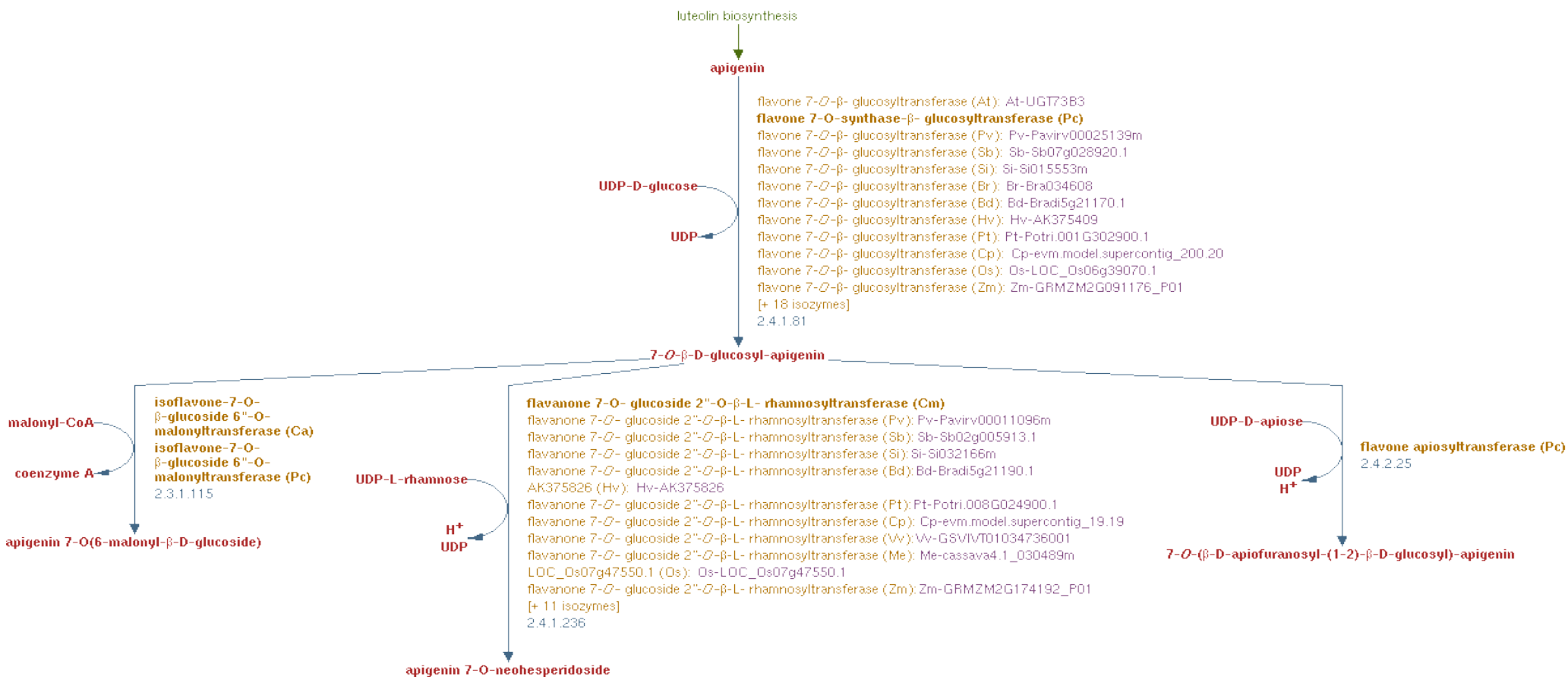
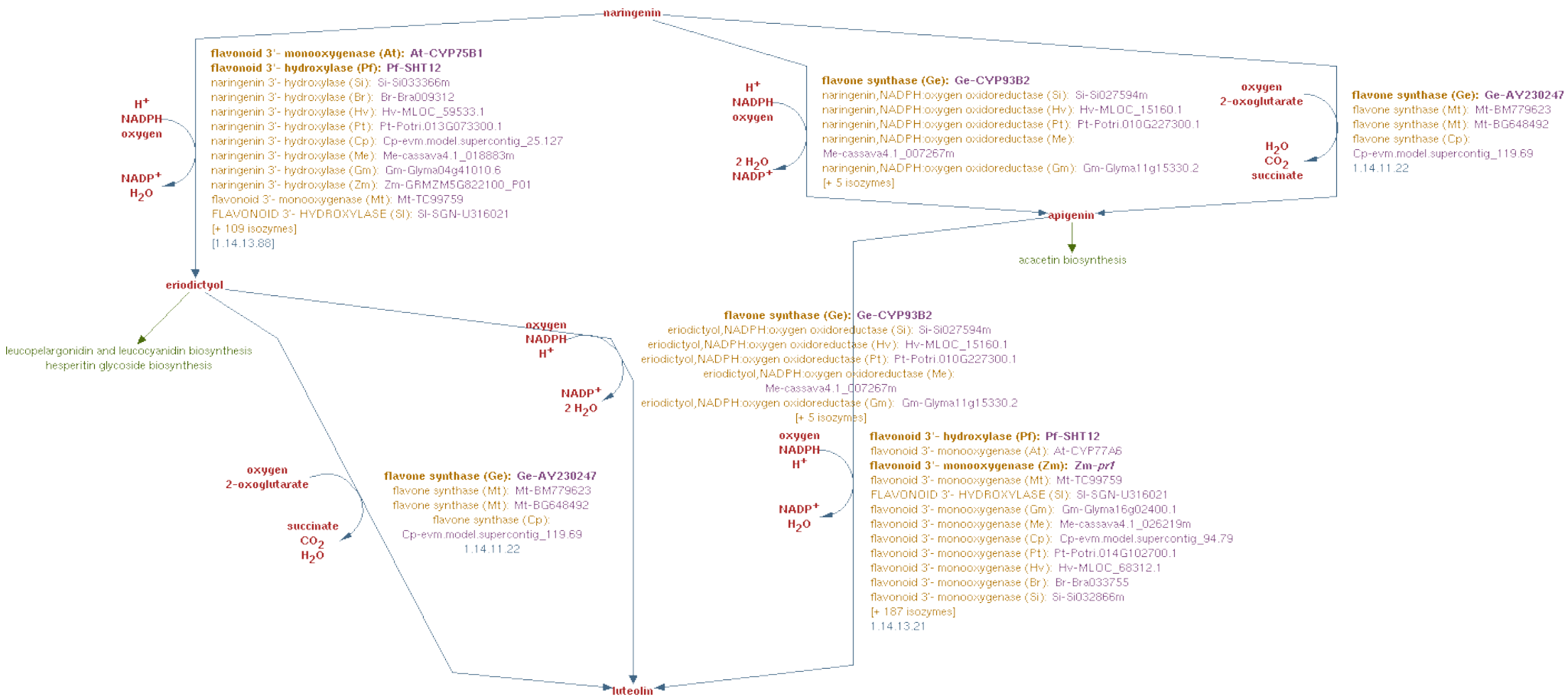
