| | Gene names | Protein names | Best Cluster (kcal/mol) | Num in Largest Cluster |
|---|---|---|---|---|
| **1** | Got2 Got-2 | Aspartate aminotransferase, mitochondrial (mAspAT) (EC 2.6.1.1) (EC 2.6.1.7) (Fatty acid-binding protein) (FABP-1) (Glutamate oxaloacetate transaminase 2) (Kynurenine aminotransferase 4) (Kynurenine aminotransferase IV) (Kynurenine--oxoglutarate transaminase 4) (Kynurenine--oxoglutarate transaminase IV) (Plasma membrane-associated fatty acid-binding protein) (FABPpm) (Transaminase A) | -16.860000 | 82 |
| **2** | Kyat3 Ccbl2 Kat3 | Kynurenine--oxoglutarate transaminase 3 (EC 2.6.1.7) (Cysteine-S-conjugate beta-lyase 2) (EC 4.4.1.13) (Kynurenine aminotransferase 3) (Kynurenine aminotransferase III) (KATIII) (Kynurenine--glyoxylate transaminase) (EC 2.6.1.63) (Kynurenine--oxoglutarate transaminase III) | -16.760000 | 62 |
| **3** | Kyat1 Ccbl1 Kat | Kynurenine--oxoglutarate transaminase 1 (EC 2.6.1.7) (Cysteine-S-conjugate beta-lyase) (EC 4.4.1.13) (Glutamine transaminase K) (GTK) (Glutamine--phenylpyruvate transaminase) (EC 2.6.1.64) (Kynurenine aminotransferase 1) (Kynurenine aminotransferase I) (KATI) (Kynurenine--oxoglutarate transaminase I) | -15.260000 | 82 |
| **4** | Sepsecs D5Ertd135e | O-phosphoseryl-tRNA(Sec) selenium transferase (EC 2.9.1.2) (Selenocysteine synthase) (Sec synthase) (Selenocysteinyl-tRNA(Sec) synthase) (Sep-tRNA:Sec-tRNA synthase) (SepSecS) (UGA suppressor tRNA-associated protein) | -14.850000 | 58 |
| **5** | Phykpl Agxt2l2 | 5-phosphohydroxy-L-lysine phospho-lyase (EC 4.2.3.134) (Alanine--glyoxylate aminotransferase 2-like 2) | -14.780000 | 19 |
| **6** | Shmt1 Shmt | Serine hydroxymethyltransferase, cytosolic (SHMT) (EC 2.1.2.1) (Glycine hydroxymethyltransferase) (Serine methylase) | -14.600000 | 67 |
| **7** | Alas1 | 5-aminolevulinate synthase, nonspecific, mitochondrial (ALAS-H) (EC 2.3.1.37) (5-aminolevulinic acid synthase 1) (Delta-ALA synthase 1) (Delta-aminolevulinate synthase 1) | -14.480000 | 99 |
| **8** | Etnppl Agxt2l1 | Ethanolamine-phosphate phospho-lyase (EC 4.2.3.2) (Alanine--glyoxylate aminotransferase 2-like 1) | -13.950000 | 20 |
| **9** | Got1 | Aspartate aminotransferase, cytoplasmic (cAspAT) (EC 2.6.1.1) (EC 2.6.1.3) (Cysteine aminotransferase, cytoplasmic) (Cysteine transaminase, cytoplasmic) (cCAT) (Glutamate oxaloacetate transaminase 1) (Transaminase A) | -13.720000 | 29 |
| **10** | Aadat Kat2 | Kynurenine/alpha-aminoadipate aminotransferase, mitochondrial (KAT/AadAT) (2-aminoadipate aminotransferase) (2-aminoadipate transaminase) (EC 2.6.1.39) (Alpha-aminoadipate aminotransferase) (AadAT) (Kynurenine aminotransferase II) (Kynurenine--oxoglutarate aminotransferase II) (Kynurenine--oxoglutarate transaminase 2) (EC 2.6.1.7) (Kynurenine--oxoglutarate transaminase II) | -13.510000 | 38 |
| **11** | Alas2 | 5-aminolevulinate synthase, erythroid-specific, mitochondrial (ALAS-E) (EC 2.3.1.37) (5-aminolevulinic acid synthase 2) (Delta-ALA synthase 2) (Delta-aminolevulinate synthase 2) | -13.490000 | 99 |
| **12** | Gcat Kbl | 2-amino-3-ketobutyrate coenzyme A ligase, mitochondrial (AKB ligase) (EC 2.3.1.29) (Aminoacetone synthase) (Glycine acetyltransferase) | -13.330000 | 83 |
