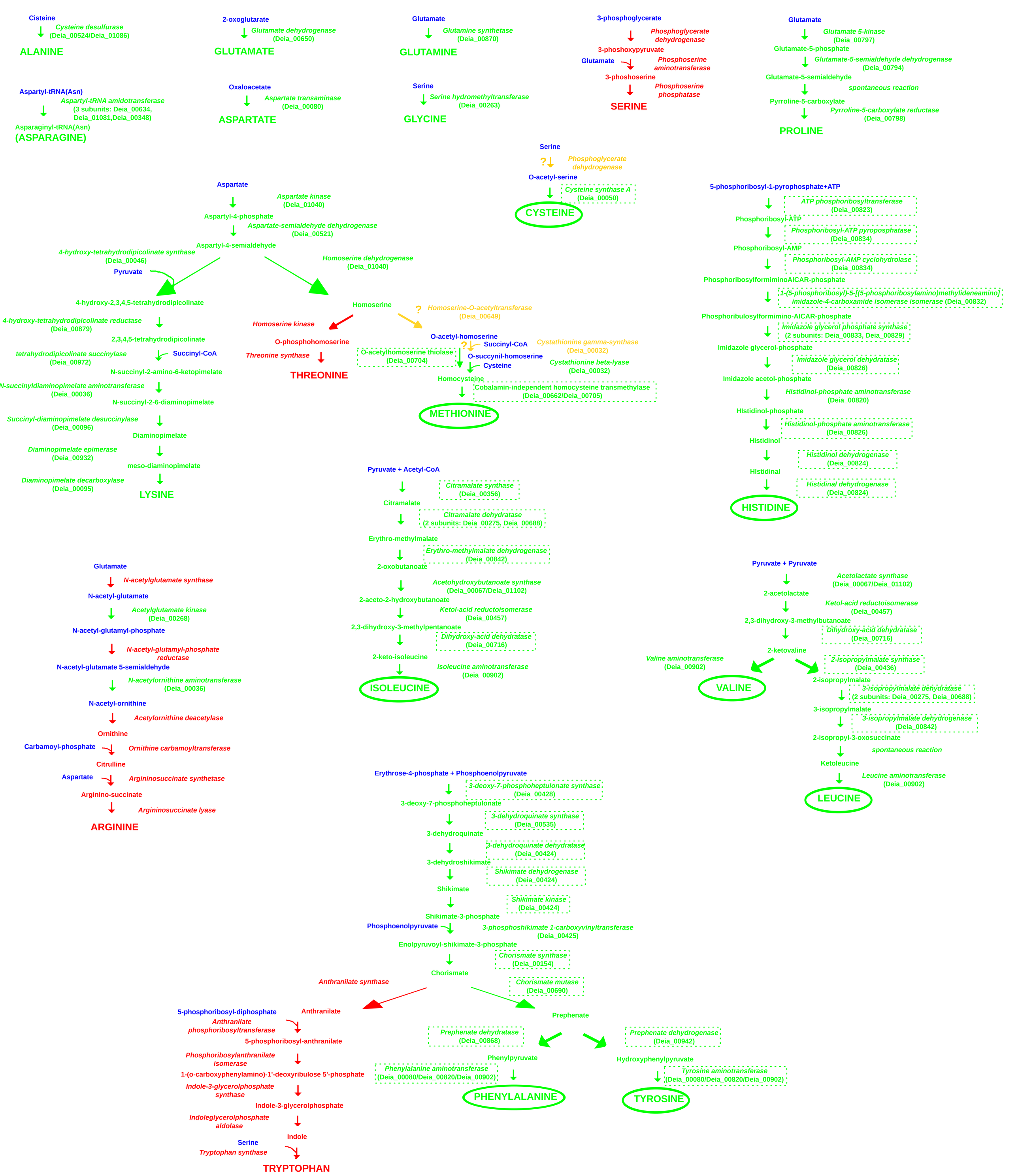
Cisteine
Cysteine desulfurase (Deia_00524/Deia_01086)
ALANINE
2-oxoglutarate
Glutamate dehydrogenase (Deia_00650)
GLUTAMATE
Glutamate
Glutamine synthetase (Deia_00870)
GLUTAMINE
3-phosphoglycerate
Phosphoglycerate dehydrogenase
3-phoshoxypyruvate
Glutamate
Phosphoserine aminotransferase
3-phoshoserine
Phosphoserine phosphatase
SERINE
Glutamate
Glutamate 5-kinase (Deia_00797)
Glutamate-5-phosphate
Glutamate-5-semialdehyde dehydrogenase (Deia_00794)
Glutamate-5-semialdehyde
spontaneous reaction
Pyrroline-5-carboxylate
Pyrroline-5-carboxylate reductase (Deia_00798)
PROLINE
Aspartyl-tRNA(Asn)
Aspartyl-tRNA amidotransferase (3 subunits: Deia_00634, Deia_01081,Deia_00348)
Asparaginyl-tRNA(Asn)
(ASPARAGINE)
Oxaloacetate
Aspartate transaminase (Deia_00080)
ASPARTATE
Serine
Serine hydromethyltransferase (Deia_00263)
GLYCINE
Serine
Phosphoglycerate dehydrogenase
O-acetyl-serine
Cysteine synthase A (Deia_00050)
CYSTEINE
Aspartate
Aspartate kinase (Deia_01040)
Aspartyl-4-phosphate
Aspartate-semialdehyde dehydrogenase (Deia_00521)
Aspartyl-4-semialdehyde
4-hydroxy-tetrahydrodipicolinate synthase (Deia_00046)
Pyruvate
Homoserine dehydrogenase (Deia_01040)
4-hydroxy-2,3,4,5-tetrahydrodipicolinate
4-hydroxy-tetrahydrodipicolinate reductase (Deia_00879)
2,3,4,5-tetrahydrodipicolinate
tetrahydrodipicolinate succinylase (Deia_00972)
Succinyl-CoA
N-succinyl-2-amino-6-ketopimelate
N-succinyldiaminopimelate aminotransferase (Deia_00036)
N-succinyl-2-6-diaminopimelate
Succinyl-diaminopimelate desuccinylase (Deia_00096)
Diaminopimelate
Diaminopimelate epimerase (Deia_00932)
meso-diaminopimelate
Diaminopimelate decarboxylase (Deia_00095)
LYSINE
Homoserine
Homoserine kinase
O-phosphohomoserine
Threonine synthase
THREONINE
Homoserine
Homoserine-O-acetyltransferase (Deia_00649)
O-acetyl-homoserine
Succinyl-CoA
