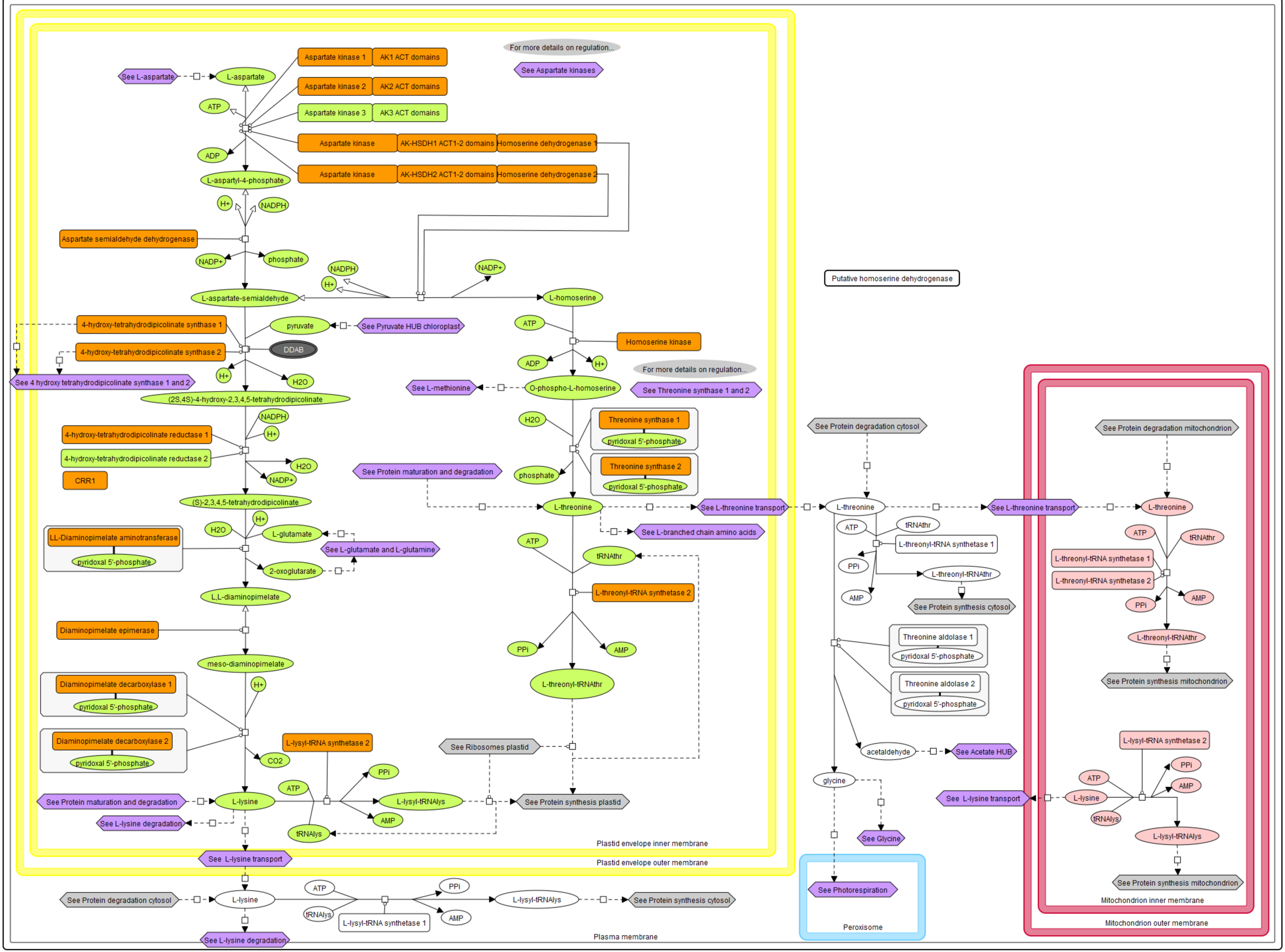
For more details on regulation...
