shows the conversion results. Note: 1 indicates exact match, 2 indicates approximate match, and θ indicates no match. A text file contain the result can be found the downloaded file $name_map.csv$

	Query	Match	HMDB
1	HMDB0000123	Glycine	HMDB0000123
2	HMDB0014691	Acetohydroxamic Acid	HMDB0014691
3	HMDB0031239	Ethyl nitrite	HMDB0031239
4	HMDB0161401	NA	NA
5	HMDB0000925	Trimethylamine N-oxide	HMDB0000925
6	HMDB0142449	NA NA	NA
7	HMDB0142449	NA NA	NA
8	HMDB0012136	1-Amino-propan-2-ol	HMDB0012136
9	HMDB0062143	NA .	NA
10	HMDB0031558	Methyloxirane	HMDB0031558
11	HMDB0031652	Allyl alcohol	HMDB0031652
12	HMDB0003366	Propanal	HMDB0003366
13	HMDB0001659	Acetone	HMDB0001659
14	HMDB0000246	Tetrahydrofuran	HMDB0000246
15	HMDB0171202	NA	NA
16	HMDB0000474	Butanone	HMDB0000474
17	HMDB0003543	Butanal	HMDB0003543
18	HMDB0034431	2,2-Dimethyloxirane	HMDB0034431
19	HMDB0031324	3-Buten-1-ol	HMDB0031324
20			
	HMDB0033858	2-Buten-1-ol	HMDB0033858
21	HMDB0031243	2-Methylpropanal	HMDB0031243
22	HMDB0171604	NA	NA
23	HMDB0171603	NA	NA
24	HMDB0032231	Dimethylethanolamine	HMDB0032231
25	HMDB0031404	Cyclohexylamine	HMDB0031404
26	HMDB0032416	2-Methylpiperidine	HMDB0032416
27	HMDB0031544	3-Methylcyclopentene	HMDB0031544
28	HMDB0062716	NA	NA
29	HMDB0033971	2-Diethylaminoethanol	HMDB0033971
30	HMDB0000630	Cytosine	HMDB0000630
31	HMDB0031335	2-Chloro-1-propanol	HMDB0031335
32	HMDB0182885	NA NA	NA
33	HMDB0039786	NA NA	NA
34		NA NA	NA NA
	HMDB0173815		
35	HMDB0173816	NA NA	NA
36	HMDB0171081	NA	NA
37	HMDB0032576	2-Methoxy-1,4-benzoquinone	HMDB0032576
38	HMDB0033812	Sesamol	HMDB0033812
39	HMDB0059965	NA	NA
40	HMDB0032920	alpha-Furyl methyl diketone	HMDB0032920
41	HMDB0171080	NA	NA
42	HMDB0062484	NA	NA
43	HMDB0004062	Gentisate aldehyde	HMDB0004062
44	HMDB0002466	3-Hydroxybenzoic acid	HMDB0002466
45	HMDB0000500	4-Hydroxybenzoic acid	HMDB0000500
46	HMDB0001895	Salicylic acid	HMDB0001895
47	HMDB0035646	Methyl 2-(methylthio)acetate	HMDB0035646
48	HMDB0003040	3-Methythiopropionic acid	HMDB00005540
48 49		NA	NA
	HMDB0112255		
50	HMDB0126388	NA NA	NA
51	HMDB0166105	NA.	NA
52	HMDB0125590	NA NA	NA
53	HMDB0168417	NA	NA
54	HMDB0168448	NA	NA
55	HMDB0041607	NA	NA
56	HMDB0004284	Tyrosol	HMDB0004284
57	HMDB0032137	2,6-Dimethyl-1,4-benzenediol	HMDB0032137
58	HMDB0040174	ŇA	NA
59	HMDB0040177	NA	NA

60	HMDB0032139	1,2-Dimethoxybenzene	HMDB0032139
61	HMDB0032036	4-Ethoxyphenol	HMDB0032036
62	HMDB0039802	NA	NA
63	HMDB0029671	1,4-Dimethoxybenzene	HMDB0029671
64	HMDB0029672	1,3-Dimethoxybenzene	HMDB0029672
		1-(2-Furyl)butan-3-one	
65	HMDB0032290 HMDB0168418		HMDB0032290
66		NA	NA
67	HMDB0032159	2-Acetyl-3,5-dimethylfuran	HMDB0032159
68	HMDB0029563	3-Acetyl-2,5-dimethylfuran	HMDB0029563
69	HMDB0032136	2-Methoxy-4-methylphenol	HMDB0032136
70	HMDB0034241	4-Methoxybenzyl alcohol	HMDB0034241
71	HMDB0029638	4-Methylbenzaldehyde	HMDB0029638
72	HMDB0006236	Phenylacetaldehyde	HMDB0006236
73	HMDB0013815	2.3-Dihydrobenzofuran	HMDB0013815
74	HMDB0029637	3-Methylbenzaldehyde	HMDB0029637
75	HMDB0172088	NA	NA
76	HMDB0029636	2-Methylbenzaldehyde	HMDB0029636
77	HMDB0023030	NA NA	NA
78		Styrene Oxide	
	HMDB0062765		HMDB0062765
79	HMDB0004072	4-Hydroxystyrene	HMDB0004072
80	HMDB0124943	NA _	NA
81	HMDB0033910	Acetophenone	HMDB0033910
82	HMDB0167775	NA	NA
83	HMDB0167776	NA	NA
84	HMDB0039781	NA	NA
85	HMDB0041476	NA	NA
86	HMDB0041562	NA	NA
87	HMDB0032373	3-Mercapto-2-methyl-1-butanol	HMDB0032373
88	HMDB0032373	NA NA	NA
89	HMDB0030149	Na Taurine	HMDB0000251
90			HMDB0000251
	HMDB0011601	3-Methylcytosine	
91	HMDB0004339	2-O-Methylcytosine	HMDB0004339
92	HMDB0002894	5-Methylcytosine	HMDB0002894
93	HMDB0041922	NA	NA
94	HMDB0171225	NA	NA
95	HMDB0164607	NA	NA
96	HMDB0166218	NA	NA
97	HMDB0164608	NA	NA
98	HMDB0171213	NA	NA
99	HMDB0166253	NA	NA
100	HMDB0100203	NA NA	NA
101	HMDB0166254	NA.	NA
102	HMDB0166217	NA NA	NA
103	HMDB0172056	NA	NA
104	HMDB0172059	NA	NA
105	HMDB0172058	NA	NA
106	HMDB0172057	NA	NA
107	HMDB0159225	NA	NA
108	HMDB0159223	NA	NA
109	HMDB0159222	NA	NA
110	HMDB0005785	Indole-3-carbinol	HMDB0005785
111	HMDB0030204	1-(2-Furanylmethyl)-1H-pyrrole	HMDB0030204
112	HMDB0030204 HMDB0040009	NA NA	NA
113	HMDB0040011	NA NA	NA
114	HMDB0159224	NA	NA
115	HMDB0011664	3-Methylene-indolenine	HMDB0011664
116	HMDB0033731	Quinoline	HMDB0033731
117	HMDB0034244	Isoquinoline	HMDB0034244
118	HMDB0032980	3,4-Dimethylthiophene	HMDB0032980
119	HMDB0032979	2,5-Dimethylthiophene	HMDB0032979
120	HMDB0032977	2,3-Dimethylthiophene	HMDB0032977
121	HMDB0032978	2,4-Dimethylthiophene	HMDB0032978
122	HMDB0035385	3-Ethylthiophene	HMDB0035385
123	HMDB0035384	2-Ethylthiophene	HMDB0035384
124	HMDB0038973	NA NA	NA
		NA NA	NA
$\frac{125}{126}$	HMDB0038433 HMDB0032341	Isoamyl isothiocyanate	HMDB0032341
127	HMDB0179339	NA.	NA
128	HMDB0187593	NA NA	NA
129	HMDB0179338	NA NA	NA
130	HMDB0179340	NA	NA
131	HMDB0179337	NA	NA
132		9 Math. 1 1 0 - alamantama Pama	HMDB0031543
133	HMDB0031543	3-Methyl-1,2-cyclopentanedione	
40.	HMDB0032233	2,5-Dimethyl-3(2H)-furanone	${\rm HMDB0032233}$
134			
$\frac{134}{135}$	HMDB0032233	2,5-Dimethyl-3(2H)-furanone	${\rm HMDB0032233}$
135	HMDB0032233 HMDB0034247 HMDB0039778	2,5-Dimethyl-3(2H)-furanone 2-(Methoxymethyl)furan NA	HMDB0032233 HMDB0034247 NA
135 136	HMDB0032233 HMDB0034247 HMDB0039778 HMDB0029581	2,5-Dimethyl-3(2H)-furanone 2-(Methoxymethyl)furan NA (2E,4E)-2,4-Hexadienoic acid	HMDB0032233 HMDB0034247 NA HMDB0029581
135 136 137	HMDB0032233 HMDB0034247 HMDB0039778 HMDB0029581 HMDB0031344	2,5-Dimethyl-3(2H)-furanone 2-(Methoxymethyl)furan NA (2E,4E)-2,4-Hexadienoic acid 1,2-Cyclohexanedione	HMDB0032233 HMDB0034247 NA HMDB0029581 HMDB0031344
135 136 137 138	HMDB0032233 HMDB0034247 HMDB0039778 HMDB0029581 HMDB0031344 HMDB0031759	2,5-Dimethyl-3(2H)-furanone 2-(Methoxymethyl)furan NA (2E,4E)-2,4-Hexadienoic acid 1,2-Cyclohexanedione (E)-4-Oxo-2-hexen-1-al	HMDB0032233 HMDB0034247 NA HMDB0029581 HMDB0031344 HMDB0031759
135 136 137 138 139	HMDB0032233 HMDB0034247 HMDB0039778 HMDB0029581 HMDB0031344 HMDB0031759 HMDB0001164	2,5-Dimethyl-3(2H)-furanone 2-(Methoxymethyl)furan NA (2E,4E)-2,4-Hexadienoic acid 1,2-Cyclohexanedione (E)-4-Oxo-2-hexen-1-al trans-1,2-Dihydrobenzene-1,2-diol	HMDB0032233 HMDB0034247 NA HMDB0029581 HMDB0031344 HMDB0031759 HMDB0001164
135 136 137 138 139 140	HMDB0032233 HMDB0034247 HMDB0039778 HMDB0029581 HMDB0031344 HMDB0031759 HMDB0001164 HMDB0040260	2,5-Dimethyl-3(2H)-furanone 2-(Methoxymethyl)furan NA (2E,4E)-2,4-Hexadienoic acid 1,2-Cyclohexanedione (E)-4-Oxo-2-hexen-1-al trans-1,2-Dihydrobenzene-1,2-diol NA	HMDB0032233 HMDB0034247 NA HMDB0029581 HMDB0031344 HMDB0031759 HMDB0001164 NA
135 136 137 138 139 140 141	HMDB0032233 HMDB0034247 HMDB0039778 HMDB0029581 HMDB0031344 HMDB0031759 HMDB0001164 HMDB0040260 HMDB0033569	2,5-Dimethyl-3(2H)-furanone 2-(Methoxymethyl)furan NA (2E,4E)-2,4-Hexadienoic acid 1,2-Cyclohexanedione (E)-4-Oxo-2-hexen-1-al trans-1,2-Dihydrobenzene-1,2-diol NA Syoyualdehyde	HMDB0032233 HMDB0034247 NA HMDB0029581 HMDB0031344 HMDB0031759 HMDB0001164 NA HMDB0033569
135 136 137 138 139 140 141 142	HMDB0032233 HMDB0034247 HMDB0039778 HMDB0029581 HMDB0031344 HMDB0031759 HMDB0001164 HMDB0040260 HMDB0033569 HMDB0029444	2,5-Dimethyl-3(2H)-furanone 2-(Methoxymethyl)furan NA (2E,4E)-2,4-Hexadienoic acid 1,2-Cyclohexanedione (E)-4-Oxo-2-hexen-1-al trans-1,2-Dihydrobenzene-1,2-diol NA Syoyualdehyde 2-Pyrrolidineacetic acid	HMDB0032233 HMDB0034247 NA HMDB0029581 HMDB0031344 HMDB0031759 HMDB0001164 NA HMDB0033569 HMDB0029444
135 136 137 138 139 140 141 142 143	HMDB0032233 HMDB0034247 HMDB0039778 HMDB0039581 HMDB0031759 HMDB0001164 HMDB0040260 HMDB0033569 HMDB0029444 HMDB0094697	2,5-Dimethyl-3(2H)-furanone 2-(Methoxymethyl)furan NA (2E,4E)-2,4-Hexadienoic acid 1,2-Cyclohexanedione (E)-4-Oxo-2-hexen-1-al trans-1,2-Dihydrobenzene-1,2-diol NA Syoyualdehyde 2-Pyrrolidineacetic acid NA	HMDB0032233 HMDB0034247 NA HMDB0029581 HMDB0031344 HMDB0031759 HMDB0001164 NA HMDB0033569 HMDB0029444 NA
135 136 137 138 139 140 141 142 143	HMDB0032233 HMDB0034247 HMDB0039778 HMDB0031581 HMDB0031759 HMDB0001164 HMDB0033569 HMDB0033569 HMDB0029444 HMDB0094697 HMDB0059649	2,5-Dimethyl-3(2H)-furanone 2-(Methoxymethyl)furan NA (2E,4E)-2,4-Hexadienoic acid 1,2-Cyclohexanedione (E)-4-Oxo-2-hexen-1-al trans-1,2-Dihydrobenzene-1,2-diol NA Syoyualdehyde 2-Pyrrolidineacetic acid NA NA	HMDB0032233 HMDB0034247 NA HMDB0029581 HMDB0031344 HMDB0031759 HMDB0001164 NA HMDB0033569 HMDB0029444 NA NA
135 136 137 138 139 140 141 142 143 144	HMDB0032233 HMDB0034247 HMDB0039778 HMDB0039581 HMDB0031344 HMDB0031759 HMDB0001164 HMDB0033569 HMDB0033569 HMDB0029444 HMDB0094697 HMDB0059649 HMDB0015212	2,5-Dimethyl-3(2H)-furanone 2-(Methoxymethyl)furan NA (2E,4E)-2,4-Hexadienoic acid 1,2-Cyclohexanedione (E)-4-Oxo-2-hexen-1-al trans-1,2-Dihydrobenzene-1,2-diol NA Syoyualdehyde 2-Pyrrolidineacetic acid NA NA NA Vigabatrin	HMDB0032233 HMDB0034247 NA HMDB0029581 HMDB0031344 HMDB0031759 HMDB0001164 NA HMDB0033569 HMDB0029444 NA NA HMDB0015212
135 136 137 138 139 140 141 142 143	HMDB0032233 HMDB0034247 HMDB0039778 HMDB0031581 HMDB0031759 HMDB0001164 HMDB0033569 HMDB0033569 HMDB0029444 HMDB0094697 HMDB0059649	2,5-Dimethyl-3(2H)-furanone 2-(Methoxymethyl)furan NA (2E,4E)-2,4-Hexadienoic acid 1,2-Cyclohexanedione (E)-4-Oxo-2-hexen-1-al trans-1,2-Dihydrobenzene-1,2-diol NA Syoyualdehyde 2-Pyrrolidineacetic acid NA NA	HMDB0032233 HMDB0034247 NA HMDB0029581 HMDB0031344 HMDB0031759 HMDB0001164 NA HMDB0033569 HMDB0029444 NA NA

147	HMDB0000070	Pipecolic acid	HMDB0000070
148	HMDB0062767	NA NA A of londing london al	NA
$\frac{149}{150}$	HMDB0004226 HMDB0005960	N4-Acetylaminobutanal D-Pipecolic acid	HMDB0004226 HMDB0005960
151	HMDB0000716	L-Pipecolic acid	HMDB00003300
152	HMDB0029435	L-trans-4-Methyl-2-pyrrolidinecarboxylic acid	HMDB0029435
153	HMDB0094696	N-Methyl-proline	HMDB0094696
154	HMDB0033453	Fagomine	HMDB0033453
155	HMDB0142963	NA	NA
$\frac{156}{157}$	HMDB0168724	NA NA	NA NA
158	HMDB0168723 HMDB0061157	NA NA	NA NA
159	HMDB0029449	(2R,3R,4R)-2-Amino-4-hydroxy-3-methylpentanoic acid	HMDB0029449
160	HMDB0031537	3-Methylcyclohexanethiol	HMDB0031537
161	HMDB0040153	NA	NA
162	HMDB0128943	NA .	NA
$\frac{163}{164}$	HMDB0132477	NA NA	NA NA
165	HMDB0129097 HMDB0168839	NA NA	NA NA
166	HMDB0108633	NA NA	NA
167	HMDB0012233	Glutarate semialdehyde	HMDB0012233
168	${\rm HMDB0029172}$	3-keto-2-Methylbutyrate	HMDB0029172
169	HMDB0001865	2-Oxovaleric acid	HMDB0001865
170	HMDB0000310	Methylacetoacetic acid	HMDB0000310
$\frac{171}{172}$	HMDB0031643 HMDB0000019	Ethyl pyruvate Alpha-ketoisovaleric acid	HMDB0031643 HMDB0000019
173	HMDB0003771	A-Methylacetoacetic acid	HMDB0003771
174	HMDB0000720	Levulinic acid	HMDB0000720
175	HMDB0034466	Acetoxyacetone	HMDB0034466
176	HMDB0128917	NA	NA
177	HMDB0129096	NA	NA
$\frac{178}{179}$	HMDB0129098 HMDB0168838	NA NA	NA NA
180	HMDB0177210	NA NA	NA
181	HMDB0169666	NA	NA
182	HMDB0177209	NA	NA
183	HMDB0171727	NA	NA
184	HMDB0032356	N-Lactoyl ethanolamine	HMDB0032356
$\frac{185}{186}$	HMDB0039499	NA L-2-Amino-5-hydroxypentanoic acid	NA HMDB0031658
187	HMDB0031658 HMDB0002108	Methylcysteine	HMDB0031038
188	HMDB000742	Homocysteine	HMDB0000742
189	HMDB0038949	NA	NA
190	HMDB0030410	L-2-Amino-3-methylenehexanoic acid	HMDB0030410
191	HMDB0004827	Proline betaine	HMDB0004827
$\frac{192}{193}$	HMDB0034080	3-Methyl-1,2-cyclohexanedione	HMDB0034080
193	HMDB0033629 HMDB0041474	xi-4-Hydroxy-4-methyl-2-cyclohexen-1-one NA	HMDB0033629 NA
195	HMDB0034835	3-(3-Ethyloxiranyl)-2-propenal	HMDB0034835
196	HMDB0031223	Enol-3-Ethyl-1,2-cyclopentanedione	HMDB0031223
197	HMDB0040445	NA	NA
198	HMDB0037026	NA .	NA
199	HMDB0031222	3-Ethyl-1,2-cyclopentanedione	HMDB0031222
$\frac{200}{201}$	HMDB0037027 HMDB0029582	NA Methyl sorbate	NA HMDB0029582
202	HMDB0023062	Allyl crotonate	HMDB0032067
203	HMDB0032333	4-Hydroxy-4-methyl-5-hexenoic acid gamma lactone	HMDB0032333
204	HMDB0145126	NA	NA
205	HMDB0000062	L-Carnitine	HMDB0000062
206	HMDB0062496	Malonyl-Carnitin	HMDB0062496
$\frac{207}{208}$	HMDB0062634 HMDB0155786	NA NA	NA NA
209	HMDB0032380	(S1)-Methoxy-3-heptanethiol	HMDB0032380
210	HMDB0172136	ŇA	NA
211	HMDB0165770	NA	NA
212	HMDB0165771	NA	NA
$\frac{213}{214}$	HMDB0165773 HMDB0172134	NA NA	NA NA
214	HMDB0172134 HMDB0172135	NA NA	NA NA
216	HMDB0240308	NA	NA
217	HMDB0165772	NA	NA
218	HMDB0029737	1H-Indole-3-carboxaldehyde	HMDB0029737
219	HMDB0004186	3-Methyldioxyindole	HMDB0004186
220	HMDB0001424	4-(3-Pyridyl)-3-butenoic acid NA	HMDB0001424
$\frac{221}{222}$	HMDB0062406 HMDB0029300	p-Anisidine	NA HMDB0029300
223	HMDB0029300 HMDB0167379	NA NA	NA
224	HMDB0032578	4-Hydroxybenzylamine	HMDB0032578
225	HMDB0040360	NA	NA
226	HMDB0036058	NA	NA
227	HMDB0167378	NA	NA
$\frac{228}{229}$	HMDB0032492 HMDB0166738	2-Propionylpyrrole NA	HMDB0032492 NA
230	HMDB0164724	NA NA	NA NA
231	HMDB0165094	NA NA	NA
232	HMDB0165096	NA	NA
233	HMDB0165095	NA	NA

234	HMDB0165097	NA	NA
235	HMDB0166737	NA .	NA
236	HMDB0031484	2-Heptenoic acid	HMDB0031484
237	HMDB0038962	NA NA LOT L	NA
238	HMDB0031500	Methyl 2E-hexenoate	HMDB0031500
239	HMDB0166739	NA	NA
240	HMDB0029314	Isopentenyl acetate 3.4-Heptanedione	HMDB0029314
$\frac{241}{242}$	HMDB0031477	2,3-Heptanedione	HMDB0031477
$\frac{242}{243}$	HMDB0031476 HMDB0031504	Z,5-neptanedione Methyl (Z)-3-hexenoate	HMDB0031476 HMDB0031504
$\frac{243}{244}$	HMDB0031603	Ethyl 4-pentenoate	HMDB0031603
245	HMDB0031003	NA	NA
$\frac{246}{246}$	HMDB0040214 HMDB0031342	Cyclohexanecarboxylic acid	HMDB0031342
$\frac{240}{247}$	HMDB0031342	NA NA	NA
248	HMDB0031174	4-Methyl-5-hexanolide	HMDB0031174
249	HMDB0031681	Dihydro-5-propyl-2(3H)-furanone	HMDB0031681
250	HMDB0033793	4-Heptenoic acid	HMDB0033793
251	HMDB0031593	5-Methyl-2,3-hexanedione	HMDB0031593
252	HMDB0039819	NA	NA
253	HMDB0166736	NA	NA
254	HMDB0173760	NA	NA
255	HMDB0173761	NA	NA
256	HMDB0173762	NA	NA
257	HMDB0173763	NA	NA
258	HMDB0180322	NA	NA
259	HMDB0180323	NA	NA
260	HMDB0029165	1,3-Diacetylpropane	HMDB0029165
261	HMDB0031351	Cyclohexyl formate	HMDB0031351
262	HMDB0032460	4-Pentenyl acetate	HMDB0032460
263	HMDB0032391	3-Methyl-3-butenyl acetate	HMDB0032391
264	HMDB0030330	1-Methoxy-3-methylene-2-pentanone	HMDB0030330
265	HMDB0059876	NA .	NA
266	HMDB0040591	NA NA	NA
267	HMDB0145113	NA NA	NA
268	HMDB0145114	NA NA	NA
269	HMDB0145115	NA NA	NA
270	HMDB0145125	NA NA	NA
271	HMDB0145116	NA	NA
$\frac{272}{273}$	HMDB0094649 HMDB0001161	2-Amino-heptanoic acid 4-Trimethylammoniobutanoic acid	HMDB0094649 HMDB0001161
$\frac{273}{274}$	HMDB0001101	3-Dehydroxycarnitine	HMDB0006831
275	HMDB0000895	Acetylcholine	HMDB0000895
276	HMDB0013811	1-Nitroheptane	HMDB0013811
277	HMDB0240327	NA NA	NA
278	HMDB0159478	NA	NA
279	HMDB0159477	NA NA	NA
280	HMDB0158747	NA	NA
281	HMDB0158748	NA	NA
282	HMDB0158745	NA	NA
283	HMDB0158746	NA	NA
284	HMDB0159480	NA	NA
285	HMDB0159479	NA	NA
286	HMDB0161124	NA	NA
287	HMDB0161123	NA	NA
288	HMDB0161125	NA	NA
289	HMDB0155922	NA	NA
290	HMDB0061930	NA	NA
291	HMDB0033837	Dimethyl succinate	HMDB0033837
292	HMDB0006900	(S)-2-Aceto-2-hydroxybutanoic acid	HMDB0006900
293	HMDB0002173	Solerol	HMDB0002173
294	HMDB0002074	2,2-Dimethylsuccinic acid	HMDB0002074
295	HMDB0000858	Monomethyl glutaric acid	HMDB0000858
296	HMDB0000752	Methylglutaric acid	HMDB0000752
$\frac{297}{298}$	HMDB0000422	2-Methylglutaric acid Adipic acid	HMDB0000422
298 299	HMDB0000448 HMDB0062489	NA	HMDB0000448 NA
300	HMDB0062489 HMDB0010207	L-Rhamnulose	HMDB0010207
301	HMDB0010207	2-O-Methyl-D-xylose	HMDB0010207
302	HMDB0063477	NA	NA
302	HMDB0062477	NA NA	NA NA
304	HMDB0062499	NA	NA
305	HMDB0062455 HMDB0060267	L-Fuculose	HMDB0060267
306	HMDB0005876	3-Deoxyfructose	HMDB0005876
307	HMDB0012327	2-Deoxygalactopyranose	HMDB0012327
308	HMDB0002712	1,5-Anhydrosorbitol	HMDB0002712
309	HMDB0059625	NA NA	NA
310	HMDB0029196	D-Fucose	HMDB0029196
311	HMDB0003081	Beta-D-Fucose	HMDB0003081
312	HMDB0000174	L-Fucose	HMDB0000174
313	${\rm HMDB0059624}$	NA	NA
314	HMDB0000849	Rhamnose	HMDB0000849
315	HMDB0124735	NA	NA
316	HMDB0240304	NA	NA
317	HMDB0041477	NA	NA
318	HMDB0031660	Dibutyl sulfide	HMDB0031660
$\frac{319}{320}$	HMDB0168717	NA.	NA
	HMDB0168715	NA	NA

321	HMDB0168716	NA	NA
322	HMDB0168718	NA	NA
323	HMDB0062061	NA	NA
324	HMDB0030302	2,3,4-Trimethylhexane	HMDB0030302
325	HMDB0029595	Nonane	HMDB0029595
326	HMDB0030301	2,2,3,4-Tetramethylpentane	HMDB0030301
327	HMDB0031556	Isononane	HMDB0031556
328	HMDB0031416	3,4-Dimethylheptane	HMDB0031416
329	HMDB0062017	NA	NA
$\frac{330}{331}$	HMDB0062013	NA NA	NA NA
332	HMDB0240251 HMDB0061880	NA NA	NA NA
333	HMDB0060460	cis-4-Hydroxy-D-proline	HMDB0060460
334	HMDB0000725	4-Hydroxyproline	HMDB0000725
335	HMDB0036576	NA NA	NA
336	HMDB0000766	N-Acetyl-L-alanine	HMDB0000766
337	HMDB0000783	Propionylglycine	HMDB0000783
338	HMDB0002104	L-Glutamic gamma-semialdehyde	HMDB0002104
339	HMDB0002113	3-Hydroxy-L-proline	HMDB0002113
340	HMDB0006055	4-Hydroxy-L-proline	HMDB0006055
341	HMDB0059659	Trans-3-hydroxy-L-proline	HMDB0059659
342	HMDB0001149	5-Aminolevulinic acid	HMDB0001149
343	HMDB0006272	5-Amino-2-oxopentanoic acid	HMDB0006272 NA
$\frac{344}{345}$	HMDB0177404 HMDB0164041	NA NA	NA NA
346	HMDB0104041	Mesalazine	HMDB0014389
347	HMDB0001972	3-Aminosalicylic acid	HMDB0001972
348	HMDB0059749	NA	NA
349	HMDB0001476	3-Hydroxyanthranilic acid	HMDB0001476
350	HMDB0059811	NA	NA
351	HMDB0014378	Aminosalicylic Acid	HMDB0014378
352	HMDB0001280	2-Aminomuconic acid semialdehyde	HMDB0001280
353	HMDB0031670	1-(Hydroxymethyl)-5,5-dimethyl-2,4-imidazolidinedione	HMDB0031670
354	HMDB0028696	Alanyl-Serine	HMDB0028696
355	HMDB0029032	Serylalanine	HMDB0029032
356	HMDB0145395	NA Theories Chains	NA
$\frac{357}{358}$	HMDB0029061 HMDB0028851	Threoninyl-Glycine Glycyl-Threonine	HMDB0029061 HMDB0028851
359	HMDB0028831	NA	NA
360	HMDB0103117 HMDB0125105	NA NA	NA
361	HMDB0038987	NA	NA
362	HMDB0032029	2-Isopropylphenol	HMDB0032029
363	HMDB0032149	1-Methoxy-2,4-dimethylbenzene	HMDB0032149
364	HMDB0032625	4-Propylphenol	${\rm HMDB0032625}$
365	HMDB0029667	2,3,6-Trimethylphenol	HMDB0029667
366	HMDB0039782	NA	NA
367	HMDB0038986	NA	NA
368	HMDB0032624	2-Propylphenol	HMDB0032624
369	HMDB0038988	NA	NA
370	HMDB0032621 HMDB0038985	(2-Methoxyethyl)benzene	HMDB0032621
$\frac{371}{372}$	HMDB0038983	NA Benzyl ethyl ether	NA HMDB0031312
373	HMDB0031312	3-Phenyl-1-propanol	HMDB0033962
374	HMDB0031627	1-Phenyl-1-propanol	HMDB0031627
375	HMDB0034378	$(\hat{A}s)$ -1- $(4$ -Methylphenyl)ethanol	HMDB0034378
376	HMDB0031628	2-Phenyl-1-propanol	HMDB0031628
377	HMDB0038984	NA	NA
378	HMDB0032544	2,4,6-Trimethylphenol	HMDB0032544
379	HMDB0031446	p-Isopropylphenol	HMDB0031446
380	HMDB0032441	Nona-2,4,6-trienal	HMDB0032441
381	HMDB0059896	NA	NA
382	HMDB0169118	NA NA	NA NA
$\frac{383}{384}$	HMDB0163404 HMDB0164725	NA NA	NA NA
$\frac{384}{385}$	HMDB0164726	NA NA	NA NA
386	HMDB0165787	NA NA	NA
387	HMDB0103787	NA NA	NA
388	HMDB0172015	NA NA	NA
389	HMDB0180324	NA NA	NA
390	HMDB0034230	Mesifurane	HMDB0034230
391	${\rm HMDB0164727}$	NA	NA
392	HMDB0041426	NA	NA
393	HMDB0041427	NA	NA
394	HMDB0033551	5-Ethyl-3-hydroxy-4-methyl-2(5H)-furanone	HMDB0033551
395	HMDB0033736	Homofureanol NA	HMDB0033736 NA
$\frac{396}{397}$	HMDB0038593 HMDB0029412	NA Betonicine	NA HMDB0029412
398	HMDB0029412 HMDB0011757	N-Acetylvaline	HMDB0029412 HMDB0011757
399	HMDB0031345	Calystegine A6	HMDB0031345
400	HMDB000339	2-Methylbutyrylglycine	HMDB0001349
401	HMDB0000678	Isovalerylglycine	HMDB0000678
402	HMDB0000927	Valerylglycine	HMDB0000927
403	HMDB0012154	3-Dehydrocarnitine	${\rm HMDB0012154}$
404	HMDB0012175	5-Ace $ m tamidovalerate$	HMDB0012175
405	HMDB0036384	NA .	NA
406	HMDB0029409	Turicine	HMDB0029409
407	HMDB0038625	NA	NA

408	HMDB0029230	4-Hydroxystachydrine	HMDB0029230
409	HMDB0061678	NA N Mathal 1 decreasiisiassis	NA HMDD0025260
$\frac{410}{411}$	HMDB0035360 HMDB0163316	N-Methyl-1-deoxynojirimycin NA	HMDB0035360 NA
412	HMDB0163318	NA NA	NA
413	HMDB0163317	NA	NA
414	HMDB0163315	NA	NA
415	HMDB0163319	NA	NA
416	HMDB0062166	NA	NA
417	HMDB0032164	Allyl valerate	HMDB0032164
418	HMDB0037624	NA	NA
419	HMDB0029761	Ethyl (Aś)-2-methyl-4-pentenoate	HMDB0029761
$\frac{420}{421}$	HMDB0031403 HMDB0035422	Cyclohexaneacetic acid 4-Butyl-gamma-butyrolactone	HMDB0031403 HMDB0035422
422	HMDB0030422	Cyclohexyl acetate	HMDB0030422
423	HMDB0031343	Methyl cyclohexanecarboxylate	HMDB0031343
424	HMDB0036212	NA	NA
425	HMDB0032533	trans-3-Hexenyl acetate	${\rm HMDB0032533}$
426	HMDB0240301	NA (T) a l	NA
427	HMDB0032266	Ethyl (E)-3-hexenoate	HMDB0032266
$\frac{428}{429}$	HMDB0036236	NA Ethyl 2E-hexenoate	NA
430	HMDB0032268 HMDB0000392	2-Octenoic acid	HMDB0032268 HMDB0000392
431	HMDB0001568	trans-2-Octenoic acid	HMDB0001568
432	HMDB0038036	NA	NA
433	HMDB0039793	NA	NA
434	HMDB0037630	NA	NA
435	HMDB0038310	NA	NA
436	HMDB0039872	NA	NA
437	HMDB0037622	NA	NA
438	HMDB0040215	cis-3-Hexenyl acetate	HMDB0040215
$\frac{439}{440}$	HMDB0040212	NA Ethyl trans-2-methyl-2-pentenoate	NA HMDB0032278
441	HMDB0032278 HMDB0031293	2,3-Octanedione	HMDB0032278
442	HMDB0031233	(3E)-2-Propylpent-3-enoic acid	HMDB0031233
443	HMDB0059908	NA NA	NA
444	HMDB0013902	2-ene-Valproic acid	HMDB0013902
445	HMDB0013897	4-ene-Valproic acid	${\rm HMDB0013897}$
446	HMDB0013903	(3Z)-2-Propylpent-3-enoic acid	HMDB0013903
447	HMDB0061342	NA	NA
448	HMDB0032267	Ethyl 5-hexenoate	HMDB0032267
449	HMDB0032207	cis-5-Octenoic acid	HMDB0032207
450	HMDB0062077	NA	NA
$\frac{451}{452}$	HMDB0240571	NA DL-2-Aminooctanoic acid	NA HMDB0000991
453	HMDB0000991 HMDB0240732	NA	NA
454	HMDB0014375	Pregabalin	HMDB0014375
455	HMDB0013305	Propionylcholine	HMDB0013305
456	HMDB0015654	Methacholine	HMDB0015654
457	HMDB0002285	2-Indolecarboxylic acid	${\rm HMDB0002285}$
458	HMDB0240311	NA	NA
459	HMDB0060289	Quinoline-4,8-diol	HMDB0060289
460	HMDB0003320	Indole-3-carboxylic acid	HMDB0003320
461	HMDB0031172 HMDB0004077	3-Formyl-6-hydroxyindole	HMDB0031172
$\frac{462}{463}$	HMDB0032398	4,6-Dihydroxyquinoline Methyl n-formylanthranilate	HMDB0004077 HMDB0032398
464	HMDB0002398	3-Succinoylpyridine	HMDB000992
465	HMDB0000332	Hippuric acid	HMDB0000332
466	HMDB0062583	NA NA	NA
467	HMDB0032595	1-(4-Methoxyphenyl)-2-nitroethylene	HMDB0032595
468	${\rm HMDB0184242}$	NÀ	NA
469	HMDB0012884	Adrenochrome	HMDB0012884
470	HMDB0038174	NA	NA
471	HMDB0033388 HMDB0185632	NA NA	NA NA
$472 \\ 473$	HMDB0185632 HMDB0059856	NA NA	NA NA
$\frac{473}{474}$	HMDB0039836 HMDB0012153	NA 3,4-Dihydroxybenzylamine	HMDB0012153
475	HMDB0032332	Hydroxylated lecithin	HMDB0032332
476	HMDB0145430	NA NA	NA
477	HMDB0128078	NA	NA
478	HMDB0134039	NA	NA
479	HMDB0135273	NA	NA
480	HMDB0135648	NA NA	NA
481	HMDB0135274	NA NA	NA NA
$\frac{482}{483}$	HMDB0135275 HMDB0035243	NA 1-Phenyl-1,2-propanedione	NA HMDB0035243
483 484	HMDB0035243 HMDB0000930	trans-Cinnamic acid	HMDB0000930
485	HMDB0000567	Cinnamic acid	HMDB0000567
486	HMDB0036626	NA	NA
487	HMDB0040986	(E)-3-(4-Hydroxyphenyl)-2-propenal	HMDB0040986
488	${\rm HMDB0031725}$	(E)-3-(2-Hydroxyphenyl)-2-propenal	${\rm HMDB0031725}$
489	HMDB0032947	Di-2-furanylmethane	${\rm HMDB0032947}$
490	HMDB0062407	NA .	NA
491	HMDB0004992	Benzocaine	HMDB0004992
492	HMDB0001007	3-Pyridinebutanoic acid	HMDB0001007
493 494	HMDB0059934 HMDB0033589	NA Ethyl 2-aminobenzoate	NA HMDB0033589
404	***************************************		2211222000000000

```
HMDB0033485
495
                       Gentiatibetine
                                                                                                                    HMDB0033485
496
      HMDB0034169
                       Methyl N-methylanthranilate
                                                                                                                    HMDB0034169
      HMDB0006044
                                                                                                                     HMDB0006044
497
                       Norsalsolinol
498
      {\rm HMDB0000159}
                       L-Phenylalanine
                                                                                                                    {\rm HMDB0000159}
499
      {\rm HMDB}0159744
                       NA
                                                                                                                    NA
      HMDB0062402
500
                      NA
                                                                                                                    NA
      HMDB0155168
501
                      NA
                                                                                                                    NA
502
      HMDB0029455
                      Ginkgotoxin
                                                                                                                    HMDB0029455
      HMDB0000068
503
                       Epinephrine
                                                                                                                    HMDB0000068
504
      HMDB0000819
                       Normetanephrine
                                                                                                                    HMDB0000819
505
      {\rm HMDB0002832}
                       Methylnoradrenaline
                                                                                                                    {\rm HMDB0002832}
506
     HMDB0015652
HMDB0062515
                       Levonordefrin
                                                                                                                    HMDB0015652
507
                       NΑ
                                                                                                                    NΑ
      HMDB0061679
508
                      NA
                                                                                                                    NA
509
      HMDB0154785
                       NA
                                                                                                                    NA
      {\rm HMDB0000232}
                                                                                                                    HMDB0000232
510
                       Quinolinic acid
      HMDB0033161
                       2,6-Pyridinedicarboxylic acid
                                                                                                                    {\rm HMDB0033161}
511
512
      HMDB0185628
                      NΑ
                                                                                                                    NA
                                                                                                                    HMDB0001330
      HMDB0001330
                      2-Amino-3-carboxymuconic acid semialdehyde
513
      HMDB0062578
                      NA
514
                                                                                                                    NA
                                                                                                                    NA
      HMDB0060260
515
516
      HMDB0001552
                       2-Keto-glutaramic acid
                                                                                                                    {\rm HMDB0001552}
517
      {\rm HMDB0003584}
                       Taurocyamine
                                                                                                                    {\rm HMDB0003584}
                                                                                                                    HMDB0000289
518
      HMDB0000289
                       Uric acid
                      \hbox{6-Chloro-N-(1-methylethyl)-1,3,5-triazine-2,4-diamine}\\
      HMDB0033249
                                                                                                                    HMDB0033249
519
      HMDB0000734
                                                                                                                    HMDB0000734
520
                       Indoleacrylic acid
      HMDB0040768
521
                                                                                                                    NA
      HMDB0060244
                                                                                                                    HMDB0060244
522
                       Phosphodimethylethanolamine
523
      HMDB0166108
                       NA
                                                                                                                    NA
524
      {\rm HMDB0171094}
                      NA
                                                                                                                    NA
525
      HMDB0172092
                      NA
                                                                                                                    NA
      HMDB0062005
526
                                                                                                                    NA
                      NΑ
      HMDB0124926
527
                      NA
                                                                                                                    NA
      HMDB0168664
528
                       NA
                                                                                                                     NA
      HMDB0150437
                       NA
529
                                                                                                                     NA
530
      HMDB0125528
                       NA
                                                                                                                     NA
531
      HMDB0137457
                      NA
                                                                                                                    NA
      HMDB0146870
532
                      NA
                                                                                                                    NA
      HMDB0146889
533
                       NA
                                                                                                                    NA
      HMDB0166106
                      NA
534
                                                                                                                    NA
      HMDB0166109
535
536
      {\rm HMDB0182861}
                       NA
                                                                                                                    NA
537
      HMDB0166107
                      NΑ
                                                                                                                    NA
538
      HMDB0183905
                      NA
                                                                                                                    NA
539
      HMDB0183904
                      NA
                                                                                                                    NA
540
      HMDB0036907
                      NA
                                                                                                                    NA
      HMDB0029660
                                                                                                                    HMDB0029660
541
                       2',6'-Dihydroxyacetophenone
542
      {\rm HMDB0029657}
                      2,4'-Dihydroxyacetophenone
                                                                                                                    {\rm HMDB0029657}
543
      {\rm HMDB0029659}
                      2',4'-Dihydroxyacetophenone
                                                                                                                    {\rm HMDB0029659}
      HMDB0029658
                                                                                                                    HMDB0029658
544
                      2',3'-Dihydroxyacetophenone
      HMDB0032594
                                                                                                                    HMDB0032594
                      2-(Hydroxymethyl)benzoic acid
545
      HMDB0033003
                       1-(5-Methyl-2-furanyl)-1,2-propanedione
                                                                                                                    HMDB0033003
546
      HMDB0032629
                        ,5'-Dihydroxyacetophenone
                                                                                                                     HMDB0032629
      HMDB0032572
                       Methylparaben
                                                                                                                    HMDB0032572
548
549
      HMDB0029662
                      3',5'-Dihydroxyacetophenone
                                                                                                                    HMDB0029662
      HMDB0029661
                      3',\!4'\text{-Dihydroxyace} to phenone
550
                                                                                                                    HMDB0029661
      HMDB0032604
                                                                                                                    HMDB0032604
551
                       2-Methoxybenzoic acid
      HMDB0034172
                                                                                                                    HMDB0034172
552
                       Methyl 2-hydroxybenzoate
      HMDB0032606
                                                                                                                    HMDB0032606
553
                       3-Methoxybenzoic acid
554
      HMDB0041283
                                                                                                                    HMDB0004815
555
      HMDB0004815
                       4-Hydroxy-3-methylbenzoic acid
                                                                                                                    HMDB0012308
556
      HMDB0012308
                       Vanillin
      HMDB0032919
                      Ethyl 2-furanyl diketone
                                                                                                                    HMDB0032919
557
      HMDB0172091
558
                                                                                                                    NA
      HMDB0032399
                       Methyl furfuracrylate
                                                                                                                    HMDB0032399
559
      HMDB0000703
                                                                                                                    HMDB0000703
560
                       Mandelic acid
561
      HMDB0000669
                       Ortho-Hydroxyphenylacetic acid
                                                                                                                    HMDB0000669
562
      HMDB0060390
                                                                                                                    NA
      HMDB0003791
                      3, 4\hbox{-}{\rm Dihydroxyphenylacetal dehyde}
                                                                                                                    HMDB0003791
563
      HMDB0062635
564
                      NA
                                                                                                                    NA
      HMDB0031609
                                                                                                                    HMDB0031609
565
                      Phenoxyacetic acid
      HMDB0000440
                      3-Hydroxyphenylacetic acid
                                                                                                                    HMDB0000440
566
      HMDB0001101
                      p-Anisic acid
                                                                                                                    HMDB0001101
567
      HMDB0000020
HMDB0002390
568
                       p-Hydroxyphenylacetic acid
                                                                                                                    HMDB0000020
569
                       3-Cresotinic acid
                                                                                                                    HMDB0002390
      HMDB0000216
                                                                                                                    HMDB0000216
570
                       Norepinephrine
571
      HMDB0035178
                      6-Acetyl-2,3-dihydro-2-(hydroxymethyl)-4(1H)-pyridinone
                                                                                                                    HMDB0035178
572
      HMDB0037685
                                                                                                                    NA
573
      HMDB0155164
                                                                                                                    HMDB0001537
574
      {\rm HMDB0001537}
                       6-Hydroxydopamine
      HMDB0000239
                                                                                                                    HMDB0000239
575
                       Pyridoxine
      HMDB0004817
                       5-Hydroxydopamine
                                                                                                                    HMDB0004817
576
      HMDB0012150
                       2-Keto-6-acetamidocaproate
                                                                                                                    HMDB0012150
577
      HMDB0032945
                       1-Phenyl-2,4-pentadiyn-1-one
                                                                                                                    {\rm HMDB0032945}
579
      HMDB0029738
                       Indole-3-methyl acetate
                                                                                                                    HMDB0029738
580
      HMDB0002302
                       Indole-3-propionic acid
                                                                                                                    HMDB0002302
581
      HMDB0014970
                      Phensuximide
                                                                                                                    HMDB0014970
```