Cystathionine gamma-synthase (Deia_00032)
O-acetylhomoserine thiolase (Deia_00704)
O-succynil-homoserine
Cysteine
Cystathionine beta-lyase (Deia_00032)
Homocysteine
Cobalamin-independent homocysteine transmethylase (Deia_00662/Deia_00705)
METHIONINE
5-phosphoribosyl-1-pyrophosphate+ATP
ATP phosphoribosyltransferase (Deia_00823)
Phosphoribosyl-ATP
Phosphoribosyl-ATP pyroposphatase (Deia_00834)
Phosphoribosyl-AMP
Phosphoribosyl-AMP cyclohydrolase (Deia_00834)
PhosphoribosylformiminoAICAR-phosphate
1-(5-phosphoribosyl)-5-[(5-phosphoribosylamino)methylideneamino] imidazole-4-carboxamide isomerase isomerase (Deia_00832)
Phosphoribulosylformimino-AICAR-phosphate
Imidazole glycerol phosphate synthase (2 subunits: Deia_00833, Deia_00829)
Imidazole glycerol-phosphate
Imidazole glycerol dehydratase (Deia_00826)
Imidazole acetol-phosphate
Histidinol-phosphate aminotransferase (Deia_00820)
HIstidinol-phosphate
Histidinol-phosphate aminotransferase (Deia_00826)
HIstidinol
Histidinol dehydrogenase (Deia_00824)
HIstidinal
Histidinal dehydrogenase (Deia_00824)
HISTIDINE
Pyruvate + Acetyl-CoA
Citramalate synthase (Deia_00356)
Citramalate
Citramalate dehydratase (2 subunits: Deia_00275, Deia_00688)
Erythro-methylmalate
Erythro-methylmalate dehydrogenase (Deia_00842)
2-oxobutanoate
Acetohydroxybutanoate synthase (Deia_00067/Deia_01102)
2-aceto-2-hydroxybutanoate
Ketol-acid reductoisomerase (Deia_00457)
2,3-dihydroxy-3-methylpentanoate
Dihydroxy-acid dehydratase (Deia_00716)
2-keto-isoleucine
Isoleucine aminotransferase (Deia_00902)
ISOLEUCINE
Pyruvate + Pyruvate
Acetolactate synthase (Deia_00067/Deia_01102)
2-acetolactate
Ketol-acid reductoisomerase (Deia_00457)
2,3-dihydroxy-3-methylbutanoate
Dihydroxy-acid dehydratase (Deia_00716)
2-ketovaline
Valine aminotransferase (Deia_00902)
VALINE
2-isopropylmalate synthase (Deia_00436)
2-isopropylmalate
