

Supplementary Material

Exogenous salicylic acid-triggered changes in the glutathione transferases and peroxidases are key factors in the successful salt stress acclimation of *Arabidopsis thaliana*

Edit Horváth^{A,C}, Szilvia Brunner^A, Krisztina Bela^A, Csaba Papdi^B, László Szabados^B, Irma Tari^A and Jolán Csiszár^A

^ADepartment of Plant Biology, Faculty of Science and Informatics, University of Szeged, Közép Fásor 52, 6726 Szeged, Hungary.

^BInstitute of Plant Biology, Biological Research Centre, Hungarian Academy of Sciences, Temesvári Körút 62, 6726 Szeged, Hungary.

^CCorresponding author. Email: horvathedo@yahoo.com

Table S1. Primer pairs used for RT-qPCR

Name of Arabidopsis gene	Abbreviation used in the text	Arabidopsis genome locus identifier	Direct and reverse primer pair sequences (5'-3')
Glutathione transferase phi 8	<i>AtGSTF8</i>	<i>At2g47730</i>	F: ACGGTGATTTGACGCTTTTC R: GGTTGCCTTGACTTTCTTGC
Glutathione transferase phi 9	<i>AtGSTF9</i>	<i>At2g30860</i>	F: GGGAAAACCGTTGAAGACAG R: ATGACTGATGCGAACATTATG
Glutathione transferase tau 19	<i>AtGSTU19</i>	<i>At1g78380</i>	F: ATGATGCTCAGAGGAAGGTG R: ATAGCCAAAGTCATCGCCAC
Glutathione transferase tau 24	<i>AtGSTU24</i>	<i>At1g17170</i>	F: AAGGTGAGGAGCAAGAAGCA R: ACATACCCAAAAGTTTCGTCTC
Glutathione transferase tau 25	<i>AtGSTU25</i>	<i>At1g17180</i>	F: AGCAAAAACCCCACTTCTTCC R: CTCCCCAAATCAACCTCGC