582	HMDB0163575	NA	NA
$\frac{583}{584}$	HMDB0161234 HMDB0012209	NA Diethylphosphate	NA HMDB0012209
585	HMDB0012209	NA	NA
586	HMDB0040051	NA NA	NA
587	HMDB0040043	NA	NA
588	HMDB0039662	NA	NA
589	HMDB0040029	NA	NA
590	HMDB0040047	NA	NA
591	HMDB0040016	NA Veneternine	NA UMDD0020175
$\frac{592}{593}$	HMDB0030175 HMDB0032935	Venoterpine 1-(2-Thienyl)-1-butanone	HMDB0030175 HMDB0032935
594	HMDB0032333	1-(2-1 menyl)-1-butanone NA	NA
595	HMDB0040589	NA	NA
596	HMDB0175069	NA	NA
597	HMDB0175071	NA	NA
598	HMDB0175067	NA	NA
599	HMDB0162021	NA	NA
600	HMDB0038628	NA NA	NA NA
601 602	HMDB0040972 HMDB0004073	5-Hydroxyindoleacetaldehyde	HMDB0004073
603	HMDB0000197	Indoleacetic acid	HMDB0000197
604	HMDB0166095	NA	NA
605	HMDB0060758	NA	NA
606	HMDB0240317	NA	NA
607	HMDB0162020	NA	NA
608	HMDB0162023	NA NA	NA NA
$609 \\ 610$	HMDB0162022 HMDB0013292	p-Methylhippuric acid	HMDB0013292
611	HMDB0013245	m-Methylhippuric acid	HMDB0013245
612	HMDB0000821	Phenylacetylglycine	HMDB0000821
613	HMDB0000859	Methyl hippurate	HMDB0000859
614	HMDB0011723	2-Methylhippuric acid	HMDB0011723
615	HMDB0060366	3-Carbamoyl-2-phenylpropionaldehyde	HMDB0060366
616	HMDB0060389	4-Hydroxy-5-phenyltetrahydro-1,3-oxazin-2-one	HMDB0060389
$617 \\ 618$	HMDB0034250 HMDB0032388	Betamipron Methyl n-acetylanthranilate	HMDB0034250 HMDB0032388
619	HMDB000073	Dopamine Dopamine	HMDB000073
620	HMDB0060277	NA NA	NA
621	HMDB0012309	Vanillylamine	HMDB0012309
622	${\rm HMDB0004825}$	p-Octopamine	${\rm HMDB0004825}$
623	HMDB0156498	NA	NA
624	HMDB0037786	NA	NA
625	HMDB0172919	NA NA	NA
$\frac{626}{627}$	HMDB0177509 HMDB0141046	NA NA	NA NA
628	HMDB0141040	NA NA	NA
629	HMDB0133750	NA	NA
630	HMDB0133749	NA	NA
631	${\rm HMDB0133752}$	NA	NA
632	HMDB0146627	NA	NA
633	HMDB0157134	NA	NA
634	HMDB0151225	NA NA	NA
$635 \\ 636$	HMDB0141158 HMDB0135643	NA NA	NA NA
637	HMDB0133755	NA NA	NA
638	HMDB0133594	NA NA	NA
639	HMDB0133595	NA	NA
640	HMDB0133504	NA	NA
641	HMDB0133598	NA	NA
642	HMDB0133599	NA	NA
643 644	HMDB0133596	NA NA	NA NA
644 645	HMDB0133747 HMDB0133748	NA NA	NA NA
646	HMDB0133597	NA NA	NA
647	HMDB0060335	1,2-Dihydronaphthalene-1,2-diol	HMDB0060335
648	HMDB0033830	Cassiastearoptene	HMDB0033830
649	HMDB0040577	NA	NA
650	HMDB0029714	4,5-Dihydro-1-benzoxepin-3(2H)-one	HMDB0029714
651	HMDB0033591	Safrole Mathal simposets	HMDB0033591
$652 \\ 653$	HMDB0033833 HMDB0032611	Methyl cinnamate 3-(4-Methoxyphenyl)-2-propenal	HMDB0033833 HMDB0032611
654	HMDB0032011	NA	NA
655	HMDB0038893	NA NA	NA
656	HMDB0039655	NA NA	NA
657	HMDB0033763	Ethyl N-methylanthranilate	HMDB0033763
658	HMDB0040021	NA	NA
659	HMDB0030372	Maltoxazine	HMDB0030372
660	HMDB0041931	NA	NA HMDD0001180
661	HMDB0001189	2(N)-Methyl-norsalsolinol (R)-Salsolinol	HMDB0001189
$662 \\ 663$	HMDB0005199 HMDB0031811	(R)-Saisonnoi 3,5-Dimethylphenyl methylcarbamate	HMDB0005199 HMDB0031811
664	HMDB0031811	NA	NA
665	HMDB0029224	N-methylphenylalanine	HMDB0029224
666	HMDB0029223	alpha-Methylphenylalanine	${\rm HMDB0029223}$
667	HMDB0094790	NA NA	NA
668	HMDB0094799	NA	NA

```
HMDB0094784
669
                                       NA
                                                                                                                                                                                                        NA
                                       NA
                                                                                                                                                                                                        NA
670
          HMDB0094786
671
          HMDB0094787
                                       NA
                                                                                                                                                                                                        NA
672
          {\rm HMDB0094793}
                                       NA
                                                                                                                                                                                                        NA
673
          {\rm HMDB0094785}
                                       NA
                                                                                                                                                                                                        NA
          HMDB0094782
674
                                       NA
                                                                                                                                                                                                        NA
          HMDB0094780
675
                                      NA
                                                                                                                                                                                                        NA
676
          HMDB0094783
                                      NA
                                                                                                                                                                                                        NA
          {\rm HMDB0094788}
677
                                       NA
                                                                                                                                                                                                        NA
678
          HMDB0094789
                                       NA
679
          {\rm HMDB0094791}
                                       NA
                                                                                                                                                                                                        NA
680
          HMDB0167323
HMDB0094800
                                       NA
                                                                                                                                                                                                        NA
681
                                       NΑ
                                                                                                                                                                                                        NΑ
682
          HMDB0094796
                                       NA
                                                                                                                                                                                                        NΑ
683
          HMDB0094797
                                       NA
                                                                                                                                                                                                        NA
                                                                                                                                                                                                        NA
          {\rm HMDB0094798}
                                       NA
684
685
          HMDB0094794
                                       NA
                                                                                                                                                                                                        NA
686
          HMDB0094792
                                      NA
                                                                                                                                                                                                        NA
          HMDB0094795
687
                                       NA
                                                                                                                                                                                                        NA
          HMDB0185183
688
                                       NA
                                                                                                                                                                                                        NA
                                                                                                                                                                                                        HMDB0004063
689
          HMDB0004063
                                       Metanephrine
690
          HMDB0036074
                                       NA
                                                                                                                                                                                                        NA
691
          {\rm HMDB0060558}
                                       NA
                                                                                                                                                                                                        NA
692
          HMDB0154796
                                       NA
                                                                                                                                                                                                        NA
          HMDB0062493
693
                                       NA
                                                                                                                                                                                                        NA
          HMDB0094781
                                       NA
                                                                                                                                                                                                        NA
694
          HMDB0033433
                                                                                                                                                                                                        HMDB0033433
695
                                       (S)-Homostachydrine
          HMDB0014447
                                                                                                                                                                                                        HMDB0014447
696
                                       Tranexamic Acid
697
          {\rm HMDB0000462}
                                       Allantoin
                                                                                                                                                                                                        HMDB0000462
698
          {\rm HMDB0170210}
                                       NA
                                                                                                                                                                                                        NA
699
          HMDB0170209
                                       NA
                                                                                                                                                                                                        NA
          HMDB0038896
700
                                      NΑ
                                                                                                                                                                                                        NA
701
          {\rm HMDB0033556}
                                       2,5-Dimethyl-1,4-dithiane-2,5-diol
                                                                                                                                                                                                        HMDB0033556
          HMDB0013858
                                                                                                                                                                                                        {\rm HMDB0013858}
702
                                       3-Dechloroethylifosfamide
          HMDB0060881
703
704
          HMDB0013859
                                       2-Dechloroethylifosfamide
                                                                                                                                                                                                        HMDB0013859
705
          HMDB0014480
                                      Nitrofurazone
                                                                                                                                                                                                        HMDB0014480
706
          HMDB0062605
                                       NA
                                                                                                                                                                                                        NA
          HMDB0134031
707
                                       NA
                                                                                                                                                                                                        NA
                                       NA
708
          HMDB0141768
                                                                                                                                                                                                        NA
709
          HMDB0141767
                                       NA
                                                                                                                                                                                                        NA
710
          {\rm HMDB0134029}
                                       NA
                                                                                                                                                                                                        NA
711
          HMDB0134030
                                       NΑ
                                                                                                                                                                                                        NA
712
          HMDB0126545
                                       NA
                                                                                                                                                                                                        NA
713
          HMDB0128076
                                       NA
                                                                                                                                                                                                        NA
714
          {\rm HMDB0062774}
                                       NA
                                                                                                                                                                                                        NA
715
          HMDB0125104
                                       NA
                                                                                                                                                                                                        NA
716
          {\rm HMDB0129375}
                                       NA
                                                                                                                                                                                                        NA
717
          {\rm HMDB0166606}
                                       NA
                                                                                                                                                                                                        NA
718
          HMDB0163003
                                       NA
                                                                                                                                                                                                        NA
          HMDB0041592
                                                                                                                                                                                                        HMDB0041592
719
                                       Coumaric acid
720
          HMDB0030677
                                       cis-p-Coumaric acid
                                                                                                                                                                                                        {\rm HMDB0030677}
721
          HMDB0012225
                                       Enol-phenylpyruvate
                                                                                                                                                                                                        HMDB0012225
722
          HMDB0001713
                                       m-Coumaric acid
                                                                                                                                                                                                        HMDB0001713
723
          {\rm HMDB0002035}
                                       4-Hydroxycinnamic acid
                                                                                                                                                                                                        HMDB0002035
          HMDB0000205
724
                                       Phenylpyruvic acid
                                                                                                                                                                                                        HMDB0000205
          HMDB0031629
725
                                       NA
                                                                                                                                                                                                        NA
          HMDB0002641
                                                                                                                                                                                                        HMDB0002641
726
                                       2-Hydroxycinnamic acid
          HMDB0062148
727
                                      NA
                                                                                                                                                                                                        NA
                                       Cis-2-coumarate
728
          HMDB0062655
                                                                                                                                                                                                        HMDB0062655
729
          HMDB0134028
                                       NA
                                                                                                                                                                                                        NA
730
          HMDB0150719
                                      NA
                                                                                                                                                                                                        NA
          HMDB0150717
731
                                       NA
                                                                                                                                                                                                        NA
          HMDB0150718
                                       NA
                                                                                                                                                                                                        NA
732
          HMDB0150716
733
                                       NA
                                                                                                                                                                                                        NA
                                                                                                                                                                                                        ΝA
734
          {\rm HMDB0150720}
                                       NA
735
          {\rm HMDB0150715}
                                       NA
                                                                                                                                                                                                        NA
736
          HMDB0162085
                                       NA
                                                                                                                                                                                                        NA
          HMDB0162086
737
                                       NA
                                                                                                                                                                                                        NA
          HMDB0164039
                                       NA
                                                                                                                                                                                                        NA
738
          {\rm HMDB0164040}
739
                                      NA
                                                                                                                                                                                                        NA
          HMDB0185178
740
741
          HMDB0059720
                                       NA
                                                                                                                                                                                                        NA
742
          {\rm HMDB0001119}
                                       4-Hydroxy-4-(3-pyridyl)-butanoic acid
                                                                                                                                                                                                        HMDB0001119
743
          HMDB0002184
                                       L-Threo-3-Phenylserine
                                                                                                                                                                                                        HMDB0002184
744
          HMDB0003831
                                      Beta-Tyrosine
                                                                                                                                                                                                        HMDB0003831
745
          HMDB0006050
                                      o-Tyrosine
                                                                                                                                                                                                        HMDB0006050
746
          HMDB0060280
                                                                                                                                                                                                        NA
747
          HMDB0000158
                                                                                                                                                                                                        {\rm HMDB0000158}
                                       L-Tyrosine
748
          {\rm HMDB0164171}
                                      NΑ
                                                                                                                                                                                                        NA
                                      2-Acetyl-1, 5, 6, 7-tetra hydro-6-hydroxy-7-(hydroxymethyl)-4H-azepine-4-one and a superscript of the contraction of the cont
                                                                                                                                                                                                        HMDB0035177
749
          HMDB0035177
          HMDB0155114
                                       NA
750
                                                                                                                                                                                                        NA
                                                                                                                                                                                                        NA
          HMDB0155115
                                       NA
751
752
          HMDB0155853
                                      NA
                                                                                                                                                                                                        NA
753
          HMDB0185174
                                       NA
                                                                                                                                                                                                        NA
754
          HMDB0185175
                                       NA
                                                                                                                                                                                                        NA
755
          HMDB0185176
                                      NA
                                                                                                                                                                                                        NA
```

```
HMDB0185177
756
                      NA
                                                                                                                   NA
      HMDB0155116
                      NA
                                                                                                                   NA
757
758
      HMDB0000401
                      2,8-Dihydroxyadenine
                                                                                                                   HMDB0000401
759
      {\rm HMDB0160079}
                      ŃΑ
                                                                                                                   NA
760
      {\rm HMDB0158555}
                      NA
                                                                                                                   NA
      HMDB0002032
                                                                                                                   HMDB0002032
761
                      8-Hydroxyguanine
      HMDB0059918
762
                      NA
                                                                                                                   NA
763
      HMDB0033532
                      Dimethicone
                                                                                                                   HMDB0033532
      {\rm HMDB0042002}
764
                      NA
                                                                                                                   NA
765
      HMDB0131235
                      NA
                                                                                                                   NA
766
      {\rm HMDB0131234}
                      NA
                                                                                                                   NA
767
     HMDB0131233
HMDB0151526
                      NA
                                                                                                                   NA
768
                      NΑ
                                                                                                                   NΑ
769
      HMDB0151525
                      NA
                                                                                                                   NA
770
      HMDB0180894
                      NA
                                                                                                                   NA
      {\rm HMDB0126620}
                      NA
771
                                                                                                                   NA
772
      HMDB0240350
                      NA
     HMDB0001490
HMDB0040603
                                                                                                                   HMDB0001490
773
                      Vanylglycol
774
                      NA
      HMDB0035056
                                                                                                                   HMDB0035056
775
                      1-(3-Hydroxy-4-methoxyphenyl)-1,2-ethanediol
      HMDB0036072
776
                                                                                                                   NA
777
      HMDB0039650
                      NA
                                                                                                                   NA
778
      {\rm HMDB0059730}
                      NA
                                                                                                                   NA
779
      HMDB0180032
                      NA
                                                                                                                   NA
      HMDB0125593
780
                      NA
                                                                                                                   NA
      HMDB0125597
                      NA
                                                                                                                   NA
781
      HMDB0126618
782
                      NA
                                                                                                                   NA
      HMDB0126619
783
784
      {\rm HMDB0033092}
                      3-(1-Hydroxymethyl-1-propenyl)pentanedioic acid
                                                                                                                   HMDB0033092
785
      {\rm HMDB0032306}
                      4-Heptenal diethyl acetal
                                                                                                                   {\rm HMDB0032306}
786
      HMDB0041611
                      NA
                                                                                                                   NA
      HMDB0180875
                      NΑ
                                                                                                                   NA
787
      HMDB0062348
788
                      NA
                                                                                                                   NA
      HMDB0168681
                      NA
                                                                                                                   NA
789
      HMDB0168656
                      NA
                                                                                                                   NA
790
791
      HMDB0168684
                      NA
                                                                                                                   NA
792
      HMDB0168682
                      NA
                                                                                                                   NA
793
      HMDB0168683
                      NA
                                                                                                                   NA
      HMDB0171689
794
                      NA
                                                                                                                   NA
      HMDB0177510
795
                      NA
                                                                                                                   NA
796
      HMDB0180873
                      NA
                                                                                                                   NA
797
      {\rm HMDB0180874}
                      NA
                                                                                                                   NA
798
      HMDB0180872
                      NΑ
                                                                                                                   NA
      HMDB0240325
799
                      NA
                                                                                                                   NA
800
      HMDB0124925
                      NA
                                                                                                                   NA
801
      HMDB0167324
                      NA
                                                                                                                   NA
      HMDB0166615
802
                      NA
                                                                                                                   NA
803
      {\rm HMDB0166610}
                      NA
                                                                                                                   NA
804
      {\rm HMDB0125519}
                      NA
                                                                                                                   NA
      HMDB0125525
805
                      NA
                                                                                                                   NA
      HMDB0125539
806
                      NA
                                                                                                                   NA
      HMDB0134035
807
                      NA
                                                                                                                   NA
808
      HMDB0134033
                      NA
                                                                                                                   NA
809
      HMDB0134034
                      NA
                                                                                                                   NA
810
      {\rm HMDB0134032}
                      NA
                                                                                                                   NA
      HMDB0134038
811
                      NA
                                                                                                                   NA
      HMDB0134037
                      NA
                                                                                                                   NA
812
      HMDB0134036
                      NA
813
                                                                                                                   NA
      HMDB0137472
814
                      NA
                                                                                                                   NA
      HMDB0141765
                      NA
                                                                                                                   NA
816
      {\rm HMDB0141766}
                      NA
                                                                                                                   NA
817
      HMDB0142136
                      NΑ
                                                                                                                   NA
      HMDB0166065
818
                      NA
                                                                                                                   NA
      HMDB0032605
                      Methyl 2-methoxybenzoate
                                                                                                                   HMDB0032605
819
      HMDB0033752
                                                                                                                   {\rm HMDB0033752}
820
                      3-(2-Hydroxyphenyl)propanoic acid
      HMDB0034243
                                                                                                                   HMDB0034243
                      Ipomeanine
822
      {\rm HMDB0040645}
                                                                                                                   NA
                      Guaicyl acetate
                                                                                                                   HMDB0032030
823
      HMDB0032030
      HMDB0029665
                      Ethyl vanillin
                                                                                                                   HMDB0029665
824
      HMDB0034993
                      4-Methoxybenzyl formate
                                                                                                                   HMDB0034993
825
      HMDB0029817
                      Ethyl salicylate
826
                                                                                                                   {\rm HMDB0029817}
827
      HMDB0005175
                                                                                                                   HMDB0005175
                      Homovanillin
828
      HMDB0032573
                      Ethylparaben
                                                                                                                   HMDB0032573
829
      {\rm HMDB0032639}
                      Methyl 4-methoxybenzoate
                                                                                                                   HMDB0032639
830
      HMDB0031132
                      3, 4\hbox{-}{\rm Dihydroxyphenylacetone}
                                                                                                                   HMDB0031132
      HMDB0062026
831
                      NA
                                                                                                                   NA
832
      HMDB0059969
                      NA
                                                                                                                   NA
833
      HMDB0062590
                      NA
                                                                                                                   NA
834
      HMDB0041683
                      NA
                                                                                                                   NA
835
      {\rm HMDB0142137}
                      NΑ
                                                                                                                   NA
                                                                                                                   HMDB0032138
836
      HMDB0032138
                      3,4-Dimethoxybenzaldehyde
      HMDB0002229
                                                                                                                   HMDB0002229
837
                      3-Phenoxypropionic acid
      HMDB0168657
838
                                                                                                                   NA
      HMDB0000375
                      3-(3-Hydroxyphenyl)propanoic acid
                                                                                                                   HMDB0000375
839
840
      HMDB0000563
                      D-Phenyllactic acid
                                                                                                                   {\rm HMDB0000563}
841
      HMDB0002199
                      Desaminotyrosine
                                                                                                                   HMDB0002199
842
      HMDB0000779
                      Phenyllactic acid
                                                                                                                   HMDB0000779
```

```
HMDB0002072
                                                                                                                  HMDB0002072
843
                      4-Methoxyphenylacetic acid
844
      HMDB0000748
                      L-3-Phenyllactic acid
                                                                                                                  HMDB0000748
      HMDB0185611
845
846
      {\rm HMDB0185616}
                      NA
                                                                                                                  NA
847
      {\rm HMDB0185609}
                      NA
                                                                                                                  NA
      HMDB0185610
848
                      NA
                                                                                                                  NA
      HMDB0185613
                      NA
                                                                                                                  NA
849
850
      HMDB0035291
                                                                                                                  HMDB0035291
                      Isoplumbagin
      HMDB0166096
851
                                                                                                                  NA
852
      HMDB0029472
                      Isoeugenitol
                                                                                                                  HMDB0029472
853
      {\rm HMDB0029466}
                      Eugenitol
                                                                                                                  HMDB0029466
854
      HMDB0032952
                      Citropten
                                                                                                                  HMDB0032952
      HMDB0036627
855
                      NΑ
                                                                                                                  NA
856
      HMDB0030818
                                                                                                                  HMDB0030818
                      Scoparone
857
      HMDB0136785
                      NA
                                                                                                                  NA
      {\rm HMDB0136786}
                      NA
                                                                                                                  NA
858
859
      HMDB0181531
                      NA
                                                                                                                  NA
860
      HMDB0136784
                      NA
                                                                                                                  NA
                                                                                                                  HMDB0035303
      HMDB0035303
                      3- Methoxy-4, 5- methylenedioxyc innamal dehyde\\
861
      HMDB0029775
862
                      Vinyl caffeate
                                                                                                                  HMDB0029775
863
      HMDB0181534
                                                                                                                  NA
864
      HMDB0181532
                      NA
                                                                                                                  NA
865
      {\rm HMDB0181533}
                      NA
                                                                                                                  NA
866
      HMDB0129368
                      NΑ
                                                                                                                  NA
      HMDB0036187
867
                      NA
                                                                                                                  NA
      HMDB0032414
                                                                                                                  HMDB0032414
                      2-Methyl-3 or 5 or 6-(furfurylthio)pyrazine (mixture of isomers)
868
      HMDB0038791
869
                      NA
                                                                                                                  NA
      HMDB0033584
                                                                                                                  HMDB0033584
870
                      Diethyl tartrate
871
      HMDB0059767
                      NA
872
      {\rm HMDB}0157322
                      NA
                                                                                                                  NA
873
      HMDB0157321
                      NA
                                                                                                                  NA
      HMDB0157320
                      NΑ
                                                                                                                  NA
874
875
      {\rm HMDB}0157323
                      NA
                                                                                                                  NA
      HMDB0157324
876
                      NA
                                                                                                                  NA
                      L-Targinine
      HMDB0029416
                                                                                                                  HMDB0029416
877
878
      HMDB0000670
                      Homo-L-arginine
                                                                                                                  HMDB0000670
879
      HMDB0015454
                      Rasagiline
                                                                                                                  HMDB0015454
      HMDB0032926
                      Polycartine B
                                                                                                                  HMDB0032926
880
      HMDB0005973
                                                                                                                  HMDB0005973
881
                      Dimethyltryptamine
      HMDB0033961
                      2-(3-Methylbutyl)-1H-pyrrolo[2,3-b]pyridine
                                                                                                                  HMDB0033961
882
      HMDB0061284
883
                                                                                                                  HMDB0001892
884
      {\rm HMDB0001892}
                      Menadione
885
      HMDB0033765
                      Methyl (Z)-2-decene-4,6,8-triynoate
                                                                                                                  HMDB0033765
      HMDB0061682
886
                      NA
                                                                                                                  NA
887
      HMDB0060608
                      NA
                                                                                                                  NA
888
      HMDB0163574
                      NA
                                                                                                                  NA
      HMDB0163573
                      NA
                                                                                                                  NA
889
890
      {\rm HMDB0162439}
                      NA
                                                                                                                  NA
891
      {\rm HMDB0165489}
                      NA
                                                                                                                  NA
      HMDB0002042
                                                                                                                  HMDB0002042
892
                      3-Phenylpropionylglycine
      HMDB0002612
                      Phenylpropionylglycine
N-Acetyl-L-phenylalanine
                                                                                                                  HMDB0000860
893
      HMDB0000512
894
                                                                                                                  {\rm HMDB0000512}
895
      HMDB0165491
896
      HMDB0015165
                      Ethinamate
                                                                                                                  HMDB0015165
897
      {\rm HMDB0167325}
      HMDB0002182
                      Phenylephrine
                                                                                                                  HMDB0002182
898
      HMDB0062266
899
                      NA
                                                                                                                  NA
      HMDB0014748
                                                                                                                  HMDB0014748
900
                      Metaraminol
      HMDB0060592
901
                      NA
                                                                                                                  NA
902
      HMDB0060807
903
      HMDB0032020
                      4-(beta-Methylaminoethyl)catechol
                                                                                                                  HMDB0032020
904
      HMDB0041888
                      NA
                                                                                                                  NA
      HMDB0062811
905
                      NA
                                                                                                                  NA
      HMDB0039837
                      NA
                                                                                                                  NA
906
      HMDB0038869
907
                      NA
                                                                                                                  NA
      {\rm HMDB0000022}
                                                                                                                  {\rm HMDB0000022}
                      3-Methoxytyramine
909
      {\rm HMDB0004826}
                      p-Synephrine
                                                                                                                  HMDB0004826
910
      HMDB0012162
                      4-Methoxytyramine
                                                                                                                  HMDB0012162
      HMDB0094703
                      Propanoic acid, 2-(methoxyimino)-, trimethylsilyl ester
                                                                                                                  HMDB0094703
911
      HMDB0012286
                      S-Prenvl-L-cysteine
                                                                                                                  HMDB0012286
912
      HMDB0169421
                      NA
913
                                                                                                                  NA
      HMDB0163468
                                                                                                                  NA
914
915
      HMDB0163469
                      NA
                                                                                                                  NA
916
      {\rm HMDB0179168}
                      NA
                                                                                                                  NA
917
      HMDB0163465
                      NA
                                                                                                                  NA
      HMDB0163466
918
                      NΑ
                                                                                                                  NΑ
919
      HMDB0094711
                      NA
                                                                                                                  NA
920
      HMDB0059936
                      NA
                                                                                                                  ΝA
921
      HMDB0062081
                      NA
                                                                                                                  NA
922
      HMDB0060287
                      NΑ
                                                                                                                  NA
923
      HMDB0059937
                      NA
                                                                                                                  NA
      HMDB0036396
924
                      NA
                                                                                                                  NA
925
      HMDB0040165
                      NA
                                                                                                                  NA
      HMDB0036188
926
                      NA
                                                                                                                  NA
927
      HMDB0036213
                      NA
                                                                                                                  NA
928
      HMDB0040203
                      NA
                                                                                                                  NA
929
      HMDB0040202
                      NA
                                                                                                                  NA
```

```
HMDB0163470
930
                       NA
                                                                                                                   NA
                       NA
                                                                                                                   NA
931
       HMDB0151316
       HMDB0151313
932
                       NA
                                                                                                                   NA
933
      {\rm HMDB0166861}
                       NA
                                                                                                                   NA
934
      {\rm HMDB}0157325
                       NA
                                                                                                                   NA
       HMDB0157326
935
                       NA
                                                                                                                   NA
      HMDB0000325
                       3-Hydroxysuberic acid
                                                                                                                   HMDB0000325
936
937
       HMDB0040220
                       NA
                                                                                                                   NA
       HMDB0061681
                                                                                                                   NA
938
                       NA
939
       HMDB0029968
                       Ethyl beta-D-glucopyranoside
                                                                                                                   HMDB0029968
940
      {\rm HMDB0033942}
                       Dambonitol
                                                                                                                   HMDB0033942
941
      HMDB0032329
HMDB0060323
                       2-Hexylthiophene
                                                                                                                   HMDB0032329
942
                       NΑ
                                                                                                                   NA
943
      HMDB0003066
                       Chalcone
                                                                                                                   HMDB0003066
944
       HMDB0135598
                       NA
                                                                                                                   NA
                       10-Undecen-1-ol
      {\rm HMDB0031016}
                                                                                                                   HMDB0031016
945
946
       HMDB0032371
                       1-Menthyl methyl ether
                                                                                                                   HMDB0032371
947
      {\rm HMDB0030943}
                       6-Undecanone
                                                                                                                   HMDB0030943
      HMDB0032379
                       trans- and cis-1-Methoxy-1-decene
                                                                                                                   HMDB0032379
948
       HMDB0163244
949
                       NA
                                                                                                                   NA
                                                                                                                   HMDB0030941
950
      HMDB0030941
                       Undecanal
951
      HMDB0031065
                       (Âś)-(E)-3-Methyl-4-decen-1-ol
                                                                                                                   HMDB0031065
      {\rm HMDB0031064}
                       (Z)-3-Methyl-3-decen-1-ol
                                                                                                                   {\rm HMDB0031064}
952
       HMDB0033713
                                                                                                                   HMDB0033713
953
                       2-Undecanone
      HMDB0034856
                       2-Undecen-1-ol
                                                                                                                   HMDB0034856
954
955
       HMDB0014631
                       Altretamine
                                                                                                                   {\rm HMDB0014631}
956
      HMDB0041615
                       NΑ
                                                                                                                   NA
      HMDB0035753
                       (R)-(E)-4,7-Megastigmadien-9-one
                                                                                                                   HMDB0035753
957
       HMDB0034959
                                                                                                                   HMDB0034959
958
                       Edulan I
       HMDB0036818
959
                       NA
                                                                                                                   NA
960
       HMDB0036144
                                                                                                                   NA
                       NA
       HMDB0151804
                       NA
                                                                                                                   NA
961
                       gamma-Ionone
                                                                                                                   HMDB0034979
962
      HMDB0034979
                       \tilde{2},5-Diisopropyl-3-methylphenol
      HMDB0029822
                                                                                                                   HMDB0029822
963
                                                                                                                   HMDB0029824
964
      HMDB0029824
                       2,4-Diisopropyl-3-methylphenol
965
       HMDB0032541
                       4-(2,6,6-Trimethylcyclohex-1-enyl)but-2-en-4-one
                                                                                                                   HMDB0032541
       HMDB0029821
                                                                                                                   {\rm HMDB0029821}
966
                       2,5-Diisopropyl-4-methylphenol
967
      {\rm HMDB0036565}
                                                                                                                   HMDB0033545
                       (2E,4Z,7Z)-2,4,7-Tridecatrienal
968
      HMDB0033545
                                                                                                                   HMDB0035682
      HMDB0035682
969
                       delta-Damascone
       HMDB0034671
                       (E)-5,8-Megastigmadien-4-one
                                                                                                                   HMDB0034671
970
971
       HMDB0036027
                       alpha-Damascone
                                                                                                                   HMDB0036027
972
       HMDB0037139
                       NA
                                                                                                                   NA
973
      HMDB0032498
                       Pseudoionone
                                                                                                                   HMDB0032498
974
       HMDB0036022
                                                                                                                   HMDB0036022
                       Isospirene
                       4-(4-Methyl-3-pentenyl)-3-cyclohexene-1-carboxaldehyde
      HMDB0031733
                                                                                                                   HMDB0031733
975
      HMDB0029823
976
                       2.4-Diisopropyl-5-methylphenol
                                                                                                                   HMDB0029823
       HMDB0036684
977
                                                                                                                   NA
978
       HMDB0029825
                       2,3-Diisopropyl-5-methylphenol
                                                                                                                   HMDB0029825
979
       HMDB0059883
                                                                                                                   HMDB0029820
980
      {\rm HMDB0029820}
                       2,6-Diisopropyl-3-methylphenol
981
      HMDB0014018
                       4-Hydroxypropofol
                                                                                                                   HMDB0014018
      HMDB0037389
982
                       NA
                                                                                                                   NA
       HMDB0038292
983
                       NA
                                                                                                                   NA
       HMDB0040439
984
                       NA
                                                                                                                   NA
       HMDB0039685
                       NA
                                                                                                                   NA
986
      {\rm HMDB0041497}
                       NA
                                                                                                                   NA
                                                                                                                   HMDB0031840
987
      HMDB0031840
                       (S.Z)-Lyratol acetate
                       (2S,4R)-p-Mentha-1(7),5-dien-2-ol acetate
      HMDB0035801
                                                                                                                   HMDB0035801
988
                       Ethyl (2E,4E,7Z)-Decatrienoate
989
       HMDB0035375
                                                                                                                   HMDB0035375
       HMDB0035376
                       Ethyl (2E,4Z,7Z)-Decatrienoate
990
                                                                                                                   HMDB0035376
       HMDB0132986
991
                       NA
                                                                                                                   HMDB0034450
      {\rm HMDB0034450}
                       Neocnidilide
992
993
      HMDB0032567
                       Hexylresorcinol
                                                                                                                   HMDB0032567
994
       HMDB0035126
                       (Âś)-Myrtenyl acetate
                                                                                                                   {\rm HMDB0035126}
995
      HMDB0041610
                       ŇΑ
                                                                                                                   NA
      HMDB0038046
996
                       NA
                                                                                                                   NA
997
      HMDB0037018
                       NA
                                                                                                                   NA
       HMDB0037231
998
                       NA
                                                                                                                   NA
       HMDB0035085
                                                                                                                   HMDB0035085
999
                       Vulgarole
1000
       HMDB0041572
                       NA
1001
       HMDB0029388
                       Cucurbic acid
                                                                                                                   HMDB0029388
                                                                                                                   NA
1002
      HMDB0037326
      HMDB0033601
                                                                                                                   HMDB0033601
                       Dihydrojasmonic acid
1003
      HMDB0040195
1004
                                                                                                                   NA
       HMDB0035723
                                                                                                                   {\rm HMDB0035723}
1005
                       (1R,2S,3S,4R)-p-Menthane-2,3-diol
      HMDB0034457
                       Propyl heptanoate
                                                                                                                   HMDB0034457
1006
1007
      HMDB0061987
                       NA
                                                                                                                   NA
1008
       HMDB0062146
                       NA
                                                                                                                   NA
      HMDB0038038
1009
                       NΑ
                                                                                                                   NA
       HMDB0036228
                       2-Methylpropyl hexanoate
                                                                                                                   HMDB0036228
1010
      HMDB0040167
                       NA
1011
                                                                                                                   NA
       HMDB0036136
1012
                       NA
                                                                                                                   NA
1013
      {\rm HMDB0187563}
                       NA
                                                                                                                   NA
1014
      HMDB0037387
                       NA
                                                                                                                   NA
                                                                                                                   HMDB0000511
      HMDB0000511
1015
                       Capric acid
      HMDB0031264
                                                                                                                   HMDB0031264
1016
                       Methyl nonanoate
```

```
HMDB0094654
1017
                                                                                                                       HMDB0094654
                        1-Methylethyl heptanoic acid
                        NA
1018
       HMDB0171179
                                                                                                                       NA
       HMDB0171178
1019
                        NA
                                                                                                                       NA
1020
       HMDB0171177
                        NA
                                                                                                                       NA
1021
       {\rm HMDB}0171176
                        NA
                                                                                                                       NA
       HMDB0179213
1022
                        NA
                                                                                                                       NA
       HMDB0179212
                        NA
                                                                                                                       NA
1023
1024
       HMDB0179927
                        NA
                                                                                                                       NA
       HMDB0180500
1025
                        NA
                                                                                                                       NA
1026
       HMDB0180498
                        NA
                                                                                                                       NA
1027
       {\rm HMDB0180499}
                        NA
                                                                                                                       NA
1028
       HMDB0180497
HMDB0180502
                        NA
                                                                                                                       NA
1029
                        NA
                                                                                                                       NΑ
1030
       HMDB0180501
                        NA
                                                                                                                       NΑ
1031
       HMDB0180503
                        NA
                                                                                                                       NA
       {\rm HMDB0180504}
                        NA
1032
                                                                                                                       NA
1033
       HMDB0171175
                        NA
                                                                                                                       NA
1034
       HMDB0061805
                        NΑ
                                                                                                                       NA
       HMDB0180097
1035
                        NA
                                                                                                                       NA
       HMDB0032302
                        Heptanal propyleneglycol acetal
                                                                                                                       HMDB0032302
1036
       HMDB0032155
1037
                        Acetaldehyde 1,3-octanediol acetal
                                                                                                                       HMDB0032155
1038
       HMDB0032264
                        Ethyl 2-ethylhexanoate
                                                                                                                       HMDB0032264
1039
       {\rm HMDB0032315}
                        Hexanal butane-2,3-diol acetal
                                                                                                                       HMDB0032315
1040
       HMDB0032045
                        Pentyl 3-methylbutanoate
                                                                                                                       HMDB0032045
       HMDB0041216
                                                                                                                       \begin{array}{c} {\rm NA} \\ {\rm HMDB0034849} \end{array}
1041
                        NΑ
       HMDB0034849
                        4-Methylnonanoic acid
1042
       HMDB0037849
1043
                        Hexyl 2-methylpropanoate
                                                                                                                       {\rm HMDB0037849}
       HMDB0040157
1044
                                                                                                                       NA
1045
       HMDB0033620
                        Hexyl butyrate
                                                                                                                       HMDB0033620
1046
       {\rm HMDB0035595}
                        trans-p-Menthane-1, 8-diol\\
                                                                                                                       {\rm HMDB0035595}
       HMDB0029760
                                                                                                                       HMDB0029760
1047
                        1,1-Diethoxy-2-hexene
       HMDB0032070
                                                                                                                       HMDB0032070
                        Isooctyl acetate
1048
       HMDB0040211
                        NA
1049
                                                                                                                       NA
       HMDB0040529
                                                                                                                       NA
1050
                        NA
       {\rm HMDB0038783}
                        NA
                                                                                                                       NA
1051
1052
       {\rm HMDB0036145}
                        NA
                                                                                                                       NA
1053
       HMDB0039218
                        NΑ
                                                                                                                       NA
       HMDB0038602
                        Octvl acetate
                                                                                                                       HMDB0038602
1054
       HMDB0030029
                                                                                                                       HMDB0030029
1055
                        Isopentyl isopentanoate
       HMDB0031739
                        7-Hydroxy-3,7-dimethyloctanal
1056
                                                                                                                       HMDB0031739
1057
       HMDB0014362
                                                                                                                       {\rm HMDB0014362}
                        Bethanidine
1058
       {\rm HMDB0155301}
                        NA
                                                                                                                       NA
                                                                                                                       HMDB0060602
1059
       HMDB0060602
                        N-acetyl-5-aminosalicylic acid
       HMDB0030726
                                                                                                                       HMDB0030726
1060
                       2-Hydroxy-6,7-dimethoxybenzoxazole
Leucodopachrome
       HMDB0004067
                                                                                                                       HMDB0004067
1061
1062
       HMDB0002404
                        Alpha-Hydroxyhippuric acid
                                                                                                                       {\rm HMDB0002404}
       HMDB0002016
                        4-Carboxyphenylglycine
                                                                                                                       HMDB0002016
1063
1064
       {\rm HMDB0001229}
                        Dopaquinone
                                                                                                                       {\rm HMDB0001229}
                        Salīcyluric acid
1065
       {\rm HMDB0000840}
                                                                                                                       HMDB0000840
       HMDB0183407
1066
                        NA
                                                                                                                       NA
       HMDB0184100
1067
                        NA
                                                                                                                       NA
       HMDB0006116
1068
                        3-Hydroxyhippuric acid
                                                                                                                       HMDB0006116
1069
       HMDB0166076
                                                                                                                       NA
       HMDB0038055
                        NA
                                                                                                                       NA
1070
1071
       HMDB0039119
                        NA
                                                                                                                       NA
       HMDB0013678
                        4-Hydroxyhippuric acid
                                                                                                                       HMDB0013678
1072
       HMDB0166113
1073
                        NA
                                                                                                                       NA
       HMDB0141198
1074
                       NA
                                                                                                                       NA
       HMDB0136739
1075
                        NA
                                                                                                                       NA
1076
       HMDB0030819
                        Aesculetin
                                                                                                                       HMDB0030819
1077
       {\rm HMDB0141200}
                        NΑ
                                                                                                                       NA
       HMDB0141199
1078
                                                                                                                       NA
       HMDB0032951
                        4,7-Dihydroxy-2H-1-benzopyran-2-one
                                                                                                                       HMDB0032951
1079
       HMDB0032950
                        5,7-Dihydroxy-4H-1-benzopyran-4-one
1080
                                                                                                                       HMDB0032950
       HMDB0130547
1081
                                                                                                                       NA
       HMDB0141201
1082
                        NA
                                                                                                                       NA
1083
       {\rm HMDB0136740}
                        NA
                                                                                                                       NA
                                                                                                                       {\rm HMDB0015627}
1084
       HMDB0015627
                        Droxidopa
       HMDR0159157
1085
                        NΑ
                                                                                                                       NA
1086
       HMDB0159158
                                                                                                                       NA
                        NA
       {\rm HMDB0159159}
                                                                                                                       NA
1087
                        NA
1088
       HMDB0006488
                        N-Acetyl-L-glutamate 5-semialdehyde
                                                                                                                       HMDB0006488
1089
       HMDB0031162
                        3,3'-Thiobispropanoic acid
                                                                                                                       HMDB0031162
1090
       {\rm HMDB0179354}
                                                                                                                       NA
1091
       HMDB0240388
                       NΑ
                                                                                                                       NΑ
       HMDB0165618
1092
                       NΑ
                                                                                                                       NA
       HMDB0000904
                                                                                                                       HMDB0000904
1093
                        Citrulline
1094
       HMDB0003148
                        Argininic acid
                                                                                                                       HMDB0003148
1095
       HMDB0003269
                        Nicotinuric acid
                                                                                                                       {\rm HMDB0003269}
1096
       {\rm HMDB0164043}
                        NΑ
                                                                                                                       NA
       HMDB0176142
1097
                       NA
                                                                                                                       NA
       HMDB0041912
1098
                        NA
                                                                                                                       NA
1099
       HMDB0059766
                        NA
                                                                                                                       NA
       HMDB0032055
                                                                                                                       HMDB0032055
1100
                        N-Acetylhistidine
1101
       HMDB0162075
                        NA
                                                                                                                       NA
1102
       HMDB0094728
                        NA
                                                                                                                       NA
1103
       HMDB0094729
                       NA
                                                                                                                       NA
```

```
HMDB0006348
1104
                                                                                                                  HMDB0006348
                       Pseudoecgonine
1105
       HMDB0006548
                                                                                                                  HMDB0006548
                       Ecgonine
       HMDB0094730
1106
                                                                                                                  NA
1107
      {\rm HMDB0094731}
                       NA
                                                                                                                  NA
1108
      {\rm HMDB0163437}
                       NA
                                                                                                                  NA
                       Alanyl-Leucine
                                                                                                                  HMDB0028691
      HMDB0028691
1109
      HMDB0028922
                                                                                                                  HMDB0028922
                       Leucyl-Alanine
1110
       HMDB0028690
                       Alanyl-Isoleucine
                                                                                                                  HMDB0028690
1111
      {\rm HMDB0163436}
1112
                                                                                                                  NA
1113
       HMDB0094713
                       NA
                                                                                                                  NA
1114
      {\rm HMDB0163435}
                       NA
                                                                                                                  NA
1115
      HMDB0163440
HMDB0028900
                       NA
                                                                                                                  NA
                       Isoleucyl-Alanine
                                                                                                                  HMDB0028900
1116
      HMDB0039590
                       NA
1117
                                                                                                                  NA
1118
       HMDB0039339
                                                                                                                  NA
                       2-trans-6-cis-Dodecadienal
      {\rm HMDB0032531}
                                                                                                                  HMDB0032531
1119
1120
       HMDB0038108
                                                                                                                  HMDB0031181
                      \\Homodihydrojasmone
1121
      HMDB0031181
      HMDB0014410
                                                                                                                  HMDB0014410
1122
                       Crotamiton
       HMDB0151779
1123
                       NA
       HMDB0030931
                                                                                                                  HMDB0030931
1124
                       (E)-2-Tridecene-4,6,8-triyn-1-ol
1125
       HMDB0038526
                                                                                                                  NA
1126
      HMDB0060850
                       NA
                                                                                                                  NA
                                                                                                                  HMDB0030305
1127
      HMDB0030305
                       Dioscorine
      HMDB0037896
1128
                       NA
                                                                                                                  NA
      HMDB0032273
                                                                                                                  HMDB0032273
                       N-Ethyl trans-2-cis-6-nonadienamide
1129
       HMDB0037889
1130
                       NA
                                                                                                                  NA
       HMDB0037897
1131
                       NA
                                                                                                                  NA
1132
      HMDB0037890
                       NA
                                                                                                                  NA
1133
      {\rm HMDB0037895}
                       NA
                                                                                                                  NA
1134
      HMDB0037894
                       NA
                                                                                                                  NA
      HMDB0037891
1135
                      NΑ
                                                                                                                  NA
      HMDB0032205
                                                                                                                  HMDB0032205
1136
                      cis- and trans-L-Mercapto-p-menthan-3-one
       HMDB0037385
1137
      HMDB0030216
                                                                                                                  HMDB0030216
1138
                       Mukonal
1139
       HMDB0161787
                       NA
                       gamma-Fagarine
                                                                                                                  HMDB0030195
1140
      HMDB0030195
      HMDB0037614
1141
                       NA
                                                                                                                  NA
       HMDB0029419
                                                                                                                  HMDB0029419
                       Glycylglycylglycine
1142
       HMDB0028836
                       Glycyl-Asparagine
1143
                                                                                                                  HMDB0028836
       HMDB0028731
                       Asparaginyl-Glycine
                                                                                                                  HMDB0028731
1144
1145
      {\rm HMDB0041613}
                       ΝĀ
                                                                                                                  NA
1146
      HMDB0041614
                       NΑ
                                                                                                                  NA
                                                                                                                  HMDB0030143
      HMDB0030143
1147
                       Talaromycin A
      HMDB0000623
1148
                       Dodecanedioic acid
                                                                                                                  HMDB0000623
1149
       HMDB0240291
                       NA
                                                                                                                  NA
      HMDB0000832
                                                                                                                  HMDB0000832
1150
                       Capryloylglycine
1151
       HMDB0013116
                       Valproylglycine
                                                                                                                  {\rm HMDB0013116}
1152
      {\rm HMDB0041540}
                       NA
                                                                                                                  NA
      HMDB0059745
1153
                       NA
                                                                                                                  NA
       HMDB0036172
1154
                       NA
                                                                                                                  NA
      HMDB0032247
                                                                                                                  HMDB0032247
                       (Z)-4-Dodecenal
1155
1156
       HMDB0041404
                       ΝÁ
                                                                                                                  NA
      HMDB0037275
                       NA
                                                                                                                  NA
1157
1158
       HMDB0041490
                       NA
                                                                                                                  NA
      HMDB0163217
1159
                       NA
                                                                                                                  NA
      HMDB0134122
                       NA
                                                                                                                  NA
1160
       HMDB0134121
1161
                       NA
                                                                                                                  NA
       HMDB0094674
1162
                       NA
1163
       HMDB0035643
                       beta-Sinensal
                                                                                                                  HMDB0035643
1164
      HMDB0038164
                       NΑ
                                                                                                                  NA
1165
      HMDB0036201
                       NA
                                                                                                                  NA
      HMDB0038187
1166
                       NA
                                                                                                                  NA
       HMDB0036797
                       NA
                                                                                                                  NA
1167
       HMDB0036733
1168
                       NA
                                                                                                                  NA
       HMDB0036667
1169
                                                                                                                  NA
1170
      HMDB0036813
                       NA
                                                                                                                  HMDB0035081
1171
      HMDB0035081
                       (5alpha,10alpha)-3,7(11)-Eudesmadien-2-one
      HMDB0036718
1172
                       NA
                                                                                                                  NA
       HMDB0036109
1173
                       NA
                                                                                                                  NA
1174
      HMDB0035747
                       Patchoulenone
                                                                                                                  HMDB0035747
       HMDB0040686
1175
                       NA
1176
      HMDB0037000
                       NA
                                                                                                                  NA
1177
      {\rm HMDB0038195}
                       NA
                                                                                                                  NA
1178
       HMDB0038201
                       NΑ
                                                                                                                  NA
      HMDB0038215
1179
                       NΑ
                                                                                                                  NΑ
1180
      HMDB0038200
                       NA
                                                                                                                  NA
1181
       HMDB0038511
                       NA
                                                                                                                  NA
1182
       HMDB0013687
                       Nookatone
                                                                                                                  {\rm HMDB0013687}
1183
      {\rm HMDB0035657}
                       Solavetivone
                                                                                                                  HMDB0035657
      HMDB0035786
1184
                       Valerenal
                                                                                                                  HMDB0035786
      HMDB0037061
1185
                       NA
                                                                                                                  HMDB0035835
      HMDB0035835
                       Furanoeremophilane
1186
       HMDB0037068
1187
                      NA
                                                                                                                  NA
1188
       HMDB0039637
                       NA
                                                                                                                  NA
1189
      HMDB0036071
                       NA
                                                                                                                  NA
1190
      HMDB0036443
                      NA
                                                                                                                  NA
```

```
HMDB0035082
                       (5 beta, 7 beta, 10 beta) \hbox{--} 3, 11 \hbox{--} Eudes madien-2-one
                                                                                                                     HMDB0035082
1191
1192
       HMDB0013693
                                                                                                                     HMDB0013693
                       Sinensal
       HMDB0000210
                                                                                                                     HMDB0000210
1193
                       Pantothenic acid
1194
      {\rm HMDB0062717}
                       NA
                                                                                                                     NA
1195
      HMDB0062766
                       4-ethylamino-6-isopropylamino-1,3,5-triazin-2-ol
                                                                                                                     HMDB0062766
      HMDB0035175
                       2\text{-}Amino\text{-}1,6\text{-}dimethyl furo}[3,2\text{-}e]imidazo[4,5\text{-}b]pyridine
1196
                                                                                                                     HMDB0035175
                                                                                                                     HMDB0012204
      HMDB0012204
1197
                       Cis-zeatin
1198
      HMDB0040032
                       NA
                                                                                                                     NA
      {\rm HMDB0001539}
                                                                                                                     HMDB0001539
1199
                       Asymmetric dimethylarginine
1200
       HMDB0003334
                       Symmetric dimethylarginine
                                                                                                                     HMDB0003334
1201
      {\rm HMDB0039274}
                       ŇA
                                                                                                                     NA
1202
      HMDB0030838
                       Feniculin
                                                                                                                     HMDB0030838
      {\rm HMDB0030572}
                       (Âś)-Anisoxide
1203
                                                                                                                     {\rm HMDB0030572}
1204
      HMDB0039356
                       ŇΔ
                                                                                                                     NA
                                                                                                                     HMDB0031313
                       2-Pentyl-3-phenyl-2-propenal
      HMDB0031313
1205
      HMDB0061830
                       NA
1206
                                                                                                                     NA
       HMDB0181581
1207
                       NA
                                                                                                                     NA
       HMDB0028797
                                                                                                                     HMDB0028797
1208
                       Glutaminylglycine
1209
      {\rm HMDB0028682}
                       Alanyl-Asparagine
                                                                                                                     {\rm HMDB0028682}
1210
      HMDB0028724
                       Asparaginyl-Alanine
                                                                                                                     HMDB0028724
      HMDB0028855
                                                                                                                     HMDB0028855
1211
                       Glycyl-Gamma-glutamate
      HMDB0028839
                       Glycyl-Glutamine
                                                                                                                     HMDB0028839
1212
1213
      HMDB0033191
                       2,2,4,4,-Tetramethyl-6-(1-oxopropyl)-1,3,5-cyclohexanetrione
                                                                                                                     HMDB0033191
       HMDB0150426
1214
                                                                                                                     NA
                                                                                                                     HMDB0034046
1215
      HMDB0034046
                       1,2,3,4-Tetramethoxy-5-(2-propenyl)benzene
1216
       HMDB0037492
                                                                                                                     NA
1217
      HMDB0040424
                       NΑ
                                                                                                                     NA
      HMDB0061823
                       NΑ
                                                                                                                     NA
1218
       HMDB0061942
1219
                       NA
                                                                                                                     NA
       HMDB0032589
                                                                                                                     HMDB0032589
1220
                       1-(5-Acetyl-2-hydroxyphenyl)-3-methyl-1-butanone
1221
       HMDB0132937
1222
       HMDB0132935
                       NA
                                                                                                                     NA
1223
      HMDB0132936
                       NA
                                                                                                                     NA
      HMDB0132939
1224
                       NA
                                                                                                                     NA
1225
      HMDB0132948
                       NA
                                                                                                                     NA
1226
       HMDB0151796
                       NA
                                                                                                                     NA
1227
       HMDB0151797
                       NA
                                                                                                                     NA
1228
      {\rm HMDB0151800}
                       NA
                                                                                                                     NA
1229
      HMDB0151798
                       NA
                                                                                                                     NA
      HMDB0151799
1230
                       NA
                                                                                                                     NA
       HMDB0151801
1231
                       NA
                                                                                                                     NA
1232
      HMDB0132933
                       NA
                                                                                                                     NA
1233
       HMDB0151802
                       NA
                                                                                                                     NA
1234
      HMDB0035593
                       Rishitin
                                                                                                                     HMDB0035593
                                                                                                                     NA
1235
      HMDB0037605
                       NA
      HMDB0036790
1236
                       NΑ
                                                                                                                     NA
      HMDB0036791
                       NΑ
                                                                                                                     NA
1237
       HMDB0037820
1238
                       NA
                                                                                                                     NA
1239
       HMDB0040178
                       NA
                                                                                                                     NA
1240
       HMDB0160293
                       NA
                                                                                                                     NA
1241
       HMDB0160295
                       NA
                                                                                                                     NA
1242
      HMDB0160291
                       NΑ
                                                                                                                     NA
      HMDB0160290
1243
                       NA
                                                                                                                     NA
1244
       HMDB0160289
                       NA
                                                                                                                     NA
       HMDB0160292
1245
                       NA
                                                                                                                     NA
       HMDB0160296
1246
                       NA
                                                                                                                     NA
1247
      {\rm HMDB0160294}
                       NA
                                                                                                                     NA
1248
      HMDB0160298
                       NA
                                                                                                                     NA
      HMDB0160297
1249
                       NA
                                                                                                                     NA
1250
       HMDB0032369
                       L-Menthyl acetoacetate
                                                                                                                     HMDB0032369
      HMDB0033619
1251
                                                                                                                     HMDB0033619
                       Hexyl hexanoate
       HMDB0059868
1252
                                                                                                                     HMDB0032440
1253
      {\rm HMDB0032440}
                       Nonanal propyleneglycol acetal
1254
      HMDB0061988
                                                                                                                     NA
HMDB0035410
       HMDB0035410
                       (R)-Dihydrocitronellol acetate
1255
      HMDB0000638
                                                                                                                     HMDB0000638
1256
                       Dodecanoic acid
1257
       HMDB0040166
                       NA
                                                                                                                     NA
       HMDB0030998
                                                                                                                     HMDB0030998
1258
                       Ethyl decanoate
1259
       HMDB0034137
                       Octyl 2-methylpropanoate
                                                                                                                     {\rm HMDB0034137}
1260
      {\rm HMDB0036225}
                       NA
                                                                                                                     NA
                                                                                                                     HMDB0034136
1261
      HMDB0034136
                       Octyl butanoate
      HMDB0034128
                       Isopropyl nonanoate
2-Heptyl butyrate
                                                                                                                     HMDB0034128
1262
                                                                                                                     HMDB0032310
1263
      HMDB0032310
       HMDB0168119
1264
                       NA
                                                                                                                     NA
1265
       HMDB0168120
                       NA
                                                                                                                     NA
1266
      HMDB0168121
                       NΑ
                                                                                                                     NA
                                                                                                                     HMDB0015050
      HMDB0015050
1267
                       Phenformin
      HMDB0004231
                                                                                                                     HMDB0004231
1268
                       Pantothenol
       HMDB0061683
1269
                                                                                                                     NA
      HMDB0031813
                                                                                                                     HMDB0031813
1270
                       N-Carbamoyl-2-amino-2-(4-hydroxyphenyl)acetic acid
1271
       HMDB0000014
                                                                                                                     HMDB0000014
                       Deoxycytidine
                       Asparaginyl-Hydroxyproline
1272
      {\rm HMDB0028732}
                                                                                                                     HMDB0028732
1273
      HMDB0028858
                       Hydroxyprolyl-Asparagine
                                                                                                                     HMDB0028858
      HMDB0040046
1274
                       NΑ
                                                                                                                     NΑ
      HMDB0161863
1275
                       NA
                                                                                                                     NA
1276
       HMDB0161860
                       NA
                                                                                                                     NA
      HMDB0041444
```

```
HMDB0033452
1278
                                                                                                                    HMDB0033452
                       Koenoline
1279
       HMDB0161862
                       NA
                                                                                                                    NA
1280
       HMDB0161861
                       NA
                                                                                                                    NA
1281
      {\rm HMDB0161859}
                       NA
                                                                                                                    NA
1282
      {\rm HMDB0161858}
                       NA
                                                                                                                    NA
                                                                                                                    \begin{array}{c} {\rm NA} \\ {\rm HMDB0015614} \end{array}
1283
      HMDB0161857
                       NA
      HMDB0015614
1284
                       Ibudilast
1285
       HMDB0060531
                       NA
                                                                                                                    NA
                                                                                                                    HMDB0015493
       HMDB0015493
1286
                       Aminophenazone
1287
       HMDB0030310
                       Harmaline
                                                                                                                    HMDB0030310
1288
      {\rm HMDB0042058}
                       NA
                                                                                                                    NA
1289
      HMDB0060963
                       NA
                                                                                                                    NA
       HMDB0014917
                                                                                                                    HMDB0014917
                       Nalidixic Acid
1290
1291
      HMDB0240661
                       NΑ
                                                                                                                    NA
1292
       HMDB0015305
                       Phenobarbital
                                                                                                                    HMDB0015305
1293
      {\rm HMDB0061316}
                       NA
                                                                                                                    NA
1294
       HMDB0183400
                       NA
                                                                                                                    NA
1295
      HMDB0240342
                       NA
                                                                                                                    NA
1296
      HMDB0183397
                       NA
                                                                                                                    NA
      HMDB0183398
1297
                       NA
                                                                                                                    NA
       HMDB0032041
                       1,3-Diphenyl-1-propanone
                                                                                                                    HMDB0032041
1298
1299
       HMDB0035896
                       Lactaroviolin
                                                                                                                    HMDB0035896
1300
      {\rm HMDB0032561}
                       1,3-Diphenyl-2-propanone
                                                                                                                    HMDB0032561
1301
      HMDB0059660
                                                                                                                    NA
                       Glycerylphosphorylethanolamine
                                                                                                                    HMDB0000114
      HMDB0000114
1302
      HMDB0015441
                                                                                                                    HMDB0015441
1303
                       Aprobarbital
       HMDB0028983
                                                                                                                    HMDB0028983
1304
                       Methionyl-Threonine
      HMDB0029067
                       Threoninyl-Methionine
                                                                                                                    HMDB0029067
1305
1306
      {\rm HMDB0060324}
1307
      {\rm HMDB0013279}
                       N-Nonanoylglycine
                                                                                                                    HMDB0013279
1308
      HMDB0032526
                       (Z)-8-Tetradecenal
                                                                                                                    HMDB0032526
      HMDB0032525
                                                                                                                    HMDB0032525
1309
                       Tetradec-2-enal
      HMDB0029704
1310
                       1-(2,6,6-Trimethyl-2-cyclohexen-1-yl)-1,6-heptadien-3-one
                                                                                                                    {\rm HMDB0029704}
       HMDB0159344
1311
                                                                                                                    NA
      HMDB0240361
                       NA
                                                                                                                    NA
1312
1313
       HMDB0061952
                       NA
                                                                                                                    NΑ
                                                                                                                    HMDB0035293
1314
      HMDB0035293
                       Norambreinolide
      HMDB0037631
1315
                       NA
                                                                                                                    NA
      HMDB0037712
1316
                       NA
                                                                                                                    NA
       HMDB0142471
                       NA
1317
                                                                                                                    NA
1318
       HMDB0140099
                       NA
                                                                                                                    HMDB0003254
1319
      {\rm HMDB0003254}
                       Muramic acid
1320
      HMDB0038662
                       NΑ
                                                                                                                    NA
1321
      HMDB0168958
                       NA
                                                                                                                    NA
1322
      HMDB0035923
                       Hirsutin
                                                                                                                    HMDB0035923
1323
       HMDB0168517
                                                                                                                    NA
                       NA
      HMDB0000101
                                                                                                                    HMDB0000101
1324
                       Deoxyadenosine
1325
      {\rm HMDB0001983}
                       5'-Deoxyadenosine
                                                                                                                    {\rm HMDB0001983}
1326
      {\rm HMDB0060974}
                       NA
                                                                                                                    NA
      HMDB0060618
1327
                       NA
                                                                                                                    NA
       HMDB0004821
                                                                                                                    HMDB0004821
                       Bisnorbiotin
1328
1329
      {\rm HMDB0035232}
                       Rotundine B
                                                                                                                    {\rm HMDB0035232}
1330
       HMDB0162810
                                                                                                                    NA
1331
      HMDB0036589
                       NA
                                                                                                                    NA
1332
      HMDB0035965
                       5beta-1,3,7(11)-Eudesmatrien-8-one
                                                                                                                    {\rm HMDB0035965}
      HMDB0038147
1333
                       NΑ
                                                                                                                    NA
      HMDB0031736
                                                                                                                    HMDB0031736
1334
                       2-Hexyl-3-phenyl-2-propenal
       HMDB0036769
1335
                       NA
                                                                                                                    NA
       HMDB0035612
                                                                                                                    HMDB0035612
1336
                       (R)-ar-Turmerone
1337
       HMDB0036108
                                                                                                                    NA
1338
      HMDB0059863
                       NA
                                                                                                                    NA
1339
      HMDB0240643
                       NA
                                                                                                                    NA
      HMDB0134142
1340
                       NA
                                                                                                                    NA
       HMDB0134140
                       NA
                                                                                                                    NA
1341
       HMDB0134141
1342
                       NA
                                                                                                                    NA
      HMDB0134143
1343
                       NA
                                                                                                                    NA
1344
      {\rm HMDB0134153}
                       NA
                                                                                                                    NA
1345
      HMDB0150675
                       NA
                                                                                                                    NA
      HMDB0177624
1346
                       NA
                                                                                                                    NA
       HMDB0177700
1347
                       NA
                                                                                                                    NA
      HMDB0183493
1348
                       NA
                                                                                                                    NA
1349
       HMDB0134137
1350
      HMDB0134139
                       NA
                                                                                                                    NA
1351
       HMDB0134131
                       NA
                                                                                                                    NA
1352
      HMDB0134135
                       NΑ
                                                                                                                    NΑ
      HMDB0134132
1353
                       NΑ
                                                                                                                    NΑ
1354
      HMDB0134134
                       NA
                                                                                                                    NA
1355
       HMDB0134133
                       NA
                                                                                                                    NA
1356
       HMDB0134136
                       NA
                                                                                                                    NA
1357
      {\rm HMDB0134138}
                       NΑ
                                                                                                                    NA
1358
      HMDB0036466
                       NA
                                                                                                                    NA
      HMDB0036647
1359
                       NA
                                                                                                                    NA
1360
      HMDB0038698
                       NA
                                                                                                                    NA
       HMDB0037710
1361
                       NA
1362
       HMDB0035639
                       Petasalbin
                                                                                                                    HMDB0035639
1363
      HMDB0037391
                       NA
1364
      HMDB0038190
                                                                                                                    NA
```

```
HMDB0038795
1365
                       NA
                                                                                                                 NA
1366
       HMDB0036390
                       NA
                                                                                                                 NA
       HMDB0033252
                       Curcumanolide A
                                                                                                                 HMDB0033252
1367
1368
      {\rm HMDB0035408}
                       1,10-Epoxygermacrone
                                                                                                                 {\rm HMDB0035408}
1369
      HMDB0039621
                                                                                                                 NA
                                                                                                                 HMDB0034562
      HMDB0034562
                      9-Pentadecene-12,14-diyne-1,11-diol
1370
      HMDB0036449
                      NA
1371
                                                                                                                 NA
                                                                                                                 HMDB0033960
1372
       HMDB0033960
                      Curcumenol
       HMDB0035935
1373
                       Dihydroisoalantolactone
                                                                                                                 {\rm HMDB0035935}
1374
       HMDB0031349
                                                                                                                 HMDB0031349
                       Epiacoronene
1375
      {\rm HMDB0035413}
                       (4alpha,5alpha)-11-Eremophilene-2,9-dione
                                                                                                                 HMDB0035413
1376
      HMDB0036392
                       ŇΑ
       HMDB0034956
                                                                                                                 HMDB0034956
                       Oxysolayetiyone
1377
1378
      HMDB0035869
                      alpha-Rotunol
                                                                                                                 HMDB0035869
1379
       HMDB0038914
                      NA
                                                                                                                 NA
      {\rm HMDB0041036}
                      NA
                                                                                                                 NA
1380
1381
       HMDB0037739
                       NA
                                                                                                                 NA
1382
      HMDB0036427
                      NΑ
                                                                                                                 NA
      HMDB0035794
                                                                                                                 HMDB0035794
                      beta-Costic acid
1383
      HMDB0035889
                                                                                                                 HMDB0035889
1384
                       Germacrone 4,5-epoxide
       HMDB0036035
1385
                       Marasmene
                                                                                                                 HMDB0036035
1386
       HMDB0038796
                                                                                                                 HMDB0034742
1387
      {\rm HMDB0034742}
                       Saussurea lactone
1388
      HMDB0033253
                       Curcumenone
                                                                                                                 HMDB0033253
      HMDB0030016
1389
                       Valerenic acid
                                                                                                                 HMDB0030016
      HMDB0037640
1390
                      NA
                                                                                                                 NA
       HMDB0035202
                                                                                                                 {\rm HMDB0035202}
1391
                       7-Hydroxycostal
      HMDB0038198
1392
                      NA
                                                                                                                 NA
1393
      HMDB0037038
                       NA
                                                                                                                 NA
1394
      {\rm HMDB0035407}
                      Dehydrocurdione
                                                                                                                 HMDB0035407
1395
      HMDB0032081
                       4,10-Longipinanedione
                                                                                                                 HMDB0032081
      HMDB0179139
1396
                      NΑ
                                                                                                                 NΑ
1397
      {\rm HMDB0112094}
                      NA
                                                                                                                 NA
       HMDB0179145
1398
                      NA
                                                                                                                 NA
1399
      HMDB0179147
                       NA
                                                                                                                 NA
1400
      {\rm HMDB0179146}
                       NA
                                                                                                                 NA
1401
      HMDB0179257
                      NA
                                                                                                                 NA
      HMDB0179258
1402
                      NA
                                                                                                                 NA
      HMDB0179268
1403
                      NA
                                                                                                                 NA
       HMDB0179269
1404
                      NA
                                                                                                                 NA
       HMDB0179266
1405
                      NA
1406
      {\rm HMDB0179267}
                      NA
                                                                                                                 NA
1407
      HMDB0179272
                      NΑ
                                                                                                                 NA
1408
      HMDB0179271
                      NA
                                                                                                                 NA
1409
      HMDB0179148
                      NA
                                                                                                                 NA
1410
       HMDB0179143
                      NA
                                                                                                                 NA
       HMDB0112086
1411
                      NA
                                                                                                                 NA
1412
      {\rm HMDB0168751}
                       NA
                                                                                                                 NA
