

Table 3 Functional enrichment analysis of *LDOX* genes

GO Enrichment	Term description	False discovery rate (FDR)
Biology Process	Flavonoid biosynthetic process	2.38E-27
	Flavonoid metabolic process	8.09E-27
	Phenylpropanoid metabolic process	4.83E-17
	Secondary metabolic process	5.29E-14
	Organic substance biosynthetic process	5.56E-11
	Organic substance metabolic process	1.03E-09
	Response to karrikin	3.61E-09
	Phenylpropanoid biosynthetic process	8.93E-08
	Regulation of flavonoid biosynthetic process	1.33E-07
	Response to abiotic stimulus	2.11E-07
Cell component	Extrinsic component of endoplasmic reticulum membrane	0.00038
	Endoplasmic reticulum	0.00041
	Vacuolar membrane	0.0322
	Endoplasmic reticulum membrane	0.0322
	Plant-type vacuole membrane	0.0322
	Intracellular part	0.0322
	Endoplasmic reticulum subcompartment	0.0322
	Cytoplasm	0.0372
Molecular Function	Organelle membrane	0.0413
	Catalytic activity	3.93E-09
	4-coumarate-CoA ligase activity	2.75E-07
	Oxidoreductase activity	2.75E-07
	Cofactor binding	2.75E-07
	Coenzyme binding	2.75E-07
KEGG Enrichment	2-oxoglutarate-dependent dioxygenase activity	6.08E-07
	Enrichment of LDOX related pathways	4.23E-30
	Flavonoid biosynthesis	1.76E-24
	Biosynthesis of secondary metabolites	5.30E-18
	Metabolic pathways	1.11E-12
	Phenylpropanoid biosynthesis	4.73E-10
	Phenylalanine metabolism	3.07E-08
	Ubiquinone and other terpenoid-quinone biosynthesis	1.19E-05
	Flavone and flavonol biosynthesis	2.50E-05
	Stilbenoid, diarylheptanoid and gingerol biosynthesis	