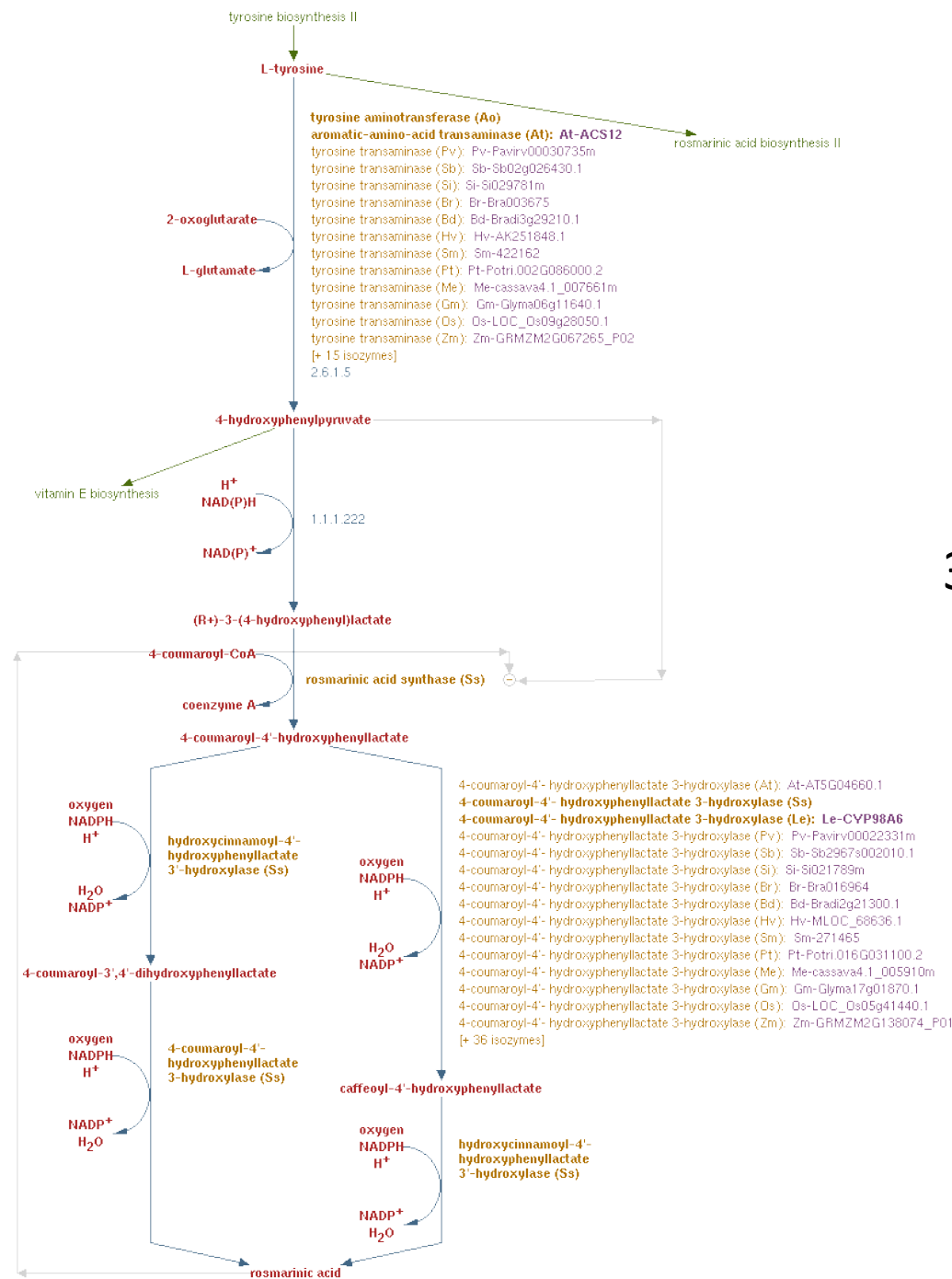