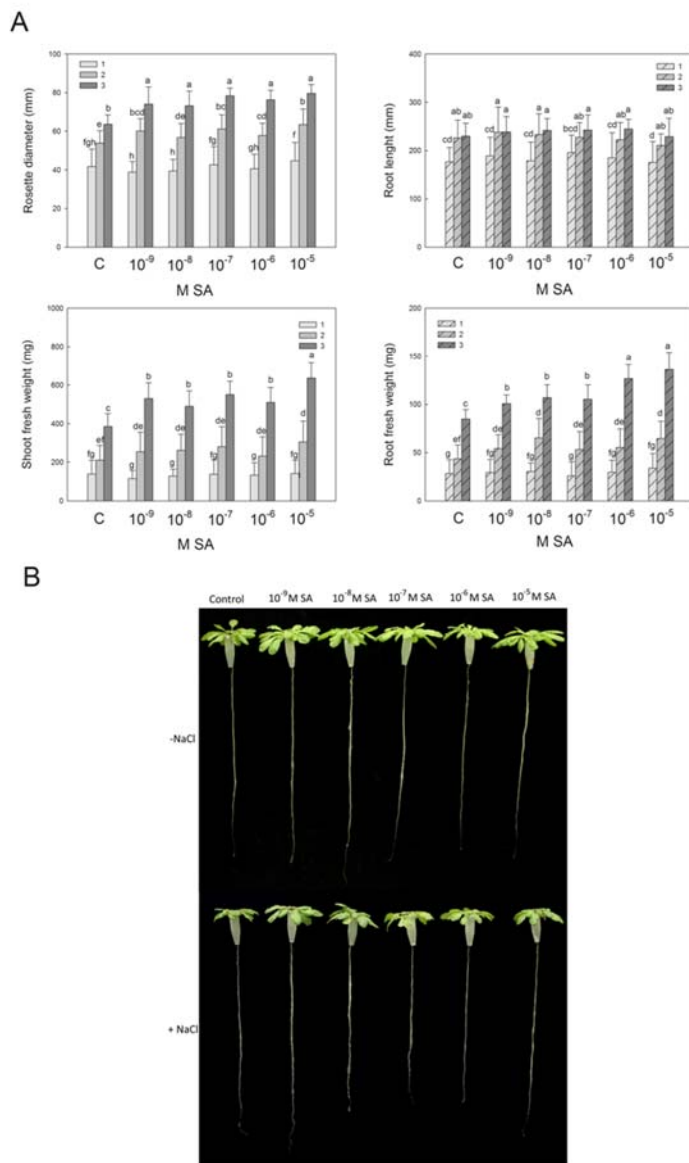


Fig. S1. Effects of 3-week-long pre-treatments with 10^{-9} – 10^{-5} M salicylic acid (SA) on leaf and root growth and fresh weight of *Arabidopsis* plants. (A) Rosette diameters, root lengths, shoot and root fresh weight of SA treated plants (means \pm s.d., $n = 8$ – 12). Means denoted by different letters indicate a significant difference between the treatments ($P < 0.05$, Duncan's test). (B) Root and shoot morphologies of typical plants after 2-week SA pre-treatment and 1-week 100 mM NaCl stress.