| **13** | Sgpl1 Spl | Sphingosine-1-phosphate lyase 1 (S1PL) (SP-lyase 1) (SPL 1) (mSPL) (EC 4.1.2.27) (Sphingosine-1-phosphate aldolase) | -13.250000 | 37 |
| **14** | Hdc | Histidine decarboxylase (HDC) (EC 4.1.1.22) | -13.210000 | 92 |
| **15** | Gadl1 | Acidic amino acid decarboxylase GADL1 (Aspartate 1-decarboxylase) (ADC) (EC 4.1.1.11) (Cysteine sulfinic acid decarboxylase) (CSADC) (EC 4.1.1.29) (Glutamate decarboxylase-like protein 1) | -13.080000 | 51 |
| **16** | Gpt Gpt1 | Alanine aminotransferase 1 (ALT1) (EC 2.6.1.2) (Glutamate pyruvate transaminase 1) (GPT 1) (Glutamic--alanine transaminase 1) (Glutamic--pyruvic transaminase 1) | -12.840000 | 40 |
| **17** | Bcat2 Bcatm Eca40 | Branched-chain-amino-acid aminotransferase, mitochondrial (BCAT(m)) (EC 2.6.1.42) | -12.720000 | 38 |
| **18** | Cth | Cystathionine gamma-lyase (EC 4.4.1.1) (Cysteine-protein sulfhydrase) (Gamma-cystathionase) | -12.680000 | 29 |
| **19** | Accs | 1-aminocyclopropane-1-carboxylate synthase-like protein 1 (ACC synthase-like protein 1) | -12.430000 | 45 |
| **20** | Sptlc2 Lcb2 | Serine palmitoyltransferase 2 (EC 2.3.1.50) (Long chain base biosynthesis protein 2) (LCB 2) (Long chain base biosynthesis protein 2a) (LCB2a) (Serine-palmitoyl-CoA transferase 2) (SPT 2) | -12.430000 | 34 |
| **21** | Sds | L-serine dehydratase/L-threonine deaminase (SDH) (EC 4.3.1.17) (L-serine deaminase) (L-threonine dehydratase) (TDH) (EC 4.3.1.19) | -12.420000 | 66 |
| **22** | Pygl | Glycogen phosphorylase, liver form (EC 2.4.1.1) | -12.300000 | 88 |
| **23** | Sptlc3 Sptlc2l | Serine palmitoyltransferase 3 (EC 2.3.1.50) (Long chain base biosynthesis protein 2b) (LCB2b) (Long chain base biosynthesis protein 3) (LCB 3) (Serine-palmityl-CoA transferase 3) (SPT 3) | -12.300000 | 67 |
| **24** | Abat Gabat | 4-aminobutyrate aminotransferase, mitochondrial (EC 2.6.1.19) ((S)-3-amino-2-methylpropionate transaminase) (EC 2.6.1.22) (GABA aminotransferase) (GABA-AT) (Gamma-amino-N-butyrate transaminase) (GABA transaminase) (GABA-T) (L-AIBAT) | -12.290000 | 71 |
| **25** | Psat1 Psa Psat | Phosphoserine aminotransferase (PSAT) (EC 2.6.1.52) (Endometrial progesterone-induced protein) (EPIP) (Phosphohydroxythreonine aminotransferase) | -12.280000 | 21 |
| **26** | Odc1 Odc | Ornithine decarboxylase (ODC) (EC 4.1.1.17) | -12.250000 | 21 |
| **27** | Sdsl Sds | Serine dehydratase-like (EC 4.3.1.17) (L-serine deaminase) (L-serine dehydratase/L-threonine deaminase) (L-threonine dehydratase) (TDH) (EC 4.3.1.19) (SDH) | -12.190000 | 16 |
| **28** | Agxt Agxt1 | Serine--pyruvate aminotransferase, mitochondrial (SPT) (EC 2.6.1.51) (Alanine--glyoxylate aminotransferase) (AGT) (EC 2.6.1.44) | -12.150000 | 48 |
| **29** | Pygm | Glycogen phosphorylase, muscle form (EC 2.4.1.1) (Myophosphorylase) | -11.850000 | 25 |
| **30** | Gad1 Gad67 | Glutamate decarboxylase 1 (EC 4.1.1.15) (67 kDa glutamic acid decarboxylase) (GAD-67) (Glutamate decarboxylase 67 kDa isoform) | -11.720000 | 32 |
| **31** | Accsl Gm1967 | Probable inactive 1-aminocyclopropane-1-carboxylate synthase-like protein 2 (ACC synthase-like protein 2) | -11.670000 | 61 |
| **32** | Cbs | Cystathionine beta-synthase (EC 4.2.1.22) (Beta-thionase) (Serine sulfhydrase) | -11.570000 | 57 |