1413
      {\rm HMDB0177221}
                      NA
                                                                                                                 NA
      HMDB0179140
1414
                      NA
                                                                                                                 NA
       HMDB0179142
1415
                      NA
                                                                                                                 NA
      HMDB0179141
                      NA
                                                                                                                 NA
1416
1417
       HMDB0179273
                       NA
                                                                                                                 NA
1418
      HMDB0179270
                       NA
                                                                                                                 NA
1419
       HMDB0183498
                       NA
                                                                                                                 NA
      HMDB0183500
1420
                      NA
                                                                                                                 NA
      HMDB0184273
1421
                      NA
                                                                                                                 NA
       HMDB0184275
1422
                      NΑ
                                                                                                                 NΑ
       HMDB0183495
1423
                      NA
                                                                                                                 NA
1424
       HMDB0183496
                       NA
                                                                                                                 NA
1425
      HMDB0182315
                      NA
                                                                                                                 NA
1426
      HMDB0182313
                      NA
                                                                                                                 NA
      HMDB0182314
1427
                      NA
                                                                                                                 NA
      HMDB0182312
                      NA
                                                                                                                 NA
1428
       HMDB0182319
1429
                      NA
                                                                                                                 NA
      HMDB0182316
1430
                      NA
                                                                                                                 NA
1431
      {\rm HMDB0182318}
                       NA
                                                                                                                 NA
1432
      HMDB0182317
                      NA
                                                                                                                 NA
      HMDB0182321
1433
                      NΑ
                                                                                                                 NA
       HMDB0182320
1434
                      NA
                                                                                                                 NA
      {\rm HMDB0040685}
                                                                                                                 NA
1435
                      NA
       HMDB0035597
                      alpha-Carissanol
                                                                                                                 HMDB0035597
1436
1437
      HMDB0030918
                       1-Hydroxyepiacorone
                                                                                                                 HMDB0030918
1438
      HMDB0030919
                       Acorusdiol
                                                                                                                 HMDB0030919
1439
      HMDB0036663
                      NΑ
                                                                                                                 NA
      HMDB0038502
1440
                      NA
                                                                                                                 NA
                                                                                                                 HMDB0035309
1441
       HMDB0035309
                      6alpha-Carissanol
1442
       HMDB0033149
                       (4R,5S,7R,11R)-11,12-Dihydroxy-1(10)-spirovetiven-2-one
                                                                                                                 HMDB0033149
1443
       HMDB0036448
                       ŇΑ
                                                                                                                 HMDB0035767
1444
      HMDB0035767
                      Piperalol
                       Apotrichodiol
                                                                                                                 HMDB0034574
1445
      HMDB0034574
      HMDB0035613
                                                                                                                 HMDB0035613
1446
                       Epioxylubimin
       HMDB0037063
1447
                      NA
                                                                                                                 NA
       HMDB0032122
                      3(4->5)-Abeo-4,11:4,12-diepoxy-3-eudesmanol
                                                                                                                 HMDB0032122
1448
1449
       HMDB0037969
                                                                                                                 NA
                                                                                                                 HMDB0035729
1450
      HMDB0035729
                      Dihydromyoporone
1451
      HMDB0179144
                      NA
                                                                                                                 NA
```

```
HMDB0032792
                      (Âś)-(E)-3-Methyl-4-decen-1-yl acetate
                                                                                                                HMDB0032792
1452
1453
       HMDB0031028
                      Methyl (E)-2-dodecenoate
                                                                                                                HMDB0031028
       HMDB0038078
1454
                                                                                                                NA
1455
      {\rm HMDB0037626}
                      NA
                                                                                                                NA
1456
      {\rm HMDB0031017}
                      10-Undecenyl acetate
                                                                                                                HMDB0031017
       HMDB0034286
                                                                                                                HMDB0034286
1457
                      Ethyl 10-undecenoate
      HMDB0040451
1458
                      NA
                                                                                                                NA
1459
      HMDB0037907
                      NA
                                                                                                                NA
      {\rm HMDB0037226}
1460
                      NA
                                                                                                                NA
1461
       HMDB0039805
                      NA
                                                                                                                NA
1462
      {\rm HMDB0037187}
                      NA
                                                                                                                NA
1463
      HMDB0031741
                      Coniferan
                                                                                                                HMDB0031741
      HMDB0000824
                      Propionylcarnitine
                                                                                                                HMDB0000824
1464
1465
      HMDB0062514
                      NΑ
                                                                                                                NA
1466
       HMDB0240784
                      NA
                                                                                                                NA
      HMDB0059946
                      NA
                                                                                                                NA
1467
1468
       HMDB0041618
                      NA
                                                                                                                NA
1469
      HMDB0176325
                      NΑ
                                                                                                                NA
      HMDB0059947
                      NΑ
1470
                                                                                                                NA
      HMDB0176328
1471
                      NA
                                                                                                                NA
       HMDB0000872
                                                                                                                HMDB0000872
1472
                      Tetradecanedioic acid
1473
       HMDB0176327
                      NA
                                                                                                                NA
1474
      HMDB0040429
                      NA
                                                                                                                NA
1475
      HMDB0176326
                      NΑ
                                                                                                                NA
      HMDB0040219
1476
                      NA
                                                                                                                NA
      HMDB0060002
                      NA
                                                                                                                NA
1477
       HMDB0240658
1478
                      NA
                                                                                                                NA
      HMDB0240657
1479
                      NA
1480
      HMDB0006512
                      3-Mercaptolactate-cysteine disulfide
                                                                                                                HMDB0006512
1481
      HMDB0169467
                      NA
                                                                                                                NA
1482
      HMDB0169468
                      NA
                                                                                                                NA
      HMDB0169469
                      NΑ
1483
                                                                                                                NΑ
      HMDB0172924
                      NA
                                                                                                                NA
1484
       HMDB0172927
                      NA
                                                                                                                NA
1485
      HMDB0040349
                      NA
                                                                                                                NA
1486
1487
      {\rm HMDB0152315}
                      NA
                                                                                                                NA
1488
      HMDB0142172
                      NA
                                                                                                                NA
      HMDB0142174
1489
                      NA
                                                                                                                NA
      HMDB0146404
1490
                      NA
                                                                                                                NA
       HMDB0146402
1491
                      NA
                                                                                                                NA
1492
       HMDB0149145
                      NA
1493
      {\rm HMDB0146405}
                      NA
                                                                                                                NA
1494
      HMDB0146406
                      NΑ
                                                                                                                NA
1495
      HMDB0146407
                      NA
                                                                                                                NA
      HMDB0149144
1496
                      NA
                                                                                                                NA
1497
       HMDB0149143
                      NA
                                                                                                                NA
      HMDB0142171
1498
                      NA
                                                                                                                NA
1499
      {\rm HMDB0142170}
                      NA
                                                                                                                NA
1500
      {\rm HMDB0128183}
                      NA
                                                                                                                NA
      HMDB0128665
1501
                      NA
                                                                                                                NA
      HMDB0128667
1502
                      NA
                                                                                                                NA
      HMDB0128668
1503
                      NA
                                                                                                                NA
1504
       HMDB0128674
                      NA
                                                                                                                NA
1505
      HMDB0128673
                      NA
                                                                                                                NA
1506
      {\rm HMDB0137280}
                      NA
                                                                                                                NA
      HMDB0137283
1507
                      NΑ
                                                                                                                NA
      HMDB0137284
1508
                      NA
                                                                                                                NA
      HMDB0137291
1509
                      NΑ
                                                                                                                NΑ
       HMDB0137290
1510
                      NA
                                                                                                                NA
1511
       HMDB0141325
                      NA
                                                                                                                NA
1512
      {\rm HMDB0142075}
                      NΑ
                                                                                                                NA
      HMDB0142076
1513
                      NΑ
                                                                                                                NA
      HMDB0142169
1514
                      NA
                                                                                                                NA
      HMDB0179746
                      NA
                                                                                                                NA
1515
       HMDB0142173
1516
                      NA
                                                                                                                NA
       HMDB0041691
1517
                      NA
1518
      {\rm HMDB0030018}
                      Elenolide
                                                                                                                HMDB0030018
1519
      HMDB0140920
                      NA
                                                                                                                NA
      HMDB0032616
                                                                                                                HMDB0032616
1520
                      Sinapic acid
       HMDB0034069
                                                                                                                HMDB0034069
1521
                      cis-Sinapic acid
      {\rm HMDB0127488}
1522
                                                                                                                NA
       HMDB0014567
                      Methocarbamol
                                                                                                                HMDB0014567
1523
1524
      HMDB0013134
                      Fumarycarnitine
                                                                                                                HMDB0013134
1525
      {\rm HMDB0032769}
                      Osmaronin
                                                                                                                HMDB0032769
1526
      HMDB0029397
                      L-Nicotianine
                                                                                                                HMDB0029397
      HMDB0000732
                                                                                                                HMDB0000732
1527
                      Hydroxykynurenine
      HMDB0012819
                                                                                                                HMDB0012819
1528
                      5-Hydroxykynurenine
1529
       HMDB0014787
                      Stavudine
                                                                                                                HMDB0014787
1530
       HMDB0011631
                      L-3-Hydroxykynurenine
                                                                                                                HMDB0011631
1531
      HMDB0060750
                      NΔ
                                                                                                                NA
                                                                                                                HMDB0002224
      HMDB0002224
1532
                      5-Methyldeoxycytidine
      HMDB0028861
                                                                                                                HMDB0028861
1533
                      Hydroxyprolyl-Glutamine
      HMDB0038516
1534
                                                                                                                NA
       HMDB0028798
                                                                                                                HMDB0028798
1535
                      Glutaminylhydroxyproline
1536
       HMDB0028877
                      Hydroxyprolyl-Gamma-glutamate
                                                                                                                HMDB0028877
1537
      HMDB0178266
                                                                                                                NA
1538
      HMDB0037694
                      NΑ
                                                                                                                NA
```

```
HMDB0040006
1539
                       NA
                                                                                                                  NA
                       NA
                                                                                                                  NA
1540
      HMDB0037695
      HMDB0042008
1541
                       NA
1542
      {\rm HMDB0033430}
                       Tanakine
                                                                                                                  {\rm HMDB0033430}
1543
      {\rm HMDB0033429}
                       Tanakamine
                                                                                                                  {\rm HMDB0033429}
      HMDB0142966
1544
                                                                                                                  HMDB0029448
      HMDB0029448
                       DL-Ornithino-L-alanine
1545
1546
      HMDB0041858
                                                                                                                  NA
                      NA
      HMDB0135607
1547
                       NA
                                                                                                                  NA
1548
      HMDB0141386
                       NA
                                                                                                                  NA
1549
      {\rm HMDB0135600}
                       NA
                                                                                                                  NA
1550
      HMDB0135404
HMDB0135599
                       NA
                                                                                                                  NA
1551
                       NΑ
                                                                                                                  NΑ
1552
      HMDB0141385
                       NA
                                                                                                                  NA
1553
      HMDB0141387
                       NA
                                                                                                                  NA
                                                                                                                  NA
      {\rm HMDB0135604}
                       NA
1554
1555
      HMDB0135603
                       NA
                                                                                                                  NA
1556
      HMDB0135602
                      NΑ
                                                                                                                  NA
                                                                                                                  HMDB0032584
1557
      HMDB0032584
                       4-Hydroxychalcone
      HMDB0037696
1558
                       NA
      HMDB0014922
                                                                                                                  HMDB0014922
1559
                       Mefenamic acid
1560
      HMDB0040380
                                                                                                                  HMDB0029366
1561
      {\rm HMDB0029366}
                       N-[2-(4-Hydroxyphenyl)ethyl]benzamide
1562
      HMDB0147191
                       ΝĀ
                                                                                                                  NA
      HMDB0131062
1563
                      NA
                                                                                                                  NA
      HMDB0131065
                       NA
                                                                                                                  NA
1564
      HMDB0036050
1565
                       NA
                                                                                                                  NA
      HMDB0033771
                                                                                                                  HMDB0033771
1566
                       Cyperine
1567
      {\rm HMDB0030690}
                       (E)-Suberenol
                                                                                                                  HMDB0030690
1568
      {\rm HMDB0039592}
                       ΝÁ
      HMDB0030788
                                                                                                                  HMDB0030788
1569
                       Citrusal
      HMDB0135759
1570
                      NΑ
                                                                                                                  NΑ
      HMDB0135760
1571
                      NA
                                                                                                                  NA
      HMDB0135761
                       NA
                                                                                                                  NA
1572
      HMDB0141827
                       NA
                                                                                                                  NA
1573
1574
      HMDB0151855
                       NA
                                                                                                                  NA
1575
      HMDB0153660
                      NA
                                                                                                                  NA
      HMDB0135757
1576
                       NA
                                                                                                                  NA
      HMDB0135758
                       NΑ
1577
                                                                                                                  NA
      HMDB0129916
                       NA
1578
                                                                                                                  NA
1579
      HMDB0129917
1580
      {\rm HMDB0129919}
                       NA
                                                                                                                  NA
1581
      HMDB0129920
                       NΑ
                                                                                                                  NA
      HMDB0129922
1582
                       NA
                                                                                                                  NA
      HMDB0131064
1583
                       NA
                                                                                                                  NA
1584
      HMDB0131066
                       NA
                                                                                                                  NA
      HMDB0131067
                       NA
1585
                                                                                                                  NA
1586
      {\rm HMDB0132269}
                       NA
                                                                                                                  NA
1587
      {\rm HMDB0129918}
                       NA
                                                                                                                  NA
      HMDB0030854
                                                                                                                  HMDB0030854
1588
                       (S)-Auraptenol
      HMDB0030110
                                                                                                                  HMDB0030110
1589
                       Celerin
      HMDB0030948
1590
                       Dihydrowyerone
                                                                                                                  HMDB0030948
1591
      HMDB0039142
                                                                                                                  NA
1592
      {\rm HMDB0041192}
                       NA
                                                                                                                  NA
                                                                                                                  HMDB0034133
1593
      HMDB0034133
                       3-(1,1-Dimethylallyl)scopoletin
      HMDB0030853
                                                                                                                  HMDB0030853
1594
                       (R)-Meranzin
      HMDB0033015
                                                                                                                  HMDB0033015
1595
                       5.6-Dihydrovangonin
      HMDB0035254
1596
                       7-Hydroxy-5-isopropyl-2-methoxy-3-methyl-1,4-naphthoguinone
                                                                                                                  HMDB0035254
      HMDB0033016
                                                                                                                  HMDB0033016
1597
                       7,8-Dihydroyangonin
1598
      HMDB0030578
                       Apigravin
                                                                                                                  {\rm HMDB0030578}
1599
      HMDB0032953
                       7-Methoxy-5-prenyloxycoumarin
                                                                                                                  HMDB0032953
      HMDB0061290
1600
                       NΑ
                                                                                                                  NA
      HMDB0061303
1601
                       NA
                                                                                                                  NA
      HMDB0039146
                       NA
                                                                                                                  NA
1602
      HMDB0037679
1603
                       NΑ
                                                                                                                  NA
      HMDB0035019
                       Phenethyl salicylate
                                                                                                                  HMDB0035019
1604
1605
      {\rm HMDB0029302}
                       1-Phenyl-6,7-dihydroxy-isochroman
                                                                                                                  {\rm HMDB0029302}
1606
      HMDB0036347
                       NA
      HMDB0002209
                                                                                                                  HMDB0002209
1607
                       Equol
      HMDB0130495
1608
                      NĀ
                                                                                                                  NA
      HMDB0014713
                                                                                                                  HMDB0014713
1609
                       Fenoprofen
1610
      HMDB0135409
                       NA
1611
      {\rm HMDB0135406}
                       NA
                                                                                                                  NA
1612
      {\rm HMDB0135408}
                       NA
                                                                                                                  NA
1613
      HMDB0135407
                       NA
                                                                                                                  NA
      HMDB0135593
                      NA
1614
                                                                                                                  NΑ
      HMDB0135594
1615
                       NA
                                                                                                                  NA
1616
      HMDB0135405
                       NA
                                                                                                                  ΝA
1617
      HMDB0130496
                       NA
                                                                                                                  NA
1618
      {\rm HMDB0135355}
                       NΑ
                                                                                                                  NA
      HMDB0135397
1619
                      NA
                                                                                                                  NA
      HMDB0135595
1620
                       NA
                                                                                                                  NA
      HMDB0151857
                       NA
                                                                                                                  NA
1621
      HMDB0130497
1622
                       NA
                                                                                                                  NA
1623
      HMDB0168444
                       NA
                                                                                                                  NA
1624
      HMDB0135601
                       NA
                                                                                                                  NA
1625
      HMDB0168447
                      NA
                                                                                                                  NA
```

```
HMDB0148520
1626
                       NA
                                                                                                                    NA
                                                                                                                    NA
1627
       HMDB0168443
                       NA
1628
       HMDB0182848
                       NA
                                                                                                                    NA
1629
       {\rm HMDB0168445}
                       NA
                                                                                                                    NA
1630
       {\rm HMDB0168442}
                       NA
                                                                                                                    NA
       HMDB0135596
1631
                       NA
                                                                                                                    NA
       HMDB0168446
1632
                       NA
                                                                                                                    NA
1633
       HMDB0029953
                       D-ervthro-D-galacto-octitol
                                                                                                                    HMDB0029953
       {\rm HMDB0060478}
1634
                       gamma-Glutamyl-beta-cyanoalanine
                                                                                                                    {\rm HMDB0060478}
1635
       HMDB0000089
                                                                                                                    HMDB0000089
1636
       {\rm HMDB0015122}
                       Cytarabine
                                                                                                                    {\rm HMDB0015122}
1637
      HMDB0155273
HMDB0001904
                       NA
3-Nitrotyrosine
                                                                                                                    NA
HMDB0001904
1638
       HMDB0028751
1639
                       Aspartyl-Glutamine
                                                                                                                    HMDB0028751
1640
       HMDB0028793
                       Glutaminylaspartic acid
                                                                                                                    HMDB0028793
       {\rm HMDB0029144}
                       gamma-Glutamylasparagine
                                                                                                                    HMDB0029144
1641
1642
       HMDB0028814
                       Glutamylasparagine
                                                                                                                    {\rm HMDB0028814}
      HMDB0028730
HMDB0028767
1643
                       Asparaginyl-Glutamate
                                                                                                                    HMDB0028730
                                                                                                                    HMDB0028767
1644
                       Aspartyl-Gamma-glutamate
       HMDB0033701
                                                                                                                    HMDB0033701
1645
                       Hydrocotarnine
       HMDB0031770
1646
                       Carbofuran
                                                                                                                    HMDB0031770
1647
       HMDB0014798
                       Metaxalone
                                                                                                                    {\rm HMDB0014798}
1648
       {\rm HMDB0139892}
                       NA
                                                                                                                    NA
1649
       HMDB0138550
                       NΑ
                                                                                                                    NA
                                                                                                                    HMDB0033925
                       Oroselone
       HMDB0033925
1650
       HMDB0032998
                                                                                                                    HMDB0032998
1651
                       2-Methoxyxanthone
       HMDB0161779
1652
                       NA
                                                                                                                    NA
       HMDB0161778
1653
                       NA
                                                                                                                    NA
1654
       {\rm HMDB0161783}
                       NA
                                                                                                                    NA
1655
       {\rm HMDB0161782}
                       NA
                                                                                                                    NA
1656
       HMDB0161780
                       NA
                                                                                                                    NA
       HMDB0162111
                       NΑ
                                                                                                                    NA
1657
       HMDB0162103
1658
                       NA
                                                                                                                    NA
       HMDB0162104
1659
                       NA
                                                                                                                    NA
       HMDB0162105
                       NA
                                                                                                                    NA
1660
1661
       HMDB0162108
                       NA
                                                                                                                    NA
1662
       HMDB0162109
                       NA
                                                                                                                    NA
       HMDB0162106
1663
                       NA
                                                                                                                    NA
       HMDB0162107
1664
                                                                                                                    NΑ
                       NA
       HMDB0162110
                       NA
1665
                                                                                                                    NA
1666
       HMDB0162112
1667
       {\rm HMDB0161832}
                       NA
                                                                                                                    NA
1668
       HMDB0161833
                       NΑ
                                                                                                                    NA
       HMDB0161834
1669
                       NA
                                                                                                                    NA
       HMDB0149051
1670
                       NA
                                                                                                                    NA
1671
       HMDB0149050
                       NA
                                                                                                                    NA
1672
       HMDB0149006
                       NA
                                                                                                                    NA
1673
       {\rm HMDB0148541}
                       NA
                                                                                                                    NA
1674
       {\rm HMDB0148540}
                       NA
                                                                                                                    NA
       HMDB0148786
1675
                       NA
                                                                                                                    NA
       HMDB0148785
1676
                       NA
                                                                                                                    NA
       HMDB0148998
1677
                       NA
                                                                                                                    NA
1678
       HMDB0149048
                       NA
                                                                                                                    NA
1679
       HMDB0147226
                       NA
                                                                                                                    NA
1680
       {\rm HMDB0148542}
                       NA
                                                                                                                    NA
       HMDB0128505
1681
                       NA
                                                                                                                    NA
       HMDB0148539
1682
                       NA
                                                                                                                    NA
       HMDB0145646
1683
                       NA
                                                                                                                    NΑ
       HMDB0145647
                       NA
1684
                                                                                                                    NA
1685
       HMDB0145645
                       NA
1686
       {\rm HMDB0135172}
                       NA
                                                                                                                    NA
       HMDB0149007
1687
                       NA
                                                                                                                    NA
       HMDB0128506
1688
                       NA
                                                                                                                    NA
       HMDB0128503
                       NA
                                                                                                                    NA
1689
       HMDB0128504
1690
                       NA
                                                                                                                    NA
       HMDB0040876
1691
1692
       {\rm HMDB0030946}
                       (2E,11Z)-Wyerone acid
                                                                                                                    {\rm HMDB0030946}
1693
       {\rm HMDB0041016}
                       ŇΑ
       HMDB0030595
                                                                                                                    HMDB0030595
1694
                       Suberenone
       HMDB0033735
                                                                                                                    HMDB0033735
1695
                       Graveolone
       HMDB0039430
1696
                       NA
                                                                                                                    NA
1697
       HMDB0004215
                       3,3',4'5-Tetrahydroxystilbene
                                                                                                                    HMDB0004215
1698
       HMDB0170845
                       ŃΑ
                                                                                                                    NA
1699
       {\rm HMDB0164057}
                       NA
                                                                                                                    NA
1700
       HMDB0135900
                       NA
                                                                                                                    NA
1701
       HMDB0135902
                                                                                                                    NA
                       NΑ
       HMDB0135904
1702
                       NA
                                                                                                                    NA
1703
       HMDB0164055
                       NA
                                                                                                                    ΝA
1704
       HMDB0164056
                       NA
                                                                                                                    NA
1705
       {\rm HMDB0164058}
                       NΑ
                                                                                                                    NA
       HMDB0170846
1706
                       NA
                                                                                                                    NA
       HMDB0170974
1707
                       NA
                                                                                                                    NA
1708
       HMDB0170976
                       NA
                                                                                                                    NA
1709
       HMDB0170979
                       NA
                                                                                                                    NA
1710
       HMDB0170978
                       NA
                                                                                                                    NA
1711
       HMDB0131284
                       NA
                                                                                                                    NA
1712
       HMDB0131285
                       NA
                                                                                                                    NA
```

```
HMDB0127824
1713
                       NA
                                                                                                                     NA
                       NA
                                                                                                                     NA
1714
       HMDB0131281
1715
       HMDB0131283
                                                                                                                     NA
                       NA
1716
      HMDB0170977
                       NA
                                                                                                                     NA
1717
      {\rm HMDB0031668}
                       Dihydrodeoxy-8-epiaustdiol
                                                                                                                     HMDB0031668
      HMDB0034056
                       5-(3,4-Methylenedioxyphenyl)pentanoic acid
1718
                                                                                                                     HMDB0034056
      HMDB0037681
                       NÀ
1719
                                                                                                                     NA
1720
      HMDB0029470
                       Isodillapiole
                                                                                                                     HMDB0029470
      HMDB0041379
1721
                       NA
                                                                                                                     NA
1722
       HMDB0135906
                       NA
                                                                                                                     NA
1723
      {\rm HMDB0038563}
                       NA
                                                                                                                     NA
1724
      HMDB0037130
HMDB0094660
                       NA
                                                                                                                     NA
                                                                                                                     HMDB0094660
                       Diethyl phthalic acid
1725
1726
      HMDB0033776
                                                                                                                     HMDB0033776
                       Apiole
1727
       HMDB0029226
                       5'-(3'-Methoxy-4'-hydroxyphenyl)-gamma-valerolactone
                                                                                                                     {\rm HMDB0029226}
      {\rm HMDB0135689}
1728
                                                                                                                     NA
                                                                                                                     HMDB0013247
1729
       HMDB0013247
                       Monobutylphthalate
      \begin{array}{c} {\rm HMDB0030725} \\ {\rm HMDB0002056} \end{array}
1730
                       Dillapiol
                                                                                                                     HMDB0030725
                       Monoisobutyl phthalic acid
                                                                                                                     HMDB0002056
1731
      HMDB0147179
1732
                       NA
                                                                                                                     NA
       HMDB0140340
                                                                                                                     NA
1733
                       NA
1734
       HMDB0173973
                       NA
                                                                                                                     NA
1735
      {\rm HMDB}0173971
                       NA
                                                                                                                     NA
1736
      HMDB0173972
                       NA
                                                                                                                     NA
      HMDB0173975
1737
                       NA
                                                                                                                     NA
      HMDB0173976
                       NA
                                                                                                                     NA
1738
       HMDB0177472
1739
                       NA
                                                                                                                     NA
      HMDB0177470
1740
                       NA
                                                                                                                     NA
1741
       HMDB0173974
                       NA
                                                                                                                     NA
1742
      {\rm HMDB0128944}
                       NA
                                                                                                                     NA
1743
      HMDB0131630
                       NA
                                                                                                                     NA
      HMDB0128958
1744
                       NΑ
                                                                                                                     NΑ
1745
      HMDB0039027
                       NA
                                                                                                                     NA
       HMDB0128963
1746
                       NA
                                                                                                                     NA
      HMDB0138052
                       NA
1747
1748
       HMDB0128962
                       NA
                                                                                                                     HMDB0030882
1749
      HMDB0030882
                       (S)-Rutaretin
      HMDB0128960
1750
                       ΝA
                                                                                                                     NA
      HMDB0128961
1751
                       NA
                                                                                                                     NA
       HMDB0032838
                                                                                                                     HMDB0032838
                       Dorsteniol
1752
1753
       HMDB0131653
                       NA
1754
      {\rm HMDB0147178}
                       NA
                                                                                                                     NA
1755
      HMDB0131691
                       NΑ
                                                                                                                     NA
1756
      HMDB0131700
                       NA
                                                                                                                     NA
1757
      HMDB0167944
                       NA
                                                                                                                     NA
1758
       HMDB0163475
                       NA
                                                                                                                     NA
1759
      HMDB0171044
                       NΑ
                                                                                                                     NA
1760
      {\rm HMDB0167134}
                       NA
                                                                                                                     {\rm HMDB0028752}
1761
      {\rm HMDB0028752}
                       Aspartyl-Glutamate
      HMDB0029145
1762
                       NA
                       gamma-Glutamylaspartic acid {\rm NA}
       HMDB0030419
                                                                                                                     HMDB0030419
1763
      HMDB0062501
1764
                                                                                                                     NA
1765
       HMDB0028815
                       Glutamylaspartic acid
                                                                                                                     HMDB0028815
1766
      HMDB0030413
                                                                                                                     NA
                                                                                                                     HMDB0011164
1767
      {\rm HMDB0011164}
                       L-beta-aspartyl-L-glutamic acid
      HMDB0000767
1768
                       Pseudouridine
                                                                                                                     HMDB0000767
      HMDB0000296
                                                                                                                     HMDB0000296
1769
                       Uridine
      HMDB0156330
1770
                       NA
                                                                                                                     NA
       HMDB0126635
                       NA
                                                                                                                     NA
1771
1772
       HMDB0130466
                       NA
                                                                                                                     NA
1773
      HMDB0130477
                       NA
                                                                                                                     NA
                                                                                                                     HMDB0006794
1774
      HMDB0006794
                       5-(2'-Carboxyethyl)-4,6-Dihydroxypicolinate
      HMDB0157260
                       NÀ
1775
                                                                                                                     NA
      HMDB0157259
                       NA
                                                                                                                     NA
1776
1777
       HMDB0125157
                       NA
                                                                                                                     NA
1778
      HMDB0166885
                                                                                                                     NA
                       NA
1779
      {\rm HMDB0155302}
                       NA
                                                                                                                     NA
1780
      HMDB0180914
                       NA
                                                                                                                     NA
      HMDR0177249
1781
                       NΑ
                                                                                                                     NA
      HMDB0163614
1782
                       NA
                                                                                                                     NA
      {\rm HMDB0040734}
1783
                       NA
                                                                                                                     NA
       HMDB0006005
                       Indolylacryloylglycine
                                                                                                                     HMDB0006005
1784
1785
      HMDB0030218
                                                                                                                     HMDB0030218
                       Lansine
1786
      {\rm HMDB0030319}
                       Mukeic acid
                                                                                                                     HMDB0030319
                       L-cis-Cyclo(aspartylphenylalanyl)
1787
       HMDB0031360
                                                                                                                     HMDB0031360
1788
      HMDB0161891
                       NA
                                                                                                                     NA
1789
      HMDB0161893
                       NA
                                                                                                                     NA
1790
       HMDB0028848
                       Glycyl-Phenylalanine
                                                                                                                     HMDB0028848
1791
       HMDB0028995
                       Phenylalanyl-Glycine
                                                                                                                     {\rm HMDB0028995}
1792
      {\rm HMDB0061722}
                       NΑ
                                                                                                                     NA
      HMDB0000030
                                                                                                                     HMDB0000030
1793
                       Biotin
      HMDB0028974
                       Methionyl-Hydroxyproline
                                                                                                                     HMDB0028974
1794
                                                                                                                     HMDB0028869
      HMDB0028869
1795
                       Hydroxyprolyl-Methionine
1796
       HMDB0015063
                                                                                                                     HMDB0015063
                       Azacitidine
1797
       HMDB0014949
                       Ribavirin
                                                                                                                     HMDB0014949
1798
      HMDB0060337
                       NA
                                                                                                                     NA
1799
      HMDB0240369
                       NA
                                                                                                                     NA
```

```
1800
      HMDB0034885
                                                                                                                  HMDB0034885
                      Imazamethabenz
1801
      HMDB0035193
                       1-(9H-Pyrido[3,4-b]indol-1-yl)-1,4-butanediol
                                                                                                                  HMDB0035193
      HMDB0033519
                       N-Ornithyl-L-taurine
                                                                                                                   HMDB0033519
1802
                       4-Coumaroylputrescine
1803
      {\rm HMDB0033461}
                                                                                                                  {\rm HMDB0033461}
1804
      {\rm HMDB0139874}
                                                                                                                  NA
                                                                                                                  HMDB0062429
      HMDB0062429
                       7,12\text{-}Dimethylbenz[a] anthracene
1805
      HMDB0028811
                                                                                                                  HMDB0028811
1806
                       Glutaminyl-Gamma-glutamate
1807
      HMDB0029163
                       Gamma-glutamyl-Gamma-glutamate
                                                                                                                  HMDB0029163
      HMDB0032764
1808
                       N2-Succinoylarginine
                                                                                                                  {\rm HMDB0032764}
1809
      HMDB0028795
                       Glutaminylglutamine
                                                                                                                  HMDB0028795
1810
      {\rm HMDB0011655}
                       2-(3-Carboxy-3-aminopropyl)-L-histidine
                                                                                                                  {\rm HMDB0011655}
1811
      HMDB0029063
                       Threoninyl-Histidine
                                                                                                                  HMDB0029063
      HMDB0028895
                       Histidinyl-Threonine
                                                                                                                  HMDB0028895
1812
                       Glutamyl-Gamma-glutamate
1813
      HMDB0028833
                                                                                                                  HMDB0028833
1814
      HMDB0028796
                       Glutaminylglutamic acid
                                                                                                                  HMDB0028796
      HMDB0029147
                       N-gamma-Glutamylglutamine
                                                                                                                  HMDB0029147
1815
1816
      HMDB0028817
                       Glutamylglutamine
                                                                                                                  {\rm HMDB0028817}
                       N2-gamma-Glutamylglutamine
1817
      HMDB0011738
                                                                                                                  HMDB0011738
      HMDB0005766
                                                                                                                  HMDB0005766
1818
                       Norophthalmic acid
      HMDB0240577
1819
                       NA
                                                                                                                  NA
                                                                                                                  HMDB0000982
1820
      HMDB0000982
                       5-Methylcytidine
1821
      HMDB0039229
                       Pyro-L-glutaminyl-L-glutamine
                                                                                                                  {\rm HMDB0039229}
1822
      HMDB0032559
                       (Âś)-2-(1-Methylpropyl)-4,6-dinitrophenol
                                                                                                                  HMDB0032559
      HMDB0033610
1823
                       Pandamarilactam 3x
                                                                                                                  HMDB0033610
1824
      HMDB0139906
                                                                                                                  NA
1825
      {\rm HMDB0164387}
                       NA
                                                                                                                  NA
                                                                                                                  HMDB0000086
1826
      HMDB0000086
                       Glycerophosphocholine
      HMDB0142996
1827
                      NΑ
                                                                                                                  NΑ
      HMDB0143005
1828
                       NΑ
                                                                                                                  NA
      HMDB0151865
                       NA
                                                                                                                  NA
1829
1830
      HMDB0137520
                       NA
                                                                                                                   NA
1831
      HMDB0130494
                       NA
                                                                                                                   NA
1832
      HMDB0135588
                       NA
                                                                                                                  NA
      HMDB0135591
1833
                       NA
                                                                                                                  NA
1834
      HMDB0135592
                       NA
                                                                                                                  NA
1835
      HMDB0137534
                       NA
                                                                                                                  NA
      HMDB0135587
1836
                       NA
                                                                                                                  NA
1837
      {\rm HMDB0135590}
                                                                                                                  NA
                       NA
1838
      HMDB0151856
                       NA
                                                                                                                  NA
                                                                                                                  HMDB0032130
      HMDB0032130
1839
                      3',4'-Dihydroxychalcone
      HMDB0135586
1840
                       NA
                                                                                                                  NA
1841
      {\rm HMDB0153774}
                      NA
                                                                                                                  NA
1842
      HMDB0036738
                       NA
                                                                                                                  NA
1843
      HMDB0039612
                                                                                                                  NA
                       NA
                                                                                                                  HMDB0032129
1844
      HMDB0032129
                       2',5'-Dihydroxychalcone
      HMDB0014643
                       Tolmetin
                                                                                                                  HMDB0014643
1845
      HMDB0033345
1846
                       (Âś)-Ribaline
                                                                                                                  HMDB0033345
1847
      HMDB0041329
                       ÑΑ
                                                                                                                  NA
      HMDB0015568
                                                                                                                  HMDB0015568
1848
                       Vorinostat
      HMDB0029134
                       Valyl-Phenylalanine
                                                                                                                  HMDB0029134
1849
      HMDB0029008
1850
                       Phenylalanyl-Valine
                                                                                                                  HMDB0029008
      HMDB0139553
1851
1852
      {\rm HMDB0139638}
                       NA
                                                                                                                  NA
                       Subaphylline
                                                                                                                  HMDB0033463
1853
      HMDB0033463
      HMDB0139620
1854
                       NA
                                                                                                                  NA
      HMDB0139619
1855
                       NA
                                                                                                                  NA
1856
      HMDB0139617
                       NA
                                                                                                                  NA
      HMDB0139618
                                                                                                                  NA
1857
1858
      HMDB0139605
                                                                                                                  NA
                                                                                                                  HMDB0032674
1859
      {\rm HMDB0032674}
                       (Z,Z)-2,9,16-Heptadecatriene-4,6-diyn-8-ol
      HMDB0033693
                                                                                                                  HMDB0033693
1860
                       Falcarinone
      HMDB0040893
1861
                       NA
                                                                                                                  NA
                                                                                                                  HMDB0031873
      HMDB0031873
                       1,7-Diphenyl-4-hepten-3-one
1862
      HMDB0133902
1863
                                                                                                                  NA
                                                                                                                  HMDB0029059
1864
      {\rm HMDB0029059}
                       Threoninyl-Glutamine
1865
      HMDB0029075
                       Threoninyl-Gamma-glutamate
                                                                                                                  HMDB0029075
      HMDB0028807
                                                                                                                  HMDB0028807
1866
                       Glutaminylthreonine
      HMDB0134633
1867
                       NA
                                                                                                                  NA
      HMDB0138211
                       NA
                                                                                                                  NA
1868
      HMDB0134631
                                                                                                                  NA
1869
                       NΑ
1870
      HMDB0134626
                       NA
                                                                                                                  NA
1871
      HMDB0134634
                       NA
                                                                                                                  NA
1872
      HMDB0134632
                       NA
                                                                                                                  NA
      HMDB0134629
1873
                       NA
                                                                                                                  NA
      HMDB0134624
                       NA
                                                                                                                  NA
1874
      HMDB0134630
1875
                       NA
                                                                                                                  NA
1876
      HMDB0134627
                       NA
1877
      {\rm HMDB0134628}
                       NA
1878
      HMDB0035080
                       Miltirone
                                                                                                                  HMDB0035080
      HMDB0134623
1879
                       NΑ
                                                                                                                  NΑ
1880
      HMDB0134625
                                                                                                                  NA
                       NA
1881
      HMDB0041090
                      NA
                                                                                                                  NA
      HMDB0060663
                                                                                                                  NA
1882
1883
      {\rm HMDB}0177722
                                                                                                                  HMDB0033064
1884
      HMDB0033064
                       (E)-2-Methyl-2-buten-1-ol O-beta-D-Glucopyranoside
      HMDB0031876
1885
                       Prenyl glucoside
                                                                                                                  HMDB0031876
      HMDB0177064
1886
                                                                                                                  NA
```

```
1887
      HMDB0033483
                       6,7- Dihydro-4-(hydroxymethyl)-2-(p-hydroxyphenethyl)-7-methyl-5H-2-pyrindinium
                                                                                                                   HMDB0033483
1888
       HMDB0002053
                                                                                                                    HMDB0002053
                       Histidylproline diketopiperazine
1889
       HMDB0014257
                       E-10-Hydroxydesmethylnortriptyline
                                                                                                                    HMDB0014257
1890
      {\rm HMDB0040785}
                                                                                                                   NA
1891
      {\rm HMDB0038838}
                       NA
                                                                                                                   NA
      HMDB0060840
1892
                       NA
                                                                                                                   NA
      HMDB0028953
                       Lysyl-Histidine
                                                                                                                   HMDB0028953
1893
1894
      HMDB0028890
                       Histidinyl-Lysine
                                                                                                                   HMDB0028890
       HMDB0041845
1895
                       NA
1896
       HMDB0015415
                       Oxtriphylline
                                                                                                                   HMDB0015415
1897
      {\rm HMDB0029133}
                       Valyl-Methionine
                                                                                                                   HMDB0029133
1898
      HMDB0028986
                       Methionyl-Valine
                                                                                                                   HMDB0028986
       HMDB0175189
1899
                       NΑ
                                                                                                                   NA
      HMDB0175187
1900
                       NΑ
                                                                                                                   NΑ
1901
       HMDB0175188
                       NA
                                                                                                                   NA
      HMDB0162484
1902
                       NA
1903
       HMDB0033197
                       2,2,4,4-Tetramethyl-6-(1-oxobutyl)-1,3,5-cyclohexanetrione
                                                                                                                   HMDB0033197
1904
      HMDB0036047
                       NΑ
                                                                                                                   NA
      HMDB0059661
1905
                       NA
                                                                                                                   NA
      HMDB0015088
                                                                                                                   HMDB0015088
1906
                       Rizatriptan
       HMDB0014873
1907
                       Naftifine
                                                                                                                   HMDB0014873
1908
       HMDB0014578
                       Cyproheptadine
                                                                                                                    HMDB0014578
1909
      {\rm HMDB0011687}
                       Phenylbutyrylglutamine
                                                                                                                   HMDB0011687
1910
      HMDB0033514
                       Fusarochromanone
                                                                                                                   HMDB0033514
      HMDB0181167
1911
                       NA
                                                                                                                   NA
      HMDB0139531
                                                                                                                   NA
                       NA
1912
       HMDB0139533
1913
                       NA
                                                                                                                   NA
      HMDB0139532
1914
                       NA
                                                                                                                   NA
1915
       HMDB0139535
                       NA
                                                                                                                   NA
1916
      {\rm HMDB0139993}
                       NA
                                                                                                                   NA
                                                                                                                   {\rm HMDB0014451}
1917
      HMDB0014451
                       Talbutal
      HMDB0139534
1918
                       NΑ
                                                                                                                   NΑ
1919
      {\rm HMDB0059959}
                       NA
                                                                                                                   NA
       HMDB0186509
1920
                       NA
                                                                                                                   NA
      HMDB0184957
                       NA
                                                                                                                   NA
1921
1922
       HMDB0184936
                       NA
                                                                                                                   NA
1923
      HMDB0062677
                       NΑ
                                                                                                                   NA
      HMDB0004590
                                                                                                                   HMDB0004590
1924
                       19-Nor-5-androstenediol
       HMDB0032464
                                                                                                                   HMDB0032464
1925
                       Phenethyl decanoate
       HMDB0002697
1926
                       19-Norandrosterone
                                                                                                                   HMDB0002697
       HMDB0032672
                       4,8,12,15-Octadecatetraenoic acid
                                                                                                                   {\rm HMDB0032672}
1927
1928
      {\rm HMDB0005886}
                       19-Noretiocholanolone
                                                                                                                   HMDB0005886
                                                                                                                   HMDB0034382
1929
      HMDB0034382
                       (E,E)-11,13-Octadecadien-9-ynoic acid
      HMDB0006547
1930
                       Stearidonic acid
                                                                                                                   HMDB0006547
1931
       HMDB0186501
                       NA
                                                                                                                   NA
1932
       HMDB0186507
                       NA
                                                                                                                   NA
      HMDB0186508
1933
                       NA
                                                                                                                   NA
1934
      {\rm HMDB0062288}
                       NA
                                                                                                                   NA
1935
      {\rm HMDB0186510}
                       NA
                                                                                                                   NA
      HMDB0186500
1936
                       NA
                                                                                                                   NA
       HMDB0186506
1937
                       NA
                                                                                                                   NA
1938
      {\rm HMDB0186505}
                       NA
                                                                                                                   NA
1939
       HMDB0186504
                       NA
                                                                                                                    NA
1940
      HMDB0186502
                       NA
                                                                                                                    NA
1941
       HMDB0186497
                       NA
                                                                                                                   NA
      HMDB0186499
1942
                       NA
                                                                                                                   NA
      HMDB0186498
1943
                       NA
                                                                                                                   NA
       HMDB0112093
1944
                       NΑ
                                                                                                                   NA
       HMDB0112099
                       NA
1945
                                                                                                                   NA
1946
       HMDB0112102
                                                                                                                   NA
1947
      HMDB0112103
                       NΑ
                                                                                                                   NA
1948
      HMDB0186503
                                                                                                                   NA
                       (9Z,12Z,14E)-16-Hydroxy-9,12,14-octadecatrienoic acid
                                                                                                                   HMDB0034586
      HMDB0034586
1949
       HMDB0031088
1950
                       12,13-Epoxy-9,15-octadecadienoic acid
                                                                                                                   HMDB0031088
       HMDB0029969
                                                                                                                   HMDB0029969
1951
                       Squamostanal A
      HMDB0031103
                                                                                                                   HMDB0031103
1952
                       2-Hydroxylinolenic acid
1953
      {\rm HMDB0036832}
                                                                                                                   NA
                                                                                                                   HMDB0030950
1954
      HMDB0030950
                       15,16-Epoxy-9,12-octadecadienoic acid
      HMDB0029786
                                                                                                                   HMDB0029786
1955
                       10-Oxo-11-octadecen-13-olide
                       17-Hydroxylinolenic acid
                                                                                                                   HMDB0023100
       HMDB0011108
1956
      {\rm HMDB0010224}
                                                                                                                   {\rm HMDB0010224}
1957
                       9-HOTE
1958
       HMDB0010220
                       9(10)-EpODE
                                                                                                                   HMDB0010220
1959
      HMDB0010206
                       1\dot{5}(1\dot{6})-EpODE
                                                                                                                   HMDB0010206
1960
      {\rm HMDB0010200}
                       A-12(13)-EpODE
                                                                                                                   HMDB0010200
1961
      HMDB0010203
                       13-HOTE
                                                                                                                   HMDB0010203
      HMDB0004669
                                                                                                                   HMDB0004669
1962
                       9-OxoODE
1963
       HMDB0004668
                       13-OxoODE
                                                                                                                   HMDB0004668
1964
       HMDB0031934
                       (9S,10E,12Z,15Z)-9-Hydroxy-10,12,15-octadecatrienoic acid
                                                                                                                   HMDB0031934
1965
       HMDB0030995
                       (2'E,4'Z,8E)-Colneleic acid
                                                                                                                   {\rm HMDB0030995}
1966
      HMDB0061644
                       ŇΔ
                                                                                                                   NA
      HMDB0039603
1967
                       NΑ
                                                                                                                   NA
      HMDB0061979
1968
                       NA
                                                                                                                   NA
                                                                                                                   HMDB0033791
1969
      HMDB0033791
                       (E)-3-Hexadecenoic acid
       HMDB0038958
1970
                       ΝÁ
                                                                                                                   NA
1971
       HMDB0031711
                       15-Hexadecanolide
                                                                                                                   HMDB0031711
1972
      HMDB0003229
                       Palmitoleic acid
                                                                                                                   HMDB0003229
1973
      HMDB0010735
                       Trans-Hexa-dec-2-enoic acid
                                                                                                                   HMDB0010735
```

```
HMDB0037647
1974
                       NA
                                                                                                                    NA
1975
       HMDB0041422
                       NA
                                                                                                                    NA
1976
       HMDB0032638
                       (Z)-5-Hexadecenoic acid
                                                                                                                    HMDB0032638
1977
       {\rm HMDB0031053}
                       E)-6-Hexadecenoic acid
                                                                                                                    {\rm HMDB0031053}
1978
       {\rm HMDB0035877}
                       (Z)-13-Hexadecenoic acid
                                                                                                                    HMDB0035877
       HMDB0031145
1979
                       5-Dodecyldihydro-2(3H)-furanone
                                                                                                                    HMDB0031145
       HMDB0002186
1980
                                                                                                                    HMDB0002186
                       Hypogeic acid
1981
       HMDB0171478
                                                                                                                    NA
                       NA
       HMDB0171479
1982
                       NA
                                                                                                                    NA
1983
       HMDB0171477
                       NA
                                                                                                                    HMDB0012328
1984
       {\rm HMDB0012328}
                       Palmitelaidic acid
1985
      HMDB0171476
HMDB0000756
                       NA
                                                                                                                    NA
HMDB0000756
                       L-Hexanovlcarnitine
1986
       HMDB0000705
1987
                                                                                                                    HMDB0000705
                       Hexanovlcarnitine
1988
       HMDB0014413
                       Ropinirole
                                                                                                                    HMDB0014413
       {\rm HMDB0015070}
                                                                                                                    HMDB0015070
1989
                       Oxymetazoline
1990
       HMDB0061189
                                                                                                                    HMDB0062555
1991
       HMDB0062555
                       hydroxyisovaleroyl carnitine
       HMDB0240421
1992
                       NA
                                                                                                                    NA
       HMDB0040904
1993
                       NA
                                                                                                                    NA
       HMDB0168550
1994
                       NA
                                                                                                                    NA
1995
       HMDB0168551
                       NA
                                                                                                                    NA
1996
       {\rm HMDB0168552}
                       NA
                                                                                                                    NA
1997
       HMDB0168553
                       NA
                                                                                                                    NA
       HMDB0168554
1998
                       NA
                                                                                                                    NA
       HMDB0168549
1999
                       NA
                                                                                                                    NA
       HMDB0137260
2000
                       NA
                                                                                                                    NA
       HMDB0137271
                                                                                                                    NA
2001
                       NΑ
                       8-Acetoxy-4-acoren-3-one
2002
       {\rm HMDB0030974}
                                                                                                                    HMDB0030974
2003
       {\rm HMDB0031928}
                       Panaxytriol
                                                                                                                    HMDB0031928
       HMDB0030801
2004
                       1-(4-Hydroxy-3-methoxyphenyl)-3-decanone
                                                                                                                    HMDB0030801
       HMDB0039251
                       ΝÀ
2005
                                                                                                                    NΑ
       HMDB0134775
2006
                       NA
                                                                                                                    NA
       HMDB0038798
2007
                       NA
                                                                                                                    NA
       {\rm HMDB0035075}
                       Tanacetol B
                                                                                                                    HMDB0035075
2009
       {\rm HMDB0060952}
                                                                                                                    HMDB0014521
2010
       HMDB0014521
                       Palonosetron
       HMDB0030283
                       Hydrocinchonine
                                                                                                                    HMDB0030283
2011
       HMDB0175409
2012
                       NA
                                                                                                                    NA
       HMDB0175412
                       NA
                                                                                                                    NA
2013
       HMDB0175413
                                                                                                                    NA
2014
                       NA
2015
       {\rm HMDB0175414}
                       NA
                                                                                                                    NA
2016
       {\rm HMDB0175415}
                       NΑ
                                                                                                                    NA
       HMDB0175408
2017
                       NA
                                                                                                                    NA
2018
       HMDB0175410
                       NA
                                                                                                                    NA
2019
       HMDB0175411
                       NA
                                                                                                                    NA
       HMDB0160594
2020
                       NA
                                                                                                                    NA
2021
       {\rm HMDB0173892}
                       NA
                                                                                                                    NA
2022
       {\rm HMDB}0175402
                       NA
                                                                                                                    NA
       HMDB0175403
2023
                       NA
                                                                                                                    NA
       HMDB0175404
2024
                       NA
                                                                                                                    NA
       HMDB0175405
2025
                       NA
                                                                                                                    NA
2026
       HMDB0175406
                       NA
                                                                                                                    NA
2027
       HMDB0175407
                       NA
                                                                                                                    NA
                                                                                                                    HMDB0030964
2028
       {\rm HMDB0030964}
                       Linolenelaidic acid
       HMDB0001388
2029
                       Alpha-Linolenic acid
                                                                                                                    HMDB0001388
       HMDB0003073
                                                                                                                    HMDB0003073
2030
                       Gamma-Linolenic acid
       HMDB0030962
                                                                                                                    HMDB0030962
2031
                       Calendic acid
       HMDB0030963
                                                                                                                    HMDB0030963
2032
                       Punicic acid
2033
       HMDB0160589
2034
       HMDB0160588
                       NA
                                                                                                                    NA
2035
       HMDB0112194
                       NA
                                                                                                                    NA
       HMDB0062652
2036
                       NA
                                                                                                                    NA
       HMDB0173890
                       NA
                                                                                                                    NA
2037
       HMDB0160590
2038
                       NA
                                                                                                                    NA
       HMDB0160592
                       NA
2039
                                                                                                                    NA
2040
       {\rm HMDB0160591}
                       NA
                                                                                                                    NA
2041
       HMDB0160593
                       NA
                                                                                                                    NA
       HMDB0160595
2042
                       NA
                                                                                                                    NA
       HMDB0173886
2043
                       NA
                                                                                                                    NA
       {\rm HMDB0173885}
2044
                       NA
                                                                                                                    NA
       HMDB0173887
2045
2046
       HMDB0173889
                       NA
                                                                                                                    NA
2047
       {\rm HMDB0173891}
                       NA
                                                                                                                    NA
       HMDB0173888
2048
                       NΑ
                                                                                                                    NΑ
       HMDB0173893
2049
                       NA
                                                                                                                    NA
2050
       HMDB0004667
                       13S-hydroxyoctadecadienoic acid
                                                                                                                    HMDB0004667
2051
       HMDB0061708
                                                                                                                    NA
2052
       HMDB0029796
                       (Z)-13-Oxo-9-octadecenoic acid
                                                                                                                    {\rm HMDB0029796}
2053
       {\rm HMDB0029998}
                       12-Hydroxy-8,10-octadecadienoic acid
                                                                                                                    HMDB0029998
2054
       HMDB0029978
                       Avenoleic acid
                                                                                                                    HMDB0029978
       HMDB0010223
                                                                                                                    HMDB0010223
                       9-HODE
2055
2056
       HMDB0004701
                       9,10-Epoxyoctadecenoic acid
                                                                                                                    HMDB0004701
       HMDB0004702
                       12,13-EpOME
                                                                                                                    {\rm HMDB0004702}
2057
2058
       HMDB0004670
                       Alpha-dimorphecolic acid
                                                                                                                    HMDB0004670
2059
       HMDB0000220
                       Palmitic acid
                                                                                                                    {\rm HMDB0000220}
2060
       HMDB0060083
                       NΑ
                                                                                                                    NA
```

```
2061
       HMDB0061373
                       NA
                                                                                                                     NA
                                                                                                                     HMDB0032324
2062
       HMDB0032324
                       Hexyl decanoate
       HMDB0032249
                       Dodecyl butyrate
                                                                                                                     HMDB0032249
2063
2064
       {\rm HMDB0033166}
                       Octyl octanoate
                                                                                                                     {\rm HMDB0033166}
2065
       {\rm HMDB0032065}
                       Butyl dodecanoate
                                                                                                                     {\rm HMDB0032065}
       HMDB0036210
                                                                                                                     \begin{array}{c} {\rm NA} \\ {\rm HMDB0034153} \end{array}
2066
                       NΑ
2067
       HMDB0034153
                       Ethyl tetradecanoate
2068
       HMDB0031068
                       Isopalmitic acid
                                                                                                                     HMDB0031068
       HMDB0002396
                       Trimethyltridecanoic acid
2069
                                                                                                                     HMDB0002396
2070
       HMDB0003950
                       7-Methylinosine
                                                                                                                     HMDB0003950
2071
       {\rm HMDB0002721}
                       1-Methylinosine
                                                                                                                     {\rm HMDB0002721}
2072
      HMDB0033060
HMDB0034319
                       Piperolactam A
                                                                                                                     HMDB0033060
                                                                                                                     HMDB0034319
2073
                       Furofoline
2074
       HMDB0038882
                       NA
                                                                                                                     NA
2075
       HMDB0038880
                       NA
                                                                                                                     NA
       {\rm HMDB0029918}
                       Arabinofuranobiose
                                                                                                                     HMDB0029918
2076
2077
       HMDB0029894
                       Xylobiose
                                                                                                                     {\rm HMDB0029894}
2078
       HMDB0038855
                       NA
                                                                                                                     NA
       HMDB0029619
                                                                                                                     HMDB0029619
2079
                       Arabinopyranobiose
       HMDB0038881
2080
                       NA
                                                                                                                     NA
                       NA
                                                                                                                     NA
2081
       HMDB0179982
2082
       HMDB0179983
                                                                                                                     NA
2083
       {\rm HMDB0179984}
                       NA
                                                                                                                     NA
                                                                                                                     HMDB0028745
2084
       HMDB0028745
                       Asparaginyl-Gamma-glutamate
                                                                                                                     HMDB0028792
       HMDB0028792
2085
                       Glutaminylasparagine
       HMDB0028729
                                                                                                                     HMDB0028729
2086
                       Asparaginyl-Glutamine
       HMDB0126535
2087
                       NA
                                                                                                                     NA
       HMDB0126543
2088
                       NA
                                                                                                                     NA
2089
       {\rm HMDB0126529}
                       NA
                                                                                                                     NA
2090
       {\rm HMDB0126544}
                       NA
                                                                                                                     NA
2091
       HMDB0126525
                       NA
                                                                                                                     NA
       HMDB0126540
                       NΑ
                                                                                                                     NA
2092
       HMDB0126536
2093
                       NA
                                                                                                                     NA
       HMDB0126532
2094
                       NA
                                                                                                                     NA
                                                                                                                     NA
       {\rm HMDB0126531}
                       NA
2095
2096
       HMDB0126528
                       NA
                                                                                                                     NA
2097
       HMDB0126526
                       NA
                                                                                                                     NA
       HMDB0171819
2098
                       NA
                                                                                                                     NA
2099
       HMDB0240268
                       NA
                                                                                                                     NA
       HMDB0035910
                                                                                                                     HMDB0035910
2100
                       Cedryl acetate
       HMDB0037273
2101
2102
       {\rm HMDB0039630}
                       NA
                                                                                                                     NA
2103
       HMDB0037218
                       NΑ
                                                                                                                     NA
       HMDB0036153
2104
                       NA
                                                                                                                     NA
       HMDB0037224
2105
                       NA
                                                                                                                     NA
2106
       HMDB0155179
                       NA
                                                                                                                     NA
       HMDB0186458
2107
                       NA
                                                                                                                     NA
2108
       {\rm HMDB0062415}
                       NA
                                                                                                                     NA
2109
       {\rm HMDB0240353}
                       NA
                                                                                                                     NA
       HMDB0038957
2110
                       NA
                                                                                                                     NA
       HMDB0000053
                                                                                                                     HMDB0000053
2111
                       Androstenedione
       HMDB0155184
2112
                       NA
                                                                                                                     NA
2113
       HMDB0137366
                       NA
                                                                                                                     NA
2114
       {\rm HMDB}0137379
                       NA
                                                                                                                     NA
2115
       HMDB0154824
                       NA
                                                                                                                     NA
       HMDB0154823
2116
                       NA
                                                                                                                     NA
       HMDB0155183
2117
                       NA
                                                                                                                     NA
       HMDB0154825
2118
                       NΑ
                                                                                                                     NA
       HMDB0155181
                       NA
2119
                                                                                                                     NA
2120
       HMDB0154992
                       NA
2121
       {\rm HMDB0154837}
                       NA
                                                                                                                     NA
2122
       HMDB0154836
                       NA
                                                                                                                     NA
       HMDB0154826
2123
                       NA
                                                                                                                     NA
       HMDB0155182
                       NA
2124
                                                                                                                     NA
       HMDB0155187
2125
                       NA
                                                                                                                     NA
       HMDB0174401
                       NA
2126
                                                                                                                     NA
2127
       {\rm HMDB0174398}
                       NA
                                                                                                                     NA
2128
       {\rm HMDB}0174399
                       NA
                                                                                                                     NA
       HMDB0186115
2129
                       NA
                                                                                                                     NA
2130
       HMDB0000324
                       3a.16a-Dihvdroxvandrostenone
                                                                                                                     HMDB0000324
       HMDB0000309
2131
                       3a,16b-Dihydroxyandrostenone
                                                                                                                     HMDB0000309
       HMDB0174400
2132
2133
       {\rm HMDB}0174397
                       NA
                                                                                                                     NA
2134
       {\rm HMDB0169093}
                       NA
                                                                                                                     NA
2135
       HMDB0155186
                       NA
                                                                                                                     NA
       HMDB0155185
2136
                       NΑ
                                                                                                                     NΑ
       HMDB0155188
2137
                       NA
                                                                                                                     NA
2138
       HMDB0155961
                       NA
                                                                                                                     ΝA
2139
       HMDB0155960
                       NA
2140
       {\rm HMDB0155963}
                       NΑ
                                                                                                                     NA
2141
       HMDB0155962
                       NA
                                                                                                                     NA
       HMDB0155965
2142
                       NA
                                                                                                                     NA
2143
       HMDB0155966
                       NA
                                                                                                                     NA
       HMDB0156602
2144
                       NA
                                                                                                                     NA
2145
       HMDB0156968
                       NA
                                                                                                                     NA
2146
       HMDB0159843
                                                                                                                     HMDB0060339
2147
       HMDB0060339
                       11-Hydroxytestosterone
```

```
HMDB0000322
2148
                                                                                                                HMDB0000322
                      16-Oxoandrostenediol
2149
       HMDB0000352
                      16a-Hydroxydehydroisoandrosterone
                                                                                                                HMDB0000352
2150
       HMDB0000388
                                                                                                                 HMDB0000388
                      3a,16-Dihydroxyandrostenone
2151
      HMDB0003956
                      7a-Hydroxytestosterone
                                                                                                                {\rm HMDB0003956}
2152
      HMDB0004611
                      7a-Hydroxydehydroepiandrosterone
                                                                                                                HMDB0004611
      HMDB0004624
2153
                      7b-Hydroxydehydroepiandrosterone
                                                                                                                HMDB0004624
2154
      HMDB0006031
                                                                                                                HMDB0006031
                      11-Ketoetiocholanolone
2155
      HMDB0006259
                      6beta-Hydroxytestosterone
                                                                                                                HMDB0006259
      HMDB0006769
2156
                      19-Hydroxytestosterone
                                                                                                                {\rm HMDB0006769}
2157
       HMDB0039589
2158
      {\rm HMDB0039735}
                      NA
                                                                                                                NA
                                                                                                                HMDB0031464
2159
      HMDB0031464
                      cis-[8]-Shogaol
      HMDB0012533
                      11beta-Hydroxytestosterone
                                                                                                                HMDB0012533
2160
2161
      HMDB0012654
                      2beta-Hydroxytestosterone
                                                                                                                HMDB0012654
2162
       HMDB0060089
                                                                                                                NA
                                                                                                                HMDB0028901
      {\rm HMDB0028901}
                      Isoleucyl-Arginine
2163
                      Leucyl-Arginine
Arginyl-Isoleucine
2164
       HMDB0028923
                                                                                                                {\rm HMDB0028923}
2165
      HMDB0028712
                                                                                                                HMDB0028712
      HMDB0028713
                      Arginyl-Leucine
2166
                                                                                                                HMDB0028713
      HMDB0002227
                                                                                                                HMDB0002227
2167
                      Capsaicin
       HMDB0041142
2168
2169
       HMDB0032673
                      15-Octadecene-9,11,13-triynoic acid
                                                                                                                 HMDB0032673
2170
      HMDB0000145
                      Estrone
                                                                                                                HMDB0000145
2171
      HMDB0039096
                      NΑ
                                                                                                                NA
      HMDB0173636
2172
                      NA
                                                                                                                NA
      HMDB0041314
                      NA
2173
                                                                                                                NA
       HMDB0130350
2174
                      NA
                                                                                                                NA
      HMDB0130347
2175
                      NA
                                                                                                                NA
2176
      HMDB0175079
                      NA
                                                                                                                NA
2177
      {\rm HMDB0178312}
                      NA
                                                                                                                NA
2178
      HMDB0141160
                      NA
                                                                                                                NA
      HMDB0141105
2179
                                                                                                                NA
                      NΑ
      HMDB0141099
2180
                      NA
                                                                                                                NA
       HMDB0141080
2181
                      NA
                                                                                                                NA
      HMDB0141122
                      NA
                                                                                                                 NA
2182
2183
      {\rm HMDB0141079}
                      NA
                                                                                                                NA
2184
      HMDB0141126
                      NA
                                                                                                                NA
      HMDB0141149
2185
                      NA
                                                                                                                NA
      HMDB0141119
2186
                                                                                                                NΑ
                      NA
       HMDB0040889
2187
                      NA
                                                                                                                NA
2188
       HMDB0129039
2189
      HMDB0138953
                      NA
                                                                                                                NA
2190
      HMDB0141045
                      NΑ
                                                                                                                NA
2191
      HMDB0138954
                      NA
                                                                                                                NA
2192
      HMDB0138952
                      NA
                                                                                                                NA
2193
       HMDB0138951
                      NA
                                                                                                                NA
      HMDB0138956
2194
                      NA
                                                                                                                NA
2195
      {\rm HMDB0140994}
                      NA
                                                                                                                NA
2196
      HMDB0138959
                      NA
                                                                                                                NA
      HMDB0138955
2197
                      NA
                                                                                                                NA
      HMDB0138957
2198
                      NA
                                                                                                                NA
      HMDB0138958
2199
                      NA
                                                                                                                NA
2200
       HMDB0141056
                      NA
                                                                                                                 NA
2201
      HMDB0141150
                      NA
                                                                                                                 NA
2202
      {\rm HMDB0141152}
                      NA
                                                                                                                NA
      HMDB0141153
2203
                      NA
                                                                                                                NA
      HMDB0141164
2204
                      NA
                                                                                                                NA
      HMDB0146848
2205
                      NΑ
                                                                                                                NΑ
       HMDB0146849
                      NA
2206
                                                                                                                NA
2207
       HMDB0141181
                      NA
                                                                                                                 NA
2208
      HMDB0141151
                      NA
                                                                                                                NA
2209
      HMDB0141180
                      NA
                                                                                                                NA
      HMDB0141162
2210
                      NA
                                                                                                                NA
      HMDB0141161
                      NA
                                                                                                                NA
2211
       HMDB0141169
2212
                      NA
                                                                                                                NA
2213
      HMDB0141163
                                                                                                                 NA
                      NA
2214
      {\rm HMDB0141145}
                      NA
                                                                                                                NA
2215
      HMDB0141146
                      NA
                                                                                                                NA
      HMDR0141057
2216
                      NA
                                                                                                                NA
2217
       HMDB0141101
                      NA
                                                                                                                NA
      {\rm HMDB0141102}
2218
                      NA
                                                                                                                NA
2219
       HMDB0141100
2220
      HMDB0141103
                      NA
                                                                                                                 NA
2221
      {\rm HMDB0141106}
                      NA
                                                                                                                NA
2222
      HMDB0141107
                      NΑ
                                                                                                                NA
      HMDB0141120
2223
                      NΑ
                                                                                                                NΑ
      HMDB0141121
2224
                      NA
                                                                                                                NA
2225
       HMDB0141130
                      NA
                                                                                                                ΝA
2226
       HMDB0141129
                      NA
                                                                                                                 NA
2227
      HMDB0141128
                      NΑ
                                                                                                                NA
      HMDB0141127
2228
                      NA
                                                                                                                NA
      HMDB0141139
2229
                      NA
                                                                                                                NA
2230
      HMDB0141140
                      NA
                                                                                                                NA
2231
       HMDB0141170
                      NA
                                                                                                                NA
2232
       HMDB0036635
                      NA
                                                                                                                NA
2233
      HMDB0041298
                      NA
                                                                                                                HMDB0033310
```

