

**Supplementary figure 1. Phylogenetic analysis of rice thioredoxin *m* isoforms and their expression in *Ostrxm* RNAi transgenic rice**

(A) Phylogenetic analysis and (B) sequence divergence of rice thioredoxin *m* isoforms. DNA sequence alignment was carried out using Clustal W. (C) Quantification of genes coding rice thioredoxin *m* isoforms. Total RNA was prepared from leaves of 12-d-old WT (lanes 1,3,5) and *Ostrxm* RNAi #14 (lanes 2,4,6) rice seedlings. RT-PCR was performed using specific oligonucleotide primers for Os02g42700 (lanes 1,2), Os04g44830 (lanes 3,4) and Os12g08730 (lanes 5,6) as described in the materials and methods section.

**Supplementary figure 2. Northern blot analysis of nuclear- and chloroplast-encoded chloroplast genes**

Northern blots were probed with sequences encoding *Ostrxm*, light-harvesting Chl *a/b*-binding protein (*cab*; X13908), a plastid RNA polymerase sigma factor (*OsSigA*; AB005290), D1 protein of photosystem II (*psbA*; M36191), large subunit of ribulose-bisphosphate carboxylase (*rbcL*; NP\_039391), and small subunit of ribulose-bisphosphate carboxylase (*rbcS*; AY445627). Total RNA was prepared from leaves of 30-d-old rice seedlings grown (200  $\mu\text{mol m}^{-2} \text{s}^{-1}$  at 30°C).