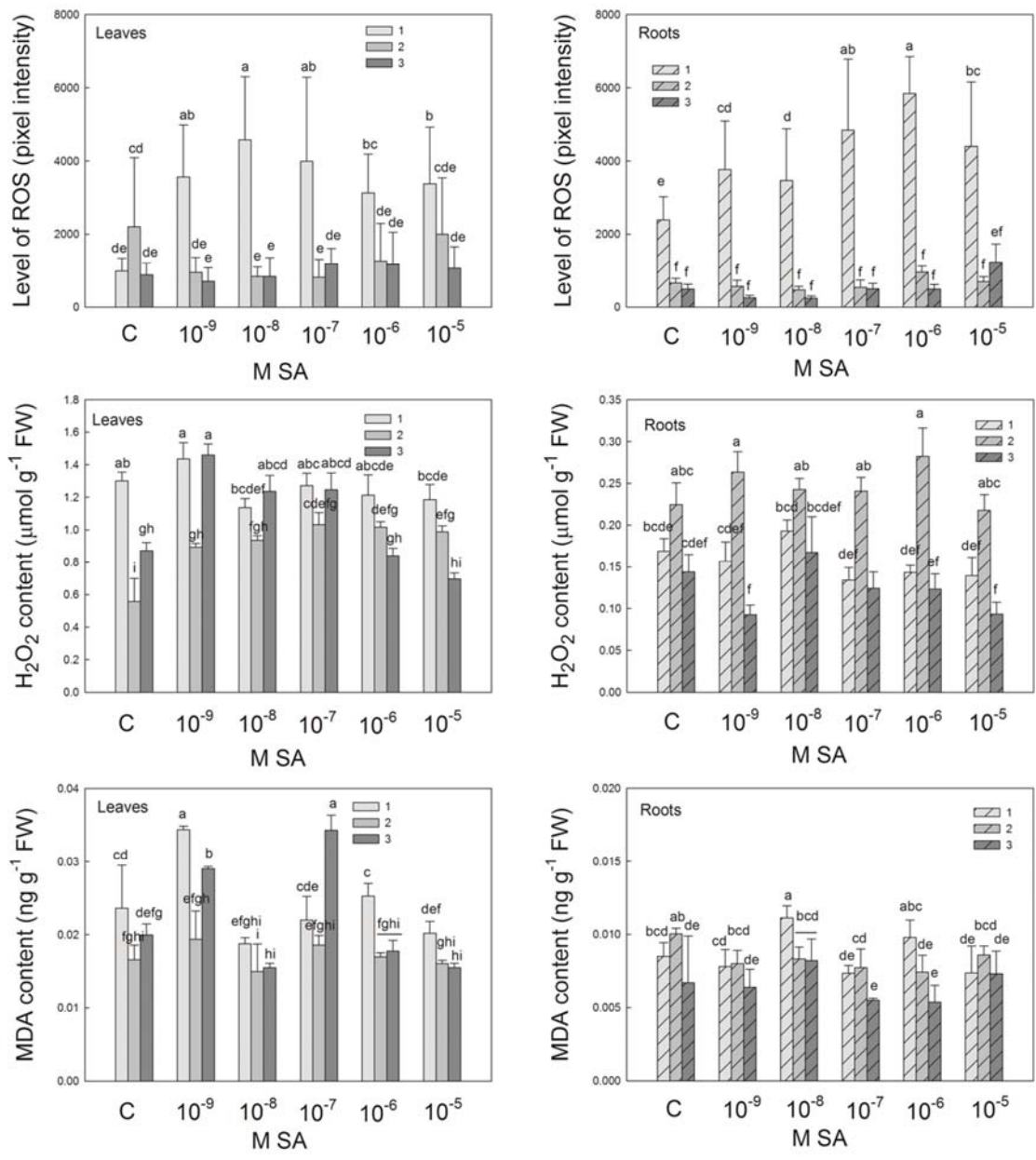


Fig. S2. Changes in ROS, H₂O₂ and MDA levels in the leaves and roots of 8-week-old *Arabidopsis* plants pre-treated with 10⁻⁹–10⁻⁵ M salicylic acid (SA). The ROS levels were determined using H₂DC FDA. Means ± s.d. or means ± s.e., *n* = 9. Columns with different letters are significantly different at *P* < 0.05, determined by Duncan’s test.

