

ACCESSION NO	UNIPROT ID	GENE	KEGG ENTRY	KEGG EC NUMBER	AA COUNT
ACONITATE HYDRATASE					
NP_414660	P36683	acnB	ecob0118	4.2.1.3	865
NP_415292	P75764	ybhJ	ecob0771		753
NP_415792	P25516	acnA	ecob1276		891
NP_013407	P19414	ACO1	sceYLR304C	4.2.1.3	778
NP_741235	P34455	aco-2	celCELE_F54H12.1	4.2.1.3	777
NP_509898	Q23500	aco-1	celCELE_ZK455.1		887
NP_650042	Q8T4D6	mAcon2	dmeDmel_CG4706	4.2.1.3	783
NP_477371	Q9VCV4	Irp-1A	dmeDmel_CG4900		902
NP_524303	Q9VGZ3	Irp-1B	dmeDmel_CG6342		899

ACCESSION NO	UNIPROT ID	GENE	KEGG ENTRY	KEGG EC NUMBER	AA COUNT
NP_001097186	Q9VIE8	mAcon1	dmeDmel_CG9244		787
NP_031412	P28271	Aco1	mmu11428	4.2.1.3	889
NP_542364	Q99KI0	Aco2	mmu11429		780
NP_001265281	P21399	ACO1	hsa48	4.2.1.3	889
NP_001089	Q99798	ACO2	hsa50		780
CITRATE LYASE					
NP_506267	P90731	acly-2	celCELE_B0365.1	2.3.3.8	1099
NP_508280	P53585	acly-1	celCELE_D1005.1		1106
NP_001137674	Q7KN85	ATPCL	dmeDmel_CG8322	2.3.3.8	1112
NP_598798	Q91V92	Acly	mmu104112	2.3.3.8	1091

ACCESSION NO	UNIPROT ID	GENE	KEGG ENTRY	KEGG EC NUMBER	AA COUNT
NP_001087	P53396	ACLY	hsa47	2.3.3.8	1101
CITRATE SYNTHASE					
NP_415248	P0ABH7	gltA	ecob0720	2.3.3.1	427
NP_009931	P08679	CIT2	sceYCR005C	2.3.3.1	460
NP_014398	P00890	CIT1	sceYNR001C		479
NP_015325	P43635	CIT3	sceYPR001W		486
NP_499264	P34575	cts-1	celCELE_T20G5.2	2.3.3.1	468
NP_572319	Q9W401	kdn	dmeDmel_CG3861	2.3.3.1	464
NP_650152	Q95TZ4	CG14740	dmeDmel_CG14740		478
NP_080720	Q9CZU6	Cs	mmu12974	2.3.3.1	464

ACCESSION NO	UNIPROT ID	GENE	KEGG ENTRY	KEGG EC NUMBER	AA COUNT
NP_082221	Q80X68	Csl	mmu71832	2.3.3.1	466
NP_004068	O75390	CS	hsa1431	2.3.3.1	466
ACETYLTRANSFERASE COMPONENT OF PYRUVATE DEHYDROGENASE					
NP_414657	P06959	aceF	ecob0115	2.3.1.12	630
NP_014328	P12695	LAT1	sceYNL071W	2.3.1.12	482
NP_001255950	O45279	dlat-2	celCELE_C30H6.7	2.3.1.12	337
NP_001369968		dlat-2	celCELE_F23B12.5		507
NP_001260193	M9PCA2	muc	dmeDmel_CG5261	2.3.1.12	473
NP_663589	Q8BMF4	Dlat	mmu235339	2.3.1.12	642
NP_001922	P10515	DLAT	hsa1737	2.3.1.12	647
SUCCINYLTRANSFERASE COMPONENT OF 2-OXOGLUTARATE DEHYDROGENASE					