2234

HMDB0033310

Moracin C

```
HMDB0031744
2235
                                                                                                                 HMDB0031744
                       Artocarbene
2236
       HMDB0141044
                                                                                                                 NA
2237
       HMDB0138682
2238
      {\rm HMDB0011741}
                       gamma-Glutamyltyrosine
                                                                                                                 {\rm HMDB0011741}
2239
      {\rm HMDB0029161}
                       NA
                                                                                                                 NA
                       Tyrosyl-Glutamate
                                                                                                                 HMDB0029104
2240
      HMDR0029104
2241
      HMDB0028831
                                                                                                                 HMDB0028831
                       Glutamyltyrosine
2242
      HMDB0062553
                      NA
                                                                                                                 NA
      HMDB0041309
                                                                                                                 NA
2243
                       NA
2244
       HMDB0000839
                       Pentaporphyrin I
                                                                                                                 HMDB0000839
2245
      {\rm HMDB0029428}
                       Hypoglycin B
                                                                                                                 {\rm HMDB0029428}
2246
      HMDB0061318
                       NA
       HMDB0015102
                                                                                                                 HMDB0015102
                       Desloratadine
2247
2248
      HMDB0170226
                       NA
                                                                                                                 NA
2249
       HMDB0170229
                      NA
                                                                                                                 NA
      {\rm HMDB0170227}
                       NA
                                                                                                                 NA
2250
2251
       HMDB0170230
                       NA
                                                                                                                 NA
2252
      HMDB0170228
                      NA
                                                                                                                 NA
                                                                                                                 HMDB0004704
2253
      HMDB0004704
                      9.10-DHOME
      HMDB0061650
                                                                                                                 HMDB0061650
2254
                      9,10-Epoxystearic acid
       HMDB0004705
                       12,13-DHOME
2255
                                                                                                                 HMDB0004705
2256
       HMDB0041220
                                                                                                                 HMDB0031679
2257
      {\rm HMDB0031679}
                       (9xi,10xi,12xi)-9,10-Dihydroxy-12-octadecenoic acid
2258
      HMDB0000782
                       Octadecanedioic acid
                                                                                                                 HMDB0000782
      HMDB0015401
                                                                                                                 HMDB0015401
2259
                       Nelarabine
      HMDB0005862
                                                                                                                 HMDB0005862
2260
                       2-Methylguanosine
       HMDB0006038
                                                                                                                 HMDB0006038
2261
                       3'-O-Methylguanosine
      HMDB0001563
                                                                                                                 HMDB0001563
2262
                       1-Methylguanosine
2263
      HMDB0001107
                       7-Methylguanosine
                                                                                                                 HMDB0001107
2264
      {\rm HMDB0029076}
                       Tryptophyl-Alanine
                                                                                                                 HMDB0029076
2265
      HMDB0028698
                       Alanyl-Tryptophan
                                                                                                                 HMDB0028698
      HMDB0142223
2266
                       NΑ
                                                                                                                 NΑ
                                                                                                                 HMDB0013209
2267
      HMDB0013209
                       Alanyltryptophan
       HMDB0165476
2268
                       NA
                                                                                                                 NA
      HMDB0165475
                       NA
                                                                                                                 NA
2269
2270
      {\rm HMDB0165471}
                       NA
                                                                                                                 NA
2271
      HMDB0165472
                      NA
                                                                                                                 NA
      HMDB0126113
2272
                       NA
                                                                                                                 NA
      HMDB0130135
2273
                       NA
                                                                                                                 NA
       HMDB0130132
                       NA
2274
                                                                                                                 NA
2275
       HMDB0130129
                       NA
                                                                                                                  NA
2276
      {\rm HMDB0145822}
                       NA
                                                                                                                 NA
2277
      HMDB0130130
                       NΑ
                                                                                                                 NA
2278
      HMDB0164665
                       NA
                                                                                                                 NA
2279
      HMDB0130133
                       NA
                                                                                                                 NA
2280
       HMDB0130019
                       NA
                                                                                                                 NA
       HMDB0126116
2281
                       NA
                                                                                                                 NA
2282
      {\rm HMDB0126115}
                       NA
                                                                                                                 NA
2283
      {\rm HMDB0130136}
                       NA
                                                                                                                 NA
2284
      HMDB0126114
                       NA
                                                                                                                 NA
       HMDB0178290
2285
                       NA
                                                                                                                 NA
      HMDB0178289
2286
                       NA
                                                                                                                 NA
2287
       HMDB0181208
                       NA
                                                                                                                  NA
2288
      HMDB0183795
                       NA
                                                                                                                  NA
2289
      {\rm HMDB0183794}
                       NA
                                                                                                                 NA
      HMDB0183797
2290
                      NA
                                                                                                                 NA
      HMDB0183799
2291
                       NA
                                                                                                                 NA
      HMDB0183798
2292
                       NΑ
                                                                                                                 NΑ
       HMDB0183796
2293
                       NA
                                                                                                                 NA
2294
       HMDB0183800
                       NA
2295
      HMDB0183802
                       NA
                                                                                                                 NA
2296
      HMDB0183801
                      NA
                                                                                                                 NA
      HMDB0186752
2297
                       NA
                                                                                                                 NA
      HMDB0186756
2298
                       NA
                                                                                                                 NA
       HMDB0186754
2299
                       NA
                                                                                                                 NA
      HMDB0183792
2300
                       NA
                                                                                                                 NA
2301
      {\rm HMDB0183793}
                       NA
                                                                                                                 NA
2302
      HMDB0137406
                       NA
                                                                                                                 NA
      HMDB0157378
2303
                      NA
                                                                                                                 NA
      HMDB0183791
2304
                       NA
                                                                                                                 NA
      {\rm HMDB0183790}
2305
                      NA
                                                                                                                 NA
2306
       HMDB0186755
2307
      HMDB0186753
                       NA
                                                                                                                 NA
2308
      {\rm HMDB0186758}
                       NA
                                                                                                                 NA
2309
      HMDB0186759
                       NΑ
                                                                                                                 NA
      HMDB0186757
2310
                       NΑ
                                                                                                                 NΑ
2311
       HMDB0062411
                       NA
                                                                                                                 NA
2312
       HMDB0062412
2313
       HMDB0039484
                       Gibberellin A12 7-aldehyde
                                                                                                                 {\rm HMDB0039484}
2314
      HMDB0179080
                       NΑ
                                                                                                                 NA
2315
      HMDB0041057
                      NΑ
                                                                                                                 NA
      HMDB0034630
                                                                                                                 HMDB0034630
2316
                       (4Z,9a)-9-(3-Methyl-2-butenovloxy)-4,10(14)-oplopadien-3-one
      HMDB0036725
                       ŇΑ
2317
                                                                                                                 NA
       HMDB0036747
                      NA
2318
                                                                                                                 NA
2319
       HMDB0038885
                       NA
                                                                                                                 NA
2320
      HMDB0036812
                                                                                                                 HMDB0012452
2321
      HMDB0012452
                      all-trans-18-Hydroxyretinoic acid
```

```
HMDB0061095
2322
                       NA
                                                                                                                   NA
                                                                                                                   HMDB0012451
2323
       HMDB0012451
                       all-trans-5,6-Epoxyretinoic acid
2324
       HMDB0060093
                                                                                                                   NA
                                                                                                                   HMDB0006254
2325
      {\rm HMDB0006254}
                       4-Hydroxyretinoic acid
2326
      {\rm HMDB0005832}
                       {\bf 6b \hbox{-} Hydroxymethan dien one}
                                                                                                                   HMDB0005832
      HMDB0005079
2327
                       15-Deoxy-d-12,14-PGJ2
                                                                                                                   HMDB0005079
2328
      HMDB0000344
                       \hbox{2-Methoxyest radiol-3-methyle ther}\\
                                                                                                                   HMDB0000344
      HMDB0156417
2329
                       NA
                                                                                                                   NA
       HMDB0031773
                                                                                                                   HMDB0031773
2330
                       Phytocassane E
2331
       HMDB0039442
                                                                                                                   HMDB0034691
2332
      {\rm HMDB0034691}
                       Yucalexin B9
2333
      HMDB0034631
                       (4Z,9a)-9-Angeloyloxy-4,10(14)-oplopadien-3-one
                                                                                                                   HMDB0034631
      HMDB0037233
2334
                       NΑ
                                                                                                                   NΑ
      HMDB0036147
2335
                       NA
                                                                                                                   NA
2336
       HMDB0036750
                       NA
                                                                                                                   NA
      {\rm HMDB0035710}
                                                                                                                   HMDB0035710
2337
                       Cafestol
2338
      {\rm HMDB0036762}
                       NA
2339
      HMDB0041056
                       NΑ
                                                                                                                   NA
      HMDB0014855
                                                                                                                   HMDB0014855
2340
                       Norethindrone
      HMDB0012794
                                                                                                                   HMDB0012794
2341
                       4-Oxoretinal
       HMDB0060092
2342
                       NA
                                                                                                                   NA
2343
       HMDB0138135
                       NA
                                                                                                                   NA
2344
      {\rm HMDB0040644}
                       NA
                                                                                                                   NA
2345
      HMDB0060994
                       NA
                                                                                                                   NA
      HMDB0183805
2346
                       NA
                                                                                                                   NA
      HMDB0156418
                       NA
2347
                                                                                                                   NA
       HMDB0156413
2348
                       NA
                                                                                                                   NA
      HMDB0156410
2349
                       NA
                                                                                                                   NA
2350
      {\rm HMDB0156411}
                       NA
                                                                                                                   NA
2351
      {\rm HMDB0156408}
                       NA
                                                                                                                   NA
2352
      HMDB0156409
                       NA
                                                                                                                   NA
      HMDB0156404
                       NΑ
                                                                                                                   NA
2353
      HMDB0156405
                       NA
                                                                                                                   NA
2354
       HMDB0061925
2355
                       NA
                                                                                                                   NA
      HMDB0156406
                       NA
                                                                                                                   NA
2356
2357
      {\rm HMDB0156407}
                       NA
                                                                                                                   NA
2358
      HMDB0156401
                       NA
                                                                                                                   NA
      HMDB0156403
2359
                       NA
                                                                                                                   NA
      HMDB0156402
2360
                       NA
                                                                                                                   NA
       HMDB0001852
                                                                                                                   HMDB0001852
2361
                       All-trans-retinoic acid
2362
      {\rm HMDB0156412}
2363
      {\rm HMDB0179600}
                       NA
                                                                                                                   NA
                                                                                                                   HMDB0012874
2364
      HMDB0012874
                       9.13-cis-Retinoate
      HMDB0012788
                       4-OH-Retinal
2365
                                                                                                                   HMDB0012788
      HMDB0036710
2366
                       NA
                                                                                                                   NA
2367
       HMDB0036564
                       NA
                                                                                                                   NA
      HMDB0036697
                       NA
                                                                                                                   NA
2368
2369
      {\rm HMDB0036711}
                       NA
                                                                                                                   NA
2370
      {\rm HMDB0038702}
                       NA
                                                                                                                   NA
                                                                                                                   HMDB0012329
      HMDB0012329
2371
                       4-Oxoretinol
      HMDB0006219
                                                                                                                   HMDB0006219
                       13-cis-Retinoic acid
2372
      HMDB0041925
2373
                       NA
                                                                                                                   NA
                       9-cis-Retinoic acid
2374
       HMDB0002369
                                                                                                                   HMDB0002369
2375
      HMDB0179597
                       NA
                                                                                                                   NA
2376
      {\rm HMDB0179596}
                       NA
                                                                                                                   NA
      HMDB0179598
2377
                       NA
                                                                                                                   NA
      HMDB0183803
                                                                                                                   NA
2378
                       NA
      HMDB0183804
2379
                       NΑ
                                                                                                                   NA
      HMDB0183807
                       NA
                                                                                                                   ΝA
2380
2381
       HMDB0183806
                       NA
                                                                                                                   NA
2382
      HMDB0183808
                       NA
                                                                                                                   NA
      HMDB0183810
2383
                       NA
                                                                                                                   NA
      HMDB0183811
2384
                       NA
                                                                                                                   NA
      HMDB0183813
                       NA
                                                                                                                   NA
2385
       HMDB0179593
2386
                       NA
                                                                                                                   NA
       HMDB0179594
                                                                                                                   NA
2387
                       NA
2388
      {\rm HMDB0183809}
                       NA
                                                                                                                   NA
2389
      {\rm HMDB0062222}
                       NA
                                                                                                                   NA
      HMDB0062293
2390
                       NA
                                                                                                                   NA
      HMDB0062296
2391
                       NA
                                                                                                                   NA
      {\rm HMDB0062408}
2392
                       NA
                                                                                                                   NA
2393
       HMDB0137419
2394
      HMDB0137428
                       NA
                                                                                                                   NA
2395
      {\rm HMDB0183812}
                       NA
                                                                                                                   NA
2396
      HMDB0183814
                       NΑ
                                                                                                                   NΑ
      HMDB0183815
2397
                       NΑ
                                                                                                                   NA
      HMDB0183816
2398
                       NA
                                                                                                                   NA
2399
       HMDB0001337
                       Leukotriene A4
                                                                                                                   HMDB0001337
2400
       HMDB0036776
2401
      HMDB0036839
                       NΑ
                                                                                                                   NA
                       Methyl [8]-Shogaol
      HMDB0030101
                                                                                                                   HMDB0030101
2402
      HMDB0036930
2403
                       NA
                                                                                                                   NA
2404
      HMDB0036724
                       NA
                                                                                                                   NA
                                                                                                                   HMDB0035311
       HMDB0035311
2405
                       Galanal A
2406
      HMDB0039012
                       NA
                                                                                                                   NA
2407
      HMDB0036698
                       NA
                                                                                                                   NA
2408
      HMDB0036706
                       NA
                                                                                                                   NA
```

```
2409
      HMDB0037523
                       NA
                                                                                                                   NA
2410
       HMDB0036806
                       NA
                                                                                                                   NA
       HMDB0035116
                                                                                                                   HMDB0035116
2411
                       (ent-7alpha)-7-Hydroxy-8(14),15-pimaradien-19-oic acid
2412
      {\rm HMDB0039716}
                                                                                                                   NA
2413
      {\rm HMDB0005081}
                       5-HEPE
                                                                                                                   HMDB0005081
      HMDB0006027
                       \begin{array}{c} \text{Oxymesterone} \\ 12\text{-HEPE} \end{array}
2414
                                                                                                                   HMDB0006027
                                                                                                                   HMDB0010202
      HMDB0010202
2415
      HMDB0010205
                       14,15-EpETE
                                                                                                                   HMDB0010205
2416
      HMDB0010210
2417
                       15-KETE
                                                                                                                   {\rm HMDB0010210}
2418
       HMDB0010209
                       15-HEPE
                                                                                                                   HMDB0010209
2419
      {\rm HMDB0010212}
                       17,18-EpETE
                                                                                                                   {\rm HMDB0010212}
2420
      HMDB0010217
HMDB0041058
                       5-KETE
                                                                                                                   {\rm HMDB0010217}
2421
                       NΑ
                                                                                                                   NΑ
2422
      HMDB0036712
                       NΑ
                                                                                                                   NA
2423
       HMDB0038521
                       NA
                                                                                                                   NA
      {\rm HMDB0036752}
                       NA
2424
                                                                                                                   NA
2425
       HMDB0036713
                       NA
                       11R-HEPE
                                                                                                                   HMDB0012534
2426
      HMDB0012534
      HMDB0012611
                       18R-HEPE
                                                                                                                   HMDB0012611
2427
      HMDB0013633
                                                                                                                   HMDB0013633
2428
                       12-KETE
       HMDB0060053
2429
                       NA
                                                                                                                   NA
2430
       HMDB0061114
                       NA
                                                                                                                   NA
2431
      {\rm HMDB0179595}
                       NA
                                                                                                                   NA
                                                                                                                   HMDB0005764
2432
      HMDB0005764
                       Melanostatin
      HMDB0036329
2433
                       NA
                                                                                                                   NA
      HMDB0060578
                       NA
                                                                                                                   NA
2434
       HMDB0061098
2435
                       NA
                                                                                                                   NA
      HMDB0161587
2436
                       NA
                                                                                                                   NA
2437
      HMDB0138221
                       NA
                                                                                                                   NA
2438
      {\rm HMDB0030432}
                       Linalyl cinnamate
                                                                                                                   {\rm HMDB0030432}
2439
      HMDB0038050
      HMDB0003422
                                                                                                                   HMDB0003422
                       Boldione
2440
      HMDB0029913
2441
                                                                                                                   HMDB0029913
                       Gynocardin
       HMDB0240490
2442
                       NA
                                                                                                                   NA
      HMDB0059998
                       NA
                                                                                                                   NA
2443
2444
       HMDB0041272
                       NA
                                                                                                                   NA
2445
      HMDB0124997
                       NA
                                                                                                                   NA
      HMDB0029498
                                                                                                                   HMDB0029498
2446
                       3'-Methoxyfukiic acid
      HMDB0135181
                       NΑ
2447
                                                                                                                   NA
2448
       HMDB0125471
                       NA
                                                                                                                   NA
2449
       HMDB0004326
                       2'-O-Methyladenosine
                                                                                                                   {\rm HMDB0004326}
2450
      {\rm HMDB0004044}
                       N6-Methyladenosine
                                                                                                                   HMDB0004044
2451
      HMDB0006023
                       3'-O-Methyladenosine
                                                                                                                   HMDB0006023
2452
      HMDB0003331
                       1-Methyladenosine
                                                                                                                   HMDB0003331
2453
      HMDB0006832
                       S-Glutaryldihydrolipoamide
                                                                                                                   HMDB0006832
2454
       HMDB0037843
                       NA
                                                                                                                   NA
      HMDB0030266
                                                                                                                   HMDB0030266
2455
                       Berberrubine
2456
      {\rm HMDB0187656}
                       NA
                                                                                                                   HMDB0030391
2457
      {\rm HMDB0030391}
                       Cepharadione B
      HMDB0061366
                                                                                                                   NA
HMDB0029395
2458
                       NA
      HMDB0029395
                       L-L-Homoglutathione
2459
2460
      HMDB0135641
                       NA
                                                                                                                   NA
2461
       HMDB0179385
                       NA
                                                                                                                   NA
2462
      HMDB0179388
                       NA
                                                                                                                   NA
2463
      HMDB0179383
                       NA
                                                                                                                   NA
2464
      HMDB0179382
                       NA
                                                                                                                   NA
      HMDB0163720
2465
                       NA
                                                                                                                   NA
      HMDB0173550
2466
                       NΑ
                                                                                                                   NΑ
       HMDB0135574
                       NA
2467
                                                                                                                   NA
2468
       HMDB0135576
                       NA
                                                                                                                   NA
2469
      HMDB0135572
                       NA
                                                                                                                   NA
2470
      HMDB0135564
                       NA
                                                                                                                   NA
      HMDB0135568
2471
                       NA
                                                                                                                   NA
      HMDB0134573
                       NA
                                                                                                                   NA
2472
       HMDB0134571
2473
                       NA
                                                                                                                   NA
      HMDB0135570
2474
                       NA
                                                                                                                   NA
2475
      {\rm HMDB0158752}
                       NA
                                                                                                                   NA
2476
      HMDB0158753
                       NA
                                                                                                                   NA
      HMDR0155927
2477
                       NA
                                                                                                                   NA
      HMDB0155928
2478
                       NA
                                                                                                                   NA
2479
      HMDB0161130
                       NA
                                                                                                                   NA
       HMDB0041096
2480
2481
      HMDB0158750
                       NA
                                                                                                                   NA
2482
      {\rm HMDB0158751}
                       NA
                                                                                                                   NA
2483
      HMDB0159487
                       NA
                                                                                                                   NA
      HMDB0159488
2484
                       NΑ
                                                                                                                   NΑ
2485
      HMDB0159490
                       NA
                                                                                                                   NA
2486
       HMDB0159830
                       NA
                                                                                                                   ΝA
2487
       HMDB0161128
                       NA
                                                                                                                   NA
2488
      {\rm HMDB0161127}
                       NΑ
                                                                                                                   NA
2489
      HMDB0161129
                       NA
                                                                                                                   NA
      HMDB0161132
2490
                       NA
                                                                                                                   NA
      HMDB0161133
                       NA
                                                                                                                   NA
2491
       HMDB0166865
2492
                       NA
                                                                                                                   NA
2493
      HMDB0159483
                       NA
                                                                                                                   NA
2494
      HMDB0159484
                       NA
                                                                                                                   NA
2495
      HMDB0159482
                       NA
                                                                                                                   NA
```

```
2496
       HMDB0158755
                       NA
                                                                                                                   NA
                       NA
                                                                                                                   NA
2497
       HMDB0158759
2498
       HMDB0158758
                       NA
                                                                                                                    NA
2499
       {\rm HMDB0159491}
                       NA
                                                                                                                    NA
2500
       {\rm HMDB0158756}
                       NA
                                                                                                                   NA
2501
       HMDB0158876
                       NA
                                                                                                                   NA
2502
       HMDB0158877
                       NA
                                                                                                                   NA
2503
       HMDB0159485
                       NA
                                                                                                                   NA
       {\rm HMDB0061135}
                                                                                                                   NA
2504
                       NA
2505
       HMDB0015176
                                                                                                                   HMDB0015176
                       Melphalan
2506
       {\rm HMDB}0127928
                       NA
                                                                                                                   NA
2507
      HMDB0037110
HMDB0145098
                       NA
                                                                                                                   NA
                       NΑ
2508
                                                                                                                   NA
2509
       HMDB0175072
                       NA
                                                                                                                   NA
2510
       HMDB0041450
                       NA
                                                                                                                   NA
       {\rm HMDB0038322}
2511
                       NA
2512
       HMDB0032909
                       2-(4-Methoxyphenyl)naphthalic anhydride
                                                                                                                   HMDB0032909
2513
       {\rm HMDB}0175074
                       ΝÀ
                                                                                                                   NA
2514
       HMDB0175080
                       NΑ
                                                                                                                   NΑ
       HMDB0175081
2515
                       NA
                                                                                                                   NA
       HMDB0175083
                       NA
                                                                                                                   NA
2516
2517
       HMDB0175073
                       NA
                                                                                                                   NA
2518
       {\rm HMDB0175082}
                       NA
                                                                                                                   NA
2519
       HMDB0163581
                       NA
                                                                                                                   NA
       HMDB0163582
2520
                       NA
                                                                                                                   NA
       HMDB0163584
2521
                       NA
                                                                                                                   NA
       HMDB0038580
2522
                       NA
                                                                                                                   NA
       HMDB0033631
                                                                                                                    HMDB0033631
2523
                       Lactapiperanol D
2524
       {\rm HMDB0180021}
2525
       {\rm HMDB0180098}
                       NA
                                                                                                                   NA
2526
       HMDB0180100
                       NA
                                                                                                                   NA
       HMDB0180099
2527
                       NΑ
                                                                                                                   NΑ
       HMDB0180102
2528
                       NA
                                                                                                                   NA
       HMDB0034780
                                                                                                                    HMDB0034780
2529
                       Capsiate
2530
       {\rm HMDB0180103}
                       ΝÂ
2531
       HMDB0184951
                       NA
                                                                                                                   NA
2532
       HMDB0184949
                       NA
                                                                                                                   NA
       HMDB0184953
2533
                       NA
                                                                                                                   NA
       HMDB0012799
                                                                                                                   HMDB0012799
2534
                       5'-Carboxy-gamma-chromanol
       HMDB0184954
2535
                       NA
                                                                                                                   NA
2536
       HMDB0184950
2537
       {\rm HMDB0061677}
                       NA
                                                                                                                   NA
2538
       HMDB0000552
                       {\it 3-Methylglutarylcarnitine}
                                                                                                                   HMDB0000552
       HMDB0015334
2539
                       Nadolol
                                                                                                                   HMDB0015334
       HMDB0015345
2540
                       Metipranolol
                                                                                                                   HMDB0015345
2541
       HMDB0137251
                       NA
                                                                                                                   NA
2542
       HMDB0137254
                       NA
                                                                                                                   NA
2543
       {\rm HMDB0137256}
                       NA
                                                                                                                   NA
2544
       {\rm HMDB0137255}
                       NA
                                                                                                                   NA
       HMDB0137252
2545
                       NA
                                                                                                                   NA
       HMDB0137257
2546
                       NA
                                                                                                                   NA
       HMDB0137259
2547
                       NA
                                                                                                                   NA
2548
       HMDB0137261
                       NA
                                                                                                                    NA
2549
       {\rm HMDB0137264}
                       NA
                                                                                                                    NA
2550
       HMDB0137263
                       NA
                                                                                                                   NA
       HMDB0137265
2551
                       NA
                                                                                                                   NA
       HMDB0137266
2552
                       NA
                                                                                                                   NA
       HMDB0137267
2553
                       NΑ
                                                                                                                   NA
       HMDB0137268
2554
                       NA
                                                                                                                   NA
2555
       HMDB0137270
                       NA
                                                                                                                   NA
2556
       {\rm HMDB0179994}
                       NA
                                                                                                                   NA
       HMDB0180049
2557
                       NA
                                                                                                                   NA
       HMDB0041249
2558
                       NA
                                                                                                                   NA
       HMDB0036693
2559
                       NA
                                                                                                                   NA
       HMDB0034930
                       (3beta,6beta)-Furanoeremophilane-3,6-diol 6-acetate
                                                                                                                   HMDB0034930
2560
       HMDB0034738
                                                                                                                   HMDB0034738
2561
                       Isotrichodermin
2562
       {\rm HMDB0035687}
                       Acetylvalerenolic acid
                                                                                                                   {\rm HMDB0035687}
2563
       {\rm HMDB0039275}
                       NA
                                                                                                                   NA
       HMDB0034658
                       9-Acetoxyfukinanolide
                                                                                                                   HMDB0034658
2564
2565
       HMDB0000791
                                                                                                                   HMDB0000791
                       L-Octanoylcarnitine
       {\rm HMDB0039044}
2566
                       NA
                                                                                                                   NA
       HMDB0131544
                       NA
                                                                                                                   NA
2567
2568
       {\rm HMDB0153683}
                       NA
                                                                                                                   NA
2569
       {\rm HMDB0134716}
                       NA
                                                                                                                   NA
2570
       HMDB0131577
                       NA
                                                                                                                   NA
2571
       HMDB0140842
                       NΑ
                                                                                                                   NΑ
2572
       HMDB0039858
                       NA
                                                                                                                   NA
2573
       HMDB0150310
                       NA
                                                                                                                   NA
2574
       HMDB0150311
                                                                                                                   HMDB0030019
2575
       {\rm HMDB0030019}
                       4'-Methoxymucidin
2576
       HMDB0125543
                       NA
                                                                                                                   NA
       HMDB0125544
2577
                       NA
                                                                                                                   NA
                       NA
2578
       HMDB0125545
                                                                                                                   NA
2579
       HMDB0125547
                       NA
                                                                                                                   NA
2580
       HMDB0125546
                       NA
                                                                                                                   NA
2581
       HMDB0125548
                       NA
                                                                                                                   NA
2582
       HMDB0129031
                       NA
                                                                                                                   NA
```

```
HMDB0129032
2583
                       NA
                                                                                                                  NA
                       NA
                                                                                                                  NA
2584
       HMDB0141104
2585
       HMDB0141131
                       NA
                                                                                                                   NA
2586
      HMDB0141141
                       NA
                                                                                                                   NA
2587
      {\rm HMDB0141165}
                       NA
                                                                                                                  NA
2588
      HMDB0141171
                       NA
                                                                                                                  NA
2589
      HMDB0129034
                       NA
                                                                                                                  NA
2590
      HMDB0149106
                       NA
                                                                                                                  NA
       HMDB0140204
2591
                       NA
                                                                                                                  NA
2592
      {\rm HMDB0140116}
                       NA
2593
      {\rm HMDB0129033}
                       NA
                                                                                                                  NA
2594
      HMDB0129035
HMDB0129037
                       NA
                                                                                                                  NA
2595
                       NΑ
                                                                                                                  NA
2596
      HMDB0129036
                       NΑ
                                                                                                                  NΑ
2597
       HMDB0129038
                       NA
                                                                                                                  NA
                                                                                                                  NA
      HMDB0140114
                       NA
2598
2599
       HMDB0140118
                       NA
                                                                                                                   NA
2600
      HMDB0140117
                       NA
                                                                                                                  NA
2601
      HMDB0140115
                                                                                                                  NΑ
                       NA
      HMDB0146850
2602
                       NA
                                                                                                                  NA
       HMDB0040670
2603
                       NA
                                                                                                                  NA
2604
       HMDB0176556
                       NA
2605
      {\rm HMDB0013854}
                       N4-Acetylsulfamethoxazole
                                                                                                                  HMDB0013854
2606
      {\rm HMDB0167783}
                       NΑ
                                                                                                                  NA
      HMDB0167780
2607
                       NA
                                                                                                                  NA
      HMDB0034058
                                                                                                                  HMDB0034058
2608
                       Quinacridone
       HMDB0178297
2609
                       NA
                                                                                                                  NA
      HMDB0178295
2610
                       NA
                                                                                                                  NA
2611
       HMDB0128029
                       NA
                                                                                                                  NA
2612
      {\rm HMDB0171101}
                       NA
                                                                                                                  NA
2613
      HMDB0151544
                       NA
                                                                                                                  NA
      HMDB0151545
                                                                                                                  NA
2614
                       NΑ
2615
      {\rm HMDB0131260}
                       NA
                                                                                                                  NA
       HMDB0240531
2616
                       NA
                                                                                                                  NA
      HMDB0240529
                       NA
                                                                                                                   NA
2617
2618
       HMDB0131259
                       NA
                                                                                                                  NA
2619
      HMDB0131258
                       NA
                                                                                                                  NA
      HMDB0128028
2620
                       NA
                                                                                                                  NA
      HMDB0040621
2621
                       NA
                                                                                                                  NA
       HMDB0180003
2622
                       NA
                                                                                                                  NA
       HMDB0126429
2623
                       NA
                                                                                                                   NA
2624
      {\rm HMDB0124977}
                       NA
                                                                                                                  NA
2625
      HMDB0124976
                       NΑ
                                                                                                                  NA
2626
      HMDB0126430
                       NA
                                                                                                                  NA
2627
      HMDB0183406
                       NA
                                                                                                                  NA
2628
       HMDB0167831
                       NA
                                                                                                                  NA
      HMDB0167833
2629
                       NA
                                                                                                                  NA
2630
      {\rm HMDB0140804}
                       NA
                                                                                                                  NA
2631
      {\rm HMDB0128031}
                       NA
                                                                                                                  NA
                                                                                                                  HMDB0012267
2632
      HMDB0012267
                       N-Succinyl-L,L-2,6-diaminopimelate
      HMDB0062575
2633
                       NA
                                                                                                                  NA
                                                                                                                  HMDB0001235
2634
      {\rm HMDB0001235}
                       5-Aminoimidazole ribonucleotide
2635
       HMDB0029391
                       N-Jasmonoylisoleucine
                                                                                                                   HMDB0029391
2636
      HMDB0006320
                       2,6 Dimethylheptanoyl carnitine
                                                                                                                  HMDB0006320
2637
      HMDB0013288
                       Nonanoylcarnitine
                                                                                                                  {\rm HMDB0013288}
2638
      HMDB0038944
                       NΑ
                                                                                                                  NA
      HMDB0029283
                                                                                                                  HMDB0029283
                       Avenanthramide 1f
2639
      HMDB0125856
2640
                       NA
                                                                                                                  NA
       HMDB0146475
                       NA
                                                                                                                  NA
2641
2642
       HMDB0146474
                       NA
2643
      HMDB0014683
                       Amoxapine
                                                                                                                  HMDB0014683
2644
      HMDB0178275
                       NA
                                                                                                                  NA
      HMDB0162434
2645
                       NA
                                                                                                                  NA
      HMDB0162437
                       NA
                                                                                                                  NA
2646
       HMDB0162435
2647
                       NA
                                                                                                                  NA
      HMDB0162438
2648
                       NA
2649
      {\rm HMDB0035173}
                       2-Carboxy-1-[5-(2-carboxy-1-pyrrolidinyl)-2-hydroxy-2,4-pentadienylidene]pyrrolidinium
                                                                                                                  HMDB0035173
2650
      HMDB0181175
                       NA
                                                                                                                  NA
      HMDR0181176
2651
                       NΑ
                                                                                                                  NA
      HMDB0181179
2652
                       NA
                                                                                                                  NA
      HMDB0181180
2653
                       NA
                                                                                                                  NA
       HMDB0181177
                       NA
                                                                                                                   NA
2654
2655
      HMDB0181178
                       NA
                                                                                                                  NA
2656
      {\rm HMDB0178438}
                       NA
                                                                                                                  NA
2657
       HMDB0178443
                       NA
                                                                                                                  NA
      HMDB0032766
                                                                                                                  HMDB0032766
2658
                       N2-(2-Carboxymethyl-2-hydroxysuccinoyl)arginine
2659
      HMDB0134938
                       NA
                                                                                                                  NA
2660
       HMDB0013189
                       3-Indole carboxylic acid glucuronide
                                                                                                                  HMDB0013189
2661
       HMDB0011658
                       2,8-Dihydroxyquinoline-beta-D-glucuronide
                                                                                                                  {\rm HMDB0011658}
2662
      {\rm HMDB0131931}
                       NΑ
                                                                                                                  NA
2663
      HMDB0131929
                       NA
                                                                                                                  NA
      HMDB0137816
2664
                       NA
                                                                                                                  NA
                       NA
      HMDB0137819
                                                                                                                  NA
2665
       HMDB0137821
2666
                       NA
                                                                                                                  NA
2667
       HMDB0140538
                       NA
                                                                                                                  NA
2668
      HMDB0126563
                       NA
                                                                                                                  NA
2669
      HMDB0125037
                       NA
                                                                                                                  NA
```

```
2670
       HMDB0126566
                       NA
                                                                                                                     NA
                       NA
                                                                                                                     NA
2671
       HMDB0131932
2672
       HMDB0126564
                       NA
                                                                                                                     NA
2673
       {\rm HMDB0126567}
                       NA
                                                                                                                     NA
2674
       {\rm HMDB0126570}
                       NA
                                                                                                                     NA
       HMDB0125219
2675
                       NA
                                                                                                                     NA
2676
       HMDB0125216
                       NA
                                                                                                                     NA
2677
       HMDB0125207
                       NA
                                                                                                                     NA
       {\rm HMDB0125079}
2678
                       NA
                                                                                                                     NA
2679
       {\rm HMDB0125067}
                        NA
                                                                                                                     NA
2680
       {\rm HMDB0125052}
                       NA
                                                                                                                     NA
2681
       HMDB0126569
HMDB0128213
                       NA
                                                                                                                     NA
2682
                       NΑ
                                                                                                                     NΑ
2683
       HMDB0131759
                       NA
                                                                                                                     NA
2684
       HMDB0131760
                       NA
                                                                                                                     NA
       {\rm HMDB0131925}
                       NA
                                                                                                                     NA
2685
2686
       {\rm HMDB0131928}
                        NA
                                                                                                                     NA
2687
       {\rm HMDB0140542}
                       NA
                                                                                                                     NA
2688
       HMDB0140556
                       NΑ
                                                                                                                     NA
       HMDB0167579
2689
                       NA
                                                                                                                     NA
       HMDB0152484
                       NA
2690
                                                                                                                     NA
2691
       HMDB0167582
                       NA
                                                                                                                     NA
2692
       {\rm HMDB0167580}
                       NA
                                                                                                                     NA
2693
       HMDB0167581
                       NA
                                                                                                                     NA
                       trans-3,3',4',5,5',7\text{-}Hexahydroxyflavanone
       HMDB0030835
                                                                                                                     HMDB0030835
2694
       HMDB0152029
2695
                       NA
                                                                                                                     NA
       {\rm HMDB0152031}
2696
                       NA
                                                                                                                     NA
       HMDB0152038
2697
                       NA
                                                                                                                     NA
2698
       {\rm HMDB0152035}
                        NA
                                                                                                                     NA
2699
       {\rm HMDB0152036}
                       NA
                                                                                                                     NA
2700
       HMDB0152037
                       NA
                                                                                                                     NA
       HMDB0152402
                       NΑ
                                                                                                                     NA
2701
       HMDB0152479
2702
                       NA
                                                                                                                     NA
       HMDB0039815
                       NA
                                                                                                                     NA
2703
2704
       HMDB0127839
                       NA
                                                                                                                     NA
2705
       {\rm HMDB0128709}
                        NA
                                                                                                                     NA
2706
       HMDB0125826
                       NA
                                                                                                                     NA
2707
       HMDB0125820
                       NA
                                                                                                                     NA
       HMDB0127778
2708
                                                                                                                     NΑ
                       NA
       HMDB0127840
                       NA
2709
                                                                                                                     NA
2710
       HMDB0127779
                       NA
                                                                                                                     NA
2711
       {\rm HMDB0125825}
                       NA
                                                                                                                     NA
2712
       HMDB0172923
                       NΑ
                                                                                                                     NA
2713
       HMDB0172926
                       NA
                                                                                                                     NA
2714
       HMDB0141622
                       NA
                                                                                                                     NA
2715
       HMDB0034767
                        (1R*,3R*,3'S*)-1,2,3,4-Tetrahydro-1-(2-thio-3-pyrrolidinyl)-beta-carboline-3-carboxylic acid
                                                                                                                     HMDB0034767
2716
       {\rm HMDB0142252}
                       ΝA
                                                                                                                     NA
2717
       {\rm HMDB0172514}
                        NA
                                                                                                                     NA
2718
       {\rm HMDB0172522}
                       NA
                                                                                                                     NA
       HMDB0158878
                                                                                                                     NA
NA
2719
                       NA
       HMDB0166871
2720
                       NA
2721
       HMDB0166874
                       NA
                                                                                                                     NA
2722
       HMDB0166876
                       NA
                                                                                                                     NA
2723
       HMDB0166877
                        NA
                                                                                                                     NA
2724
       HMDB0158883
                       NA
                                                                                                                     NA
2725
       HMDB0158879
                       NA
                                                                                                                     NA
2726
       HMDB0166873
                       NA
                                                                                                                     NA
       HMDB0158880
2727
                       NA
                                                                                                                     NΑ
       HMDB0158886
                       NA
                                                                                                                     NA
2728
2729
       HMDB0158885
                        NA
                                                                                                                     NA
2730
       HMDB0160786
                       NA
                                                                                                                     NA
2731
       HMDB0160787
                       NA
                                                                                                                     NA
       HMDB0166859
2732
                       NA
                                                                                                                     NA
       HMDB0166870
                                                                                                                     NA
2733
                       NA
       HMDB0158882
2734
                       NA
                                                                                                                     NA
2735
       HMDB0158881
                       NA
                                                                                                                     NA
2736
       HMDB0158887
                        NA
                                                                                                                     NA
2737
       HMDB0157435
                       NA
                                                                                                                     NA
       HMDR0157434
2738
                       NA
                                                                                                                     NA
2739
       HMDB0156934
                                                                                                                     NA
                       NA
       {\rm HMDB0156933}
2740
                       NA
                                                                                                                     NA
2741
       HMDB0157433
                        NA
2742
       HMDB0156932
                       NA
                                                                                                                     NA
2743
       {\rm HMDB0152126}
                       NA
                                                                                                                     NA
\begin{array}{c} 2744 \\ 2745 \end{array}
       HMDB0152125
                       NA
                                                                                                                     NA
       HMDB0160788
                                                                                                                     NA
                       NΑ
2746
       HMDB0039724
                       NA
                                                                                                                     NA
2747
       HMDB0039726
                        Acaciabiuronic acid
2748
       HMDB0029938
                                                                                                                     {\rm HMDB0029938}
2749
       HMDB0039722
                       NΑ
                                                                                                                     NA
2750
       HMDB0155824
                       NA
                                                                                                                     NA
       HMDB0156218
2751
                       NA
                                                                                                                     NA
                       NA
                                                                                                                     NA
2752
       HMDB0157438
2753
       HMDB0157437
                       NA
                                                                                                                     NA
2754
       HMDB0157439
                       NA
                                                                                                                     NA
2755
       {\rm HMDB0157441}
                       NA
                                                                                                                     NA
2756
       HMDB0157440
                       NA
                                                                                                                     NA
```

```
HMDB0166391
2757
                       NA
                                                                                                                     NA
                       NA
                                                                                                                     NA
2758
       HMDB0166390
2759
       HMDB0166392
                       NA
                                                                                                                      NA
2760
       {\rm HMDB0156220}
                       NA
                                                                                                                      NA
2761
       {\rm HMDB0156219}
                       NA
                                                                                                                     NA
       HMDB0155322
2762
                       NA
                                                                                                                     NA
2763
       HMDB0125610
                       NA
                                                                                                                     NA
2764
       HMDB0125611
                       NA
                                                                                                                     NA
       HMDB0125612
2765
                       NA
                                                                                                                     NA
2766
       HMDB0125609
                        NA
2767
       {\rm HMDB0156221}
                       NA
                                                                                                                     NA
2768
      HMDB0155320
HMDB0155318
                       NA
                                                                                                                     NA
2769
                       NΑ
                                                                                                                     NΑ
2770
       HMDB0155319
                       NA
                                                                                                                     NA
2771
       HMDB0155321
                       NA
                                                                                                                     NA
       {\rm HMDB0166393}
                       NA
2772
2773
       HMDB0005011
                        Clopidogrel
                                                                                                                     {\rm HMDB0005011}
2774
       HMDB0175192
                       NA
                                                                                                                     NA
2775
       HMDB0128893
                       NΑ
                                                                                                                     NΑ
       HMDB0062467
2776
                       NA
                                                                                                                     NA
                       NA
                                                                                                                     NA
2777
       HMDB0128890
2778
       HMDB0128891
                       NA
                                                                                                                     NA
2779
       {\rm HMDB0149084}
                        NA
                                                                                                                     NA
2780
       HMDB0164007
                       NΑ
                                                                                                                     NA
2781
       HMDB0149086
                        NA
                                                                                                                     NA
       HMDB0033659
                       Dihydrohydroxy-O-methylsterigmatocystin
                                                                                                                     HMDB0033659
2782
       HMDB0030589
2783
                        O-Methylsterigmatocystin
                                                                                                                     {\rm HMDB0030589}
       HMDB0148696
2784
                       NA
                                                                                                                     NA
2785
       {\rm HMDB0148232}
                        NA
                                                                                                                     NA
2786
       {\rm HMDB0030619}
                        Ovalitenone
                                                                                                                     HMDB0030619
2787
       HMDB0163589
                       NA
                                                                                                                     NA
HMDB0014743
       HMDB0014743
                       Sulindac
2788
       HMDB0147815
2789
                       NA
                                                                                                                     NA
       HMDB0147744
                        NA
                                                                                                                     NA
2790
2791
       HMDB0147742
                        NA
                                                                                                                     NA
2792
       HMDB0147651
                        NA
                                                                                                                     NA
2793
       HMDB0150253
                       NA
                                                                                                                     NA
2794
       HMDB0147649
                       NA
                                                                                                                     NA
       HMDB0150255
2795
                        NA
                                                                                                                     NA
       HMDB0147648
2796
                       NA
                                                                                                                     NA
2797
       HMDB0033298
                       3\hbox{-}(3,4\hbox{-}\mathrm{Dihydroxybenzyl})\hbox{-}7\hbox{-}\mathrm{hydroxy}\hbox{-}5\hbox{-}\mathrm{methoxy}\hbox{-}4\hbox{-}\mathrm{chromanone}
                                                                                                                     HMDB0033298
2798
       {\rm HMDB0148509}
                       NÀ
                                                                                                                     NA
2799
       HMDB0148510
                       NΑ
                                                                                                                     NA
2800
       HMDB0148508
                       NA
                                                                                                                     NA
2801
       HMDB0148507
                       NA
                                                                                                                     NA
2802
       HMDB0148512
                       NA
                                                                                                                     NA
       HMDB0147889
                       NA
2803
                                                                                                                     NA
2804
       {\rm HMDB0148511}
                        NA
                                                                                                                     NA
2805
       {\rm HMDB0147535}
                       NA
                                                                                                                     NA
       HMDB0147529
2806
                       NA
                                                                                                                     NA
       HMDB0138112
2807
                       NA
                                                                                                                     NA
       HMDB0137444
2808
                       NA
                                                                                                                     NA
2809
       HMDB0137443
                        NA
                                                                                                                      NA
2810
       HMDB0137442
                        NA
                                                                                                                      NA
2811
       HMDB0135788
                       NA
                                                                                                                     NA
       HMDB0133961
2812
                       NA
                                                                                                                     NA
       HMDB0133962
2813
                       NA
                                                                                                                     NA
       HMDB0133959
2814
                       NA
                                                                                                                     NΑ
       HMDB0133957
                       NA
                                                                                                                     ΝA
2815
2816
       HMDB0133958
                        NA
2817
       HMDB0133295
                       NA
                                                                                                                     NA
2818
       HMDB0138110
                       NA
                                                                                                                     NA
       HMDB0138111
2819
                       NA
                                                                                                                     NA
       HMDB0146399
2820
                       NA
                                                                                                                     NA
       HMDB0146753
2821
                       NA
                                                                                                                     NA
2822
       HMDB0146751
                       NA
                                                                                                                      NA
2823
       {\rm HMDB0146573}
                       NA
                                                                                                                     NA
2824
       {\rm HMDB0146572}
                       NA
                                                                                                                     NA
       HMDR0146426
2825
                       NA
                                                                                                                     NA
       HMDB0146422
2826
                       NA
                                                                                                                     NA
       {\rm HMDB0146412}
2827
                       NA
                                                                                                                     NA
2828
       HMDB0140872
                        NA
2829
       HMDB0138632
                        NA
                                                                                                                      NA
2830
       {\rm HMDB0133294}
                       NA
                                                                                                                     NA
2831
       HMDB0151836
                       NΑ
                                                                                                                     NΑ
       HMDB0037749
2832
                       NA
                                                                                                                     NA
       HMDB0033797
2833
                       Olivin
                                                                                                                     HMDB0033797
2834
       HMDB0033924
                        Cajanol
                                                                                                                      HMDB0033924
                        Homoferreirin
2835
       HMDB0030111
                                                                                                                     HMDB0030111
2836
       {\rm HMDB0041790}
                       NΑ
                                                                                                                     NA
2837
       HMDB0037481
                       NΑ
                                                                                                                     NA
       HMDB0033692
                                                                                                                     HMDB0033692
                       Melilotocarpan D
2838
2839
       HMDB0037477
                       NA
                                                                                                                     NA
       HMDB0152003
                       NA
                                                                                                                     NA
2840
2841
       HMDB0152002
                       NA
                                                                                                                     HMDB0033683
2842
       HMDB0033683
                       Melilotocarpan E
2843
       HMDB0151832
                       NA
                                                                                                                     NA
```

```
HMDB0151833
2844
                       NA
                                                                                                                     NA
                       NA
                                                                                                                     NA
2845
       HMDB0151834
       HMDB0151632
                                                                                                                     NA
2846
                       NA
2847
       {\rm HMDB}0151630
                       NA
                                                                                                                     NA
2848
       {\rm HMDB0151631}