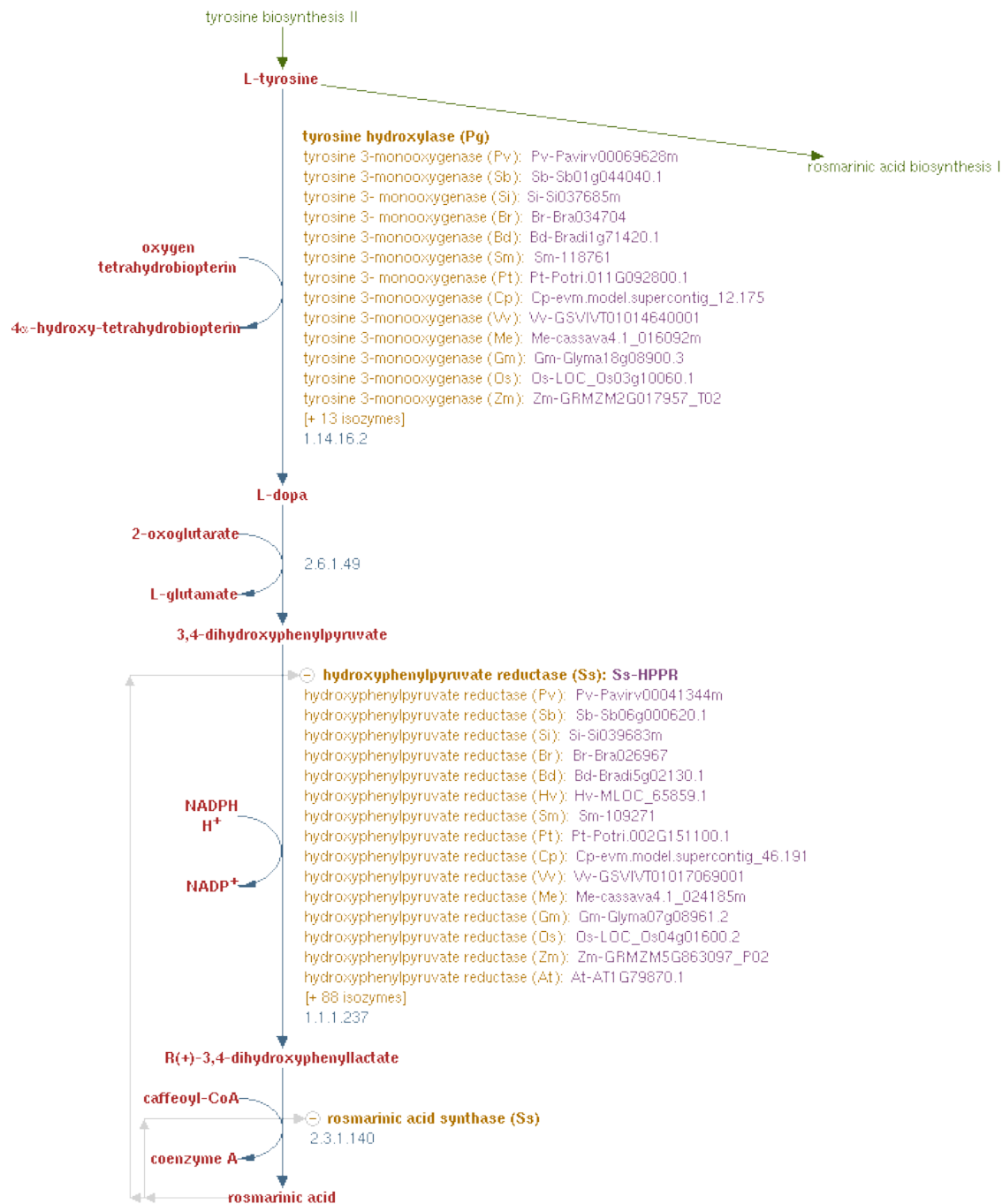
1. Apigenin



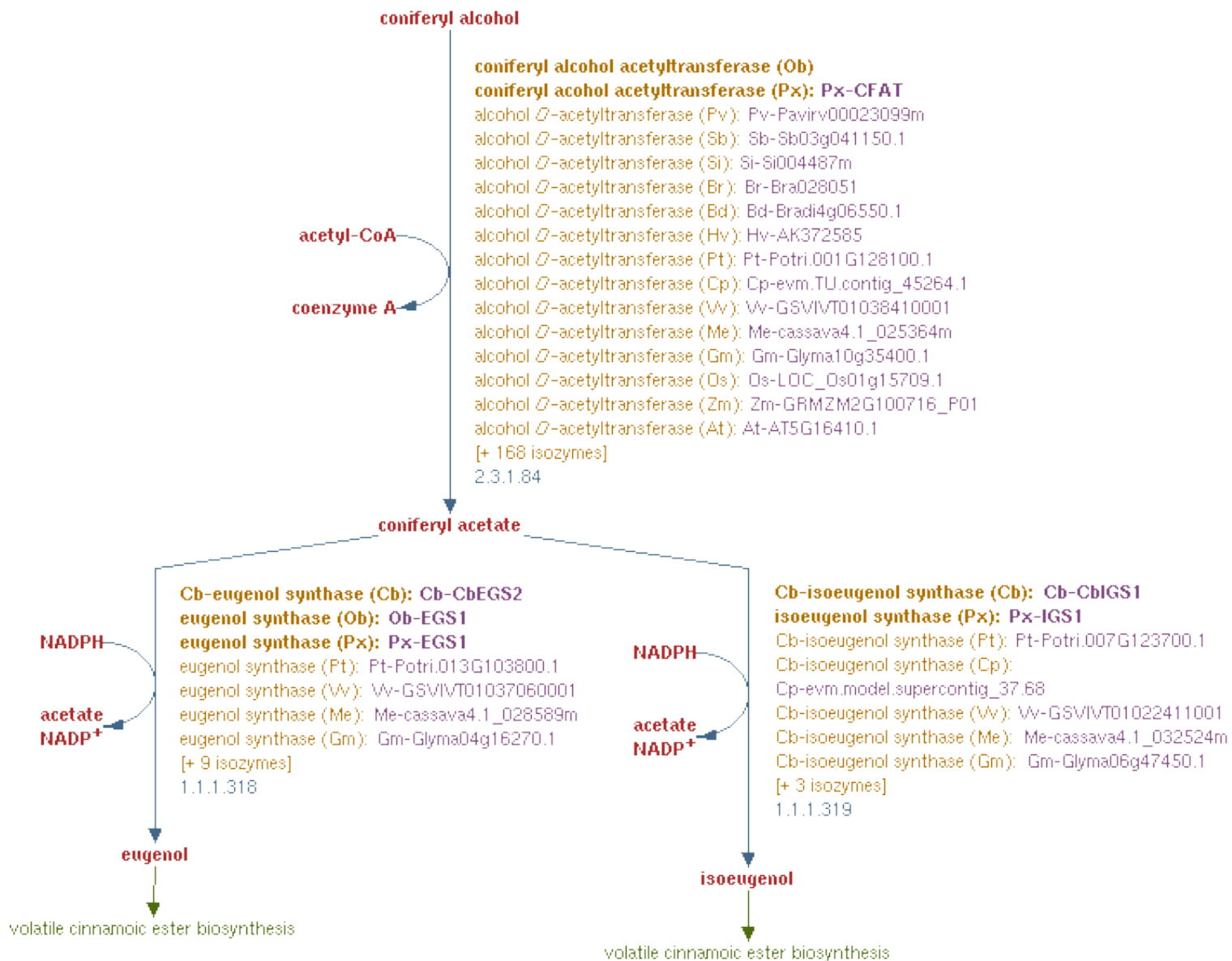
2. Luteolin



3. Rosmarinic acid Pathway1



4. Rosmarinic acid Pathway 2



5. Eugenol

S-adenosyl-L-methionine:(iso)eugenol-O-methyltransferase (Cb): Cb-IEMT1

eugenol O-methyltransferase (Mt):

Mt-1481.m00052

eugenol O-methyltransferase (Mt):

Mt-1481.m00052

2.1.1.146

isoeugenol → isomethyleugenol

S-adenosyl-L-methionine

H⁺

S-adenosyl-L-homocysteine

S-adenosyl-L-methionine:eugenol-O-methyltransferase (Ob): Ob-EOMT1

S-adenosyl-L-methionine:(iso)eugenol-O-methyltransferase (Cb): Cb-IEMT1

eugenol O-methyltransferase (Mt): Mt-1481.m00052

eugenol O-methyltransferase (Mt): Mt-1481.m00052

2.1.1.146

eugenol → methyleugenol

S-adenosyl-L-methionine

H⁺

S-adenosyl-L-homocysteine

S-adenosyl-L-methionine:chavicol-O-methyltransferase (Ob): Ob-CVOMT1

eugenol O-methyltransferase (Mt):

