

Supplementary Table 1. *Primer sets used for the amplification of the genes of tetrapyrrole biosynthesis in Arabidopsis*

Gene	Forward primer	Reverse primer	Product size (bp)
HEMA1	5'-GGCAATGGCGGAACAACAACATAAG-3'	5'-CAGACCCCAATTCCATGAACCAAAG-3'	361
HEMA2	5'-GAGAGAAGAGAGCCTTTGTTTCATC-3'	5'-GGCTTTATTTCTCAACCAAACATCAC-3'	366
HEMA3	5'-CGACGGAGAGTTACTCGAGGAGAAG-3'	5'-CCTCTCGCTAACAAAAATGAAAAACCC-3'	211
GSA1	5'-AGTTAACAATTGCTGCGGCTGAGAG-3'	5'-CTCATTCAAAAACATTGCTGCGATATG-3'	365
GSA2	5'-GCGGGATGTTCCGTTTCTTCTTCAC-3'	5'-GTGAGATTGCTTGCTTGCTCTCAATTG-3'	320
ALAD1	5'-GGCTACTACACCCATCTTTAATGC-3'	5'-GGCTTAATTATCGGTGTCCCAACC-3'	300
ALAD2	5'-GGCATTGCTAGAAACACGAGAAG-3'	5'-CGCCGCATAATTTGTAGCAGCTTG-3'	287
PBGD	5'-CCTCTAGCACTTGTCTAAGCATAAG-3'	5'-CGTGGCTGCAGTTAGACAAATAAACGC-3'	318
UROS	5'-CCGGTGCAGAGTGTGATACGGTG-3'	5'-CCTGCTGCTAGGGTACTTGAATC-3'	281
URO1	5'-GCTAGTGGATCAGGAGRRRGCTAGA-3'	5'-CTAATTTCTTGAGCAACCTCAAAGAAG-3'	299
URO2	5'-GTTGTGAAGTGTGCTGGACAAAAGG-3'	5'-CATCGATTAAGGGTCAGACATGGAAC-3'	305
UPM1	5'-GCTCTGTTCAGCGGATTCCAATTC-3'	5'-CATCTCTGGTCCACAATCACCACC-3'	346
CPO1	5'-AGCCTGTGTTTCCCATTTGTGTAG-3'	5'-GCAAGAAACCAACTGTTTGCATTGG-3'	251
CPO2	5'-GCAAGCCTGCGATAAAATTTGATCCG-3'	5'-TGTTCCGCGGTCATACACGAAGTTG-3'	307
CPO3	5'-CTGGTGTGGAAATGGTGTATGTTGATC-3'	5'-GGAGCTACCACGCCAAACGATAGAG-3'	342
PPO1	5'-CCCCTGTATGACAGCAGCTATGAC-3'	5'-CGCACGGCGGCTTGTGTCATTTTAC-3'	274
PPO2	5'-TCCGACGACTCAATCGCTTCTCCG-3'	5'-TGCTCCAACACGATCCTTAGCCTC-3'	272
FC1	5'-CACCGACTTAGCTGATGCAGTGATAG-3'	5'-CCCACATCAGCTTATTAGAGCTGGTG-3'	311
FC2	5'-GGTGTATGGCTGTCTCAAACCTTG-3'	5'-GCTGGCCTTATCCACATGTGAAAGC-3'	342
HO1	5'-TCCCTCTTCTCTAATCTTCAAGCCAAC-3'	5'-GACGGCGACTTGTTTCATGGTCATAC-3'	231
HO2	5'-TGTCGTCGGAATCCATGGCTTCTC-3'	5'-GCGTAATCTCATGGCGACGAATCTC-3'	279
HO3	5'-AGGGTTCGGGCATAACTAATCTCC-3'	5'-CAAAAGCTTGATGCTTACACTTCTTCATG-3'	216
HO4	5'-GTCTAGTCAACGGCTTACGACAAAGAC-3'	5'-CACCACAAAGTCTGATCTTCGTTTGC-3'	282
HY2	5'-CCACCTGTTCTAATCTCTGCAAGC-3'	5'-ATGGGAGTATCATACTCAGGCTCC-3'	329
ChlI	5'-GTTCTAGTTTCCGAGAAGTTCGCCG-3'	5'-GATAGCTTTATAGCCATAATCAATGCAGG-3'	264
ChlII	5'-GGAGTCTATGGATTCGGGAATTCTCG-3'	5'-GGCACTCACTGCTGGTATTCTGATC-3'	260
ChIH	5'-GGTGATCCCATCAGAAACCCAAAGG-3'	5'-CACCAATCATCCAAAGAACCTGCC-3'	244
ChID	5'-GGGTCTGTTGATGTTGAGGAGTCTG-3'	5'-GCAACACGGTCTAGCAAGTGTCTC-3'	272
ChIM	5'-AGCCGGGTGACAGTACAACAATC-3'	5'-ACCGCCAAGGATCTATCTTCAGTC-3'	298
CRD1	5'-ATGGCGTTAGTAAACCCATCTCC-3'	5'-AAGATCTGTCGGAGAGGTCCTTGC-3'	383
PORA ^a	5'-GGGAATTCATTTCACTTTCCGAGCA-3'	5'-GGGTCGACGCGTCTAAGGAAGATT-3'	137
PORB ^a	5'-GGGAATTCGCTCCATTACCGACCA-3'	5'-GGGTCGACGCGTCCACGGATTTG-3'	140
PORC	5'-GAAGACAGAAACCGCGATTTCCAC-3'	5'-ATCTTCTTGACATTCCAACAGATCTC-3'	257
ChIG	5'-TGACTTCGATTTCAACACTGTCTC-3'	5'-AGGCCAAGTACTGGTTTTGTAAAGC-3'	329
CAO	5'-CCCTCTTCAACCACTGCTTCTG-3'	5'-GTCCCTCGTTCACTGTGCCAAGATC-3'	292

^a Primer design is based on Armstrong *et al.* (1995).