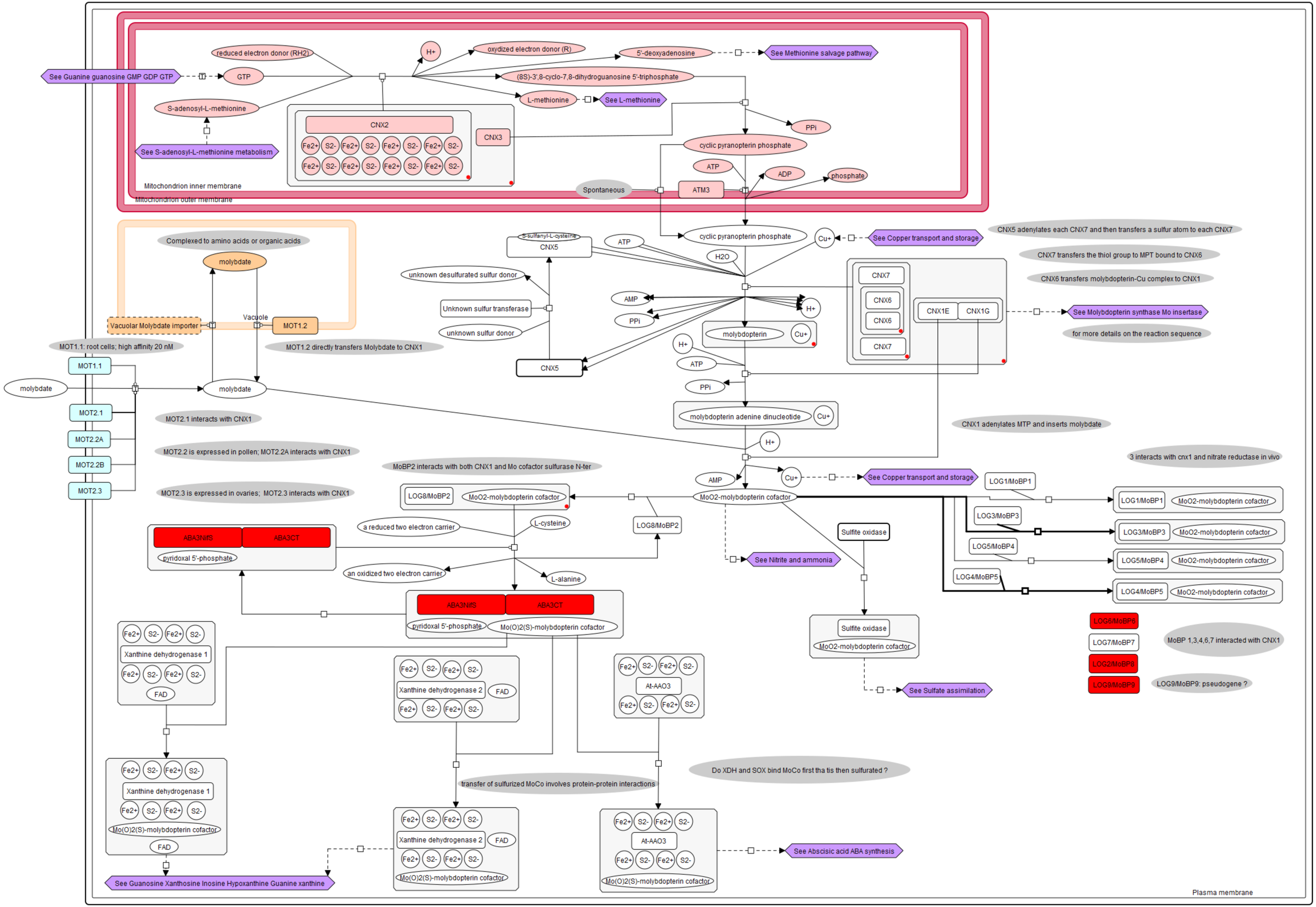
See Guanine guanosine GMP GDP GTP
GTP
reduced electron donor (RH2)
H+
oxydized electron donor (R)
5'-deoxyadenosine
See Methionine salvage pathway
(8S)-3',8-cyclo-7,8-dihydroguanosine 5'-triphosphate
L-methionine
See L-methionine
S-adenosyl-L-methionine
See S-adenosyl-L-methionine metabolism
CNX2
CNX3
Fe2+ S2-
PPi
cyclic pyranopterin phosphate
ATP
ADP
phosphate
Spontaneous
ATM3
Mitochondrion inner membrane
Mitochondrion outer membrane
Complexed to amino acids or organic acids
molybdate
Vacuolar Molybdate importer
Vacuole
MOT1.2
MOT1.1: root cells; high affinity 20 nM
MOT1.2 directly transfers Molybdate to CNX1
MOT1.1
MOT2.1
MOT2.2A
MOT2.2B
MOT2.3
MOT2.1 interacts with CNX1
MOT2.2 is expressed in pollen; MOT2.2A interacts with CNX1
MOT2.3 is expressed in ovaries; MOT2.3 interacts with CNX1
S-sulfanyl-L-cysteine
CNX5
unknown desulfurated sulfur donor
Unknown sulfur transferase
unknown sulfur donor
AMP
H2O
Cu+
See Copper transport and storage
CNX5 adenylates each CNX7 and then transfers a sulfur atom to each CNX7
CNX7 transfers the thiol group to MPT bound to CNX6
CNX6 transfers molybdopterin-Cu complex to CNX1
CNX7
CNX6
CNX1E
CNX1G
See Molybdopterin synthase Mo insertase
for more details on the reaction sequence
molybdopterin
molybdopterin adenine dinucleotide
CNX1 adenylates MTP and inserts molybdate
MoBP2 interacts with both CNX1 and Mo cofactor sulfurase N-ter
3 interacts with cnx1 and nitrate reductase in vivo
LOG8/MoBP2
MoO2-molybdopterin cofactor
LOG1/MoBP1
LOG3/MoBP3
LOG5/MoBP4
LOG4/MoBP5
a reduced two electron carrier
L-cysteine
an oxidized two electron carrier
L-alanine
ABA3NifS
ABA3CT
pyridoxal 5'-phosphate
Mo(O)2(S)-molybdopterin cofactor
Sulfite oxidase
See Nitrite and ammonia
See Sulfate assimilation
LOG6/MoBP6
LOG7/MoBP7
LOG2/MoBP8
LOG9/MoBP9
MoBP 1,3,4,6,7 interacted with CNX1
LOG9/MoBP9: pseudogene ?
Xanthine dehydrogenase 1
Xanthine dehydrogenase 2
FAD
At-AAO3
Do XDH and SOX bind MoCo first tha tis then sulfurated ?
transfer of sulfurized MoCo involves protein-protein interactions
See Abscisic acid ABA synthesis
See Guanosine Xanthosine Inosine Hypoxanthine Guanine xanthine
Plasma membrane