

Role of glutathione-ascorbate cycle and photosynthetic electronic transfer in AOX manipulated waterlogging tolerance in watermelon seedlings

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Tab.1 Primer sequences used in the qRT-PCR experiments

Gene	Gene ID	Forward Primer (5'–3')	Reverse Primer (5'–3')
<i>AOX</i>	Cla97C10G192430	TGGCGGCGGTATGAAGGTCA	GCTCAACAACCTCCTCCACTGG
<i>APX</i>	Cla97C02G030990	GGCGTTATCCGTCGTAGACACA	TGTGCCAGCGTCATGCCAAG
<i>CAT</i>	Cla97C08G152180	CCGATGCCGCCTAATGTGTTGA	CGAACCGCTCTTGCCTATCTGG
<i>CSD</i>	Cla97C03G050910	TCCTTGCCCGACCTCCCTTAT	GCCTCGTGAAGTTGCTCAAGAG
<i>DHAR</i>	Cla97C02G039140	TGGTACTCGAAGTTGCGGTCAA	CCAACGGCACCTTCCCTTCT
<i>GPOD</i>	Cla97C03G055890	TGCTGAACCCTGCCCATGTAGA	GGTGTACCACGGTCGTTCCCTCA
<i>GR</i>	Cla97C09G170220	TGCCACCGCTTCCCTCCTCT	AACCGCCACTGAAGCACCAA
<i>RbohA</i>	Cla97C01G002330	AGACGATTGCCGCAGCTATTGT	GTTGGCTTGTCTGGTCCGAAGT
<i>UBCP</i>	Cla97C11G219340	ACCAACAGTCCGCTTTGTGT	ATTGGGCTCCACTGATTTTG

Legends of Supplementary Figures

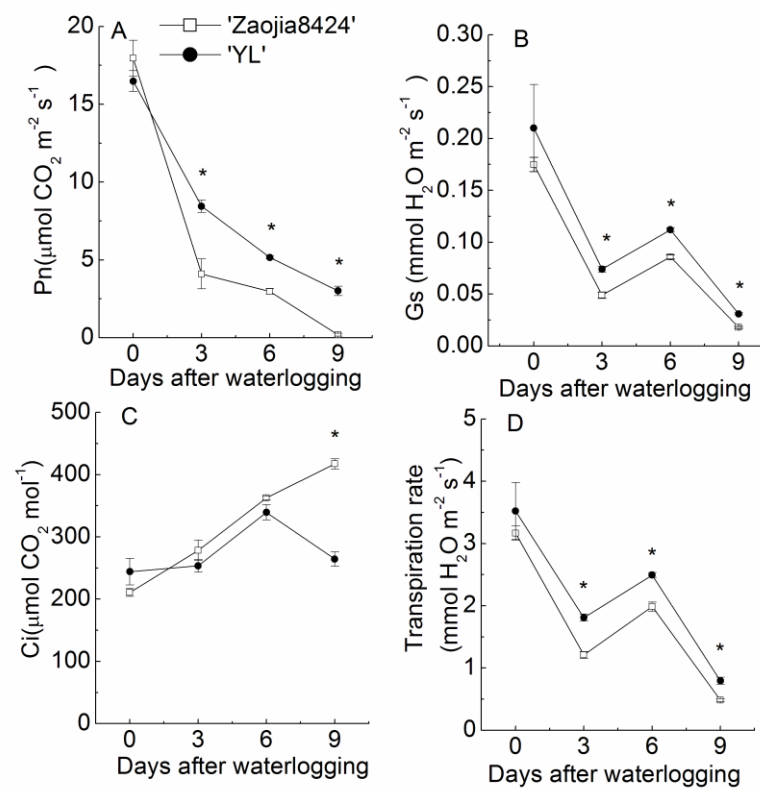


Fig.S1. Effects of waterlogging on photosynthesis two cultivars of watermelon ('Zaojia8424' and 'YL'). (A) Net photosynthesis rate (Pn). (B) Stomatal conductance (Gs). (C) Intercellular CO_2 concentration (Ci). (D) Transpiration rate (E). * indicates a significant

difference for 'YL' compared to 'Zaojia8424' at $p < 0.05$ according to the least significant difference (LSD) test.

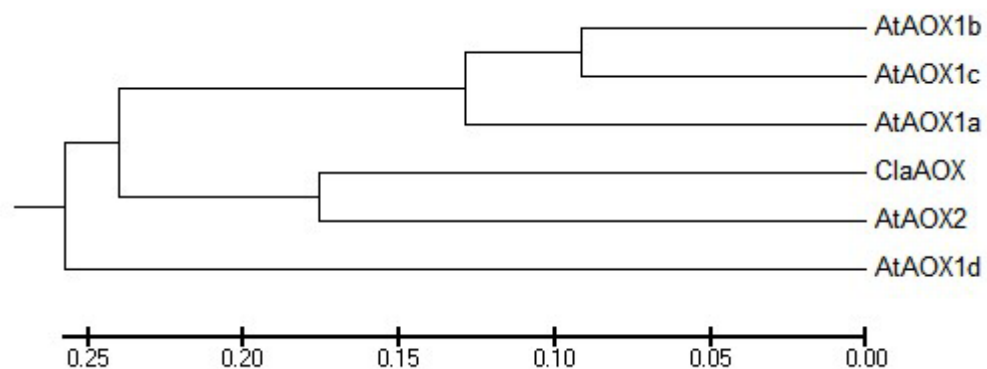


Fig.S2. Phylogenetic analysis of the alternative oxidase (AOX) amino acid sequences from watermelon genome. Trees were generated with MEGA 5.10 using the neighbour-joining methods following multiple sequence alignments with ClustalW. Abbreviation: At: *Arabidopsis thaliana*; (Accession number: *ClaAOX*, Cla97C10G192430).