                       NA
                                                                                                                     NA
2849
       HMDB0152601
                       NA
                                                                                                                     NA
2850
       HMDB0153237
                       NA
                                                                                                                     NA
2851
       HMDB0037251
                       NA
                                                                                                                     NA
       HMDB0154307
2852
                       NA
                                                                                                                     NA
2853
       {\rm HMDB}0153788
                       NA
2854
       {\rm HMDB0041234}
                       NA
                                                                                                                     NA
2855
      HMDB0153512
HMDB0153415
                       NA
                                                                                                                     NA
2856
                       NΑ
                                                                                                                     NΑ
2857
       HMDB0151417
                       NA
                                                                                                                     NA
2858
       HMDB0146221
                       NA
                                                                                                                     NA
       {\rm HMDB0146754}
                       NA
                                                                                                                     NA
2859
2860
       {\rm HMDB0147650}
                       NA
                                                                                                                     NA
2861
       HMDB0138109
                       NA
                                                                                                                     NA
2862
       HMDB0147743
                       NΑ
                                                                                                                     NΑ
       HMDB0132897
2863
                       NA
                                                                                                                     NA
2864
       HMDB0128591
                       NA
                                                                                                                     NA
2865
       HMDB0128590
                       NA
                                                                                                                     NA
2866
       {\rm HMDB0128197}
                       NA
                                                                                                                     NA
2867
       HMDB0126060
                       NA
                                                                                                                     NA
       HMDB0124872
2868
                       NA
                                                                                                                     NA
       HMDB0130367
2869
                       NA
                                                                                                                     NA
       {\rm HMDB0132894}
2870
                       NA
                                                                                                                     NA
       HMDB0132895
2871
                       NA
                                                                                                                     NA
2872
       {\rm HMDB0132890}
                       NA
                                                                                                                     NA
2873
       {\rm HMDB0132891}
                       NA
                                                                                                                     NA
2874
       HMDB0132883
                       NA
                                                                                                                     NA
       HMDB0132866
                       NΑ
                                                                                                                     NA
2875
2876
       {\rm HMDB0131742}
                       NA
                                                                                                                     NA
       HMDB0131738
2877
                       NA
                                                                                                                     NA
2878
       {\rm HMDB0130897}
                       NA
                                                                                                                     NA
2879
       {\rm HMDB0130669}
                       NA
                                                                                                                     NA
2880
       HMDB0130668
                       NA
                                                                                                                     NA
       HMDB0130395
2881
                       NA
                                                                                                                     NA
       HMDB0130391
2882
                       NA
                                                                                                                     NA
       HMDB0146752
2883
                       NA
                                                                                                                     NA
2884
       HMDB0154672
                       NA
2885
       {\rm HMDB0154674}
                       NA
                                                                                                                     NA
2886
       HMDB0154675
                       NΑ
                                                                                                                     NA
2887
       HMDB0154673
                       NA
                                                                                                                     NA
2888
       HMDB0154671
                       NA
                                                                                                                     NA
2889
       HMDB0154670
                       NA
                                                                                                                     NA
2890
       HMDB0029566
                                                                                                                     HMDB0029566
                       Isopulegone caffeate
2891
       {\rm HMDB0154668}
2892
       {\rm HMDB0134704}
                       NA
                                                                                                                     NA
2893
       HMDB0147915
                       NA
                                                                                                                     NA
       HMDB0154665
2894
                       NA
                                                                                                                     NA
       HMDB0154669
2895
                       NA
                                                                                                                     NA
2896
       HMDB0154666
                       NA
                                                                                                                     NA
2897
       {\rm HMDB0154667}
                       NA
                                                                                                                     NA
2898
       {\rm HMDB0148183}
                       NA
                                                                                                                     NA
       HMDB0153649
2899
                       NA
                                                                                                                     NA
       HMDB0125854
2900
                       NA
                                                                                                                     NA
       HMDB0141256
2901
                       NA
                                                                                                                     NA
       HMDB0124819
                       NA
2902
                                                                                                                     NA
2903
       HMDB0125836
                       NA
2904
       HMDB0125842
                       NA
                                                                                                                     NA
2905
       HMDB0133467
                       NA
                                                                                                                     NA
       HMDB0041386
                       NA
2'-O-Methylphaseollinisoflavan
2906
                                                                                                                     NA
       HMDB0034412
2907
                                                                                                                     HMDB0034412
       HMDB0039439
2908
                       NA
                                                                                                                     NA
       {\rm HMDB0033672}
                       4'-O-Methylglabridin
                                                                                                                     HMDB0033672
2909
2910
       {\rm HMDB0029514}
                       Licochalcone A
                                                                                                                     HMDB0029514
2911
       HMDB0033782
                       Bergamottin
                                                                                                                     HMDB0033782
       HMDB0039309
                                                                                                                     \begin{array}{c} {\rm NA} \\ {\rm HMDB0030846} \end{array}
2912
                       NA
2913
       HMDB0030846
                       Archangelin
       {\rm HMDB0039438}
2914
                       NA
                                                                                                                     NA
2915
       HMDB0033671
                       2'-O-Methylglabridin
                                                                                                                     HMDB0033671
2916
       HMDB0032665
                       Licoagrocarpin
                                                                                                                     HMDB0032665
2917
       {\rm HMDB0031633}
                       Orientanol B
                                                                                                                     HMDB0031633
2918
       HMDB0001272
                       Nicotine glucuronide
                                                                                                                     HMDB0001272
       HMDB0032808
2919
                       Niazirinin
                                                                                                                     HMDB0032808
       HMDB0131864
2920
                       NA
                                                                                                                     NA
2921
       HMDB0124924
                       NA
                                                                                                                     NA
2922
       HMDB0131867
                       NA
                                                                                                                     NA
2023
       {\rm HMDB0133539}
                       NΑ
                                                                                                                     NA
2924
       HMDB0124927
                       NA
                                                                                                                     NA
       HMDB0125807
2925
                       NA
                                                                                                                     NA
2926
       HMDB0131075
                       NA
                                                                                                                     NA
2927
       HMDB0133516
                       NA
                                                                                                                     NA
2928
       HMDB0133495
                       NA
                                                                                                                     NA
2929
       HMDB0133485
                       NA
                                                                                                                     NA
2930
       HMDB0133468
                       NA
                                                                                                                     NA
```

```
2931
       HMDB0131866
                       NA
                                                                                                                   NA
                       NA
                                                                                                                   NA
2932
       HMDB0131865
       HMDB0124928
2933
                       NA
                                                                                                                   NA
2934
       {\rm HMDB0124929}
                       NA
                                                                                                                   NA
2935
       {\rm HMDB0124838}
                       NA
                                                                                                                   NA
2936
       HMDB0124800
                       NA
                                                                                                                   NA
2937
       HMDB0124826
                       NA
                                                                                                                   NA
2938
       HMDB0124829
                       NA
                                                                                                                   NA
       HMDB0124835
2939
                       NA
                                                                                                                   NA
2940
       HMDB0124837
                       NA
2941
       {\rm HMDB0124922}
                       NA
                                                                                                                   NA
2942
       HMDB0130876
                       NA
                                                                                                                   NA
       HMDB0138809
2943
                       NΑ
                                                                                                                   NA
2944
       HMDB0150217
                       NΑ
                                                                                                                   NΑ
2945
       HMDB0150219
                       NA
                                                                                                                   NA
       {\rm HMDB0124822}
                       NA
2946
                                                                                                                   NA
2947
       HMDB0150216
                       NA
                                                                                                                   NA
2948
       HMDB0150218
                       NA
                                                                                                                   NA
2949
       HMDB0150215
                       NΑ
                                                                                                                   NΑ
       HMDB0147761
2950
                       NA
                                                                                                                   NA
       HMDB0147762
2951
                       NA
                                                                                                                   NA
2952
       HMDB0147765
                       NA
                                                                                                                   NA
2953
       {\rm HMDB0147767}
                       NA
                                                                                                                   NA
2954
       HMDB0147766
                       NA
                                                                                                                   NA
       HMDB0147764
2955
                       NA
                                                                                                                   NA
       HMDB0147768
2956
                       NA
                                                                                                                   NA
       HMDB0147769
2957
                       NA
                                                                                                                   NA
       HMDB0149836
2958
                       NA
                                                                                                                   NA
2959
       HMDB0150181
                       NA
                                                                                                                   NA
2960
       {\rm HMDB0150186}
                       NA
                                                                                                                   NA
2961
       HMDB0150185
                       NA
                                                                                                                   NA
       HMDB0150182
                       NΑ
2962
                                                                                                                   NΑ
2963
       {\rm HMDB0150184}
                       NA
                                                                                                                   NA
       HMDB0150187
2964
                       NA
                                                                                                                   NA
       HMDB0150214
2965
                       NA
2966
       HMDB0035440
                       alpha,beta-Dihydroxanthohumol
                                                                                                                   HMDB0035440
2967
       HMDB0030666
                       Chalepin acetate
                                                                                                                   HMDB0030666
       HMDB0035403
                                                                                                                   HMDB0035403
2968
                       Gingerenone A
       HMDB0030798
                                                                                                                   HMDB0030798
2969
                       Myricanone
       HMDB0033880
                       Mammea B/AC cyclo D
2970
                                                                                                                   HMDB0033880
2971
       HMDB0033879
                       Mammea B/AD cyclo D
                                                                                                                   HMDB0033879
2972
       {\rm HMDB0030333}
                       Fragransol C
                                                                                                                   HMDB0030333
2973
       HMDB0041401
                       NΑ
                                                                                                                   NA
2974
       HMDB0138808
                       NA
                                                                                                                   NA
2975
       HMDB0184970
                       NA
                                                                                                                   NA
2976
       HMDB0184809
                       NA
                                                                                                                   NA
2977
       HMDB0030936
                                                                                                                   HMDB0030936
                       5,8,12-Trihydroxy-9-octadecenoic acid
2978
       {\rm HMDB0038555}
2979
       {\rm HMDB0172549}
                       NA
                                                                                                                   NA
                                                                                                                   HMDB0004710
2980
       HMDB0004710
                       9,10,13-TriHOME
       HMDB0004708
                       9.12.13-TriHOME
                                                                                                                   HMDB0004708
2981
2982
       {\rm HMDB0062299}
                       ΝA
                                                                                                                   NA
2983
       HMDB0062691
                       NA
                                                                                                                   NA
       HMDB0186066
                       NA
                                                                                                                   NA
2984
2985
       {\rm HMDB0186064}
                       NA
                                                                                                                   NA
2986
       HMDB0186065
                       NA
                                                                                                                   NA
       HMDB0186063
2987
                       NA
                                                                                                                   NA
       HMDB0186062
2988
                       NΑ
                                                                                                                   NΑ
       HMDB0186061
                       NA
2989
                                                                                                                   NA
2990
       HMDB0186060
                       NA
2991
       HMDB0186059
                       NA
                                                                                                                   NA
2992
       HMDB0183411
                       NΑ
                                                                                                                   NA
       HMDB0164486
2993
                       NA
                                                                                                                   NA
       HMDB0062798
2994
                       NA
                                                                                                                   NA
       HMDB0062291
2995
                       NA
                                                                                                                   NA
       HMDB0005077
                       8-iso-15-keto-PGF2a
                                                                                                                   HMDB0005077
2996
2997
       {\rm HMDB0060042}
                                                                                                                   NA
2998
       HMDB0060041
                       NA
                                                                                                                   NA
       HMDB0012587
                                                                                                                   HMDB0012587
2999
                       15-Epi-lipoxin A4
                       13,14-Dihydro-15-oxo-lipoxin A4
(5Z)-(15S)-11alpha-Hydroxy-9,15-dioxoprostanoate
       HMDB0012564
                                                                                                                   HMDB0012564
3000
       HMDB0012481
3001
                                                                                                                   {\rm HMDB0012481}
       HMDB0002363
                       Levuglandin E2
                                                                                                                   HMDB0002363
3002
3003
       HMDB0002132
                       8-iso-PGF3a
                                                                                                                   HMDB0002132
3004
       {\rm HMDB0002122}
                       Prostaglandin F3a
                                                                                                                   HMDB0002122
                       20-Hydroxy-leukotriene B4
3005
       HMDB0001509
                                                                                                                   HMDB0001509
       HMDB0001452
                                                                                                                   HMDB0001452
3006
                       Thromboxane A2
3007
       HMDB0001381
                       Prostaglandin H2
                                                                                                                   HMDB0001381
3008
       HMDB0001335
                       Prostaglandin I2
                                                                                                                   HMDB0001335
3009
       HMDB0001320
                       (13E)-11a-Hydroxy-9,15-dioxoprost-13-enoic acid
                                                                                                                   {\rm HMDB0001320}
3010
       {\rm HMDB0001403}
                       Prostaglandin D2
                                                                                                                   HMDB0001403
3011
       HMDB0002400
                       Levuglandin D2
                                                                                                                   HMDB0002400
                       13,14-Dihydro-15-keto-PGE2
       HMDB0002776
                                                                                                                   HMDB0002776
3012
       HMDB0004240
                                                                                                                   HMDB0004240
3013
                       15-Keto-prostaglandin F2a
       HMDB0035064
                                                                                                                   {\rm HMDB0035064}
3014
                       Cinncassiol D4
3015
       HMDB0034676
                       Cinncassiol D1
                                                                                                                   {\rm HMDB0034676}
3016
       HMDB0035338
                       Sterebin B
                                                                                                                   HMDB0035338
3017
       HMDB0035339
                       Sterebin C
                                                                                                                   HMDB0035339
```

```
HMDB0036756
3018
                       NA
                                                                                                                   NA
                                                                                                                   HMDB0005844
3019
       HMDB0005844
                       8-isoprostaglandin E2
       HMDB0005082
                       Lipoxin B4
                                                                                                                   HMDB0005082
3020
                       Lipoxin A4
3021
       {\rm HMDB0004385}
                                                                                                                   HMDB0004385
3022
       {\rm HMDB0001220}
                       Prostaglandin E2
                                                                                                                   HMDB0001220
       HMDB0062746
                                                                                                                   ^{\rm NA}_{\rm HMDB0013039}
3023
                       NΑ
       HMDB0013039
                       Prostaglandin G1
3024
                                                                                                                   HMDB0012502
3025
       HMDB0012502
                       10,11-dihydro-20-dihydroxy-LTB4
       HMDB0004049
                       20-Hydroxy-PGF2a
3026
                                                                                                                   HMDB0004049
3027
       HMDB0003252
                       Thromboxane B2
                                                                                                                   HMDB0003252
                       6-Keto-prostaglandin F1a
3028
       {\rm HMDB0002886}
                                                                                                                   {\rm HMDB0002886}
3029
      HMDB0013627
HMDB0041301
                       Cervonoyl ethanolamide
                                                                                                                   HMDB0013627
3030
                       NΑ
                                                                                                                   NΑ
       HMDB0014629
                                                                                                                   HMDB0014629
3031
                       Nabilone
3032
       HMDB0156539
                       NA
                                                                                                                   NA
       {\rm HMDB0159326}
                       NA
                                                                                                                   NA
3033
3034
       {\rm HMDB0158258}
                       NA
                                                                                                                   NA
3035
       HMDB0039760
                       NA
                                                                                                                   NA
       HMDB0185130
                       NA
                                                                                                                   NA
3036
       HMDB0062725
3037
                       NA
                                                                                                                   NA
       HMDB0038910
3038
                       NA
                                                                                                                   NA
3039
       HMDB0035676
                       1-Hydroxy-1-phenyl-3-hexadecanone
                                                                                                                   HMDB0035676
3040
       {\rm HMDB0035677}
                       3-Hydroxy-1-phenyl-1-hexadecanone
                                                                                                                   HMDB0035677
3041
       HMDB0002226
                       Adrenic acid
                                                                                                                   HMDB0002226
       HMDB0062580
3042
                       NA
                                                                                                                   NA
       HMDB0184508
                       NA
                                                                                                                   NA
3043
       {\rm HMDB0156540}
3044
                       NA
                                                                                                                   NA
       HMDB0128445
3045
                       NA
                                                                                                                   NA
3046
       {\rm HMDB0128454}
                       NA
                                                                                                                   NA
3047
       {\rm HMDB0128439}
                       NA
                                                                                                                   NA
3048
       HMDB0128457
                       NA
                                                                                                                   NA
       HMDB0128441
                       NΑ
                                                                                                                   NA
3049
       HMDB0128456
3050
                       NA
                                                                                                                   NA
       HMDB0128453
3051
                       NA
                                                                                                                   NA
       HMDB0128449
                       NA
                                                                                                                   NA
3052
3053
       {\rm HMDB0128450}
                       NA
                                                                                                                   NA
3054
       HMDB0128452
                       NA
                                                                                                                   NA
       HMDB0128448
3055
                       NA
                                                                                                                   NA
       HMDB0128446
3056
                                                                                                                   NΑ
                       NA
       HMDB0128442
                       NA
3057
                                                                                                                   NA
3058
       HMDB0128444
3059
       {\rm HMDB0128438}
                       NA
                                                                                                                   NA
3060
       HMDB0128437
                       NΑ
                                                                                                                   NA
3061
       HMDB0128458
                       NA
                                                                                                                   NA
3062
       HMDB0177036
                       NA
                                                                                                                   NA
3063
       {\rm HMDB0059612}
                       NA
                                                                                                                   NA
       HMDB0177043
3064
                       NA
                                                                                                                   NA
3065
       {\rm HMDB0147189}
                       NA
                                                                                                                   NA
3066
       {\rm HMDB0147188}
                       NA
                                                                                                                   NA
       HMDB0148992
3067
                       NA
                                                                                                                   NA
       HMDB0177490
3068
                       NA
                                                                                                                   NA
       HMDB0147184
3069
                       NA
                                                                                                                   NA
3070
       HMDB0140356
                       NA
                                                                                                                   NA
3071
       HMDB0138063
                       NA
                                                                                                                   NA
3072
       {\rm HMDB0128976}
                       NA
                                                                                                                   NA
       HMDB0128981
3073
                       NA
                                                                                                                   NA
       HMDB0128983
3074
                       NA
                                                                                                                   NA
       HMDB0131634
3075
                       NΑ
                                                                                                                   NΑ
       HMDB0131637
                                                                                                                   ΝA
3076
                       NA
3077
       HMDB0138062
                       NA
3078
       HMDB0147185
                       NA
                                                                                                                   NA
       HMDB0041882
3079
                       NA
                                                                                                                   NA
       HMDB0184507
3080
                       NA
                                                                                                                   NA
       HMDB0184503
                       NA
                                                                                                                   NA
3081
       HMDB0157679
3082
                       NA
                                                                                                                   NA
                                                                                                                   ΝA
       HMDB0159749
3083
                       NA
3084
       {\rm HMDB0184460}
                       NA
                                                                                                                   NA
3085
       {\rm HMDB0184500}
                       NA
                                                                                                                   NA
       HMDB0184502
3086
                       NA
                                                                                                                   NA
       HMDB0184506
                       NA
3087
                                                                                                                   NA
       {\rm HMDB0184505}
3088
                       NA
                                                                                                                   NA
3089
       HMDB0184504
3090
       HMDB0184501
                       NA
                                                                                                                   NA
3091
       {\rm HMDB0240595}
                       NA
                                                                                                                   NA
3092
       HMDB0184271
                       NA
                                                                                                                   NA
       HMDB0183492
3093
                       NΑ
                                                                                                                   NΑ
       HMDB0156837
3094
                       NA
                                                                                                                   NA
3095
       HMDB0156831
                       NA
                                                                                                                   ΝA
3096
       HMDB0156835
                       NA
                                                                                                                   NA
3097
       {\rm HMDB0156889}
                       NΑ
                                                                                                                   NA
       HMDB0156836
3098
                       NA
                                                                                                                   NA
       HMDB0157597
3099
                       NA
                                                                                                                   NA
       HMDB0157601
                       NA
                                                                                                                   NA
3100
       HMDB0157602
3101
                       NA
                                                                                                                   NA
3102
       {\rm HMDB}0157742
                       NA
                                                                                                                   NA
3103
       {\rm HMDB}0157743
                       NA
                                                                                                                   NA
3104
       HMDB0157738
                       NA
                                                                                                                   NA
```

```
3105
       HMDB0157739
                        NA
                                                                                                                       NA
                        NA
                                                                                                                       NA
3106
       HMDB0157603
       HMDB0157604
3107
                        NA
                                                                                                                       NA
3108
       {\rm HMDB}0157599
                        NA
                                                                                                                       NA
3109
       {\rm HMDB0157600}
                        NA
                                                                                                                       NA
3110
       HMDB0156838
                        NA
                                                                                                                       NA
       HMDB0156832
                        NA
                                                                                                                       NA
3111
       HMDB0155046
                        NA
                                                                                                                       NA
3112
3113
       {\rm HMDB0156806}
                        NA
                                                                                                                       NA
3114
       HMDB0156826
                        NA
3115
       {\rm HMDB0156827}
                        NA
                                                                                                                       NA
3116
       HMDB0156829
HMDB0156830
                        NA
                                                                                                                       NA
3117
                        NΑ
                                                                                                                       NA
3118
       HMDB0156828
                        NΑ
                                                                                                                       NΑ
3119
       HMDB0156834
                        NA
                                                                                                                       NA
       {\rm HMDB0156833}
                        NA
3120
                                                                                                                       NA
3121
       HMDB0157740
                        NA
                                                                                                                       NA
3122
       HMDB0157741
                        NA
                                                                                                                       NA
       HMDB0158276
                                                                                                                       NΑ
3123
                        NA
       HMDB0167960
                        NA
                                                                                                                       NA
3124
3125
       HMDB0167961
                        NA
                                                                                                                       NA
3126
       HMDB0167962
                        NA
                                                                                                                       NA
3127
       {\rm HMDB0167964}
                        NA
                                                                                                                       NA
3128
       HMDB0167963
                        NA
                                                                                                                       NA
       HMDB0167966
3129
                        NA
                                                                                                                       NA
       HMDB0167965
                        NA
                                                                                                                       NA
3130
       HMDB0167968
                        NA
                                                                                                                       NA
3131
       HMDB0167967
3132
                        NA
                                                                                                                       NA
3133
       HMDB0170452
                        NA
                                                                                                                       NA
3134
       {\rm HMDB0170451}
                        NA
                                                                                                                       NA
                                                                                                                       NA
3135
       HMDB0186750
                        NA
       HMDB0000903
                                                                                                                       HMDB0000903
                        Tetrahydrocortisone
3136
       HMDB0003259
                                                                                                                       {\rm HMDB0003259}
3137
                        Dihydrocortisol
       HMDB0006753
                        3a,11b,21-Trihydroxy-20-oxo-5b-pregnan-18-al
                                                                                                                       HMDB0006753
3138
       HMDB0006754
                        11b,21-Dihydroxy-3,20-oxo-5b-pregnan-18-al
                                                                                                                       HMDB0006754
3139
3140
       HMDB0006760
                        11b,17a,21-Trihydroxypreg-nenolone
                                                                                                                       {\rm HMDB0006760}
3141
       HMDB0032553
                        Vanillin 3-(L-menthoxy)propane-1,2-diol acetal
                                                                                                                       HMDB0032553
       HMDB0013157
                        18\hbox{-Hydroxy-}11\hbox{-dehydrotetrahydrocorticosterone}
3142
                                                                                                                       HMDB0013157
       HMDB0013164
                                                                                                                       HMDB0013164
                        2-Hydroxylaurovlcarnitine
3143
       HMDB0061638
3144
                                                                                                                       NA
       HMDB0159333
3145
                                                                                                                       HMDB0030730
3146
       {\rm HMDB0030730}
                        3\hbox{-}(1,1\hbox{-}Dimethyl\hbox{-}2\hbox{-}propenyl)\hbox{-}8\hbox{-}(3\hbox{-}methyl\hbox{-}2\hbox{-}butenyl)xanthyletin
3147
       HMDB0144961
                        ΝÁ
                                                                                                                       NA
3148
       HMDB0144931
                        NA
                                                                                                                       NA
3149
       HMDB0033084
                        7-Hydroxydehydroglaucine
                                                                                                                       HMDB0033084
3150
       HMDB0061331
                       NA
                                                                                                                       NA
       HMDB0036765
3151
                       NΑ
                                                                                                                       NA
3152
       {\rm HMDB0176548}
                        NA
                                                                                                                       {\rm HMDB0035212}
3153
       {\rm HMDB0035212}
                        Sonchuionoside C
                                                                                                                       NA
HMDB0030370
3154
       HMDB0182762
                        NA
       HMDB0030370
                        Citroside A
3155
       {\rm HMDB0182758}
3156
                       NA
                                                                                                                       NA
3157
       HMDB0182757
                        NA
                                                                                                                       NA
       HMDB0182755
                        NA
                                                                                                                       NA
3158
3159
       {\rm HMDB0182753}
                        NA
                                                                                                                       NA
3160
       HMDB0178171
                        NA
                                                                                                                       NA
       HMDB0178167
                        NA
                                                                                                                       NA
3161
       HMDB0178165
                        NΑ
                                                                                                                       NΑ
3162
       HMDB0178164
                        NA
3163
                                                                                                                       NA
3164
       HMDB0178162
                        NA
3165
       HMDB0178160
                        NA
                                                                                                                       NA
3166
       HMDB0029772
                        Corchoionol C 9-glucoside
                                                                                                                       HMDB0029772
       HMDB0182760
3167
                        NA
                                                                                                                       NA
       HMDB0157683
                        NA
                                                                                                                       NA
3168
       HMDB0157685
3169
                        NA
                                                                                                                       NA
       HMDB0157684
                        NA
                                                                                                                       NA
3170
3171
       HMDB0157680
                        NA
                                                                                                                       NA
3172
       HMDB0157682
                        NA
                                                                                                                       NA
       HMDB0157681
3173
                        NA
                                                                                                                       NA
       HMDB0157452
3174
                        NA
                                                                                                                       NA
       {\rm HMDB}0157454
3175
                        NA
                                                                                                                       NA
       HMDB0157451
3176
3177
       HMDB0157453
                        NA
                                                                                                                       NA
3178
       {\rm HMDB0157449}
                        NA
                                                                                                                       NA
       HMDB0157450
3179
                        NΑ
                                                                                                                       NA
       HMDB0157448
3180
                        NA
                                                                                                                       NA
3181
       HMDB0157447
                        NA
                                                                                                                       NA
3182
       HMDB0000865
                        Muricholic acid
                                                                                                                       HMDB0000865
3183
       HMDB0000760
                                                                                                                       {\rm HMDB0000760}
                        6a,12a-Dihydroxylithocholic acid
3184
       HMDB0000527
                                                                                                                       HMDB0000527
3185
       HMDB0000432
                        3a,7b,12a-Trihydroxy-5a-Cholanoic acid
                                                                                                                       HMDB0000432
       HMDB0000427
                        3b,7b,12a-Trihydroxy-5a-Cholanoic acid
                                                                                                                       HMDB0000427
3186
                        3b,7a,12a-Trihydroxy-5b-cholanoic acid
       HMDB0000419
                                                                                                                       HMDB0000419
3187
       HMDB0000415
                        3a,6b,7b-Trihydroxy-5b-cholanoic acid
                                                                                                                       {\rm HMDB0000415}
3188
3189
       HMDB0000414
                        1b,3a,7a-Trihydroxy-5b-cholanoic acid
                                                                                                                       HMDB0000414
3190
       HMDB0000404
                        2b,3a,7a-Trihydroxy-5b-cholanoic acid
                                                                                                                       HMDB0000404
3191
       HMDB0000395
                       3b,7b,12a-Trihydroxy-5b-cholanoic acid
                                                                                                                       HMDB0000395
```

```
3192
       HMDB0000390
                                                                                                                   HMDB0000390
                       3a,7b,12b-Trihydroxy-5b-cholanoic acid
3193
       HMDB0000917
                                                                                                                   HMDB0000917
                       Ursocholic acid
       HMDB0000376
                       3b,7a,12a-Trihydroxy-5a-Cholanoic acid
                                                                                                                   HMDB0000376
3194
3195
       {\rm HMDB0158259}
                                                                                                                   NA
3196
       {\rm HMDB0184509}
                       NA
                                                                                                                   NA
3197
       HMDB0184414
                       NA
                                                                                                                   NA
       HMDB0184360
                       NA
                                                                                                                   NA
3198
3199
       HMDB0184356
                       NA
                                                                                                                   NA
       {\rm HMDB0184355}
3200
                       NA
                                                                                                                   NA
3201
       HMDB0184316
                       NA
                                                                                                                   NA
3202
       {\rm HMDB0184317}
                       NA
                                                                                                                   NA
3203
      HMDB0184318
HMDB0184314
                       NA
                                                                                                                   NA
3204
                       NA
                                                                                                                   NA
3205
       HMDB0184313
                       NA
                                                                                                                   NΑ
3206
       HMDB0184315
                       NA
                                                                                                                   NA
       HMDB0161001
                       NA
3207
                                                                                                                   NA
3208
       HMDB0161003
                       NA
                                                                                                                   NA
3209
       HMDB0184510
                       NA
                                                                                                                   NA
       HMDB0184511
3210
                       NA
                                                                                                                   NA
       HMDB0184514
3211
                       NA
                                                                                                                   NA
       HMDB0000506
                                                                                                                   HMDB0000506
3212
                       Alpha-Muricholic acid
       HMDB0000505
                       Allocholic acid
                                                                                                                   HMDB0000505
3214
       {\rm HMDB0184519}
                       NA
                                                                                                                   NA
3215
       HMDB0184520
                       NA
                                                                                                                   NA
       HMDB0184517
3216
                       NA
                                                                                                                   NA
       HMDB0184516
                       NA
                                                                                                                   NA
3217
       HMDB0184515
3218
                       NA
                                                                                                                   NA
       HMDB0184518
3219
                       NA
                                                                                                                   NA
3220
       HMDB0184513
                       NA
                                                                                                                   NA
3221
       {\rm HMDB0184512}
                       NA
                                                                                                                   NA
3222
       HMDB0161002
                       NA
                                                                                                                   NA
       HMDB0161000
                                                                                                                   NA
3223
                       NΑ
       HMDB0159761
3224
                       NA
                                                                                                                   NA
       HMDB0158766
3225
                       NA
                                                                                                                   NA
       {\rm HMDB0158272}
                       NA
                                                                                                                   NA
3226
3227
       {\rm HMDB0158270}
                       NA
                                                                                                                   NA
3228
       HMDB0158269
                       NA
                                                                                                                   NA
       HMDB0158271
3229
                       NA
                                                                                                                   NA
       HMDB0158268
3230
                       NA
                                                                                                                   NA
       HMDB0158265
                       NA
3231
                                                                                                                   NA
3232
       HMDB0158264
                       NA
                                                                                                                   NA
3233
       {\rm HMDB0158266}
                       NA
                                                                                                                   NA
3234
       {\rm HMDB0158267}
                       NΑ
                                                                                                                   NA
3235
       HMDB0158262
                       NA
                                                                                                                   NA
3236
       HMDB0158261
                       NA
                                                                                                                   NA
3237
       HMDB0158260
                       NA
                                                                                                                   NA
       HMDB0158764
3238
                       NA
                                                                                                                   NA
3239
       {\rm HMDB0158765}
                       NA
                                                                                                                   NA
3240
       {\rm HMDB0158767}
                       NA
                                                                                                                   NA
       HMDB0159758
3241
                       NA
                                                                                                                   NA
       HMDB0159757
3242
                       NA
                                                                                                                   NA
       HMDB0159754
3243
                       NA
                                                                                                                   NA
3244
       HMDB0159755
                       NA
                                                                                                                   NA
3245
       HMDB0159753
                       NA
                                                                                                                   NA
3246
       {\rm HMDB0159756}
                       NA
                                                                                                                   NA
       HMDB0159751
3247
                       NA
                                                                                                                   NA
       HMDB0159750
3248
                       NA
                                                                                                                   NA
       HMDB0159752
3249
                       NA
                                                                                                                   NA
       HMDB0158771
3250
                       NA
                                                                                                                   NA
3251
       HMDB0158769
                       NA
                                                                                                                   NA
3252
       HMDB0158770
                       NA
                                                                                                                   NA
3253
       HMDB0158768
                       NΑ
                                                                                                                   NA
       HMDB0158263
3254
                       NA
                                                                                                                   NA
                                                                                                                   HMDB0000371
3255
       HMDB0000371
                       1,3,12-Trihydroxycholan-24-oic acid
       HMDB0000364
                                                                                                                   HMDB0000364
3256
                       3a,6a,7b-Trihydroxy-5b-cholanoic acid
       HMDB0000330
                       3a,4b,12a-Trihydroxy-5b-cholanoic acid
                                                                                                                   HMDB0000330
3257
3258
       {\rm HMDB0000326}
                       1b,3a,12a-Trihydroxy-5b-cholanoic acid
                                                                                                                   {\rm HMDB0000326}
3259
       HMDB0000320
                       3a,4b,7a-Trihydroxy-5b-cholanoic acid
                                                                                                                   HMDB0000320
       HMDB0000312
                                                                                                                   HMDB0000312
3260
                       3a,7a,12b-Trihydroxy-5b-cholanoic acid
       HMDB0000619
                                                                                                                   HMDB0000619
3261
                       Cholic acid
       HMDB0184357
3262
                       NA
                                                                                                                   NA
       HMDB0000467
                       Nutriacholic acid
                                                                                                                   HMDB0000467
3263
       HMDB0000460
                       7-Hydroxy-3-oxocholanoic acid
                                                                                                                   HMDB0000460
3264
3265
       {\rm HMDB0000328}
                       12-Ketodeoxycholic acid
                                                                                                                   {\rm HMDB0000328}
3266
       HMDB0041454
                       NΑ
                                                                                                                   NA
       HMDB0012866
                                                                                                                   HMDB0012866
3267
                       9'-Carboxy-alpha-chromanol
3268
       HMDB0159167
                       NA
                                                                                                                   NA
3269
       HMDB0157686
                       NA
                                                                                                                   NA
3270
       HMDB0157455
                       NA
                                                                                                                   NA
3271
       {\rm HMDB0157446}
                       NΑ
                                                                                                                   NA
3272
       HMDB0156548
                       NA
                                                                                                                   NA
       HMDB0184495
3273
                       NA
                                                                                                                   NA
3274
       HMDB0156546
                       NA
                                                                                                                   NA
       HMDB0156545
3275
                       NA
                                                                                                                   NA
3276
       HMDB0156543
                       NA
                                                                                                                   NA
3277
       HMDB0156544
                       NA
                                                                                                                   NA
3278
       HMDB0156542
                       NA
                                                                                                                   NA
```

```
HMDB0156541
3279
                       NA
                                                                                                                  NA
                       NA
                                                                                                                  NA
3280
       HMDB0062742
       HMDB0184497
3281
                       NA
                                                                                                                  NA
3282
      {\rm HMDB0158251}
                       NA
                                                                                                                  NA
3283
      {\rm HMDB0158250}
                       NA
                                                                                                                  NA
3284
      HMDB0158772
                       NA
                                                                                                                  NA
      HMDB0159748
3285
                      NA
                                                                                                                  NA
3286
      HMDB0158273
                      NA
                                                                                                                  NA
       HMDB0158257
3287
                       NA
                                                                                                                  NA
3288
       HMDB0158256
                       NA
3289
      {\rm HMDB0159759}
                       NA
                                                                                                                  NA
3290
      HMDB0159760
HMDB0158253
                       NA
                                                                                                                  NA
3291
                       NΑ
                                                                                                                  NA
3292
      HMDB0160999
                       NΑ
                                                                                                                  NΑ
3293
       HMDB0158254
                       NA
                                                                                                                  NA
      {\rm HMDB0184494}
                       NA
3294
                                                                                                                  NA
3295
       HMDB0158255
                       NA
                                                                                                                  NA
3296
      HMDB0156547
                       NΑ
                                                                                                                  NA
3297
      HMDB0062796
                      NA
                                                                                                                  NA
      HMDB0000503
                                                                                                                  HMDB0000503
3298
                       7a-Hydroxy-3-oxo-5b-cholanoic acid
       HMDB0158252
3299
                       NA
                                                                                                                  NA
3300
       HMDB0184496
                       NA
                                                                                                                  NA
3301
      {\rm HMDB0184498}
                       NA
                                                                                                                  NA
3302
      HMDB0184499
                       NΑ
                                                                                                                  NA
      HMDB0038073
3303
                       NA
                                                                                                                  NA
      HMDB0013327
                                                                                                                  HMDB0013327
                       Dodecanediovlcarnitine
3304
       HMDB0061030
3305
                       NA
                                                                                                                  NA
      HMDB0030198
                                                                                                                  HMDB0030198
3306
                       (-)-Folicanthine
3307
      {\rm HMDB0000222}
                       L-Palmitoylcarnitine
                                                                                                                  HMDB0000222
3308
      {\rm HMDB0011574}
                       MG(20:2(11Z,14Z)/0:0/0:0)
                                                                                                                  HMDB0011574
3309
      HMDB0011544
                       MG(0:0/20:2(11Z,14Z)/0:0)
                                                                                                                  HMDB0011544
      HMDB0036865
3310
                       NΑ
                                                                                                                  NΑ
      HMDB0035959
                                                                                                                  HMDB0035959
                       Persenone B
3311
       HMDB0011644
                       (24R)-Cholest-5-ene-3-beta,7-alpha,24-triol
                                                                                                                  {\rm HMDB0011644}
3312
3313
      HMDB0006894
                       3a,7a-Dihydroxy-5b-cholestan-26-al
                                                                                                                  HMDB0006894
3314
       HMDB0006887
                       7a,12a-Dihydroxy-5b-cholestan-3-one
                                                                                                                  {\rm HMDB0006887}
3315
      HMDB0006886
                       7a,12a-Dihydroxy-5a-cholestan-3-one
                                                                                                                  HMDB0006886
      HMDB0006764
                                                                                                                  HMDB0006764
3316
                       17a,20a-Dihydroxycholesterol
      HMDB0006763
                       20a,22b-Dihydroxycholesterol
                                                                                                                  HMDB0006763
3317
       HMDB0006281
3318
                       7-a,27-Dihydroxycholesterol
                                                                                                                  HMDB0006281
3319
       HMDB0060136
                       7alpha,24S-Dihydroxycholesterol
                                                                                                                  HMDB0060136
3320
      HMDB0006280
                       7-a,25-Dihydroxycholesterol
                                                                                                                  HMDB0006280
3321
      HMDB0159657
                       NΑ
                                                                                                                  NA
3322
      HMDB0172272
                       NA
                                                                                                                  NA
3323
      HMDB0172271
                       NA
                                                                                                                  NA
3324
       HMDB0172269
                       NA
                                                                                                                  NA
      HMDB0172270
                       NA
3325
                                                                                                                  NA
3326
      {\rm HMDB0172267}
                       NA
                                                                                                                  NA
3327
      {\rm HMDB0172265}
                       NA
                                                                                                                  NA
      HMDB0172268
3328
                       NA
                                                                                                                  NA
      HMDB0172266
3329
                       NA
                                                                                                                  NA
      HMDB0185566
3330
                      NA
                                                                                                                  NA
3331
       HMDB0185568
                       NA
                                                                                                                  NA
3332
      HMDB0185575
                       NA
                                                                                                                  NA
3333
      {\rm HMDB0185573}
                       NA
                                                                                                                  NA
3334
      HMDB0185574
                      NA
                                                                                                                  NA
      HMDB0185571
3335
                       NA
                                                                                                                  NA
      HMDB0185572
3336
                      NΑ
                                                                                                                  NΑ
       HMDB0185569
3337
                       NA
                                                                                                                  NA
3338
       HMDB0185567
                       NA
3339
      HMDB0185570
                       NA
                                                                                                                  NA
3340
      HMDB0172262
                      NA
                                                                                                                  NA
      HMDB0172264
3341
                       NA
                                                                                                                  NA
      HMDB0062675
                       NA
                                                                                                                  NA
3342
       HMDB0062664
3343
                       NA
                                                                                                                  NA
      HMDB0062607
3344
                       NA
                                                                                                                  NA
3345
      {\rm HMDB0062420}
                       NA
                                                                                                                  NA
3346
      HMDB0062419
                       NA
                                                                                                                  NA
      HMDR0159652
3347
                      NA
                                                                                                                  NA
      HMDB0159656
3348
                       NA
                                                                                                                  NA
      {\rm HMDB0172263}
3349
                       NA
                                                                                                                  NA
3350
       HMDB0159658
3351
      HMDB0159655
                       NA
                                                                                                                  NA
3352
      {\rm HMDB0159654}
                       NA
                                                                                                                  NA
3353
      HMDB0159653
                       NA
                                                                                                                  NA
      HMDB0159651
3354
                       NΑ
                                                                                                                  NΑ
3355
      HMDB0184845
                       NA
                                                                                                                  NA
3356
       HMDB0184846
                       NA
                                                                                                                  ΝA
3357
       HMDB0155084
                       NA
3358
      {\rm HMDB0184842}
                       NΑ
                                                                                                                  NA
3359
      HMDB0184843
                      NA
                                                                                                                  NA
      HMDB0184841
3360
                       NA
                                                                                                                  NA
      HMDB0184844
                       NA
                                                                                                                  NA
3361
       HMDB0184848
3362
                      NA
                                                                                                                  NA
3363
      HMDB0184847
                       NA
                                                                                                                  NA
3364
      HMDB0184849
                       NA
                                                                                                                  NA
3365
      HMDB0184851
                      NA
                                                                                                                  NA
```

```
3366
      HMDB0184850
                       NA
                                                                                                                  NA
                       NA
                                                                                                                  NA
3367
       HMDB0185576
3368
       HMDB0185577
                                                                                                                  NA
                       NA
3369
      {\rm HMDB0185578}
                       NA
                                                                                                                  NA
3370
      {\rm HMDB0184168}
                       NA
                                                                                                                  NA
                                                                                                                  HMDB0003550
      HMDB0003550
                       Calcidiol
3371
      HMDB0036012
                      5-Methyl-2,4-bis(3-methyl-2-butenyl)-6-(2-methyl-1-oxopropyl)-5-(4-methyl-3-pentenyl)cyclohexanone
                                                                                                                  HMDB0036012
3372
      HMDB0034328
                                                                                                                  HMDB0034328
3373
                       (3beta,5alpha,6a)-Cholesta-8,14-diene-3,6-diol
      HMDB0035585
                       1-Phenyl-1,3-heneicosanedione
                                                                                                                  HMDB0035585
3374
3375
      HMDB0006721
                       5,6-trans-25-Hydroxyvitamin D3
                                                                                                                  HMDB0006721
3376
      {\rm HMDB0006722}
                       25-Hydroxytachysterol3
                                                                                                                  {\rm HMDB0006722}
3377
      HMDB0001993
                       7a-Hydroxy-cholestene-3-one
                                                                                                                  HMDB0001993
      HMDB0000501
                                                                                                                  HMDB0000501
3378
                       7-Ketocholesterol
      HMDB0015504
3379
                       Alfacalcidol
                                                                                                                  HMDB0015504
3380
       HMDB0039871
                       NA
                                                                                                                  NA
      {\rm HMDB0060132}
                       NA
                                                                                                                  NA
3381
3382
      HMDB0060131
                       NA
                                                                                                                  NA
      HMDB0184149
HMDB0174260
3383
                      NA
                                                                                                                  NA
                      NΑ
                                                                                                                  NΑ
3384
      HMDB0174261
3385
                       NΑ
                                                                                                                  NΑ
       HMDB0172274
                       NA
                                                                                                                  NA
3386
3387
       HMDB0172275
                       NA
                                                                                                                  NA
3388
      {\rm HMDB}0172273
                       NA
                                                                                                                  NA
3389
      HMDB0155085
                       NA
                                                                                                                  NA
      HMDB0155087
                                                                                                                  NA
NA
3390
                       NA
      HMDB0155086
                      NA
3391
      HMDB0155081
3392
                       NA
                                                                                                                  NA
      {\rm HMDB0155082}
3393
                       NA
                                                                                                                  NA
3394
      {\rm HMDB0174265}
                       NA
                                                                                                                  NA
3395
      {\rm HMDB0174262}
                       NA
                                                                                                                  NA
      HMDB0174263
3396
                       NA
                                                                                                                  NA
      HMDB0184150
3397
                       NΑ
                                                                                                                  NA
      HMDB0184148
3398
                       NA
                                                                                                                  NA
3399
       HMDB0184147
                       NA
                                                                                                                  NA
      HMDB0184145
                       NA
                                                                                                                  NA
3400
3401
      {\rm HMDB0184146}
                       NA
                                                                                                                  NA
3402
      HMDB0184144
                      NA
                                                                                                                  NA
      HMDB0174268
3403
                       NA
                                                                                                                  NA
      HMDB0174267
                       NA
                                                                                                                  NΑ
3404
       HMDB0174266
                       NA
                                                                                                                  NA
3405
3406
       HMDB0174264
3407
      {\rm HMDB0155083}
                       NA
                                                                                                                  NA
3408
      HMDB0155080
                       NΑ
                                                                                                                  NA
      HMDB0184143
3409
                      NA
                                                                                                                  NA
      HMDB0154867
3410
                       NA
                                                                                                                  NA
3411
       HMDB0154866
                       NA
                                                                                                                  NA
      HMDB0035951
                                                                                                                  HMDB0035951
3412
                       Erucoylacetone
3413
      {\rm HMDB0164879}
3414
      {\rm HMDB0037260}
                       NA
                                                                                                                  NA
      HMDB0158333
                                                                                                                  NA
NA
3415
                       NA
      HMDB0150478
3416
                      NA
      HMDB0150475
3417
                       NA
                                                                                                                  NA
3418
       HMDB0162509
                       NA
                                                                                                                  NA
3419
      HMDB0150477
                       NA
                                                                                                                  NA
3420
      HMDB0038347
                       NA
                                                                                                                  NA
      HMDB0150474
3421
                      NA
                                                                                                                  NA
      HMDB0150463
                       NΑ
                                                                                                                  NΑ
3422
      HMDB0150458
                                                                                                                  NA
3423
                       NA
       HMDB0150468
                       NA
                                                                                                                  NA
3424
3425
       HMDB0150470
                       NA
                                                                                                                  NA
3426
      HMDB0150457
                       NA
                                                                                                                  NA
3427
      HMDB0150453
                      NA
                                                                                                                  NA
      HMDB0150469
3428
                       NA
                                                                                                                  NA
      HMDB0150452
                       NA
                                                                                                                  NA
3429
       HMDB0149868
                                                                                                                  NA
3430
                       NA
      {\rm HMDB0150462}
                       NA
                                                                                                                  NA
3431
3432
      {\rm HMDB0140070}
                       NA
                                                                                                                  NA
3433
      {\rm HMDB0153459}
                       NA
                                                                                                                  NA
      HMDB0153444
3434
                      NA
                                                                                                                  NA
      HMDB0153474
                                                                                                                  NA
                       NA
3435
      HMDB0153627
3436
                       NA
                                                                                                                  NA
       HMDB0153466
                       NA
3437
3438
      HMDB0139521
                       NA
                                                                                                                  NA
3439
      {\rm HMDB0139520}
                       NA
                                                                                                                  NA
3440
      HMDB0139517
                       NA
                                                                                                                  NA
      HMDB0139504
                       NA
                                                                                                                  NA
3441
      HMDB0139507
3442
                       NA
                                                                                                                  NA
3443
       HMDB0139514
                       NA
                                                                                                                  NA
3444
       HMDB0149502
                       NA
                                                                                                                  NA
3445
      {\rm HMDB0153458}
                       NΑ
                                                                                                                  NA
      HMDB0153451
3446
                      NA
                                                                                                                  NA
      HMDB0153443
3447
                       NA
                                                                                                                  NA
                       NA
3448
      HMDB0139516
                                                                                                                  NA
       HMDB0139508
3449
                      NA