3-isopropylmalate dehydratase (2 subunits: Deia_00275, Deia_00688)
3-isopropylmalate
3-isopropylmalate dehydrogenase (Deia_00842)
2-isopropyl-3-oxosuccinate
spontaneous reaction
Ketoleucine
Leucine aminotransferase (Deia_00902)
LEUCINE
Glutamate
N-acetylglutamate synthase
N-acetyl-glutamate
Acetylglutamate kinase (Deia_00268)
N-acetyl-glutamyl-phosphate
N-acetyl-glutamyl-phosphate reductase
N-acetyl-glutamate 5-semialdehyde
N-acetylornithine aminotransferase (Deia_00036)
N-acetyl-ornithine
Acetylornithine deacetylase
Ornithine
Carbamoyl-phosphate
Ornithine carbamoyltransferase
Citrulline
Aspartate
Argininosuccinate synthetase
Arginino-succinate
Argininosuccinate lyase
ARGININE
Erythrose-4-phosphate + Phosphoenolpyruvate
3-deoxy-7-phosphoheptulonate synthase (Deia_00428)
3-deoxy-7-phosphoheptulonate
3-dehydroquinate synthase (Deia_00535)
3-dehydroquinate
3-dehydroquinate dehydratase (Deia_00424)
3-dehydroshikimate
Shikimate dehydrogenase (Deia_00424)
Shikimate
Shikimate kinase (Deia_00424)
Shikimate-3-phosphate
Phosphoenolpyruvate
3-phosphoshikimate 1-carboxyvinyltransferase (Deia_00425)
Enolpyruvoyl-shikimate-3-phosphate
Chorismate synthase (Deia_00154)
Chorismate
Anthranilate synthase
Chorismate mutase (Deia_00690)
5-phosphoribosyl-diphosphate
Anthranilate
Anthranilate phosphoribosyltransferase
5-phosphoribosyl-anthranilate
Phosphoribosylanthranilate isomerase
1-(o-carboxyphenylamino)-1'-deoxyribulose 5'-phosphate
Indole-3-glycerolphosphate synthase
Indole-3-glycerolphosphate
Indoleglycerolphosphate aldolase
Indole
Serine
Tryptophan synthase
TRYPTOPHAN
Prephenate
Prephenate dehydratase (Deia_00868)
Prephenate dehydrogenase (Deia_00942)
Phenylpyruvate
Phenylalanine aminotransferase (Deia_00080/Deia_00820/Deia_00902)
PHENYLALANINE
Hydroxyphenylpyruvate
Tyrosine aminotransferase (Deia_00080/Deia_00820/Deia_00902)
TYROSINE