

10987654321>

XP_006420869.1_Citrus clementina_D	-----AASNPKPTNL
KDO61134.1_Citrus sinensis_D	-----AASNPKPTNL
XP_006493708.1_Citrus sinensis_D	-----AASNPKPTNL
XP_016678814.1_Gossypium hirsutum_D	-----TARCKPKPTNL
XP_012456258.1_Gossypium raimondi_D	-----TARCKPKPTNL
NP_001030756.1_Arabidopsis thaliana_D	-----AHKPKPKPTNL
XP_006857404.1_Amborella trichopoda_D	-----TVGTPKPKPTNL
RWR97591.1_Cinnamomum micranthum_D	-----TAGIKPKPTNL
XP_008789436.1_Phoenix dactylifera_M	-----AAGCQAKPTNL
GAV66157.1_Cephalotus follicularis_D	-----AAKNPKPKPTNL
XP_002518118.1_Ricinus communis_D	-----NAGNPKPKPTNL
XP_002285672.1_Vitis vinifera_D	-----AAGNPKPKPTNL
XP_009374616.1_Pyrus x bretschneideri_D	-----AAGTPKPKPTNL
XP_008380593.1_Malus domestica_D	-----AAGTPKPKPTNL
XP_010905846.1_Elaeis guineensis_M	-----AAGSKPKPTNL
XP_020113212.1_Ananas comosus_D	-----NAGSKPKPTNL
PIA40187.1_Aquilegia coerulea_D	-----AAGSKPKPTNL
PIA40186.1_Aquilegia coerulea_D	-----AAGSKPKPTNL
XP_021816615.1_Prunus avium_D	-----AAGSKPKPTNL
XP_008224600.1_Prunus mume_D	-----AAGSKPKPTNL
XP_007222141.1_Prunus persica_D	-----AAGSKPKPTNL
XP_023928759.1_Quercus suber_D	-----SAGSKPKPTNL
XP_010241121.1_Nelumbo nucifera_D	-----SAGSKPKPTNL
XP_012844589.1_Erythranthe guttata_D	-----VSASKPKPTNL
XP_003570370.1_Brachypodium distachyon_M	-----SPASPKPKPTNL
XP_015626808.1_Oryza sativa Japonica_M	-----SPSSPKPKPTNL
BAA11214.1_Oryza sativa Japonica_M	-----SPSSPKPKPTNL
PUZ78189.1_Panicum hallii_M	-----SPTSKPKPTNL
RLN06968.1_Panicum miliaceum_M	-----SPTSKPKPTNL
XP_025812161.1_Panicum hallii_M	-----SPTSKPKPTNL
RLM79622.1_Panicum miliaceum_M	-----SPTSKPKPTNL
XP_021315271.1_Sorghum bicolor_M	-----SPTSKPKPTNL
NP_001141545.1_Zea mays_M	-----SPTSKPKPTNL
AQK76034.1_Zea mays_M	-----SPTSKPKPTNL
PWZ22190.1_Zea mays_M	-----SPTSKPKPTNL
AQK76041.1_Zea mays_M	-----SPTSKPKPTNL
BAF80309.1_Hordeum vulgare_M	-----SPASPKPKPTNL
BAK08168.1_Hordeum vulgare_M	-----SPASPKPKPTNL
XP_020188407.1_Aegilops tauschii_M	-----SPPSKPKPTNL
AAQ64632.1_Triticum monococcum_M	-----SPPSKPKPTNL
OWM84266.1_Punica granatum_D	-----RVNCKPKPTNL
XP_024193545.1_Rosa chinensis_D	-----SARGKPKPTNL
XP_013451659.1_Medicago truncatula_D	-----TGSAKPKPTNL
Q43621.1_Pisum sativum_D	-----TGGVKPKPTNL
XP_004514690.1_Cicer arietinum_D	-----TAAAKPKPTNL
XP_021607163.1_Manihot esculenta_D	-----TAGTKPKPTNL
XP_012071166.1_Jatropha curcas_D	-----TAGNPKPKPTNL
XP_020273661.1_Asparagus officinalis_M	-----TAGAKPKPTNL
XP_027345040.1_Abrus precatorius_D	-----TGGAKPKPTNL
XP_003548073.1_Glycine max_D	-----TGSVKPKPTNL
XP_018837988.1_Juglans regia_D	-----AASKPKPTNL
XP_017408754.1_Vigna angularis_D	-----TGTCKPKPTNL
XP_024024432.1_Morus notabilis_D	-----SGSKPKPTNL
EXB87094.1_Morus notabilis_D	-----SGSKPKPTNL
XP_020231867.1_Cajanus cajan_D	-----TGSCKPKPTNL
XP_014511724.1_Vigna radiata_D	-----TGSCKPKPTNL
ABB89042.1_Vigna unguiculata_D	-----TGSCKPKPTNL
XP_017611138.1_Gossypium arboreum_D	-----TCRCKPKPTNL
XP_016666852.1_Gossypium hirsutum_D	-----TCRCKPKPTNL
KHG02152.1_Gossypium arboreum_D	-----TCRCKPKPTNL
XP_012478518.1_Gossypium raimondii_D	-----TCSCKPKPTNL
XP_016691144.1_Gossypium hirsutum_D	-----TCSCKPKPTNL
KJB30154.1_Gossypium raimondii_D	-----TCSCKPKPTNL
PPD94177.1_Gossypium barbadense_D	-----TCSCKPKPTNL
XP_026389310.1_Papaver somniferum_D	-----PPGCKPKPTNL
XP_026420490.1_Papaver somniferum_D	-----PPGCKPKPTNL

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OMO88423.1_Corchorus olitorius_D      -----TASGKPKTNI
OMO93056.1_Corchorus capsularis_D    -----TASGKPKTNI
XP_011020664.1_Phalaenopsis equestris_M -----TASGKPKTNI
XP_002303826.1_Populus trichocarpa_D -----TASGKPKTNI
OVA01591.1_Macleaya cordata_D        -----PAGGKPKTNI
XP_021291356.1_Herrania umbratica_D  -----PAGGKPKTNI
XP_007034406.2_Theobroma cacao_D     -----TAGGKPKTNI
XP_022722735.1_Durio zibethinus      -----TAGGKPKTNI
EOY05332.1_Theobroma cacao_D         -----TAGGKPKTNI
XP_022858578.1_Olea europaea_D       -----ITAGNPKTNI
XP_022852832.1_Olea europaea_D       -----IAAGKPKTNI
XP_020685031.1_Dendrobium catenatum_D -----VAGGKPKTNI
XP_021896952.1_Carica papaya_D       -----VAAGKPKTNI
XP_020584803.1_Phalaenopsis equestris_M -----VAFGKPKTNI

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**Supplementary Figure 1: Multiple sequence alignment of the last ten amino acids of the putative peroxisomal glutathione reductases.**

The rice peroxisomal glutathione reductase was used as a query sequence in NCBI-BLASTp and orthologs were obtained. The last ten amino acids were used for multiple sequence alignment using the Clustal omega program. The digits at the top of the amino acid residue denote the positions of residues. The symbol “>” denotes the end of the amino acid sequence. All the consensus amino acid residues till -6 have been highlighted in red colour. At -7 the consensus amino acids serine and glycine have been highlighted with yellow and green, respectively. The numbers at the extreme left denote the accession number, followed by the name of the plant species, D - dicot, and M- monocot.