

Table S6 Enzyme name abbreviations used in model.

GSTT1	Glutathione S-transferase T1
GSTZ5	Protein IN2-1 homolog B
G6PD6	Glucose-6-phosphate 1-dehydrogenase 6
UGD4	UDP-glucose 6-dehydrogenase 4
UGD5	UDP-glucose 6-dehydrogenase 5
LGALDH	L-galactose dehydrogenase
At5g05600	Probable 2-oxoglutarate-dependent dioxygenase
APXT	L-ascorbate peroxidase T
VET4	Probable tocopherol O-methyltransferase
RT	Anthocyanidin-3-O-glucoside rhamnosyltransferase
FGT	Anthocyanidin 3-O-glucosyltransferase 2
COMT1	Caffeic acid 3-O-methyltransferase
CAD6	Probable cinnamyl alcohol dehydrogenase
HHT1	Omega-hydroxypalmitate O-feruloyl transferase
CCD	Probable carotenoid cleavage dioxygenase
LCY1	Lycopene beta cyclase
ISA3	Isoamylase 3
DPEP	4-alpha-glucanotransferase
BAM9	Inactive beta-amylase 9
AMY3	Alpha-amylase 3
SS4	Probable starch synthase 4
SS1	Starch synthase 1
RFS6	Probable galactinol--sucrose galactosyltransferase 6
AGAL3	Alpha-galactosidase 3
GLN2	Glutamine synthetase
GAD	Glutamate decarboxylase
GABA-TP3	Gamma aminobutyrate transaminase 3
ASP3	Aspartate aminotransferase 3
NOA1	NO-associated protein 1
SPMS	Spermine synthase
δ -OAT	δ -Ornithine aminotransferase
ADT6	Arogenate dehydratase/prephenate dehydratase 6
PFK6	ATP-dependent 6-phosphofructokinase 6
GAPC	Glyceraldehyde-3-phosphate dehydrogenase
ALDH3F1	Aldehyde dehydrogenase family 3 member F1
ALDH3H1	Aldehyde dehydrogenase family 3 member H1
ACLA-1	ATP-citrate synthase alpha chain protein 1
LHCB7	Chlorophyll a-b binding protein 7
PSAE-1	Photosystem I reaction center subunit IV
PSAH	Photosystem I reaction center subunit VI
DEGP2	Protease Do-like 2
PUMP1	Mitochondrial uncoupling protein 1
VATE	V-type proton ATPase subunit E
CIB22	NADH dehydrogenase [ubiquinone] 1 beta subcomplex subunit 9
NDB2	External alternative NAD(P)H-ubiquinone oxidoreductase B2
PPC 1	Phosphoenolpyruvate carboxylase 1
PPC 16	Phosphoenolpyruvate carboxylase 6
NADP-ME	NADP-dependent malic enzyme
AGPS1	Glucose-1-phosphate adenyltransferase large subunit 1
LKR/SDH	Alpha-amino adipic semialdehyde synthase
CHLP	Geranylgeranyl diphosphate reductase

PAO	Pheophorbide a oxygenase
SDR1	(+)-neomenthol dehydrogenase
MLP31	MLP-like protein 31
MLP43	MLP-like protein 43
PLAT1	PLAT domain-containing protein 1
Os01g0270100	Cysteine proteinase inhibitor 12