Mt-1481.m00052

eugenol O-methyltransferase (Mt):

Mt-1481.m00052

2.1.1.146

chavicol → methylchavicol

S-adenosyl-L-methionine

H⁺

S-adenosyl-L-homocysteine

phenylpropanoid biosynthesis, initial reactions → **trans-cinnamate** → methylcinnamate

S-adenosyl-L-methionine:cinnamic acid carboxymethyltransferase (Ob)

S-adenosyl-L-methionine

S-adenosyl-L-homocysteine

6. Methylchavicol

geranyl diphosphate biosynthesis

geranyl diphosphate

geraniol synthase (Zm): Zm-TPS1

geraniol synthase (Ob): Ob-GES

C-geraniol synthase (Pc): Pc-PcTps-C

P-geraniol synthase (Pf): Pf-PfTps-PL

geraniol synthase (Ct): Ct-GES

P-geraniol synthase (Sb): Sb-Sb06g028220.1

P-geraniol synthase (Si): Si-Si009385m

P-geraniol synthase (Hv): Hv-AK376278

P-geraniol synthase (Vv): Vv-GSVIVT01000414001

P-geraniol synthase (Me): Me-cassava4.1_011130m

P-geraniol synthase (Gm): Gm-Glyma12g32381.1

[+ 27 isozymes]