ACCESSION NO	UNIPROT ID	GENE	KEGG ENTRY	KEGG EC NUMBER	AA COUNT
NP_415255	P0AFG6	sucB	ecob0727	2.3.1.61	405
NP_010432	P19262	KGD2	sceYDR148C	2.3.1.61	463
NP_504700	O45148	dlst-1	celCELE_W02F12.5	2.3.1.61	463
NP_650064	Q9VGQ1	alpha-KGDHC	dmeDmel_CG5214	2.3.1.61	468
NP_084501	Q9D2G2	Dist	mmu78920	2.3.1.61	454
NP_001924	P36957	DLST	hsa 1743	2.3.1.61	453
DIHYDROLIPOYL DEHYDROGENASE					
NP_414658	P0A9P0	lpd	ecob0116	1.8.1.4	474
NP_116635	P09624	LPD1	sceYFL018C	1.8.1.4	499
NP_001255810	O17953	dld-1	celCELE_LLC1.3	1.8.1.4	495

ACCESSION NO	UNIPROT ID	GENE	KEGG ENTRY	KEGG EC NUMBER	AA COUNT
NP_001262000	Q9VVL7	E3	dmeDmel_CG7430	1.8.1.4	504
NP_031887	O08749	Dld	mmu13382	1.8.1.4	509
NP_000099	P09622	DLD	hsa1738	1.8.1.4	509
FUMARATE HYDRATASE					
NP_416128	P05042	fumC	ecob1611	4.2.1.2	467
NP_416129	P0AC33	fumA	ecob1612		548
NP_416190	P0ACX5	fumD	ecob1675		69
NP_417404	P11663	fumE	ecob2929		169
NP_418546	P14407	fumB	ecob4122		548
NP_015061	P08417	FUM1	sceYPL262W	4.2.1.2	488

ACCESSION NO	UNIPROT ID	GENE	KEGG ENTRY	KEGG EC NUMBER	AA COUNT
NP_498642	O17214	fum-1	celCELE_H14A12.2	4.2.1.2	501
NP_572339	Q9W3X6	Fum1	dmeDmel_CG4094	4.2.1.2	495
NP_727109	Q9W3X5	Fum2	dmeDmel_CG4095		503
NP_001261710	Q9VTI5	Fum3	dmeDmel_CG6140		470
NP_723527	Q8IPD2	Fum4	dmeDmel_CG31874		484
NP_034339	P97807	Fh1	mmu14194	4.2.1.2	507
NP_000134	P07954	FH	hsa2271	4.2.1.2	510
ISOCITRATE DEHYDROGENASE					
NP_415654	P08200	icd	ecob1136	1.1.1.42	416
NP_010217	P21954	IDP1	sceYDL066W		428

ACCESSION NO	UNIPROT ID	GENE	KEGG ENTRY	KEGG EC NUMBER	AA COUNT
NP_013275	P41939	IDP2	sceYLR174W	1.1.1.42	412
NP_014389	P53982	IDP3	sceYNL009W		420
NP_014361	P28834	IDH1	sceYNL037C	1.1.1.41	360
NP_014779	P28241	IDH2	sceYOR136W		369
NP_491989	Q95YD8	idhg-2	celCELE_C30F12.7	1.1.1.41	373
NP_001370015		idh-2	celCELE_C34F6.8	1.1.1.42	435
NP_510362	Q93353	idhb-1	celCELE_C37E2.1	1.1.1.41	379
NP_497927	Q20049	idhg-1	celCELE_F35G12.2		396
NP_492330	Q93714	idha-1	celCELE_F43G9.1		358