| **33** | Gad2 Gad65 | Glutamate decarboxylase 2 (EC 4.1.1.15) (65 kDa glutamic acid decarboxylase) (GAD-65) (Glutamate decarboxylase 65 kDa isoform) | -11.550000 | 35 |
| **34** | Got1l1 | Putative aspartate aminotransferase, cytoplasmic 2 (EC 2.6.1.1) (Glutamate oxaloacetate transaminase 1-like protein 1) (Transaminase A-like protein 1) | -11.370000 | 26 |
| **35** | Csad | Cysteine sulfinic acid decarboxylase (EC 4.1.1.29) (Aspartate 1-decarboxylase) (EC 4.1.1.11) (Cysteine-sulfinate decarboxylase) (Sulfinoalanine decarboxylase) | -11.370000 | 19 |
| **36** | Gpt2 Aat2 | Alanine aminotransferase 2 (ALT2) (EC 2.6.1.2) (Glutamate pyruvate transaminase 2) (GPT 2) (Glutamic--alanine transaminase 2) (Glutamic--pyruvic transaminase 2) | -11.350000 | 39 |
| **37** | Bcat1 Eca39 | Branched-chain-amino-acid aminotransferase, cytosolic (BCAT(c)) (EC 2.6.1.42) (Protein ECA39) | -11.340000 | 26 |
| **38** | Tat | Tyrosine aminotransferase (TAT) (EC 2.6.1.5) (L-tyrosine:2-oxoglutarate aminotransferase) | -11.200000 | 45 |
| **39** | Plpbp Prosc | Pyridoxal phosphate homeostasis protein (PLP homeostasis protein) (Proline synthase co-transcribed bacterial homolog protein) (Pyridoxal phosphate-binding protein) | -11.180000 | 44 |
| **40** | Scly Scl | Selenocysteine lyase (mSCL) (EC 4.4.1.16) | -11.170000 | 39 |
| **41** | Ddc | Aromatic-L-amino-acid decarboxylase (AADC) (EC 4.1.1.28) (DOPA decarboxylase) (DDC) | -11.060000 | 45 |
| **42** | Pygb | Glycogen phosphorylase, brain form (EC 2.4.1.1) | -11.020000 | 48 |
| **43** | Thnsl1 | Threonine synthase-like 1 (TSH1) | -10.770000 | 18 |
| **44** | Agxt2 | Alanine--glyoxylate aminotransferase 2, mitochondrial (AGT 2) (EC 2.6.1.44) ((R)-3-amino-2-methylpropionate--pyruvate transaminase) (EC 2.6.1.40) (Beta-ALAAT II) (Beta-alanine-pyruvate aminotransferase) (D-AIBAT) | -10.600000 | 38 |
| **45** | Tha1 Gly1 | L-threonine aldolase (Threonine aldolase 1) | -10.580000 | 60 |
| **46** | Ldc1 Gm853 | Gene model 853, (NCBI) (Leucine decarboxylase 1) | -10.570000 | 34 |
| **47** | Nfs1 Nifs | Cysteine desulfurase, mitochondrial (m-Nfs1) (EC 2.8.1.7) | -10.530000 | 31 |
| **48** | Kynu | Kynureninase (EC 3.7.1.3) (L-kynurenine hydrolase) | -10.480000 | 52 |
| **49** | Srr | Serine racemase (EC 5.1.1.18) (D-serine ammonia-lyase) (D-serine dehydratase) (EC 4.3.1.18) (L-serine ammonia-lyase) (L-serine dehydratase) (EC 4.3.1.17) | -9.930000 | 25 |
| **50** | Oat | Ornithine aminotransferase, mitochondrial (EC 2.6.1.13) (Ornithine--oxo-acid aminotransferase) | -9.740000 | 32 |
| **51** | Thnsl2 | Threonine synthase-like 2 (TSH2) (mTSH2) (EC 4.2.3.-) | -9.500000 | 27 |
| **52** | Mocos | Molybdenum cofactor sulfurase (MCS) (MOS) (MoCo sulfurase) (EC 2.8.1.9) (Molybdenum cofactor sulfurtransferase) | -9.330000 | 24 |
| **53** | Gldc | Glycine dehydrogenase (decarboxylating), mitochondrial (EC 1.4.4.2) (Glycine cleavage system P protein) (Glycine decarboxylase) (Glycine dehydrogenase (aminomethyl-transferring)) | -8.920000 | 21 |
| **54** | Azin1 Oazi Oazin | Antizyme inhibitor 1 (AZI) (Ornithine decarboxylase antizyme inhibitor) | -8.300000 | 26 |
| **55** | Shmt2 | Serine hydroxymethyltransferase, mitochondrial (SHMT) (EC 2.1.2.1) (Glycine hydroxymethyltransferase) (Serine methylase) | -7.730000 | 24 |