See Aspartate kinases
See L-aspartate
L-aspartate
Aspartate kinase 1
AK1 ACT domains
Aspartate kinase 2
AK2 ACT domains
Aspartate kinase 3
AK3 ACT domains
Aspartate kinase
AK-HSDH1 ACT1-2 domains
Homoserine dehydrogenase 1
Aspartate kinase
AK-HSDH2 ACT1-2 domains
Homoserine dehydrogenase 2
ATP
ADP
L-aspartyl-4-phosphate
H+
NADPH
Aspartate semialdehyde dehydrogenase
NADP+
phosphate
NADPH
H+
NADP+
L-aspartate-semialdehyde
L-homoserine
4-hydroxy-tetrahydrodipicolinate synthase 1
pyruvate
See Pyruvate HUB chloroplast
4-hydroxy-tetrahydrodipicolinate synthase 2
DDAB
See 4 hydroxy tetrahydrodipicolinate synthase 1 and 2
H+
H2O
(2S,4S)-4-hydroxy-2,3,4,5-tetrahydrodipicolinate
NADPH
H+
4-hydroxy-tetrahydrodipicolinate reductase 1
4-hydroxy-tetrahydrodipicolinate reductase 2
CRR1
H2O
NADP+
(S)-2,3,4,5-tetrahydrodipicolinate
H+
H2O
L-glutamate
LL-Diaminopimelate aminotransferase
pyridoxal 5'-phosphate
See L-glutamate and L-glutamine
2-oxoglutarate
L,L-diaminopimelate
Diaminopimelate epimerase
meso-diaminopimelate
H+
Diaminopimelate decarboxylase 1
pyridoxal 5'-phosphate
Diaminopimelate decarboxylase 2
pyridoxal 5'-phosphate
CO2
L-lysyl-tRNA synthetase 2
See Protein maturation and degradation
L-lysine
ATP
PPi
L-lysyl-tRNAlys
AMP
tRNAlys
See L-lysine degradation
See Ribosomes plastid
See Protein synthesis plastid
ATP
Homoserine kinase
ADP
H+
See L-methionine
O-phospho-L-homoserine
For more details on regulation...
See Threonine synthase 1 and 2
H2O
Threonine synthase 1
pyridoxal 5'-phosphate
Threonine synthase 2
pyridoxal 5'-phosphate
phosphate
See Protein maturation and degradation
L-threonine
See L-threonine transport
See L-branched chain amino acids
ATP
tRNAthr
L-threonyl-tRNA synthetase 2
PPi
AMP
L-threonyl-tRNAthr
Plastid envelope inner membrane
Plastid envelope outer membrane
See L-lysine transport
See Protein degradation cytosol
L-lysine
ATP
tRNAlys
L-lysyl-tRNA synthetase 1
PPi
AMP
L-lysyl-tRNAlys
See Protein synthesis cytosol
See L-lysine degradation
Plasma membrane
Putative homoserine dehydrogenase
See Protein degradation cytosol
L-threonine
See L-threonine transport
ATP
tRNAthr
L-threonyl-tRNA synthetase 1
PPi
L-threonyl-tRNAthr
AMP
See Protein synthesis cytosol
Threonine aldolase 1
pyridoxal 5'-phosphate
Threonine aldolase 2
pyridoxal 5'-phosphate
acetaldehyde
See Acetate HUB
glycine
See Glycine
See Photorespiration
Peroxisome
See Protein degradation mitochondrion
L-threonine
ATP
tRNAthr
L-threonyl-tRNA synthetase 1
L-threonyl-tRNA synthetase 2
PPi
AMP
L-threonyl-tRNAthr
See Protein synthesis mitochondrion
L-lysyl-tRNA synthetase 2
PPi
ATP
AMP
See L-lysine transport
L-lysine
tRNAlys
L-lysyl-tRNAlys
See Protein synthesis mitochondrion
Mitochondrion inner membrane
Mitochondrion outer membrane