                                                                                                                  NA
3450
      HMDB0139513
                       NA
                                                                                                                  NA
3451
      HMDB0164958
                       NA
                                                                                                                  HMDB0035876
3452
      HMDB0035876
                      Mesuagin
```

```
HMDB0180147
3453
                       NA
                       O-Deethylated candesartan
                                                                                                                   HMDB0013842
3454
       HMDB0013842
       HMDB0144444
3455
3456
       {\rm HMDB0144965}
                       NA
                                                                                                                   NA
3457
       {\rm HMDB0144871}
                       NA
                                                                                                                   NA
       HMDB0142647
                                                                                                                   NA
NA
3458
                       NA
       HMDB0144859
                       NA
3459
       HMDB0144408
3460
                       NA
                                                                                                                   NA
       HMDB0144379
3461
                       NA
                                                                                                                   NA
3462
       {\rm HMDB0142761}
                       NA
                                                                                                                   NA
3463
       {\rm HMDB0142694}
                       NA
                                                                                                                   NA
3464
      HMDB0144418
HMDB0144964
                       NA
                                                                                                                   NA
3465
                       NΑ
                                                                                                                   NΑ
3466
       HMDB0142682
                       NA
                                                                                                                   NA
3467
       HMDB0144733
                       NA
                                                                                                                   NA
       {\rm HMDB0038793}
                       NA
                                                                                                                   NA
3468
3469
       {\rm HMDB0038787}
                       NA
                                                                                                                   NA
3470
       {\rm HMDB0175541}
                       NA
                                                                                                                   NA
       HMDB0175538
                                                                                                                   NA
                       NΑ
3471
       HMDB0175530
                       NA
                                                                                                                   NA
3472
       HMDB0175535
3473
                       NA
                                                                                                                   NA
3474
       HMDB0147021
                       NA
                                                                                                                   NA
3475
       {\rm HMDB0147024}
                       NA
                                                                                                                   NA
3476
       HMDB0147025
                       NA
                                                                                                                   NA
       HMDB0147019
3477
                       NA
                                                                                                                   NA
       HMDB0147020
                       NA
                                                                                                                   NA
3478
       {\rm HMDB0148764}
3479
                       NA
                                                                                                                   NA
       HMDB0147022
3480
                       NA
                                                                                                                   NA
3481
       {\rm HMDB0147023}
                       NA
                                                                                                                   NA
3482
       {\rm HMDB0148762}
                       NA
                                                                                                                   NA
       HMDB0168741
3483
                       NA
                                                                                                                   NA
       HMDB0148763
                       NΑ
                                                                                                                   NA
3484
       HMDB0148761
                       NA
                                                                                                                   NA
3485
       HMDB0148760
                       NA
                                                                                                                   NA
3486
3487
       {\rm HMDB0148765}
                       NA
                                                                                                                   NA
3488
       {\rm HMDB0148759}
                       NA
                                                                                                                   NA
3489
       HMDB0147026
                       NA
                                                                                                                   NA
       HMDB0147018
3490
                       NA
                                                                                                                   NA
       HMDB0168749
3491
                       NA
                                                                                                                   NΑ
       HMDB0168747
                       NA
                                                                                                                   NA
3492
3493
       {\rm HMDB0168748}
                       NA
3494
       {\rm HMDB0168750}
                       NA
                                                                                                                   NA
      HMDB0168746
HMDB0168744
3495
                       NΑ
                                                                                                                   NA
3496
                       NA
                                                                                                                   NA
       HMDB0168740
3497
                       NA
                                                                                                                   NA
3498
       {\rm HMDB0168742}
                       NA
                                                                                                                   NA
       HMDB0168743
                       NA
3499
                                                                                                                   NA
3500
       {\rm HMDB0168739}
                       NA
                                                                                                                   NA
3501
       {\rm HMDB0168745}
                       NA
                                                                                                                   NA
       HMDB0041407
3502
                       NA
                                                                                                                   NA
       HMDB0011101
                                                                                                                   HMDB0014838
3503
                       Eplerenone
       HMDB0037039
3504
                       NA
                                                                                                                   NA
3505
       HMDB0030404
                       Armillaripin
                                                                                                                   HMDB0030404
3506
       HMDB0039380
                       NA
                                                                                                                   NA
3507
       HMDB0173691
                       NA
                                                                                                                   NA
       HMDB0173689
3508
                       NA
                                                                                                                   NA
       HMDB0173685
                       NA
3509
                                                                                                                   NA
       HMDB0173687
                       NA
3510
                                                                                                                   NΑ
       HMDB0173683
                       NA
                                                                                                                   NA
3511
3512
       {\rm HMDB0062274}
                       NA
3513
       HMDB0062282
                       NΑ
                                                                                                                   NA
       HMDB0062292
3514
                       NΑ
                                                                                                                   NA
       HMDB0034662
                       Dihydrofukinolide
                                                                                                                   HMDB0034662
3515
       HMDB0164538
3516
                       NA
                                                                                                                   NA
       HMDB0164537
                       NA
                                                                                                                   NA
3517
3518
       HMDB0164536
                       NA
                                                                                                                   NA
3519
       {\rm HMDB0240233}
                       NA
                                                                                                                   NA
3520
       {\rm HMDB0139759}
                       NA
                                                                                                                   NA
       HMDB0139773
3521
                       NA
                                                                                                                   NA
       HMDB0139772
                       NA
                                                                                                                   NA
3522
       {\rm HMDB0139774}
3523
                       NA
                                                                                                                   NA
3524
       HMDB0139775
                       NA
3525
       {\rm HMDB0139761}
                       NA
                                                                                                                   NA
3526
       {\rm HMDB0139764}
                       NA
                                                                                                                   NA
3527
       HMDB0139762
                       NA
                                                                                                                   NA
       HMDB0139760
3528
                       NΑ
                                                                                                                   NΑ
       HMDB0139763
3529
                       NA
                                                                                                                   NA
3530
       HMDB0139766
                       NA
                                                                                                                   NA
3531
       HMDB0139767
                       NA
                                                                                                                   NA
3532
       {\rm HMDB0139765}
                       NΑ
                                                                                                                   NA
       HMDB0139768
3533
                       NA
                                                                                                                   NA
       HMDB0139769
3534
                       NA
                                                                                                                   NA
3535
       HMDB0139771
                       NA
                                                                                                                   NA
       HMDB0139770
3536
                       NA
                                                                                                                   NA
3537
       HMDB0139778
                       NA
                                                                                                                   NA
3538
       HMDB0139776
                       NA
                                                                                                                   NA
3539
       HMDB0139777
                       NA
                                                                                                                   NA
```

```
HMDB0038618
3540
                       NA
                                                                                                                     NA
                       NA
                                                                                                                     NA
3541
       HMDB0183867
3542
       HMDB0183864
                       NA
                                                                                                                     NA
3543
       {\rm HMDB0183876}
                       NA
                                                                                                                     NA
3544
       {\rm HMDB0183860}
                       NA
                                                                                                                     NA
3545
       HMDB0183873
                       NA
                                                                                                                     NA
3546
       HMDB0183891
                       NA
                                                                                                                     NA
3547
       HMDB0183870
                       NA
                                                                                                                     NA
       {\rm HMDB0183894}
3548
                       NA
                                                                                                                     NA
3549
       HMDB0036548
                       NA
3550
       {\rm HMDB0006226}
                       24R,25-Dihydroxyvitamin D3
                                                                                                                     HMDB0006226
3551
       HMDB0062401
HMDB0062610
                       NA
                                                                                                                     NA
3552
                       NA
                                                                                                                     NA
       HMDB0062736
3553
                       NA
                                                                                                                     NA
3554
       HMDB0159642
                       NA
                                                                                                                     NA
       {\rm HMDB0159643}
                       NA
                                                                                                                     NA
3555
3556
       HMDB0159645
                       NA
                                                                                                                     NA
3557
       {\rm HMDB0159644}
                       NA
                                                                                                                     NA
3558
       HMDB0174275
                       NΑ
                                                                                                                     NΑ
       HMDB0174276
3559
                       NA
                                                                                                                     NA
       HMDB0174277
3560
                       NA
                                                                                                                     NA
3561
       HMDB0174278
                       NA
                                                                                                                     NA
3562
       {\rm HMDB}0174280
                       NA
                                                                                                                     NA
3563
       HMDB0174279
                       NA
                                                                                                                     NA
       HMDB0174281
3564
                       NA
                                                                                                                     NA
       HMDB0174282
3565
                       NA
                                                                                                                     NA
       HMDB0174283
3566
                       NA
                                                                                                                     NA
       HMDB0174274
3567
                       NA
                                                                                                                     NA
3568
       {\rm HMDB0174272}
                       NA
                                                                                                                     NA
3569
       {\rm HMDB0159649}
                       NA
                                                                                                                     NA
3570
       HMDB0159646
                       NA
                                                                                                                     NA
       HMDB0159647
                       NΑ
3571
                                                                                                                     NΑ
       HMDB0159648
3572
                       NA
                                                                                                                     NA
       HMDB0159650
3573
                       NA
                                                                                                                     NA
3574
       {\rm HMDB0172935}
                       NA
3575
       HMDB0172936
                       NA
                                                                                                                     NA
3576
      HMDB0174269
HMDB0174271
                       NA
                                                                                                                     NA
3577
                       NA
                                                                                                                     NA
       HMDB0174270
3578
                       NA
                                                                                                                     NA
       HMDB0174273
3579
                       NA
                                                                                                                     NA
3580
       HMDB0012453
                       3 beta-Hydroxy-5-cholestenoate
                                                                                                                     HMDB0012453
3581
       {\rm HMDB0001903}
                       Calcitriol
                                                                                                                     HMDB0001903
3582
       HMDB0030024
                       Sarsasapogenin
                                                                                                                     HMDB0030024
       HMDB0060133
3583
                       NA
       HMDB0060425
                                                                                                                     HMDB0060425
3584
                       7alpha,25-Dihydroxy-4-cholesten-3-one
3585
       HMDB0060508
                       NA
                                                                                                                     NA
3586
       HMDB0030048
                       Smilagenin
                                                                                                                     HMDB0030048
3587
       HMDB0030047
                       Neotigogenin
                                                                                                                     HMDB0030047
3588
       {\rm HMDB0015046}
                       Paricalcitol
                                                                                                                     {\rm HMDB0015046}
                       24,25-Dihydroxyvitamin D
       HMDB0000430
3589
                                                                                                                     HMDB0000430
       HMDB0001420
                       25,26-dihydroxyvitamin D
7a,12a-Dihydroxy-cholestene-3-one
                                                                                                                     HMDB0001420
3590
       HMDB0002197
3591
                                                                                                                     HMDB0002197
3592
       HMDB0006720
                       23S,25-dihydroxyvitamin D3
                                                                                                                     {\rm HMDB0006720}
3593
       {\rm HMDB0012459}
                       7 alpha,26-Dihydroxy-4-cholesten-3-one
                                                                                                                     HMDB0012459
3594
       HMDB0012457
                       7 alpha,24-Dihydroxy-4-cholesten-3-one
                                                                                                                     HMDB0012457
       HMDB0035300
3595
                       Octadecyl cis-p-coumarate
                                                                                                                     HMDB0035300
       HMDB0162231
3596
                                                                                                                     NA
                       NA
       HMDB0159898
3597
                       NΑ
                                                                                                                     NΑ
       HMDB0159886
                       NA
3598
                                                                                                                     NA
3599
       HMDB0159887
                       NA
                                                                                                                     NA
3600
       {\rm HMDB0159775}
                       NA
                                                                                                                     NA
3601
       HMDB0159762
                       NΑ
                                                                                                                     NA
       HMDB0159763
3602
                       NA
                                                                                                                     NA
       HMDB0062208
                       NA
3603
                                                                                                                     NA
       HMDB0000359
                                                                                                                     HMDB0000359
3604
                       3a,7a-Dihydroxycoprostanic acid
       HMDB0003533
                       3a,7a,12a-Trihydroxy-5b-cholestan-26-al
                                                                                                                     HMDB0003533
3605
3606
       {\rm HMDB0172392}
                       ΝÁ
                                                                                                                     NA
3607
       {\rm HMDB}0172390
                       NA
                                                                                                                     NA
       HMDB0167571
3608
                       NA
                                                                                                                     NA
       HMDB0167569
3609
                       NA
                                                                                                                     NA
       HMDB0167567
3610
                       NA
                                                                                                                     NA
       HMDB0167565
                       NA
3611
3612
       HMDB0167563
                       NA
                                                                                                                     NA
3613
       {\rm HMDB0159764}
                       NA
                                                                                                                     NA
3614
       HMDB0159888
                       NΑ
                                                                                                                     NA
       HMDB0005814
                                                                                                                     HMDB0005814
3615
                       Testosterone enanthate
3616
       HMDB0040994
                       NA
                                                                                                                     NA
3617
       HMDB0040993
                       NA
                                                                                                                     NA
3618
       HMDB0041990
                       NA
                                                                                                                     NA
3619
       {\rm HMDB0041212}
                       NΑ
                                                                                                                     NA
       HMDB0033806
                                                                                                                     HMDB0033806
3620
                       2'-O-Methylcajanone
       HMDB0030849
                       Artocarpin
                                                                                                                     HMDB0030849
3621
                       NA
       HMDB0140394
3622
                                                                                                                     NA
       HMDB0129645
3623
                       NA
                                                                                                                     NA
3624
       HMDB0134743
                       NA
                                                                                                                     NA
3625
       HMDB0162013
                       NA
                                                                                                                     NA
3626
       HMDB0162016
                       NA
                                                                                                                     NA
```

```
3627
       HMDB0162004
                       NA
                                                                                                                    NA
                       NA
                                                                                                                    NA
3628
       HMDB0142798
3629
       HMDB0142979
                                                                                                                    NA
                       NA
3630
       {\rm HMDB0142983}
                       NA
                                                                                                                    NA
3631
       {\rm HMDB0142989}
                       NA
                                                                                                                    NA
       HMDB0142992
3632
                       NA
                                                                                                                    NA
       HMDB0142993
                       NA
3633
                                                                                                                    NA
       HMDB0143013
3634
                       NA
                                                                                                                    NA
       HMDB0143016
3635
                       NA
                                                                                                                    NA
3636
       {\rm HMDB0142982}
                       NA
                                                                                                                    NA
3637
       {\rm HMDB0142838}
                       NA
                                                                                                                    NA
      HMDB0142799
HMDB0142805
3638
                       NA
                                                                                                                    NA
3639
                       NΑ
                                                                                                                    NΑ
       HMDB0142795
3640
                       NA
                                                                                                                    NA
3641
       HMDB0142808
                       NA
                                                                                                                    NA
3642
       {\rm HMDB0142824}
                       NA
                                                                                                                    NA
3643
       {\rm HMDB0142822}
                       NA
                                                                                                                    NA
      HMDB0142828
HMDB0142834
3644
                       NA
                                                                                                                    NA
                       NΑ
                                                                                                                    NΑ
3645
       HMDB0142809
3646
                       NA
                                                                                                                    NA
       HMDB0143017
3647
                       NA
                                                                                                                    NA
3648
       HMDB0143090
                       NA
                                                                                                                    NA
3649
       {\rm HMDB0143094}
                       NA
                                                                                                                    NA
3650
       HMDB0143096
                       NA
                                                                                                                    NA
       HMDB0143100
3651
                       NA
                                                                                                                    NA
       HMDB0143110
                       NA
                                                                                                                    NA
3652
       HMDB0143964
3653
                       NA
                                                                                                                    NA
       HMDB0143966
3654
                       NA
                                                                                                                    NA
3655
       HMDB0143091
                       NA
                                                                                                                    NA
3656
       {\rm HMDB0143087}
                       NA
                                                                                                                    NA
       HMDB0143080
3657
                       NA
                                                                                                                    NA
       HMDB0143023
                       NΑ
                                                                                                                    NA
3658
       HMDB0143026
3659
                       NA
                                                                                                                    NA
       HMDB0143027
                       NA
                                                                                                                    NA
3660
       {\rm HMDB0143067}
                       NA
                                                                                                                    NA
3661
3662
       {\rm HMDB0143070}
                       NA
                                                                                                                    NA
3663
       HMDB0143071
                       NA
                                                                                                                    NA
       HMDB0143106
3664
                       NA
                                                                                                                    NA
       HMDB0143081
3665
                                                                                                                    NΑ
                       NA
       HMDB0142788
                       NA
                                                                                                                    ΝA
3666
3667
       {\rm HMDB0142729}
                       NA
3668
       {\rm HMDB0142725}
                       NA
                                                                                                                    NA
      HMDB0142719
HMDB0142718
3669
                       NΑ
                                                                                                                    NA
3670
                       NA
                                                                                                                    NA
       HMDB0142715
3671
                       NA
                                                                                                                    NA
3672
       HMDB0142739
                       NA
                                                                                                                    NA
3673
       HMDB0143077
                       NA
                                                                                                                    NA
3674
       {\rm HMDB0142728}
                       NA
                                                                                                                    NA
3675
       {\rm HMDB0142735}
                       NA
                                                                                                                    NA
       HMDB0142738
3676
                       NA
                                                                                                                    NA
       HMDB0142789
3677
                       NA
                                                                                                                    NA
       HMDB0142785
3678
                       NA
                                                                                                                    NA
3679
       HMDB0142758
                       NA
                                                                                                                    NA
3680
       {\rm HMDB0142759}
                       NA
                                                                                                                    NA
3681
       {\rm HMDB0142755}
                       NA
                                                                                                                    NA
       HMDB0142748
3682
                       NA
                                                                                                                    NA
       HMDB0142749
3683
                       NA
                                                                                                                    NA
       HMDB0142745
3684
                       NA
                                                                                                                    NA
       HMDB0035858
                                                                                                                    HMDB0035858
3685
                       Obacunone
3686
       HMDB0035031
                       Desoxylimonin
                                                                                                                    HMDB0035031
3687
       HMDB0039920
                       NΑ
                                                                                                                    NA
       HMDB0039918
3688
                       NΑ
                                                                                                                    NA
       HMDB0039919
3689
                       NA
                                                                                                                    NA
       HMDB0015013
                                                                                                                    HMDB0015013
3690
                       Flupenthixol
       HMDB0184201
3691
                       NA
                                                                                                                    NA
                                                                                                                    NA
3692
       HMDB0183261
                       NA
3693
       {\rm HMDB0183260}
                       NA
                                                                                                                    NA
      HMDB0183262
HMDB0183264
3694
                       NA
                                                                                                                    NA
3695
                       NA
                                                                                                                    NA
       HMDB0183267
3696
                       NA
                                                                                                                    NA
       {\rm HMDB0183269}
3697
                       NA
                                                                                                                    NA
3698
       HMDB0184206
                       NA
3699
       {\rm HMDB0184207}
                       NA
                                                                                                                    NA
3700
       {\rm HMDB0183254}
                       NA
                                                                                                                    NA
3701
       HMDB0183258
                       NΑ
                                                                                                                    NA
3702
       HMDB0183250
                       NΑ
                                                                                                                    NA
       HMDB0183251
3703
                       NA
                                                                                                                    NA
3704
       HMDB0039214
                       NA
                                                                                                                    NA
3705
       HMDB0036631
                       NA
                                                                                                                    HMDB0030688
3706
       {\rm HMDB0030688}
                       Cyclomulberrin
       HMDB0040480
3707
                       NA
                                                                                                                    NA
       HMDB0029506
                                                                                                                    HMDB0029506
                       Kuwanon B
3708
       HMDB0029505
3709
                                                                                                                    HMDB0029505
                       Kuwanon A
       HMDB0131612
3710
                       NA
                                                                                                                    NA
3711
       HMDB0131610
                       NA
                                                                                                                    NA
3712
       HMDB0131607
                       NA
                                                                                                                    NA
3713
       HMDB0131606
                       NA
                                                                                                                    NA
```

```
HMDB0131608
3714
                      NA
                                                                                                                 NA
                      NA
                                                                                                                 NA
       HMDB0131609
3715
3716
       HMDB0131611
                                                                                                                 NA
                      NA
3717
      {\rm HMDB0166772}
                      NA
                                                                                                                 NA
3718
      {\rm HMDB0166773}
                      NA
                                                                                                                 NA
      HMDB0185408
3719
                      NA
                                                                                                                 NA
      HMDB0185426
3720
                      NA
                                                                                                                 NA
3721
      HMDB0160312
                      NA
                                                                                                                 NA
      HMDB0160311
3722
                      NA
                                                                                                                 NA
3723
      {\rm HMDB0160309}
                       NA
3724
      {\rm HMDB0160306}
                      NA
                                                                                                                 NA
3725
      HMDB0160305
HMDB0160308
                      NA
                                                                                                                 NA
3726
                      NΑ
                                                                                                                 NΑ
3727
      HMDB0160314
                      NA
                                                                                                                 NA
3728
       HMDB0160317
                      NA
                                                                                                                 NA
3729
      {\rm HMDB0160320}
                      NA
                                                                                                                 NA
3730
      {\rm HMDB0036340}
                       NA
                                                                                                                 NA
3731
      HMDB0160333
                      NA
                                                                                                                 NA
      HMDB0160330
                      NΑ
                                                                                                                 NΑ
3732
      HMDB0160332
3733
                      NA
                                                                                                                 NA
      HMDB0160329
3734
                      NA
                                                                                                                 NA
3735
       HMDB0160327
                      NA
                                                                                                                 NA
3736
      {\rm HMDB0160326}
                      NA
                                                                                                                 NA
3737
      HMDB0160324
                      NA
                                                                                                                 NA
      HMDB0160323
3738
                      NA
                                                                                                                 NA
      HMDB0160321
                      NA
                                                                                                                 NA
3739
      HMDB0165007
3740
                      NA
                                                                                                                 NA
3741
      HMDB0165008
                      NA
                                                                                                                 NA
3742
      {\rm HMDB}0175389
                       NA
                                                                                                                 NA
3743
      {\rm HMDB0175386}
                      NA
                                                                                                                 NA
3744
      HMDB0038562
                      NA
                                                                                                                 NA
      HMDB0014843
                                                                                                                 HMDB0014843
                      Delayirdine
3745
3746
      HMDB0014565
                                                                                                                 {\rm HMDB0014565}
                      Spironolactone
       HMDB0180016
3747
      {\rm HMDB0180015}
                      NA
3748
3749
      {\rm HMDB0015164}
                       Topotecan
                                                                                                                 HMDB0015164
3750
      HMDB0145175
                      NĀ
                                                                                                                 NA
      HMDB0139832
3751
                      NA
                                                                                                                 NA
      HMDB0139824
                                                                                                                 NA
3752
                      NA
       HMDB0139838
                      NA
                                                                                                                 NA
3753
3754
       HMDB0139829
                      NA
                                                                                                                 NA
3755
      {\rm HMDB0139833}
                      NA
                                                                                                                 NA
3756
      HMDB0139834
                      NΑ
                                                                                                                 NA
      HMDB0139836
3757
                      NA
                                                                                                                 NA
      HMDB0139835
3758
                      NA
                                                                                                                 NA
3759
      HMDB0139837
                      NA
                                                                                                                 NA
3760
      HMDB0139830
                      NA
                                                                                                                 NA
3761
      {\rm HMDB0139831}
                       NA
                                                                                                                 NA
3762
      {\rm HMDB0139826}
                      NA
                                                                                                                 NA
      HMDB0139825
3763
                      NA
                                                                                                                 NA
      HMDB0139823
3764
                      NA
                                                                                                                 NA
      HMDB0042019
3765
                      NA
                                                                                                                 NA
3766
       HMDB0165600
                      NA
                                                                                                                 NA
3767
      HMDB0165605
                       NA
                                                                                                                 NA
3768
      HMDB0163371
                      NA
                                                                                                                 NA
      HMDB0165603
3769
                      NA
                                                                                                                 NA
      HMDB0165607
3770
                      NA
                                                                                                                 NA
      HMDB0179376
3771
                      NA
                                                                                                                 NA
      HMDB0179375
                      NA
3772
                                                                                                                 NA
3773
       HMDB0179380
                      NA
3774
      HMDB0179379
                      NA
                                                                                                                 NA
      HMDB0163370
3775
                      NΑ
                                                                                                                 NA
      HMDB0041991
3776
                      NA
                                                                                                                 NA
      HMDB0014780
                                                                                                                 HMDB0014780
                       Pemetrexed
3777
3778
       HMDB0181044
                      NA
                                                                                                                 NA
3779
      HMDB0181045
                      NA
                                                                                                                 NA
3780
      HMDB0139597
                      NA
                                                                                                                 NA
3781
      HMDB0139606
                      NA
                                                                                                                 NA
      HMDB0139601
3782
                      NΑ
                                                                                                                 NA
      HMDB0139602
3783
                      NA
                                                                                                                 NA
      {\rm HMDB0029900}
3784
                      Lucuminoside
                                                                                                                 {\rm HMDB0029900}
       HMDB0164389
3785
3786
      HMDB0164395
                      NA
                                                                                                                 NA
3787
      {\rm HMDB0164391}
                      NA
                                                                                                                 NA
3788
      HMDB0036334
                      NA
                                                                                                                 NA
      HMDB0142846
                      NA
                                                                                                                 NA
3789
      HMDB0132661
3790
                      NA
                                                                                                                 NA
3791
       HMDB0155455
                      NA
                                                                                                                 ΝA
3792
      {\rm HMDB}0155391
                       NA
                                                                                                                 NA
3793
      {\rm HMDB0155394}
                      NΑ
                                                                                                                 NA
      HMDB0155396
3794
                      NA
                                                                                                                 NA
      HMDB0155406
3795
                      NA
                                                                                                                 NA
3796
      HMDB0158123
                      NA
                                                                                                                 NA
3797
       HMDB0155403
                      NA
                                                                                                                 NA
3798
      HMDB0155401
                      NA
                                                                                                                 NA
3799
      {\rm HMDB0155400}
                      NA
                                                                                                                 NA
3800
      HMDB0155388
                      NA
                                                                                                                 NA
```

```
HMDB0155385
3801
                         NA
                                                                                                                             NA
                         NA
                                                                                                                             NA
3802
       HMDB0155412
3803
       HMDB0154709
                         NA
                                                                                                                             NA
3804
       {\rm HMDB}0154708
                         NA
                                                                                                                             NA
3805
       {\rm HMDB}0155409
                         NA
                                                                                                                             NA
       HMDB0155398
                                                                                                                             \begin{array}{c} {\rm NA} \\ {\rm HMDB0035864} \end{array}
3806
                         NA
       HMDB0035864
                         13-Hydroxy-5'-O-methylmelledonal
3807
3808
       HMDB0038159
                         NA
                                                                                                                             NA
       {\rm HMDB0035690}
                                                                                                                             HMDB0035690
3809
                         6-O-Methylarmillaridin
3810
       {\rm HMDB}0157763
3811
       {\rm HMDB}0157761
                         NA
                                                                                                                             NA
3812
       \begin{array}{c} {\rm HMDB0157764} \\ {\rm HMDB0157766} \end{array}
                         NA
                                                                                                                             NA
                         NΑ
                                                                                                                             NA
3813
       HMDB0157765
3814
                         NA
                                                                                                                             NA
3815
       HMDB0158281
                         NA
                                                                                                                             NA
3816
       {\rm HMDB0170458}
                         NA
                                                                                                                             NA
3817
       HMDB0170461
                         NA
                                                                                                                             NA
3818
       {\rm HMDB}0157760
                         NA
                                                                                                                             NA
       HMDB0157759
                         NA
                                                                                                                             NA
3819
       HMDB0157609
3820
                         NA
                                                                                                                             NA
       HMDB0157611
                         NA
3821
                                                                                                                             NA
3822
       HMDB0157614
                         NA
                                                                                                                             NA
3823
       {\rm HMDB0156809}
                         NA
                                                                                                                             NA
3824
       {\rm HMDB0157607}
                         NA
                                                                                                                             NA
       HMDB0157758
3825
                         NA
                                                                                                                             NA
       HMDB0157613
3826
                         NA
                                                                                                                             NA
       HMDB0157610
3827
                         NA
                                                                                                                             NA
       HMDB0157612
3828
                         NA
3829
       HMDB0014818
                         Moricizine
                                                                                                                             HMDB0014818
3830
       {\rm HMDB}0172090
                         NA
                                                                                                                             NA
                                                                                                                             HMDB0030452
       HMDB0030452
3831
                         Blasticidin S
       HMDB0035973
                         Lucidenic acid M
                                                                                                                             HMDB0035973
3832
       HMDB0164014
3833
                         NA
                                                                                                                             NA
       HMDB0171518
                         NA
                                                                                                                             NA
3834
3835
       {\rm HMDB0174361}
                         NA
                                                                                                                             NA
3836
       {\rm HMDB0174360}
                         NA
                                                                                                                             NA
       HMDB0174359
HMDB0174715
3837
                         NA
                                                                                                                             NA
3838
                         NA
                                                                                                                             NA
       HMDB0174374
3839
                         NA
                                                                                                                             NΑ
       HMDB0174370
                         NA
                                                                                                                             NA
3840
3841
       HMDB0174371
                         NA
3842
       {\rm HMDB}0174372
                         NA
                                                                                                                             NA
       HMDB0174373
HMDB0174367
3843
                         NA
                                                                                                                             NA
3844
                         NA
                                                                                                                             NA
       HMDB0174363
3845
                         NA
                                                                                                                             NA
3846
       {\rm HMDB0174364}
                         NA
                                                                                                                             NA
3847
       HMDB0174362
                         NA
                                                                                                                             NA
3848
       {\rm HMDB0174365}
                         NA
                                                                                                                             NA
3849
       {\rm HMDB0174366}
                         NA
                                                                                                                             NA
       HMDB0174369
HMDB0174368
3850
                         NA
                                                                                                                             NA
3851
                         NA
                                                                                                                             NA
       HMDB0183788
3852
                         NA
                                                                                                                             NA
3853
       HMDB0183785
                         NA
                                                                                                                             NA
3854
       {\rm HMDB0183779}
                         NA
                                                                                                                             NA
3855
       {\rm HMDB0183773}
                         NA
                                                                                                                             NA
       HMDB0183776
3856
                         NA
                                                                                                                             NA
       HMDB0174714
3857
                         NA
                                                                                                                             NA
       HMDB0174358
3858
                         NA
                                                                                                                             NA
       HMDB0174356
                         NA
                                                                                                                             NA
3859
3860
       HMDB0174357
3861
       {\rm HMDB0174355}
                         NA
                                                                                                                             NA
       HMDB0000969
                                                                                                                             HMDB0000969
3862
                         1,25-Dihydroxyvitamin D3-26,23-lactone
       HMDB0164012
3863
                         NA
                                                                                                                             NA
       HMDB0174354
                                                                                                                             NA
                         NA
3864
       HMDB0174353
                                                                                                                             NA
3865
                         NA
                                                                                                                             NA
       HMDB0174352
                         NA
3866
3867
       HMDB0171517
                         NA
                                                                                                                             HMDB0015200
3868
       \begin{array}{c} {\rm HMDB0015200} \\ {\rm HMDB0041221} \end{array}
                         Glipizide
                                                                                                                             NA
NA
3869
                         NA
       HMDB0177910
3870
                         NA
       {\rm HMDB0183673}
3871
                         NA
                                                                                                                             NA
3872
       HMDB0183665
                         NA
                                                                                                                             NA
3873
       {\rm HMDB0183643}
                         NA
                                                                                                                             NA
3874
       {\rm HMDB0183669}
                         NA
                                                                                                                             NA
3875
       HMDB0183658
                         NA
                                                                                                                             NA
3876
       HMDB0183654
                         NΑ
                                                                                                                             NΑ
       HMDB0177913
3877
                         NA
                                                                                                                             NA
3878
       HMDB0183650
                         NA
                                                                                                                             NA
3879
       HMDB0060821
                         NA
3880
       {\rm HMDB0060820}
                         NΑ
                                                                                                                             NA
       HMDB0060916
3881
                         NA
                                                                                                                             NA
       HMDB0061137
3882
                         NA
                                                                                                                             NA
       HMDB0030246
3883
                         Narceine
                                                                                                                             HMDB0030246
       HMDB0139781
3884
                         NA
                                                                                                                             NA
3885
       {\rm HMDB0139782}
                         NA
                                                                                                                             NA
3886
       HMDB0139784
                         NA
                                                                                                                             NA
3887
       HMDB0139783
                         NA
                                                                                                                             NA
```

```
HMDB0139793
3888
                       NA
                                                                                                                     NA
                       NA
                                                                                                                     NA
3889
       HMDB0139789
3890
       HMDB0139791
                                                                                                                     NA
                       NA
3891
       {\rm HMDB0139792}
                       NA
                                                                                                                     NA
3892
       {\rm HMDB0139790}
                       NA
                                                                                                                     NA
       HMDB0139787
3893
                       NA
                                                                                                                     NA
       HMDB0139788
3894
                       NA
                                                                                                                     NA
       HMDB0139786
3895
                       NA
                                                                                                                     NA
       {\rm HMDB0139785}
3896
                       NA
                                                                                                                     NA
3897
       {\rm HMDB0139794}
                       NA
                                                                                                                     NA
3898
       {\rm HMDB0144925}
                       NA
                                                                                                                     NA
3899
      HMDB0144855
HMDB0144858
                       NA
                                                                                                                     NA
                       NΑ
                                                                                                                     NA
3900
       HMDB0144867
3901
                       NA
                                                                                                                     NA
3902
       HMDB0144870
                       NA
                                                                                                                     NA
       {\rm HMDB0144924}
                       NA
                                                                                                                     NA
3903
3904
       {\rm HMDB0144954}
                       NA
                                                                                                                     NA
      HMDB0144955
HMDB0162826
3905
                       NA
                                                                                                                     NA
3906
                       NA
                                                                                                                     NA
       HMDB0162834
3907
                       NA
                                                                                                                     NA
       HMDB0162874
                       NA
3908
                                                                                                                     NA
3909
       HMDB0162872
                       NA
                                                                                                                     NA
3910
       {\rm HMDB0162824}
                       NA
                                                                                                                     NA
                                                                                                                     HMDB0030329
3911
       HMDB0030329
                       Neopetasitenine
       HMDB0162882
                                                                                                                     \begin{array}{c} {\rm NA} \\ {\rm HMDB0001846} \end{array}
3912
                       NA
       HMDB0001846
                       Tetrahydrofolic acid
3913
       {\rm HMDB0062806}
3914
                       NA
                                                                                                                     NA
       HMDB0012936
                       Dynorphin B (10-13)
                                                                                                                     HMDB0012936
3915
3916
       HMDB0240599
                                                                                                                     NA
3917
       {\rm HMDB}0155347
                       NA
                                                                                                                     NA
                                                                                                                     NA
HMDB0034064
3918
       HMDB0155348
                       NA
       HMDB0034064
                       2-Angeloyl-9-(3-methyl-2E-pentenoyl)-2b,9a-dihydroxy-4Z,10(14)-oplopadien-3-one
3919
       HMDB0035068
3920
                       Melleolide M
                                                                                                                     {\rm HMDB0035068}
       HMDB0179387
3921
                       NA
3922
       HMDB0179386
                       NA
                                                                                                                     NA
3923
       {\rm HMDB}0179390
                       NA
                                                                                                                     NA
3924
       HMDB0179389
                       NA
                                                                                                                     NA
       HMDB0061104
3925
                       NA
                                                                                                                     NA
       HMDB0139815
                                                                                                                     NA
3926
                       NA
       HMDB0144973
                       NA
                                                                                                                     NA
3927
3928
       HMDB0144948
                       NA
3929
       {\rm HMDB0144943}
                       NA
                                                                                                                     NA
3930
       HMDB0144938
                       NA
                                                                                                                     NA
       HMDB0139798
3931
                       NA
                                                                                                                     NA
       HMDB0139801
                                                                                                                     NA
3932
                       NA
3933
       HMDB0139799
                       NA
                                                                                                                     NA
       HMDB0139800
                       NA
                                                                                                                     NA
3934
3935
       {\rm HMDB0139797}
                       NA
                                                                                                                     NA
3936
       {\rm HMDB0144978}
                       NA
                                                                                                                     NA
       HMDB0139796
3937
                       NA
                                                                                                                     NA
       HMDB0139795
                                                                                                                     NA
3938
                       NA
       HMDB0144983
3939
                       NA
                                                                                                                     NA
3940
       HMDB0144998
                       NA
                                                                                                                     NA
3941
       HMDB0144988
                       NA
                                                                                                                     NA
3942
       HMDB0144933
                       NA
                                                                                                                     NA
       HMDB0144918
3943
                       NA
                                                                                                                     NA
       HMDB0139811
                       NΑ
                                                                                                                     NΑ
3944
       HMDB0139813
                                                                                                                     NA
3945
                       NA
       HMDB0139809
                       NA
                                                                                                                     NA
3946
3947
       HMDB0139806
                       NA
                                                                                                                     NA
3948
       HMDB0139807
                       NA
                                                                                                                     NA
       HMDB0139808
3949
                       NA
                                                                                                                     NA
       HMDB0139814
3950
                       NA
                                                                                                                     NA
       HMDB0139816
                       NA
                                                                                                                     NA
3951
       HMDB0139805
                                                                                                                     NA
3952
                       NA
3953
       HMDB0139817
                       NA
                                                                                                                     NA
3954
       {\rm HMDB0139812}
                       NA
                                                                                                                     NA
3955
       HMDB0139818
                       NA
                                                                                                                     NA
       HMDB0139804
                                                                                                                     NA
NA
3956
                       NA
       HMDB0139820
                       NA
3957
       HMDB0139819
3958
                       NA
                                                                                                                     NA
3959
       HMDB0139803
3960
       HMDB0144913
                       NA
                                                                                                                     NA
3961
       {\rm HMDB0139802}
                       NA
                                                                                                                     NA
3962
       HMDB0145003
                       NA
                                                                                                                     NA
       HMDB0144993
                       NA
3963
                                                                                                                     NΑ
       HMDB0145038
3964
                       NA
                                                                                                                     NA
3965
       HMDB0145034
                       NA
                                                                                                                     NA
3966
       HMDB0145032
                       NA
                                                                                                                     NA
3967
       {\rm HMDB0139810}
                       NΑ
                                                                                                                     NA
       HMDB0145018
3968
                       NA
                                                                                                                     NA
       HMDB0145013
3969
                       NA
                                                                                                                     NA
                                                                                                                     ΝA
3970
       HMDB0145008
                       NA
3971
       HMDB0032622
                                                                                                                     HMDB0032622
                       Phenethyl rutinoside
3972
       HMDB0094682
                       5alpha-Androstan-3alpha,17beta-diol disulfate
                                                                                                                     HMDB0094682
3973
       HMDB0240625
                                                                                                                     NA
3974
       HMDB0172330
                       NA
                                                                                                                     NA
```

```
3975
       HMDB0034065
                                                                                                                      HMDB0034065
                       2,9-Bis(3-methyl-2E-pentenoyl)-2b,9a-dihydroxy-4Z,10(14)-oplopadien-3-one
3976
       HMDB0032601
                                                                                                                      HMDB0032601
                        Muzanzagenin
3977
       HMDB0014936
                                                                                                                      HMDB0014936
                        Gentamicin
3978
       {\rm HMDB0168556}
                       NA
                                                                                                                      NA
3979
       {\rm HMDB0168555}
                       NA
                                                                                                                      NA
                                                                                                                      HMDB0015019
       HMDB0015019
                        Quinapril
3980
       HMDB0138286
3981
                       ΝA
                                                                                                                      NA
3982
       HMDB0175209
                       NA
                                                                                                                      NA
       {\rm HMDB0015560}
                                                                                                                      HMDB0015560
3983
                        Thiothixene
3984
       {\rm HMDB}0157393
                        NA
3985
       {\rm HMDB0158619}
                       NA
                                                                                                                      NA
3986
      HMDB0169094
HMDB0171247
                       NA
                                                                                                                      NA
3987
                       NΑ
                                                                                                                      NA
       HMDB0006765
                                                                                                                      HMDB0006765
3988
                       2-Methoxy-estradiol-17b 3-glucuronide
3989
       HMDB0010315
                        4-Hydroxyandrostenedione glucuronide
                                                                                                                      HMDB0010315
       {\rm HMDB0145075}
3990
3991
       HMDB0145086
                        NA
                                                                                                                      NA
      HMDB0144922
HMDB0144879
3992
                       NA
                                                                                                                      NA
3993
                       NΑ
                                                                                                                      NΑ
       HMDB0144952
3994
                       NA
                                                                                                                      NA
       HMDB0144894
                        NA
                                                                                                                      NA
3995
3996
       HMDB0144844
                       NA
                                                                                                                      NA
3997
       {\rm HMDB0144847}
                        NA
                                                                                                                      NA
3998
       HMDB0144882
                       NΑ
                                                                                                                      NA
       HMDB0144891
3999
                       NA
                                                                                                                      NA
       HMDB0031918
                                                                                                                      HMDB0031918
4000
                       Suspensolide F
       HMDB0061351
4001
                       NA
                                                                                                                      NA
       HMDB0160543
4002
                       NA
                                                                                                                      NA
4003
       HMDB0160539
                        NA
                                                                                                                      NA
4004
       {\rm HMDB0160541}
                       NA
                                                                                                                      NA
4005
       HMDB0160540
                       NA
                                                                                                                      NA
       HMDB0160542
                       NΑ
                                                                                                                      NA
4006
       HMDB0160544
4007
                       NA
                                                                                                                      NA
       HMDB0160545
                       NA
                                                                                                                      NA
4008
       HMDB0160516
                        NA
                                                                                                                      NA
4009
4010
       {\rm HMDB0160517}
                        NA
                                                                                                                      NA
4011
       HMDB0160518
                       NA
                                                                                                                      NA
       HMDB0160515
4012
                       NA
                                                                                                                      NA
       HMDB0160519
                       NA
                                                                                                                      NΑ
4013
       HMDB0160522
                       NA
                                                                                                                      NA
4014
4015
       HMDB0160521
4016
       {\rm HMDB0160520}
                       NA
                                                                                                                      NA
      \begin{array}{c} {\rm HMDB0160523} \\ {\rm HMDB0160526} \end{array}
4017
                       NΑ
                                                                                                                      NA
4018
                       NA
                                                                                                                      NA
       HMDB0160524
4019
                       NA
                                                                                                                      NA
4020
       HMDB0160525
                       NA
                                                                                                                      NA
       HMDB0160528
                       NA
4021
                                                                                                                      NA
4022
       {\rm HMDB0160529}
                        NA
                                                                                                                      NA
4023
       {\rm HMDB0160527}
                       NA
                                                                                                                      NA
       HMDB0160530
4024
                       NA
                                                                                                                      NA
       HMDB0172528
4025
                       NA
                                                                                                                      NA
       HMDB0170464
4026
                       NA
                                                                                                                      NA
4027
       HMDB0059931
                       NA
                                                                                                                      NA
4028
       HMDB0040118
                        NA
                                                                                                                      NA
4029
       {\rm HMDB0184359}
                        NA
                                                                                                                      NA
       HMDB0000722
                                                                                                                      HMDB0000722
4030
                       Lithocholyltaurine
       HMDB0184197
4031
                       NA
                                                                                                                      NA
       HMDB0155893
4032
                       NA
                                                                                                                      NΑ
       HMDB0184199
                       NA
                                                                                                                      NA
4033
4034
       HMDB0184202
                        NA
                                                                                                                      NA
4035
       {\rm HMDB0184203}
                       NA
                                                                                                                      NA
       HMDB0184192
4036
                       NA
                                                                                                                      NA
       HMDB0184200
4037
                       NA
                                                                                                                      NA
       HMDB0184193
                       NA
                                                                                                                      NA
4038
       HMDB0184189
4039
                       NA
                                                                                                                      NA
       HMDB0184187
                       NA
                                                                                                                      NA
4040
4041
       {\rm HMDB0155900}
                        NA
                                                                                                                      NA
4042
       {\rm HMDB0155896}
                       NA
                                                                                                                      NA
       HMDB0155897
4043
                       NA
                                                                                                                      NA
       HMDB0155894
                       NA
4044
                                                                                                                      NA
       {\rm HMDB0184196}
4045
                       NA
                                                                                                                      NA
4046
       HMDB0184333
                        NA
4047
       {\rm HMDB0184190}
                       NA
                                                                                                                      NA
4048
       {\rm HMDB}0155899
                        NA
                                                                                                                      NA
4049
       HMDB0060547
                        NΑ
                                                                                                                      NA
       HMDB0010380
                       LvsoPC(14:1(9Z))
                                                                                                                      HMDB0010380
4050
       HMDB0184086
4051
                       NA
                                                                                                                      NA
4052
       HMDB0002385
                        Celastrol
                                                                                                                      HMDB0002385
4053
       HMDB0015057
                        Buprenorphine
                                                                                                                      {\rm HMDB0015057}
4054
       {\rm HMDB0062331}
                       NΑ
                                                                                                                      NA
                       LysoPC(14:0)
       HMDB0010379
                                                                                                                      HMDB0010379
4055
       HMDB0061691
4056
                       NA
                                                                                                                      NA
                       NA
                                                                                                                      NA
       HMDB0161447
4057
       HMDB0179451
4058
                       NA
                                                                                                                      NA
4059
       HMDB0062337
                       NA
                                                                                                                      NA
4060
       HMDB0138981
                       NA
                                                                                                                      NA
4061
       HMDB0138985
                       NA
                                                                                                                      NA
```

