Reaction Abbreviation	Gene Association	Isozymes?
ACCOAC	SA1357, SA1358, SA1434, SA1435, SA1522, SA1523	no
ADCL	SA0670	
ADCS	SA0669	
ADK1	SA2027	
ADKd	SA2027	
ADMDCr		
ADPT	SA1461	
APRAUR	SA1586, SA1588	no
ASAD	SA1226	
ASNS1	SA0922	
ASPKi	SA1163, SA1225	yes
CHORS	SA1299	
CLPNS_SA	SA1155, SA1891	yes
CYTK1	SA1309	
DASYN_SA	SA1104	
DB4PS	SA1587	
DDPA	SA1558	
DGK1	SA1052	
DHDPRy	SA1228	
DHDPS	SA1227	
DHFR	SA1259	
DHFS	SA1487	
DHNPA2	SA0473	
DHPPDA	SA1589	
DHPS2	SA0472	
DHQD	SA0756	
DHQS	SA1298	
DMATT	SA1352	
DPMVD	SA0548	
FE2abc	SA2337, SA2369	yes
FMNAT	SA1115	•
G1PACT	SA0457	
G1SATi	SA1491, SA1681	yes
G3PCT	SA0597	,
G3PD2	SA1306	
GALUi	SA2288	
GCALDD	SA2406	
GF6PTA	SA1959	
GK1	SA1052	
GLNS	SA1150	
GLUTRR	SA1496	
GLUTRS	SA0486	
GRTT	SA1352	
GTPCI	SA0683	
GTPCII	SA1587	
HCO3E	SA2287	
HEMEOS	SA0965	

HMBS	SA1494	
HMGCOARi	SA2333	
HMGCOASi	SA2334	
HPPK2	SA0474	
IPDDI	SA2136	
KAS1	SA0842, SA0843	no
KAS11	SA0842, SA0843	no
KAS12	SA0842, SA0843	no
KAS13	SA0842, SA0843	no
KAS19SA	SA0842, SA0843	no
KAS2	SA0842, SA0843	no
KAS20SA	SA0842, SA0843	no
KAS3	SA0842, SA0843	no
KAS4	SA0842, SA0843	no
KAS6	SA0842, SA0843	no
KAS8	SA0842, SA0843	no
MDRPD	0.10042, 0.10040	110
METAT	SA1608	
MTAN	SA1427	
MTRI	0.11427	
MTRK		
NACUP		
NADK	SA0865	
NADS1	SA1728	
NAPRTr	SA1729	
NDPK1	SA1301	
NDPK2	SA1301	
NDPK3	SA1301	
NDPK8	SA1301	
NNATr	SA1422	
OIVD1	SA1346, SA1347, SA1348	no
OIVD2	SA1346, SA1347, SA1348	no
OIVD3	SA1346, SA1347, SA1348	no
PALASA_SA2	Sittle 16, Sittle 11, Sittle 10	
PAPA_SA		
PASYN_SA		
PGAMT	SA1965	
PGLYSA_SA2	5.1333	
PGMT	SA1965	
PGPP_SA	SA1250	
PGSA_SA	SA1126	
PLEUSA_SA2		
PLYSSA SA2		
PMDPHT	SA1586, SA1588	no
PMEVK	SA0549	
PPA	SA1735	
PPBNGS	SA1492	
PRPPS	SA0458	

PSD_SA PSSA SA RBFK SA1115 RBFSa SA1588 RBFSb SA1586 RPE SA1065 RPI SA2127 **SDPDS** SA1572, SA1814 yes SDPTA SA2347 SHCHD2 SA2412 SHCHF SA2412 SA1424 SHK3Dr SHKK SA1368 SPMS TAGO TECA1S SA0243, SA0244, SA0522, SA0523, SA0592, SA0593, SA0594, SA0595, SA0596, SA0597 partial TECA2S SA0243, SA0244, SA0522, SA0523, SA0592, SA0593, SA0594, SA0595, SA0596, SA0597, SA0793, SA0794, SA0795, SA0796 partial TECA3S SA0243, SA0244, SA0522, SA0523, SA0592, SA0593, SA0594, SA0595, SA0596, SA0597 partial TECA4S SA0243, SA0244, SA0522, SA0523, SA0592, SA0593, SA0594, SA0595, SA0596, SA0597 partial THDPS SA1229 THMabc TKT2 SA1177 SA0719, SA2162 TRDR yes **UAG2E** SA0150, SA0159, SA1913 yes UAG4E SA1902, SA1926 **UAGCVT** yes UAGDP SA0457, SA1974 yes UAPGR SA0693 UDPG12dgrGT_SA2 UDPG3g12dgrGT_SA2 UMPK SA1309 UNK3 UPP3MT SA2186

PSCVT

UPP3S

SA1297

SA1493