ACCESSION NO	UNIPROT ID	GENE	KEGG ENTRY	KEGG EC NUMBER	AA COUNT
NP_001255392	H9G2T4	idh-1	celCELE_F59B8.2	1.1.1.42	435
NP_611912	Q9W172	anon-WO0140519.111	dmeDmel_CG3483	1.1.1.41	391
NP_001097922	Q9MT18	ldh3g	dmeDmel_CG5028		402
NP_001163682	Q9VD58	ldh3b	dmeDmel_CG6439		370
NP_001137910	B7Z0E0	ldh	dmeDmel_CG7176	1.1.1.42	479
NP_001259705	Q9VWH4	ldh3a	dmeDmel_CG12233	1.1.1.41	377
NP_729420	Q8T0R3	Dmel\CG32026	dmeDmel_CG32026		719
NP_00110490	O88844	ldh1	mmu15926	1.1.1.42	414
NP_032349	P70404	ldh3g	mmu15929		393

ACCESSION NO	UNIPROT ID	GENE	KEGG ENTRY	KEGG EC NUMBER	AA COUNT
NP_083849	Q9D6R2	ldh3a	mmu67834	1.1.1.41	366
NP_001349681		ldh3b	mmu170718		380
NP_766489	Q8BPC6		mmu243996		396
NP_766599	P54071	ldh2	mmu269951	1.1.1.42	452
NP_001269315	O75874	IDH1	hsa3417	1.1.1.42	414
NP_002159	P48735	IDH2	hsa3418		452
NP_005521	P50213	IDH3A	hsa3419	1.1.1.41	366
NP_008830	O43837	IDH3B	hsa3420		385
NP_004126	P51553	IDH3G	hsa3421		393

MALATE DEHYDROGENASE

ACCESSION NO	UNIPROT ID	GENE	KEGG ENTRY	KEGG EC NUMBER	AA COUNT
NP_417703	P61889	mdh	ecob3236	1.1.1.37	312
NP_416714	P33940	mgo	ecob2210 (quinone)	1.1.5.4	548
NP_010205	P32419	MDH3	sceYDL078C	1.1.1.37	343
NP_012838	P17505	MDH1	sceYKL085W		334
NP_014515	P22133	MDH2	sceYOL126C		377
NP_498457	O02640	mdh-2	celCELE_F20H11.3	1.1.1.37	341
NP_504656	Q9UAV5	mdh-1	celCELE_F46E10.10		336
NP_001285803	Q9VKX2	Mdh1	dmeDmel_CG5362	1 1 1 37	337
NP_650696	Q9VEB1	Mdh2	dmeDmel_CG7998		336

ACCESSION NO	UNIPROT ID	GENE	KEGG ENTRY	KEGG EC NUMBER	AA COUNT
NP_648615	Q9VU28	Dmel\CG10748	dmeDmel_CG10748	1.1.1.37	349
NP_648616	Q9VU29	Dmel\CG10749	dmeDmel_CG10749		347
NP_032643	P08249	Mdh2	mmu17448	1.1.1.37	338
NP_032644	P14152	Mdh1	mmu17449		334
NP_005908	P40925	MDH1	hsa4190	1.1.1.37	334
NP_005909	P40926	MDH2	hsa4191		338
OXOGLUTARATE DEHYDROGENASE					
NP_415254	P0AFG3	sucA	ecob0726	1.2.4.2	933
NP_012141	P20967	KGD1	sceYIL125W	1.2.4.2	1014
NP_500617	O61199	ogdh-1	celCELE_T22B11.5	1.2.4.2	1029

ACCESSION NO	UNIPROT ID	GENE	KEGG ENTRY	KEGG EC NUMBER	AA COUNT
NP_001097629	A8JNU6	Ogdh	dmeDmel_CG11661	1.2.4.2	1105
NP_001027099	Q0E8J6	OGDH	dmeDmel_CG33791		1238
NP_001239216	Q60597	Ogdh	mmu18293	1.2.4.2	1023
NP_001074599	B2RXT3	Ogdh1	mmu239017		1010
NP_002532	Q02218	OGDH	hsa4967	1.2.4.2	1023
NP_001334748	Q9ULD0	OGDHL	hsa55753		1010
PHOSPHOENOLPYRUVATE CARBOXYKINASE					
NP_417862	P22259	pck	ecob3403	4.1.1.49	540
NP_013023	P10963	PCK1	sceYKR097W	4.1.1.49	549
NP_001366912		pck-2	celCELE_R11A5.4	4.1.1.32	654