4062	HMDB0138983	NA
4063	HMDB0138982	NA
4064	HMDB0138963	NA
$\frac{4065}{4066}$	HMDB0138657 HMDB0138986	NA NA
4067	HMDB0138990	NA
4068	HMDB0138994	NA
4069	HMDB0138995	NA
$4070 \\ 4071$	HMDB0138999 HMDB0138976	NA NA
$4071 \\ 4072$	HMDB0138978	NA
4073	HMDB0138977	NA
4074	HMDB0138656	NA
$\frac{4075}{4076}$	HMDB0134169 HMDB0134170	NA NA
4076	HMDB0134170	NA
4078	HMDB0129088	NA
4079	HMDB0129087	NA
4080	HMDB0129086	NA NA
$4081 \\ 4082$	HMDB0138698 HMDB0138699	NA NA
4082	HMDB0138964	NA
4084	HMDB0138967	NA
4085	HMDB0138970	NA
4086	HMDB0138969 HMDB0138968	NA NA
$\frac{4087}{4088}$	HMDB0138968 HMDB0138971	NA NA
4089	HMDB0138971	NA
4090	HMDB0139000	NA
4091	HMDB0141014	NA
4092 4093	HMDB0138697 HMDB0138984	NA NA
4093	HMDB0138984 HMDB0138989	NA NA
4095	HMDB0138973	NA
4096	HMDB0129052	NA
$4097 \\ 4098$	HMDB0125560	NA NA
4098	HMDB0125552 HMDB0125562	NA NA
4100	HMDB0125561	NA
4101	${\rm HMDB0125558}$	NA
4102	HMDB0125554	NA
4103	HMDB0125559	NA NA
$\frac{4104}{4105}$	HMDB0125553 HMDB0125556	NA NA
4106	HMDB0125555	NA
4107	HMDB0140120	NA
4108	HMDB0125564	NA
4109	HMDB0125563	NA N A
$4110 \\ 4111$	HMDB0129075 HMDB0129073	NA NA
4111	HMDB0129066	NA
4113	HMDB0129068	NA
4114	HMDB0129067	NA
4115	HMDB0129063	NA N A
$\frac{4116}{4117}$	HMDB0129064 HMDB0129062	NA NA
4118	HMDB0129061	NA
4119	${\rm HMDB0129074}$	NA
4120	HMDB0129081	NA
$4121 \\ 4122$	HMDB0140238 HMDB0140127	NA NA
4122 4123	HMDB0140127 HMDB0140130	NA NA
4124	HMDB0140130	NA
4125	${\rm HMDB0140122}$	NA
4126	HMDB0129571	NA
4127	HMDB0129082	NA NA
$4128 \\ 4129$	HMDB0129080 HMDB0129059	NA NA
4130	HMDB0129059	NA
4131	${\rm HMDB0129054}$	NA
4132	HMDB0125577	NA
4133	HMDB0125578	NA NA
$4134 \\ 4135$	HMDB0125576 HMDB0125566	NA NA
4136	HMDB0125573	NA
4137	${\rm HMDB0125569}$	NA
4138	HMDB0125571	NA
4139	HMDB0125572	NA NA
$4140 \\ 4141$	HMDB0125568 HMDB0129040	NA NA
4141 4142	HMDB0129040 HMDB0129041	NA
4143	HMDB0129057	NA
1111	HMDB0129055	NA
4144	TIN ID DOGGOOD	
4145	HMDB0129053	NA NA
$4145 \\ 4146$	HMDB0129048	NA
4145		

```
HMDB0129047
4149
                       NA
                                                                                                                   NA
                       NA
                                                                                                                   NA
4150
       HMDB0129045
       HMDB0129042
4151
                       NA
                                                                                                                    NA
4152
       {\rm HMDB0125567}
                       NA
                                                                                                                    NA
4153
       {\rm HMDB0150327}
                       NA
                                                                                                                   NA
4154
       HMDB0150323
                       NA
                                                                                                                   NA
       HMDB0131587
                       NA
                                                                                                                   NA
4155
       HMDB0131586
                       NA
                                                                                                                   NA
4156
       {\rm HMDB0131555}
4157
                       NA
                                                                                                                   NA
4158
       HMDB0131554
                       NA
4159
       {\rm HMDB0034608}
                       PSF-A
                                                                                                                   HMDB0034608
4160
       {\rm HMDB0187185}
                       NA
                                                                                                                   NA
       HMDB0187161
4161
                       NΑ
                                                                                                                   NA
       HMDB0187164
                       NA
                                                                                                                   NA
4162
4163
       HMDB0187169
                       NA
                                                                                                                   NA
       {\rm HMDB0187172}
                       NA
                                                                                                                   NA
4164
4165
       HMDB0187181
                       NA
                                                                                                                    NA
4166
       HMDB0176585
                       NA
                                                                                                                   NA
       HMDB0176586
                                                                                                                   NΑ
4167
                       NA
       HMDB0176925
4168
                       NA
                                                                                                                   NA
4169
       HMDB0176921
                       NA
                                                                                                                   NA
4170
       HMDB0039706
                       NA
4171
       {\rm HMDB0034072}
                       Gentianose
                                                                                                                   HMDB0034072
4172
       HMDB0006599
                       3-Galactosyllactose
                                                                                                                   HMDB0006599
       HMDB0001262
                                                                                                                   HMDB0001262
4173
                       Maltotriose
       HMDB0033748
                                                                                                                   HMDB0033748
4174
                       Umbelliferose
       HMDB0040984
4175
                       NA
                                                                                                                   NA
       HMDB0029930
                                                                                                                   HMDB0029930
4176
                       beta-D-Fructofuranosyl alpha-D-glucopyranosyl-(1->4)-D-glucopyranoside
4177
       HMDB0040181
4178
       {\rm HMDB0039708}
                       NA
                                                                                                                   NA
                                                                                                                   HMDB0029929
4179
       HMDB0029929
                       6-O-Glucosylmaltose
       HMDB0033673
                       6-Kestose
                                                                                                                   HMDB0033673
4180
       HMDB0038853
4181
                       NA
                                                                                                                   NA
       HMDB0003213
                       Raffinose
                                                                                                                    HMDB0003213
4182
       HMDB0039704
4183
                       NA
                                                                                                                   NA
4184
       HMDB0039707
                       NA
                                                                                                                   NA
                                                                                                                   HMDB0029921
4185
       HMDB0029921
                       Neokestose
       HMDB0060468
                       D-Gal alpha 1->6D-Gal alpha 1->6D-Glucose
                                                                                                                   HMDB0060468
4186
       HMDB0041948
4187
                       NA
                                                                                                                   NA
       HMDB0003539
                                                                                                                   HMDB0003539
4188
                       Levan
4189
       HMDB0038852
                       NA
                                                                                                                   HMDB0029910
4190
       {\rm HMDB0029910}
                       Gentiotriose
4191
       HMDB0006857
                       Dextrin
                                                                                                                   HMDB0006857
       HMDB0011729
4192
                       1-Kestose
                                                                                                                   HMDB0011729
4193
       HMDB0011730
                       Melezitose
                                                                                                                   HMDB0011730
4194
       HMDB0038851
                       NA
                                                                                                                   NA
       {\rm HMDB0035322}
                                                                                                                   HMDB0035322
4195
                       Fagopyritol B2
4196
       {\rm HMDB0029922}
                       Galactotriose
                                                                                                                   {\rm HMDB0029922}
4197
       {\rm HMDB0029937}
                       Panose
                                                                                                                   HMDB0029937
       HMDB0039703
                                                                                                                   NA
NA
4198
                       NA
       HMDB0142726
4199
                       NA
4200
       {\rm HMDB0142746}
                       NA
                                                                                                                   NA
4201
       HMDB0144455
                       NA
                                                                                                                   NA
4202
       {\rm HMDB0142823}
                       NA
                                                                                                                   NA
4203
       HMDB0144467
                       NA
                                                                                                                   NA
4204
       HMDB0143965
                       NA
                                                                                                                   NA
       HMDB0144465
4205
                       NA
                                                                                                                   NA
       HMDB0144463
4206
                       NA
                                                                                                                   NA
       HMDB0144459
                       NA
4207
                                                                                                                   NA
4208
       HMDB0144439
                       NA
4209
       HMDB0144435
                       NA
                                                                                                                   NA
4210
       HMDB0144431
                       NA
                                                                                                                   NA
       HMDB0142806
4211
                       NA
                                                                                                                   NA
       HMDB0142827
                       NA
4212
                                                                                                                   NA
       HMDB0142796
4213
                       NA
                                                                                                                   NA
       HMDB0144443
4214
                       NA
                                                                                                                   NA
4215
       {\rm HMDB0142736}
                       NA
                                                                                                                   NA
4216
       HMDB0142716
                       NA
                                                                                                                   NA
       HMDR0142756
4217
                       NΑ
                                                                                                                   NA
       HMDB0142786
4218
                       NA
                                                                                                                   NA
4219
       {\rm HMDB0031674}
                       Armillarinin
                                                                                                                   {\rm HMDB0031674}
4220
       HMDB0041532
4221
       HMDB0030901
                       Eremopetasitenin B2
                                                                                                                   HMDB0030901
4222
       HMDB0039930
                       NA
                                                                                                                   NA
4223
       HMDB0164234
                       NA
                                                                                                                   NA
       HMDB0135504
                       NA
                                                                                                                   NA
4224
4225
       HMDB0135508
                       NA
                                                                                                                   NA
4226
       HMDB0135506
                       NA
4227
       HMDB0031943
                       {\rm (Z)\text{-}N\text{-}[(4\text{-}hydroxyphenyl)methyl]ethoxycarbothioamide 4'\text{-}(tri-acetylrhamnoside)}
                                                                                                                   HMDB0031943
4228
       {\rm HMDB0133632}
                       ΝÁ
                                                                                                                   NA
4229
       HMDB0133629
                       NA
                                                                                                                   NA
       HMDB0133763
4230
                       NA
                                                                                                                   NA
                       NA
4231
       HMDB0133762
                                                                                                                   NA
       HMDB0135654
4232
                       NA
                                                                                                                   NA
4233
       HMDB0179487
                       NA
                                                                                                                   NA
4234
       HMDB0179486
                       NA
                                                                                                                   NA
4235
       HMDB0133631
                       NA
                                                                                                                   NA
```

```
HMDB0133626
4236
                       NA
                                                                                                                     NA
                                                                                                                     NA
4237
       HMDB0133623
                       NA
4238
       HMDB0133634
                       NA
                                                                                                                      NA
4239
       {\rm HMDB}0170798
                       NA
                                                                                                                      NA
4240
       {\rm HMDB}0170797
                       NA
                                                                                                                     NA
4241
       HMDB0170793
                       NA
                                                                                                                     NA
       HMDB0170796
4242
                       NA
                                                                                                                     NA
4243
       HMDB0170791
                       NA
                                                                                                                     NA
       HMDB0170792
4244
                       NA
                                                                                                                     NA
4245
       HMDB0184654
                        NA
4246
       {\rm HMDB0184468}
                       NA
                                                                                                                     NA
4247
      HMDB0139941
HMDB0139958
                        NA
                                                                                                                     NA
4248
                       NΑ
                                                                                                                     NA
4249
       HMDB0035635
                       Kanokoside A
                                                                                                                     HMDB0035635
4250
       HMDB0004482
                        2-Methoxyestrone 3-glucuronide
                                                                                                                     HMDB0004482
       {\rm HMDB0154676}
4251
                                                                                                                     NA
4252
       HMDB0169584
                        NA
                                                                                                                      NA
4253
       {\rm HMDB0146115}
                       NA
                                                                                                                     NA
       HMDB0161563
                       NΑ
                                                                                                                     NΑ
4254
       HMDB0161564
4255
                       NA
                                                                                                                     NA
4256
       HMDB0161602
                       NA
                                                                                                                     NA
4257
       HMDB0161603
                        NA
                                                                                                                     HMDB0011156
4258
       {\rm HMDB0011156}
                       PA(20:4(5Z,8Z,11Z,14Z)e/2:0)
4259
       HMDB0114752
                       NΑ
                                                                                                                     NA
       HMDB0062310
                                                                                                                     \begin{array}{c} {\rm NA} \\ {\rm HMDB0011485} \end{array}
4260
                       NA
       HMDB0011485
                        LysoPE(0:0/20:3(5Z,8Z,11Z))
4261
       HMDB0011486
                        LysoPE(0:0/20:3(8Z,11Z,14Z))
                                                                                                                     HMDB0011486
4262
       HMDB0011484
                        LysoPE(0:0/20:3(11Z,14Z,17Z))
                                                                                                                     HMDB0011484
4263
4264
       HMDB0011514
                        LysoPE(20:3(11Z,14Z,17Z)/0:0)
                                                                                                                     HMDB0011514
4265
       {\rm HMDB0011516}
                        LysoPE(20:3(8Z,11Z,14Z)/0:0)
                                                                                                                     {\rm HMDB0011516}
4266
       HMDB0011515
                        LysoPE(20:3(5Z,8Z,11Z)/0:0)
                                                                                                                     HMDB0011515
       HMDB0010381
                       LysoPC(15:0)
LysoPE(18:0/0:0)
                                                                                                                     HMDB0010381
4267
       HMDB0011130
                                                                                                                     HMDB0011130
4268
       HMDB0011129
                        LysoPE(0:0/18:0)
                                                                                                                     HMDB0011129
4269
       HMDB0173895
                        ΝÃ
4270
                                                                                                                     NA
4271
       HMDB0173901
                        NA
                                                                                                                     NA
4272
       HMDB0173913
                       NA
                                                                                                                     NA
       HMDB0173911
4273
                       NA
                                                                                                                     NA
       HMDB0173905
4274
                       NA
                                                                                                                     NA
       HMDB0173903
4275
                       NA
                                                                                                                     NA
4276
       HMDB0173899
                                                                                                                     NA
4277
       {\rm HMDB}0173897
                        NA
                                                                                                                     NA
4278
       HMDB0010408
                       LysoPC(P-18:1(9Z))
                                                                                                                     HMDB0010408
                       LysoPC(18:0)
LysoPC(0:0/18:0)
4279
       HMDB0010384
                                                                                                                     HMDB0010384
4280
       HMDB0011128
                                                                                                                     HMDB0011128
4281
       HMDB0062195
                       ŇA
                                                                                                                     NA
       HMDB0036884
                       NA
4282
                                                                                                                     NA
4283
       {\rm HMDB0181960}
                        NA
                                                                                                                     NA
4284
       {\rm HMDB0181959}
                       NA
                                                                                                                     NA
4285
       HMDB0181963
                       NA
                                                                                                                     NA
       HMDB0181976
4286
                       NA
                                                                                                                     NA
4287
       {\rm HMDB0181975}
                       NA
                                                                                                                     NA
4288
       HMDB0181971
                        NA
                                                                                                                      NA
4289
       HMDB0181968
                        NA
                                                                                                                      NA
4290
       HMDB0181967
                        NA
                                                                                                                     NA
4291
       HMDB0181964
                       NΑ
                                                                                                                     NA
       HMDB0158842
4292
                       NA
                                                                                                                     NA
       HMDB0011523
4293
                        LysoPE(22:4(7Z,10Z,13Z,16Z)/0:0)
                                                                                                                     HMDB0011523
       HMDB0011493
                        LysoPE(0:0/22:4(7Z,10Z,13Z,16Z))
                                                                                                                     HMDB0011493
4294
4295
       HMDB0041430
                                                                                                                     HMDB0011482
                        LysoPE(0:0/20:1(11Z))
4296
       HMDB0011482
4297
       HMDB0011512
                       LysoPE(20:1(11Z)/0:0)
                                                                                                                     HMDB0011512
       HMDB0010404
                       LysoPC(22:6(4Z,7Z,10Z,13Z,16Z,19Z))
                                                                                                                     HMDB0010404
4298
       HMDB0030528
4299
                                                                                                                     HMDB0030528
                        Janthitrem B
       HMDB0010393
                        LysoPC(20:3(5Z,8Z,11Z))
                                                                                                                     HMDB0010393
4300
       HMDB0010394
                        LysoPC(20:3(8Z,11Z,14Z))
                                                                                                                     HMDB0010394
4301
4302
       {\rm HMDB0184561}
                                                                                                                     NA
4303
       HMDB0184408
                       NA
                                                                                                                     NA
       HMDB0156558
4304
                       NA
                                                                                                                     NA
       HMDB0175799
4305
                       NA
                                                                                                                     NA
       {\rm HMDB0175694}
4306
                       NA
                                                                                                                     NA
       HMDB0175794
                        NA
4307
4308
       HMDB0184131
                        NA
                                                                                                                      NA
4309
       {\rm HMDB}0177847
                        NA
                                                                                                                     NA
4310
       HMDB0175890
                       NΑ
                                                                                                                     NA
       HMDB0175811
4311
                       NΑ
                                                                                                                     NΑ
4312
       HMDB0041547
                        NA
                                                                                                                     NA
4313
       HMDB0061198
4314
       HMDB0035388
                        (24E)\hbox{-}3alpha,15alpha-Diacetoxy-23-oxo-7,9(11),24-lanostatrien-26-oic\ acid
                                                                                                                     {\rm HMDB0035388}
4315
       HMDB0171952
                       ŇΑ
                                                                                                                     NA
4316
       HMDB0171971
                       NA
                                                                                                                     NA
       HMDB0171957
4317
                       NA
                                                                                                                     NA
                       NA
       HMDB0171959
                                                                                                                     NA
4318
       HMDB0171967
4319
                       NA
                                                                                                                     NA
4320
       HMDB0171969
                       NA
                                                                                                                     NA
4321
       {\rm HMDB0171963}
                       NA
                                                                                                                     NA
4322
       HMDB0171965
                       NA
                                                                                                                     NA
```

```
HMDB0171961
4323
                       NA
                                                                                                                    NA
       HMDB0039897
                       NA
                                                                                                                    NA
4324
4325
       HMDB0172989
                                                                                                                    NA
                       NA
4326
       {\rm HMDB0172985}
                       NA
                                                                                                                    NA
4327
       {\rm HMDB0172986}
                       NA
                                                                                                                    NA
4328
       HMDB0172988
                       NA
                                                                                                                    NA
       HMDB0015129
                                                                                                                    HMDB0015129
4329
                       Neomycin
4330
       HMDB0002160
                       Harderoporphyrinogen
                                                                                                                    HMDB0002160
       {\rm HMDB0039454}
4331
                                                                                                                    NA
4332
       {\rm HMDB0173693}
                                                                                                                     NA
4333
       {\rm HMDB0173692}
                       NA
                                                                                                                    NA
4334
      HMDB0173699
HMDB0173698
                       NA
                                                                                                                    NA
                       NΑ
                                                                                                                    NA
4335
4336
       HMDB0142988
                       NA
                                                                                                                    NA
4337
       HMDB0142998
                       NA
                                                                                                                    NA
       HMDB0142997
                       NA
                                                                                                                    NA
4338
4339
       {\rm HMDB0143001}
                       NA
                                                                                                                     NA
      HMDB0142987
HMDB0142978
4340
                       NA
                                                                                                                    NA
                       NΑ
                                                                                                                    NA
4341
       HMDB0142977
4342
                       NA
                                                                                                                    NA
       HMDB0142917
                                                                                                                    NA
4343
                       NA
4344
       HMDB0142918
                       NA
                                                                                                                    NA
4345
       {\rm HMDB0142919}
                       NA
                                                                                                                    NA
4346
       HMDB0142921
                       NA
                                                                                                                    NA
       HMDB0142920
                                                                                                                    NA
NA
4347
                       NA
       HMDB0142926
                       NA
4348
       {\rm HMDB0142929}
4349
                       NA
                                                                                                                    NA
       HMDB0142928
4350
                       NA
                                                                                                                    NA
4351
       {\rm HMDB0142927}
                       NA
                                                                                                                     NA
4352
       {\rm HMDB0143002}
                       NA
                                                                                                                    NA
       HMDB0143007
4353
                       NA
                                                                                                                    NA
       HMDB0143006
                       NΑ
                                                                                                                    NA
4354
       HMDB0143108
                       NA
                                                                                                                    NA
4355
       HMDB0143104
                       NA
                                                                                                                    NA
4356
       {\rm HMDB0143098}
                       NA
                                                                                                                     NA
4357
4358
       {\rm HMDB0143093}
                       NA
                                                                                                                    NA
4359
       HMDB0143086
                       NA
                                                                                                                    NA
       HMDB0143085
4360
                       NA
                                                                                                                    NA
       HMDB0143076
4361
                       NA
                                                                                                                    NΑ
       HMDB0143075
                       NA
                                                                                                                    NA
4362
4363
       {\rm HMDB0143066}
                       NA
4364
       {\rm HMDB0143065}
                       NA
                                                                                                                    NA
4365
       HMDB0143061
                       NΑ
                                                                                                                    NA
4366
       HMDB0143060
                       NA
                                                                                                                    NA
       HMDB0143022
4367
                       NA
                                                                                                                    NA
4368
       {\rm HMDB0143012}
                       NA
                                                                                                                    NA
       HMDB0143011
                       NA
                                                                                                                    NA
4369
4370
       {\rm HMDB0143021}
                       NA
                                                                                                                    NA
4371
       {\rm HMDB0142916}
                       NA
                                                                                                                    NA
       HMDB0142915
4372
                       NA
                                                                                                                    NA
       HMDB0142901
4373
                       NA
                                                                                                                    NA
       HMDB0142899
4374
                       NA
                                                                                                                    NA
4375
       HMDB0142902
                       NA
                                                                                                                     NA
4376
       {\rm HMDB0142900}
                       NA
                                                                                                                     NA
4377
       {\rm HMDB0142905}
                       NA
                                                                                                                    NA
       HMDB0142904
4378
                       NA
                                                                                                                    NA
       HMDB0142903
4379
                       NA
                                                                                                                    NA
       HMDB0142908
4380
                       NΑ
                                                                                                                    NΑ
       HMDB0142911
                       NA
                                                                                                                    NA
4381
4382
       {\rm HMDB0142913}
                       NA
4383
       {\rm HMDB0142914}
                       NA
                                                                                                                    NA
       HMDB0142912
4384
                       NA
                                                                                                                    NA
       HMDB0142930
4385
                       NA
                                                                                                                    NA
       HMDB0165936
                       NA
                                                                                                                    NA
4386
       HMDB0165918
4387
                       NA
                                                                                                                    NA
4388
       HMDB0173230
                       NA
                                                                                                                    NA
4389
       {\rm HMDB0173229}
                       NA
                                                                                                                    NA
4390
       {\rm HMDB0165966}
                       NA
                                                                                                                    NA
       HMDB0164809
4391
                       NΑ
                                                                                                                    NA
       HMDB0034433
                       Riboflavine 2',3',4',5'-tetrabutanoate
                                                                                                                     HMDB0034433
4392
       {\rm HMDB}0157944
4393
                       NA
                                                                                                                    NA
4394
       HMDB0157945
                                                                                                                    NA
4395
       HMDB0157949
                       NA
                                                                                                                    NA
4396
       {\rm HMDB}0157950
                       NA
                                                                                                                    NA
4397
       HMDB0157951
                       NA
                                                                                                                    NA
       HMDB0157955
                                                                                                                    NA
4398
                       NΑ
       HMDB0157956
4399
                       NA
                                                                                                                    NA
4400
       HMDB0157943
                       NA
                                                                                                                    NA
4401
       HMDB0157938
                       NA
                                                                                                                     NA
4402
       {\rm HMDB}0157939
                       NΑ
                                                                                                                    NA
       HMDB0157937
4403
                       NA
                                                                                                                    NA
       HMDB0157933
4404
                       NA
                                                                                                                    NA
       HMDB0157932
                       NA
                                                                                                                    NA
4405
       HMDB0157931
4406
                       NA
                                                                                                                    NA
4407
       HMDB0157898
                       NA
                                                                                                                    NA
4408
       {\rm HMDB0157896}
                       NA
                                                                                                                    NA
4409
       HMDB0157957
                       NA
                                                                                                                    NA
```