3.1.7.11

H₂O

diphosphate

geraniol

geranyl acetate biosynthesis

geraniol dehydrogenase (Ob): Ob-CAD1

geraniol dehydrogenase (Sb): Sb-Sb08g016410.1

geraniol dehydrogenase (Si): Si-Si030007m

geraniol dehydrogenase (Hv): Hv-AK249695.1

geraniol dehydrogenase (Sm): Sm-235915

geraniol dehydrogenase (Pt): Pt-Potri.006G024300.1

geraniol dehydrogenase (Cp): Cp-evm.model.supercontig_37.115

geraniol dehydrogenase (Pp): Pp-Pp1s84_209V6.1

geraniol dehydrogenase (Vv): Vv-GSVIVT01003150001

geraniol dehydrogenase (Me): Me-cassava4.1_010634m

geraniol dehydrogenase (Gm): Gm-Glyma10g40870.4

geraniol dehydrogenase (Zm): Zm-GRMZM2G090980_P06

[+ 78 isozymes]

1.1.1.183

NADP⁺

NADPH

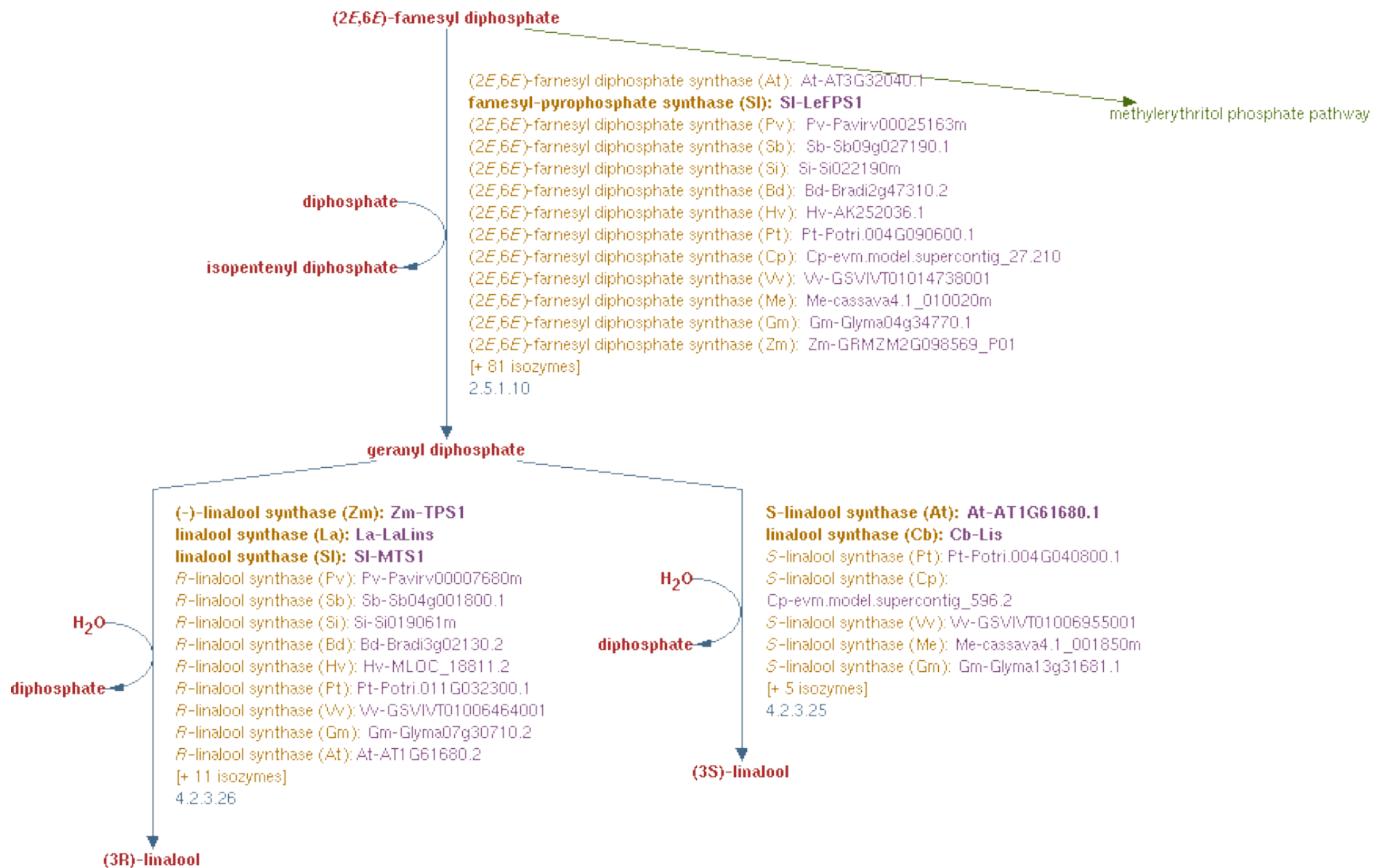
H⁺

geranial

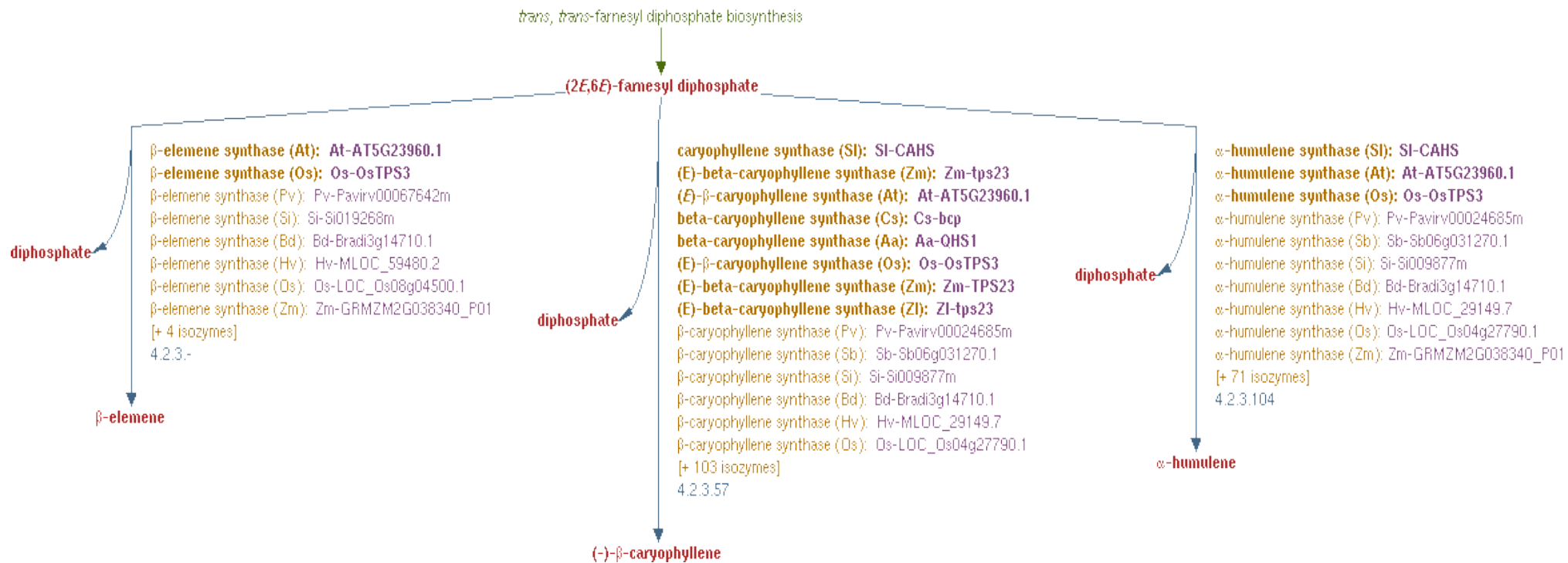
spontaneous

neral

7. Citral



8. Linalool



9. Caryophyllene

trans, trans-farnesyl diphosphate biosynthesis



(2*E*,6*E*)-farnesyl diphosphate



diphosphate

selinene synthase (Ob): Ob-SES

α -selinene synthase (Ag): Ag-f- δ sel1

4.2.3.-

α -selinene