ACCESSION NO	UNIPROT ID	GENE	KEGG ENTRY	KEGG EC NUMBER	AA COUNT
NP_497134	O44906	pck-1	celCELE_W05G11.6	4.1.1.32	651
NP_001097367	A8DYI3	Pepck2	dmeDmel_CG10924		563
NP_523784	P20007	Pepck1	dmeDmel_CG17725	4.1.1.32	647
NP_035174	Q9Z2V4	Pck1	mmu18534		622
NP_083270	Q8BH04	Pck2	mmu74551	4.1.1.32	640
NP_002582	P35558	PCK1	hsa5105		622
NP_004554	Q16822	PCK2	hsa5106	4.1.1.32	640
PYRUVATE CARBOXYLASE					
NP_009777	P32327	PYC2	sceYBR218C	6.4.1.1	1180
NP_011453	P11154	PYC1	sceYGL062W		1178

ACCESSION NO	UNIPROT ID	GENE	KEGG ENTRY	KEGG EC NUMBER	AA COUNT
NP_001369995		pyc-1	celCELE_D2023.2	6.4.1.1	1175
NP_001163103	Q0E9E2	PCB	dmeDmel_CG1516	6.4.1.1	1197
NP_001156418	E9QPD7	Pcx	mmu18563	6.4.1.1	1179
NP_000911	P11498	PC	hsa5091	6.4.1.1	1178
PYRUVATE DEHYDROGENASE					
NP_414656	P0AFG8	aceE	ecob0114	1.2.4.1	887
NP_009780	P32473	PDB1	sceYBR221C	1.2.4.1	366
NP_011105	P16387	PDA1	sceYER178W		420
NP_500340	O44451	pdhb-1	celCELE_C04C3.3	1.2.4.1	352
NP_871953	Q8I111	pdha-1	celCELE_T05H10.6		414

ACCESSION NO	UNIPROT ID	GENE	KEGG ENTRY	KEGG EC NUMBER	AA COUNT
NP_572181	Q9W4H6	Pdha	dmeDmel_CG7010	1.2.4.1	399
NP_572182	Q9W4H4	Dmel\CG7024	dmeDmel_CG7024		479
NP_651668	Q7K5K3	Pdhb	dmeDmel_CG11876		365
NP_032836	P35486	Pdha1	mmu18597	1.2.4.1	390
NP_032837	P35487	Pdha2	mmu18598		391
NP_077183	Q9D051	Pdhb	mmu68263		359
NP_000275	P08559	PDHA1	hsa5160	1.2.4.1	390
NP_005381	P29803	PDHA2	hsa5161		388
NP_000916	P11177	PDHB	hsa5162		359
PYRUVATE FERREDOXIN/ FLAVADOXIN OXIDOREDUCTASE					

ACCESSION NO	UNIPROT ID	GENE	KEGG ENTRY	KEGG EC NUMBER	AA COUNT
NP_415896	P52647	ydbk	ecob1378	1.2.7.1	1174
SUCCINATE DEHYDROGENASE					
NP_415249	P69054	sdhC	ecob0721	1.3.5.1	129
NP_415250	P0AC44	sdhD	ecob0722		115
NP_415251	P0AC41	sdhA	ecob0723		588
NP_415252	P07014	sdhB	ecob0724		238
NP_418575	P0A8Q3	frdD	ecob4151		119
NP_418576	P0A8Q0	frdC	ecob4152		131
NP_418577	P0AC47	frdB	ecob4153		244
NP_418578	P00363	frdA	ecob4154		602