4410	HMDB0158932	NA	NA
4411	HMDB0158968	NA NA	NA
4412	HMDB0158964	NA	NA
4413	HMDB0158963	NA NA	NA
4414	HMDB0158958	NA	NA
4415	HMDB0158959	NA	NA
4416	HMDB0158953	NA	NA
4417	HMDB0158954	NA	NA
4418	HMDB0158949	NA	NA
4419	HMDB0158948	NA	NA
4420	HMDB0158944	NA	NA
4421	HMDB0158943	NA	NA
4422	HMDB0158937	NA	NA
4423	HMDB0158938	NA	NA
4424	HMDB0158939	NA	NA
4425	HMDB0158933	NA	NA
4426	HMDB0158969	NA	NA
4427	HMDB0157897	NA .	NA
4428	HMDB0157050	NA	NA
4429	HMDB0157221	NA NA	NA
4430	HMDB0157842	NA.	NA
$4431 \\ 4432$	HMDB0157841 HMDB0157843	NA NA	NA NA
4433	HMDB0157845 HMDB0157847	NA NA	NA NA
4434	HMDB0157846	NA NA	NA
4435	HMDB0157851	NA NA	NA
4436	HMDB0157831	NA NA	NA
4437	HMDB0157853	NA	NA
4438	HMDB0157215	NA NA	NA
4439	HMDB0157218	NA	NA
4440	HMDB0157212	NA	NA
4441	HMDB0157051	NA	NA
4442	HMDB0157054	NA	NA
4443	HMDB0157057	NA	NA
4444	HMDB0157060	NA	NA
4445	HMDB0157066	NA	NA
4446	HMDB0157063	NA	NA
4447	HMDB0157206	NA	NA
4448	HMDB0157205	NA	NA
4449	HMDB0157209	NA .	NA
4450	HMDB0157852	NA	NA
4451	HMDB0157856	NA.	NA
4452	HMDB0157857	NA.	NA
4453	HMDB0157876	NA NA	NA NA
$\frac{4454}{4455}$	HMDB0157881	NA NA	NA NA
4456	HMDB0157882 HMDB0157883	NA NA	NA NA
$4450 \\ 4457$	HMDB0157886	NA NA	NA NA
4458	HMDB0157887	NA NA	NA
4459	HMDB0157888	NA	NA
4460	HMDB0157891	NA NA	NA
4461	HMDB0157892	NA	NA
4462	HMDB0157893	NA	NA
4463	HMDB0157878	NA	NA
4464	HMDB0157877	NA	NA
4465	HMDB0157858	NA	NA
4466	HMDB0157861	NA	NA
4467	HMDB0157862	NA	NA
4468	HMDB0157863	NA .	NA
4469	HMDB0157866	NA.	NA
4470	HMDB0157867	NA.	NA
4471	HMDB0157868	NA NA	NA
4472	HMDB0157871	NA NA	NA
$\frac{4473}{4474}$	HMDB0157873 HMDB0157872	NA NA	NA NA
$\frac{4474}{4475}$	HMDB0137872 HMDB0038619	NA NA	NA NA
$\frac{4475}{4476}$	HMDB0038619 HMDB0010698	CerP(d18:0/16:0)	HMDB0010698
4477	HMDB0165986	NA NA	NA
4478	HMDB0165987	NA NA	NA
4479	HMDB0166012	NA NA	NA
4480	HMDB0166013	NA	NA
4481	HMDB0166011	NA	NA
4482	HMDB0166007	NA	NA
4483	HMDB0170721	NA	NA
4484	HMDB0166009	NA	NA
4485	HMDB0166010	NA	NA
4486	HMDB0166004	NA	NA
4487	HMDB0166005	NA	NA
4488	HMDB0166003	NA NA	NA
4489	HMDB0166006	NA NA	NA
4490	HMDB0167988	NA.	NA
4491	HMDB0167989	NA NA	NA
4492	HMDB0168064	NA NA	NA NA
4493	HMDB0170719	NA NA	NA NA
$\frac{4494}{4495}$	HMDB0170718 HMDB0168079	NA NA	NA NA
4496	HMDB0168079	NA NA	NA NA
1100			

```
HMDB0168077
4497
                       NA
                                                                                                                   NA
                       NA
                                                                                                                   NA
4498
      HMDB0168076
4499
       HMDB0168068
                       NA
                                                                                                                   NA
4500
      {\rm HMDB0168067}
                       NA
                                                                                                                   NA
4501
      {\rm HMDB0168065}
                       NA
                                                                                                                   NA
      HMDB0166001
4502
                       NA
                                                                                                                   NA
      HMDB0166002
                       NA
                                                                                                                   NA
4503
      HMDB0170734
4504
                       NA
                                                                                                                   NA
      {\rm HMDB0165975}
4505
                       NA
                                                                                                                   NA
4506
      {\rm HMDB0165973}
                       NA
                                                                                                                   NA
4507
      {\rm HMDB0165879}
                       NA
                                                                                                                   NA
4508
      HMDB0165880
HMDB0170735
                       NA
                                                                                                                   NA
                                                                                                                   NA
4509
                       NΑ
      HMDB0170737
4510
                       NA
                                                                                                                   NA
4511
       HMDB0166008
                       NA
                                                                                                                   NA
      {\rm HMDB0165977}
                       NA
                                                                                                                   NA
4512
4513
      {\rm HMDB0165978}
                       NA
                                                                                                                   NA
4514
      {\rm HMDB0165999}
                       NA
                                                                                                                   NA
                                                                                                                   NA
      HMDB0165985
                       NΑ
4515
      HMDB0165984
4516
                       NA
                                                                                                                   NA
       HMDB0165976
                       NA
                                                                                                                   NA
4517
4518
       HMDB0165983
                       NA
                                                                                                                   NA
4519
      {\rm HMDB0165980}
                       NA
                                                                                                                   NA
4520
      HMDB0165981
                       NA
                                                                                                                   NA
      HMDB0165982
                                                                                                                   NA
NA
4521
                       NA
      HMDB0165979
                       NA
4522
      {\rm HMDB0177535}
4523
                       NA
                                                                                                                   NA
      HMDB0177543
4524
                       NA
                                                                                                                   NA
4525
      HMDB0177537
                       NA
                                                                                                                   NA
4526
      {\rm HMDB}0177545
                       NA
                                                                                                                   NA
4527
      {\rm HMDB}0177544
                       NA
                                                                                                                   NA
      HMDB0177546
                       NΑ
                                                                                                                   NA
4528
      HMDB0177536
4529
                       NA
                                                                                                                   NA
       HMDB0166014
                       NA
4530
                                                                                                                   NA
      HMDB0165988
                       NA
4531
4532
      {\rm HMDB0184229}
                       NA
                                                                                                                   NA
4533
      HMDB0186286
                       NΑ
                                                                                                                   NA
      HMDB0033242
                                                                                                                   HMDB0033242
4534
                       Glycylserylprolylmethionylphenylalanylvalinamide
      HMDB0143644
4535
                       NA
                                                                                                                   NA
       HMDB0041431
                       NA
                                                                                                                   NA
4536
4537
      {\rm HMDB0175656}
                       NA
                                                                                                                   NA
4538
      {\rm HMDB0175651}
                       NA
                                                                                                                   NA
4539
      HMDB0175661
                       NΑ
                                                                                                                   NA
4540
      HMDB0175662
                       NA
                                                                                                                   NA
                                                                                                                   NA
4541
      HMDB0175652
                       NA
4542
      HMDB0175657
                       NA
                                                                                                                   NA
      {\rm HMDB0168025}
                       NA
                                                                                                                   NA
4543
4544
      {\rm HMDB0168023}
                       NA
                                                                                                                   NA
4545
      {\rm HMDB0165935}
                       NA
                                                                                                                   NA
      HMDB0168024
4546
                       NA
                                                                                                                   NA
      HMDB0168022
4547
                       NA
                                                                                                                   NA
      HMDB0168019
4548
                       NA
                                                                                                                   NA
4549
       HMDB0168021
                       NA
                                                                                                                   NA
4550
      HMDB0168018
                       NA
                                                                                                                   NA
4551
      {\rm HMDB0168020}
                       NA
                                                                                                                   NA
      HMDB0168017
4552
                       NA
                                                                                                                   NA
      HMDB0168016
4553
                       NA
                                                                                                                   NA
      HMDB0168015
4554
                       NA
                                                                                                                   NΑ
      HMDB0168014
                       NA
                                                                                                                   NA
4555
4556
       HMDB0168012
                       NA
4557
      HMDB0168026
                       NA
                                                                                                                   NA
4558
      HMDB0168027
                       NA
                                                                                                                   NA
      HMDB0168033
4559
                       NA
                                                                                                                   NA
      HMDB0168045
                                                                                                                   NA
                       NA
4560
       HMDB0168044
                                                                                                                   NA
4561
                       NA
      HMDB0168042
                       NA
                                                                                                                   NA
4562
4563
      {\rm HMDB0168043}
                       NA
                                                                                                                   NA
4564
      HMDB0168041
                       NA
                                                                                                                   NA
      HMDB0168040
                                                                                                                   NA
NA
4565
                       NA
      HMDB0168039
4566
                       NA
      {\rm HMDB0168038}
4567
                       NA
                                                                                                                   NA
4568
       HMDB0168037
                       NA
4569
      HMDB0168035
                       NA
                                                                                                                   NA
4570
      {\rm HMDB0168036}
                       NA
                                                                                                                   NA
4571
      HMDB0168034
                       NA
                                                                                                                   NA
      HMDB0168032
4572
                       NA
                                                                                                                   NΑ
      HMDB0168030
4573
                       NA
                                                                                                                   NA
4574
       HMDB0165933
                       NA
                                                                                                                   NA
4575
       HMDB0165934
                       NA
                                                                                                                   NA
4576
      {\rm HMDB0165912}
                       NΑ
                                                                                                                   NA
4577
      HMDB0165911
                       NA
                                                                                                                   NA
      HMDB0165913
4578
                       NA
                                                                                                                   NA
                       NA
      HMDB0165914
                                                                                                                   NA
4579
       HMDB0165910
4580
                       NA
                                                                                                                   NA
                                                                                                                   NA
4581
       HMDB0165909
                       NA
4582
      HMDB0165907
                       NA
                                                                                                                   NA
      {\rm HMDB0165904}
4583
                       NA
                                                                                                                   NA
```

```
HMDB0165906
4584
                        NA
                                                                                                                        NA
                                                                                                                        NA
4585
       HMDB0165908
                        NA
4586
       HMDB0165917
                                                                                                                        NA
                        NA
4587
       {\rm HMDB0165916}
                        NA
                                                                                                                        NA
4588
       {\rm HMDB0165915}
                        NA
                                                                                                                        NA
       HMDB0165932
4589
                        NA
                                                                                                                        NA
       HMDB0165931
4590
                        NA
                                                                                                                        NA
       HMDB0165928
4591
                        NA
                                                                                                                        NA
       {\rm HMDB0165930}
4592
                        NA
                                                                                                                        NA
4593
       {\rm HMDB0165929}
                        NA
4594
       {\rm HMDB0165927}
                        NA
                                                                                                                        NA
4595
       HMDB0165924
HMDB0165926
                        NA
                                                                                                                        NA
4596
                        NΑ
                                                                                                                        NA
4597
       HMDB0165925
                        NA
                                                                                                                        NA
4598
       HMDB0165922
                        NA
                                                                                                                        NA
       {\rm HMDB0181031}
                        NA
                                                                                                                        NA
4599
4600
       {\rm HMDB}0177742
                        NA
                                                                                                                        NA
4601
       {\rm HMDB}0177531
                        NA
                                                                                                                        NA
       HMDB0177529
                                                                                                                        NΑ
4602
                        NA
       HMDB0177530
4603
                        NA
                                                                                                                        NA
       HMDB0187178
4604
                        NA
                                                                                                                        NA
4605
       HMDB0187175
                        NA
                                                                                                                        NA
4606
       {\rm HMDB0187177}
                        NA
                                                                                                                        NA
4607
       HMDB0187174
                        NA
                                                                                                                        NA
       HMDB0178542
4608
                        NA
                                                                                                                        NA
       HMDB0178548
                        NA
                                                                                                                        NA
4609
       {\rm HMDB0178550}
4610
                        NA
                                                                                                                        NA
       HMDB0178541
4611
                        NA
                                                                                                                        NA
4612
       HMDB0178540
                        NA
                                                                                                                        NA
4613
       {\rm HMDB0178549}
                        NA
                                                                                                                        NA
4614
       HMDB0036529
                        NA
                                                                                                                        NA
       HMDB0036528
4615
                        NΑ
                                                                                                                        NA
       HMDB0014454
                        Vindesine
                                                                                                                        HMDB0014454
4616
       HMDB0116519
4617
                        NA
                                                                                                                        NA
       HMDB0116569
                        NA
4618
4619
       {\rm HMDB0116555}
                        NA
                                                                                                                        NA
4620
       HMDB0116549
                        NA
                                                                                                                        NA
       HMDB0116538
4621
                        NA
                                                                                                                        NA
       HMDB0116512
4622
                                                                                                                        NΑ
                        NA
       HMDB0176104
                        NA
4623
                                                                                                                        NA
4624
       HMDB0173004
                        NA
4625
       {\rm HMDB0176105}
                        NA
                                                                                                                        NA
4626
       HMDB0040745
                        NΑ
                                                                                                                        NA
       HMDB0164979
4627
                        NA
                                                                                                                        NA
4628
       HMDB0164980
                        NA
                                                                                                                        NA
4629
       HMDB0164978
                        NA
                                                                                                                        NA
       HMDB0164977
4630
                        NA
                                                                                                                        NA
4631
       {\rm HMDB0061054}
                        NA
                                                                                                                        NA
4632
       {\rm HMDB0061057}
                        NA
                                                                                                                        NA
       HMDB0062582
4633
                        NA
                                                                                                                        NA
       HMDB0002382
                        PI(16:0/18:0)
                                                                                                                        HMDB0009781
4634
       HMDB0009805
4635
                        PI(18:0/16:0)
                                                                                                                        {\rm HMDB0009805}
4636
       HMDB0112518
                        ΝÀ
                                                                                                                        NA
4637
       HMDB0112350
                        NA
                                                                                                                        NA
4638
       HMDB0112517
                        NA
                                                                                                                        NA
       HMDB0112364
4639
                        NΑ
                                                                                                                        NA
       HMDB0112910
4640
                        NA
                                                                                                                        NA
       HMDB0112882
4641
                        NA
                                                                                                                        NΑ
       HMDB0112739
                        NA
4642
                                                                                                                        NA
4643
       HMDB0112711
                        NA
4644
       HMDB0112545
                        NA
                                                                                                                        NA
       HMDB0112375
4645
                        NA
                                                                                                                        NA
       HMDB0112392
4646
                        NA
                                                                                                                        NA
       HMDB0112411
                        NA
                                                                                                                        NA
4647
       HMDB0112319
4648
                        NA
                                                                                                                        NA
       HMDB0112307
4649
4650
       {\rm HMDB0010628}
                        PG(18:1(11Z)/22:5(7Z,10Z,13Z,16Z,19Z))
                                                                                                                        {\rm HMDB0010628}
4651
       HMDB0010627
                        PG(18:1(11Z)/22:5(4Z,7Z,10Z,13Z,16Z))
                                                                                                                        HMDB0010627
                        \begin{array}{l} PG(18:1(9Z)/22:5(4Z,7Z,10Z,13Z,16Z)) \\ PG(18:1(9Z)/22:5(7Z,10Z,13Z,16Z,19Z)) \\ PG(18:0/22:6(4Z,7Z,10Z,13Z,16Z,19Z)) \end{array}
       HMDB0010642
                                                                                                                        HMDB0010642
4652
       HMDB0010643
                                                                                                                        HMDB0010643
4653
       HMDB0010614
4654
                                                                                                                        {\rm HMDB0010614}
       HMDB0010656
                        PG(18:2(9Z,12Z)/22:4(7Z,10Z,13Z,16Z))
                                                                                                                        HMDB0010656
4655
4656
       HMDB0116586
                        NA
                                                                                                                        NA
4657
       {\rm HMDB0116593}
                        NA
                                                                                                                        NA
4658
       HMDB0116580
                        NA
                                                                                                                        NA
       HMDB0116630
4659
                        NΑ
                                                                                                                        NΑ
       HMDB0116624
4660
                        NA
                                                                                                                        NA
4661
       HMDB0116625
                        NA
                                                                                                                        ΝA
4662
       {\rm HMDB0116617}
                        NA
                                                                                                                        NA
4663
       {\rm HMDB0116583}
                        NΑ
                                                                                                                        NA
       HMDB0116582
4664
                        NA
                                                                                                                        NA
       HMDB0116579
4665
                        NA
                                                                                                                        NA
       HMDB0116616
                        NA
                                                                                                                        NA
4666
       HMDB0112745
4667
                        NA
                                                                                                                        NA
4668
       HMDB0112746
                        NA
                                                                                                                        NA
4669
       HMDB0112769
                        NA
                                                                                                                        NA
4670
       HMDB0112793
                        NA
                                                                                                                        NA
```

```
HMDB0112580
4671
                         NA
                                                                                                                               NA
       HMDB0112606
                         NA
                                                                                                                               NA
4672
4673
       HMDB0112718
                         NA
                                                                                                                               NA
4674
       {\rm HMDB0112665}
                         NA
                                                                                                                               NA
4675
       {\rm HMDB0112640}
                         NA
                                                                                                                               NA
       HMDB0112382
4676
                         NA
                                                                                                                               NA
       HMDB0112461
                         NA
                                                                                                                               NA
4677
       HMDB0112478
4678
                         NA
                                                                                                                               NA
       {\rm HMDB0112504}
4679
                         NA
                                                                                                                               NA
4680
       {\rm HMDB0112529}
                         NA
                                                                                                                               NA
4681
       {\rm HMDB0112528}
                         NA
                                                                                                                               NA
4682
       HMDB0112554
HMDB0112555
                         NA
                                                                                                                               NA
                                                                                                                               NA
4683
                         NΑ
       HMDB0112626
4684
                         NA
                                                                                                                               NA
4685
       HMDB0112437
                         NA
                                                                                                                               NA
4686
       {\rm HMDB0169205}
                         NA
                                                                                                                               NA
4687
       {\rm HMDB0169206}
                         PE(22:4(7Z,10Z,13Z,16Z)/22:6(4Z,7Z,10Z,13Z,16Z,19Z))
                                                                                                                               HMDB0009605
       HMDB0009605
4688
       HMDB0009702
                         PE(22:6(4Z,7Z,10Z,13Z,16Z,19Z)/22:4(7Z,10Z,13Z,16Z))
                                                                                                                               HMDB0009702
4689
       HMDB0114593
4690
                                                                                                                               NA
                         \begin{array}{l} \text{PE}(22:5(7\text{Z},10\text{Z},13\text{Z},16\text{Z},19\text{Z})/22:5(7\text{Z},10\text{Z},13\text{Z},16\text{Z},19\text{Z})) \\ \text{PE}(22:5(7\text{Z},10\text{Z},13\text{Z},16\text{Z},19\text{Z})/22:5(4\text{Z},7\text{Z},10\text{Z},13\text{Z},16\text{Z})) \end{array}
       HMDB0009671
                                                                                                                               HMDB0009671
4691
4692
       {\rm HMDB0009670}
                                                                                                                               HMDB0009670
                         PE(22:5(4Z,7Z,10Z,13Z,16Z)/22:5(7Z,10Z,13Z,16Z,19Z))
4693
       HMDB0009638
                                                                                                                               HMDB0009638
4694
       HMDB0116722
                         NA
                                                                                                                               NA
       HMDB0114567
4695
                         NA
                                                                                                                               NA
       HMDB0114540
                         NA
                                                                                                                               NA
4696
       HMDB0114406
                                                                                                                               NA
4697
                         NA
4698
       HMDB0114405
                         NA
                                                                                                                               NA
4699
       HMDB0114378
                         NA
                                                                                                                               NA
4700
       {\rm HMDB0114349}
                         NA
                                                                                                                               NA
                                                                                                                               HMDB0009637
       HMDB0009637
4701
                         PE(22:5(4Z,7Z,10Z,13Z,16Z)/22:5(4Z,7Z,10Z,13Z,16Z))
       HMDB0061425
                         NΑ
4702
                                                                                                                               NΑ
       HMDB0061422
4703
                         NA
                                                                                                                               NA
       HMDB0061438
                         NA
                                                                                                                               NA
4704
4705
       HMDB0061465
                         NA
                                                                                                                               NA
4706
       {\rm HMDB0113821}
                         NA
                                                                                                                               NA
4707
       HMDB0113813
                         NA
                                                                                                                               NA
       HMDB0113789
4708
                         NA
                                                                                                                               NA
4709
       HMDB0113774
                                                                                                                               NA
                         NA
       HMDB0113764
                         NA
                                                                                                                               NA
4710
4711
       HMDB0113758
                         NA
                                                                                                                               NA
4712
       HMDB0113827
                         NA
                                                                                                                               NA
4713
       HMDB0113828
                         NA
                                                                                                                               NA
       HMDB0113835
4714
                         NA
                                                                                                                               NA
       HMDB0114666
                                                                                                                               NA
4715
                         NA
4716
       HMDB0114680
                         NA
                                                                                                                               NA
4717
       HMDB0114686
                         NA
                                                                                                                               NA
4718
       {\rm HMDB0114714}
                         NA
                                                                                                                               NA
4719
       {\rm HMDB}0114729
                         NA
                                                                                                                               NA
       HMDB0114733
4720
                         NA
                                                                                                                               NA
       HMDB0114739
                                                                                                                               NA
4721
                         NA
       HMDB0114721
4722
                         NA
                                                                                                                               NA
4723
       HMDB0113781
                         NA
                                                                                                                               NA
4724
       HMDB0061511
                         NA
                                                                                                                               NA
4725
       HMDB0061507
                         NA
                                                                                                                               NA
       HMDB0061499
4726
                         NA
                                                                                                                               NA
       HMDB0061475
                                                                                                                               NΑ
4727
                         NA
       HMDB0061483
                         NA
4728
                                                                                                                               NA
       HMDB0061471
                         NA
                                                                                                                               NA
4729
4730
       HMDB0061522
                         NA
                                                                                                                               NA
4731
       HMDB0061530
                         NA
                                                                                                                               NA
4732
       HMDB0061533
                         NA
                                                                                                                               NA
       HMDB0061549
4733
                         NA
                                                                                                                               NA
       HMDB0059616
                                                                                                                               HMDB0059616
                         all-trans-Decaprenyl diphosphate
4734
```

The second step is to check concentration values. For SSP analysis, the concentration must be measured in umol for blood and CSF samples. The urinary concentrations must be first converted to $umol/mmol_creatinine$ in order to compare with reported concentrations in literature. No missing or negative values are allowed in SSP analysis. The concentration data for QEA analysis is more flexible. Users can upload either the original concentration data or normalized data. Missing or negative values are allowed (coded as NA) for QEA.

5 Selection of Metabolite Set Library

Before proceeding to enrichment analysis, a metabolite set library has to be chosen. There are seven built-in libraries offered by MSEA:

- Metabolic pathway associated metabolite sets (currently contains 99 entries);
- Disease associated metabolite sets (reported in blood) (currently contains 344 entries);
- Disease associated metabolite sets (reported in urine) (currently contains 384 entries)
- Disease associated metabolite sets (reported in CSF) (currently contains 166 entries)
- Metabolite sets associated with SNPs (currently contains 4598 entries)
- Predicted metabolite sets based on computational enzyme knockout model (*currently contains 912 entries*)
- Metabolite sets based on locations (currently contains 73 entries)
- Drug pathway associated metabolite sets (currently contains 461 entries)

In addition, MSEA also allows user-defined metabolite sets to be uploaded to perform enrichment analysis on arbitrary groups of compounds which researchers want to test. The metabolite set library is simply a two-column comma separated text file with the first column for metabolite set names and the second column for its compound names (**must use HMDB compound name**) separated by "; ". Please note, the built-in libraries are mainly from human studies. The functional grouping of metabolites may not be valid. Therefore, for data from subjects other than human being, users are suggested to upload their self-defined metabolite set libraries for enrichment analysis.

6 Enrichment Analysis

Over Representation Analysis (ORA) is performed when a list of compound names is provided. The list of compound list can be obtained through conventional feature selection methods, or from a clustering algorithm, or from the compounds with abnormal concentrations detected in SSP, to investigate if some biologically meaningful patterns can be identified.

ORA was implemented using the *hypergeometric test* to evaluate whether a particular metabolite set is represented more than expected by chance within the given compound list. One-tailed p values are provided after adjusting for multiple testing. **Figure 2** below summarizes the result.

Overview of Enriched Metabo

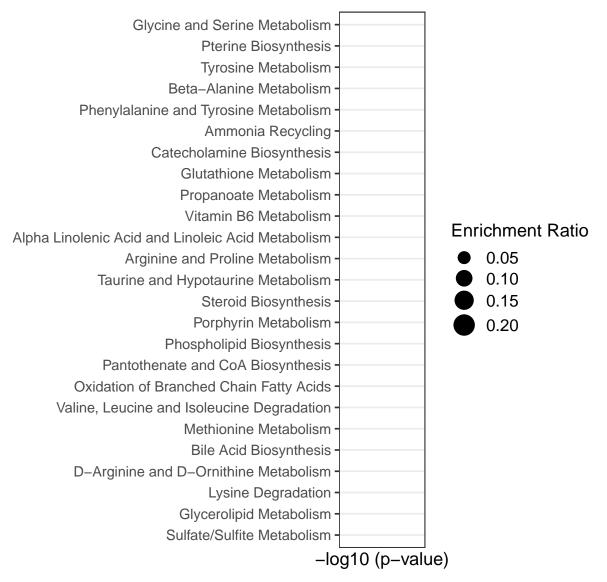


Figure 1: Summary Plot for Over Representation Analysis (ORA)

Table 2: Result from Over Representation Analysis

	total	expected	hits	Raw p	Holm p	FDR
Glycine and Serine Metabolism	59	71.00	4			
Pterine Biosynthesis	29	34.90	1			
Tyrosine Metabolism	72	86.70	13			
Beta-Alanine Metabolism	34	40.90	1			
Phenylalanine and Tyrosine Metabolism	28	33.70	3			
Ammonia Recycling	32 20	38.50	5			
Clutathiana Matabaliana	20	24.10	1			
Glutathione Metabolism	42	25.30	1 1			
Propanoate Metabolism Vitamin B6 Metabolism	20	50.60 24.10	1			
Alpha Linolenic Acid and Linoleic Acid	19	22.90	4			
Metabolism	15	22.50	T			
Arginine and Proline Metabolism	53	63.80	4			
Taurine and Hypotaurine Metabolism	12	14.40	1			
Steroid Biosynthesis	48	57.80	1			
Porphyrin Metabolism	40	48.20	2			
Phospholipid Biosynthesis	29	34.90	2			
Pantothenate and CoA Biosynthesis	21	25.30	2			
Oxidation of Branched Chain Fatty Acids	26	31.30	2			
Valine, Leucine and Isoleucine Degrada-	60	72.20	2			
tion	00	12.20	-			
Methionine Metabolism	43	51.80	3			
Bile Acid Biosynthesis	65	78.30	17			
D-Arginine and D-Ornithine Metabolism	11	13.20	1 1			
Lysine Degradation	30	36.10	2			
Glycerolipid Metabolism	25	30.10	1			
Sulfate/Sulfite Metabolism	22	26.50	1			
Galactose Metabolism	38	45.80	2			
Histidine Metabolism	43	51.80	1			
Pyrimidine Metabolism	59	71.00	3			
Nicotinate and Nicotinamide Metabolism	37	44.60	1			
Purine Metabolism	74	89.10	5			
Fatty acid Metabolism	43	51.80	3			
Beta Oxidation of Very Long Chain Fatty	17	20.50	3			
Acids	1 1	20.00	"			
Folate Metabolism	29	34.90	1			
Fatty Acid Elongation In Mitochondria	35	42.10	2			
Alanine Metabolism	17	20.50	2			
Citric Acid Cycle	32	38.50	1			
Starch and Sucrose Metabolism	31	37.30	1			
Urea Cycle	29	34.90	1			
Pyruvate Metabolism	48	57.80	1			
Tryptophan Metabolism	60	72.20	9			
Fructose and Mannose Degradation	32	38.50	1			
Ubiquinone Biosynthesis	20	24.10	1			
Biotin Metabolism	8	9.63	1			
Aspartate Metabolism	35	42.10	1			
Androgen and Estrogen Metabolism	33	39.70	3			
Ketone Body Metabolism	13	15.70	1			
Glutamate Metabolism	49	59.00	2			
Retinol Metabolism	37	44.60	7			
Arachidonic Acid Metabolism	69	83.10	13			
Betaine Metabolism	21	25.30	2			
Gluconeogenesis	35	42.10	1			
Steroidogenesis	43	51.80	7			
Threonine and 2-Oxobutanoate Degrada-	20	24.10	1 1			
tion	20	24.10	1			
Homocysteine Degradation	9	10.80	1			
Fatty Acid Biosynthesis	35	42.10	6			
Carnitine Synthesis	22	26.50	3			
Transfer of Acetyl Groups into Mitochon-	22	26.50	1			
dria		20.00	1			
Mitochondrial Beta-Oxidation of Short	27	32.50	2			
Chain Saturated Fatty Acids	-	02.00	-			
Mitochondrial Beta-Oxidation of	27	32.50	1			
Medium Chain Saturated Fatty Acids	"	52.50	*			
Mitochondrial Beta-Oxidation of Long	28	33.70	1			
Chain Saturated Fatty Acids	23	00.10	*			
Warburg Effect	58	69.80	1			
	13	15.70	1			
Thyroid hormone synthesis		10.10	1 +	I	l	I
Thyroid hormone synthesis Androstenedione Metabolism		28 90	2			
Androstenedione Metabolism Estrone Metabolism	24 24	28.90 28.90	2 2			

7 Appendix: R Command History

```
[1] "mSet<-InitDataObjects(\"conc\", \"pathora\", FALSE)"
 [2] "cmpd.vec<-c(\"HMDB0000123\",\"HMDB0014691\",\"HMDB0031239\",\"HMDB0161401\",\"HMDB0000925\",\"
 [3] "mSet<-Setup.MapData(mSet, cmpd.vec);"
 [4] "mSet<-CrossReferencing(mSet, \"hmdb\");"</pre>
 [5] "mSet<-CreateMappingResultTable(mSet)"
 [6] "mSet<-SetKEGG.PathLib(mSet, \"hsa\", \"current\")"
 [7] "mSet<-SetMetabolomeFilter(mSet, F);"
 [8] "mSet<-CalculateOraScore(mSet, \"rbc\", \"hyperg\")"
 [9] "mSet<-PlotPathSummary(mSet, F, \"path_view_0_\", \"png\", 72, width=NA)"
[10] "mSet<-SaveTransformedData(mSet)"
[11] "mSet<-PreparePDFReport(mSet, \"guest5553748766599075063\")\n"</pre>
[12] "UpdateDataObjects(\"conc\", \"msetora\", FALSE)"
[13] "mSet<-SetMetabolomeFilter(mSet, F);"
[14] "mSet<-SetCurrentMsetLib(mSet, \"smpdb_pathway\", 2);"
[15] "mSet<-CalculateHyperScore(mSet)"
[16] "mSet<-PlotORA(mSet, \"ora_0\\", \"net\\", \"png\\", 72, width=NA)\"
[17] "mSet<-PlotEnrichDotPlot(mSet, \"ora\", \"ora_dot_0_\", \"png\", 72, width=NA)"
[18] "mSet<-CalculateHyperScore(mSet)"
[19] "mSet<-PlotORA(mSet, \"ora_1_\", \"net\", \"png\", 72, width=NA)"
[20] "mSet<-PlotEnrichDotPlot(mSet, \"ora\", \"ora_dot_1_\", \"png\", 72, width=NA)"
[21] "mSet<-SaveTransformedData(mSet)"
[22] "mSet<-PreparePDFReport(mSet, \"guest5553748766599075063\")\n"
```

The report was generated on Mon May 24 12:56:25 2021 with R version 4.0.2 (2020-06-22).