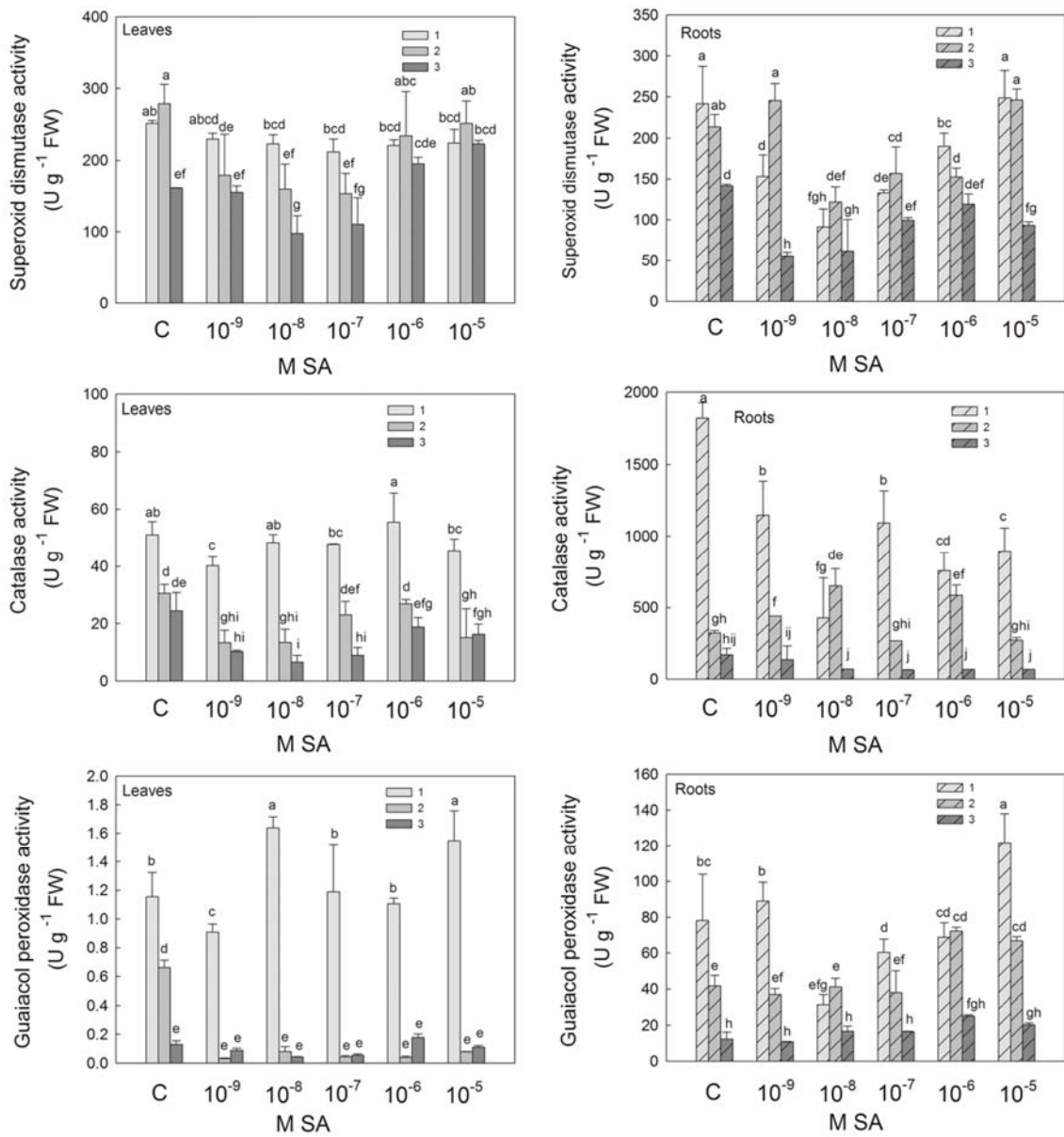


Fig. S3. Effect of three-week salicylic acid (SA) pre-treatments on the activities of superoxide dismutase (SOD), catalase (CAT) and guaiacol peroxidase enzymes in the leaves and roots of *Arabidopsis* plants. Data are means \pm s.d. Means denoted by different letters indicate a significant difference between the treatments ($P < 0.05$, Duncan's test).

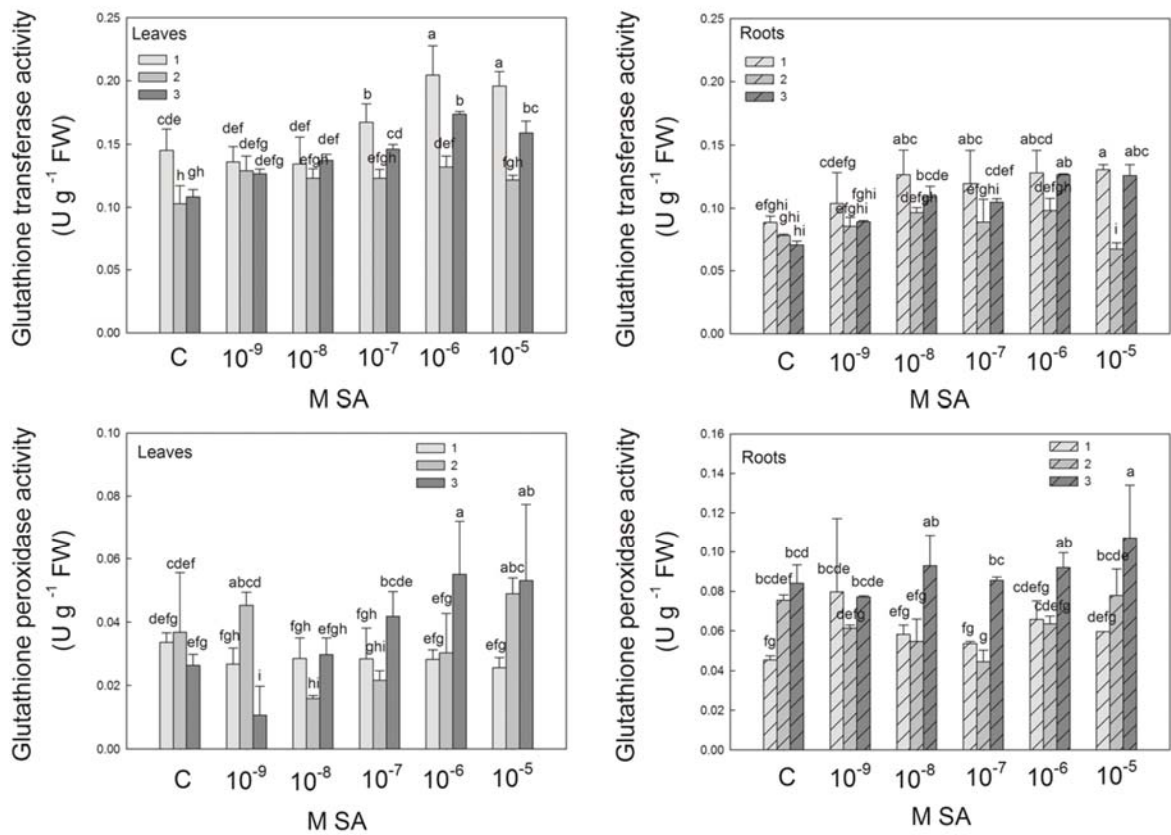


Fig. S4. Effect of 3-week salicylic acid (SA) pre-treatment on glutathione transferase (GST) and glutathione peroxidase (GPOX) activity. Data consist of means \pm s.d. obtained from at least three measurements. Means denoted by different letters indicate a significant difference between the treatments ($P < 0.05$, Duncan's test).