ACCESSION NO	UNIPROT ID	GENE	KEGG ENTRY	KEGG EC NUMBER	AA COUNT
NP_010463	P37298	SDH4	sceYDR178W	1.3.5.1	181
NP_012490	P47052	SDH9	sceYJL045W		634
NP_012781	P33421	SDH3	sceYKL141W		198
NP_012774	Q00711	SDH1	sceYKL148C		640
NP_013059	P21801	SDH2	sceYLL041C		266
NP_013265	Q06236	SHH4	sceYLR164W		168
NP_013836	Q04487	SHH3	sceYMR118C		196
NP_509446	Q09508	sdha-1	celCELE_C03G5.1		646
NP_492798	O44954	sdha-2	celCELE_C34B2.7		640

ACCESSION NO	UNIPROT ID	GENE	KEGG ENTRY	KEGG EC NUMBER	AA COUNT
NP_496369	O62215	sdhd-1	celCELE_F33A8.5	1.3.5.1	145
NP_495992	Q09545	sdhb-1	celCELE_F42A8.2		298
NP_001366681		mev-1	celCELE_T07C4.7		182
NP_477101	P21914	SdhB	dmeDmel_CG3283	1.3.5.1	297
NP_648523	Q8SX97	SdhAL	dmeDmel_CG5718		651
NP_650041	Q9VGT9	SdhCL	dmeDmel_CG6629		261
NP_001262472	Q9VGS3	SdhC	dmeDmel_CG6666		171
NP_001285420	Q9VWN3	SdhBL	dmeDmel_CG7349		437
NP_651181	Q9VCI5	SdhD	dmeDmel_CG10219		182

ACCESSION NO	UNIPROT ID	GENE	KEGG ENTRY	KEGG EC NUMBER	AA COUNT
NP_477210	Q94523	SdhA	dmeDmel_CG17246	1.3.5.1	661
NP_079597	Q9CZB0	Sdhc	mmu66052		169
NP_080124	Q9CXV1	Sdhd	mmu66925		159
NP_075770	Q8K2B3	Sdha	mmu66945		664
NP_075863	Q9CQA3	Sdhb	mmu67680		282
NP_004159	P31040	SDHA	hsa6389	1.3.5.1	664
NP_002991	P21912	SDHB	hsa6390		280
NP_002992	Q99643	SDHC	hsa6391		169
NP_002993	O14521	SDHD	hsa6392		159
SUCCINYL-CoA SYNTHETASE					

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NP_415256	P0A836	sucC	ecob0728	6.2.1.5	388
NP_415257	P0AGE9	sucD	ecob0729		289
NP_011760	P53312	LSC2	sceYGR244C	6.2.1.4 6.2.1.5	427
NP_014785	P53598	LSC1	sceYOR142W		329
NP_510450	P53596	sucI-1	celCELE_C05G5.4	6.2.1.4 6.2.1.5	322
NP_501266	P53589	sucg-1	celCELE_C50F7.4		415
NP_497288	O02642	sucI-2	celCELE_F23H11.3		321
NP_509821	P53588	suca-1	celCELE_F47B10.1		435
NP_001189044	Q94522	Scsalpha1	dmeDmel_CG1065		328

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NP_650809	Q9VDW7	Scslpha2	dmeDmel_CG6255	6.2.1.4 6.2.1.5	342
NP_001286941	Q9V470	ScsbetaG	dmeDmel_CG10622		416
NP_001097713	Q9VHJ8	ScsbetaA	dmeDmel_CG11963		502
NP_035636	Q9Z2I9	Suc1a2	mmu20916	6.2.1.4 6.2.1.5	463
NP_035637	Q9Z2I8	Suc1g2	mmu20917		433
NP_063932	Q9WUM5	Suc1g1	mmu56451		346
NP_003839	Q96I99	SUCLG2	hsa8801	6.2.1.4 6.2.1.5	432
NP_003840	P53597	SUCLG1	hsa8802		346
NP_003841	Q9P2R7	SUCLA2	hsa8803		463