diphosphate

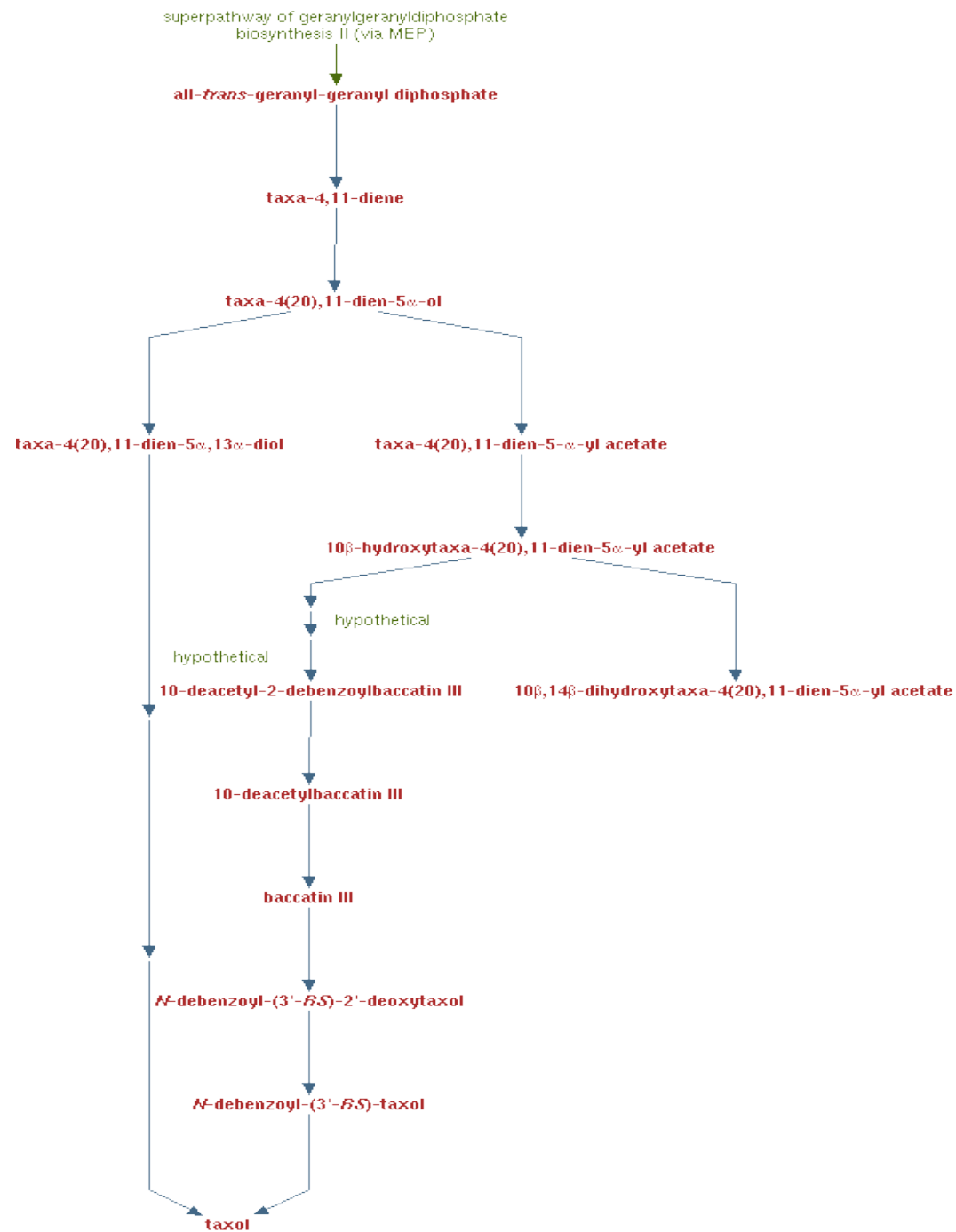
β -selinene cyclase (Xc): Xc-BSC

selinene synthase (Ob): Ob-SES

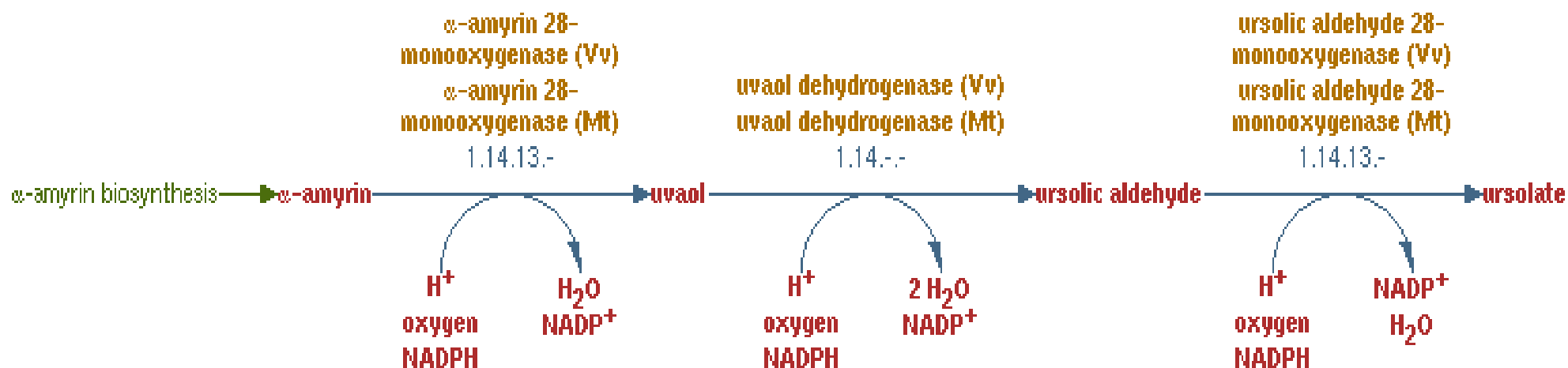
4.2.3.66

β -selinene

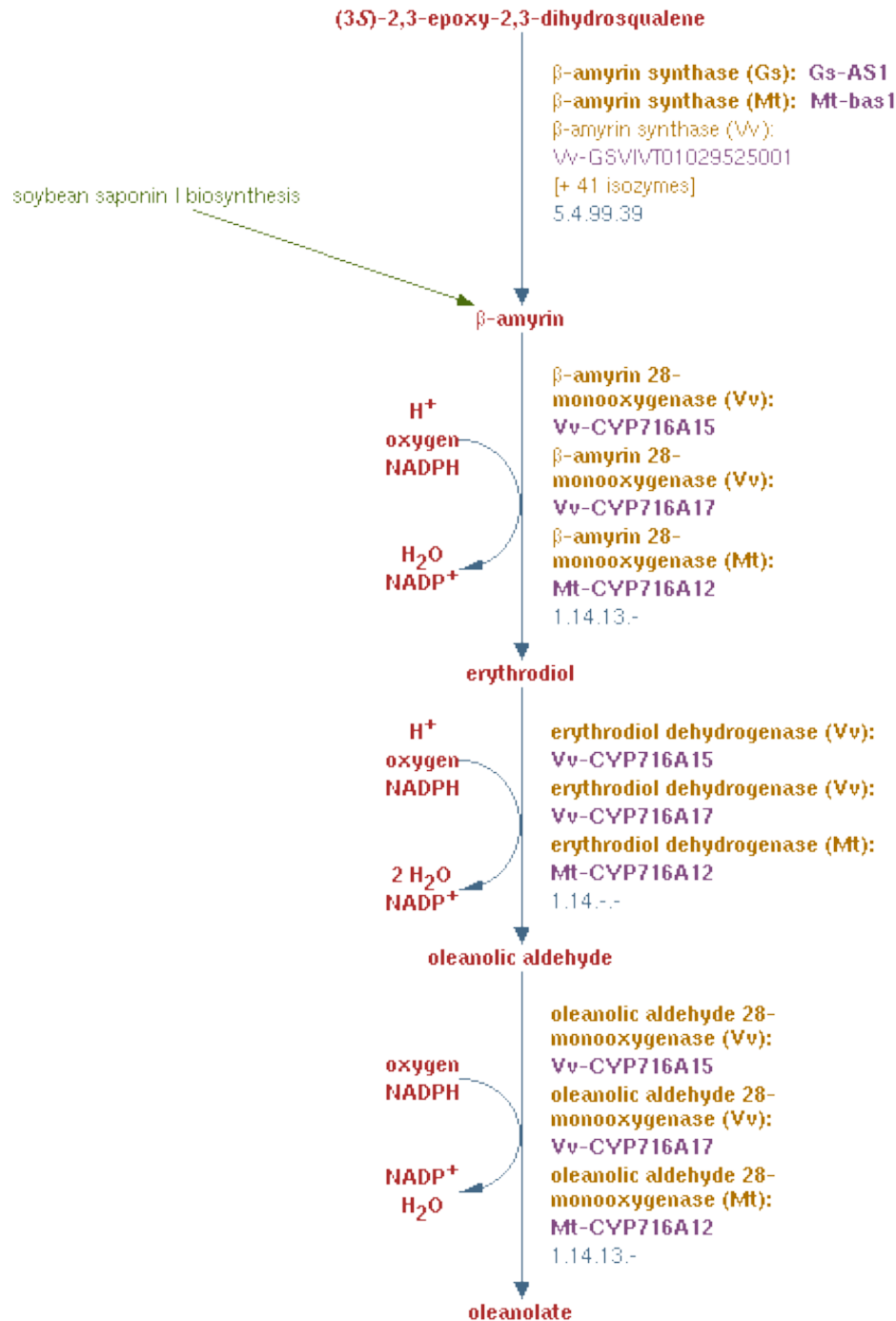
10. Selinene



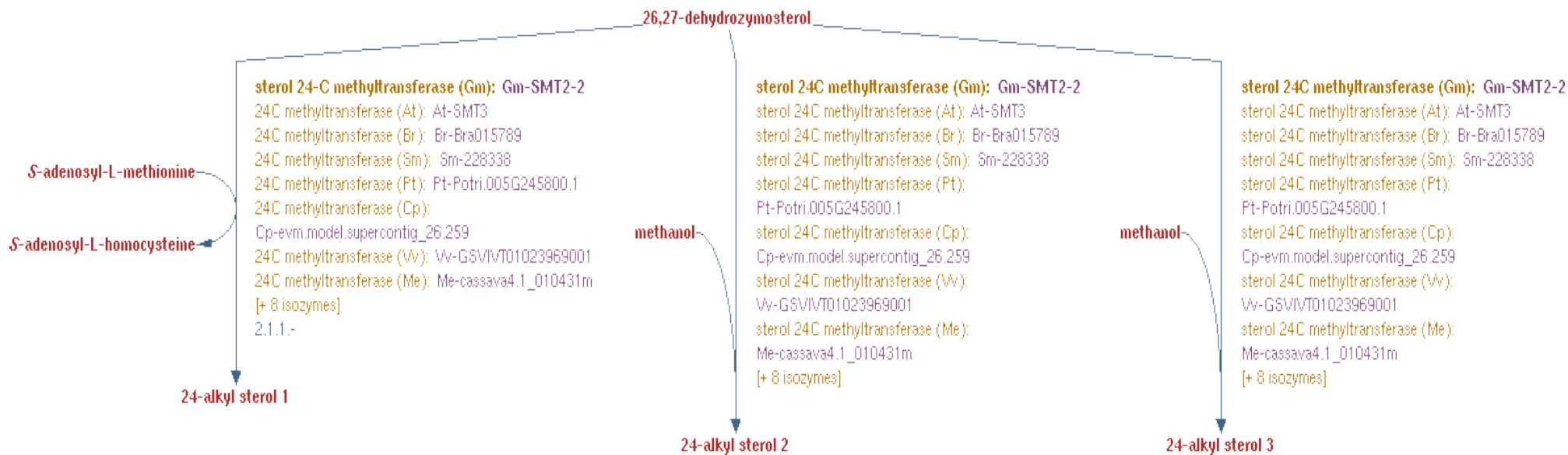
11. Taxol



12. Ursolic Acid



13. Oleanolic acid



14. Sitosterol