

Figure S1 The RPKM values of *SIABF/AREBs* in the different tissues of tomato. The RPKM values were obtained from Tomato Functional Genomics Database (<http://ted.bti.cornell.edu/>).

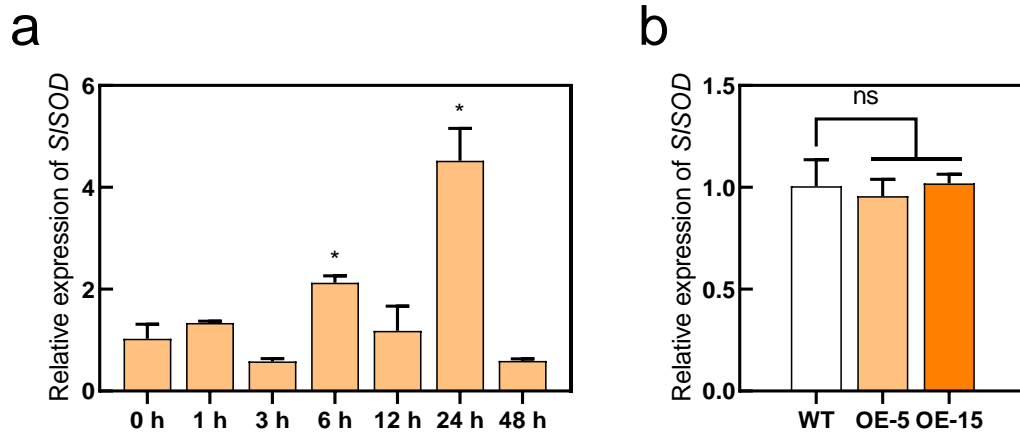


Figure S2 The expression level of *SISOD* gene. (a) Expression of *SISOD* in wild-type tomato seedlings with 300 mM saline-alkaline stress for 0, 1, 3, 6, 12, 24 and 48 h. The relative expression of genes was based on saline-alkaline treatment for 0 h. (b) Expression of *SISOD* in wild-type (WT) and transgenic (OE-5 and OE-15) tomatoes. The relative expression of genes was based on WT. Values represent averages of four independent measurements, and error bars represent standard errors. Asterisks denote a significant difference compared with the control (\* $P < 0.05$ ).

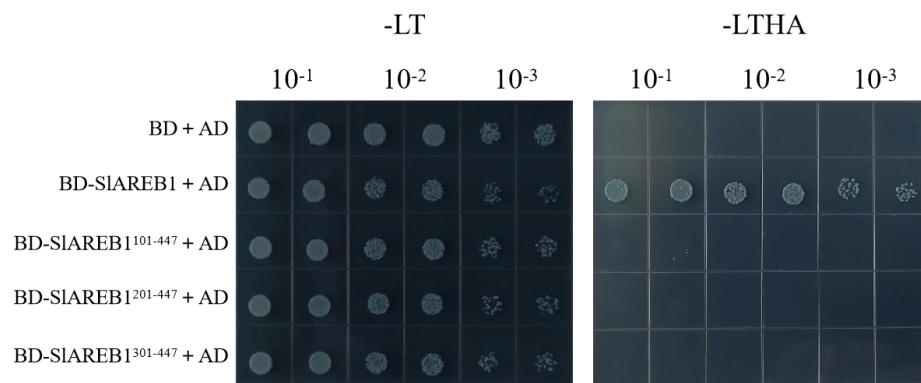


Figure S3 Self-activation validation of the SIAREB1-truncated fragments used for yeast cDNA library screening. The SIAREB1-truncated fragments were used to construct the bait vectors and co-transferred into Y2H Gold yeast strain with pGADT7-empty. The validation was performed on SD (-T/-L) and SD (-T/-L/-H/-A) medium.

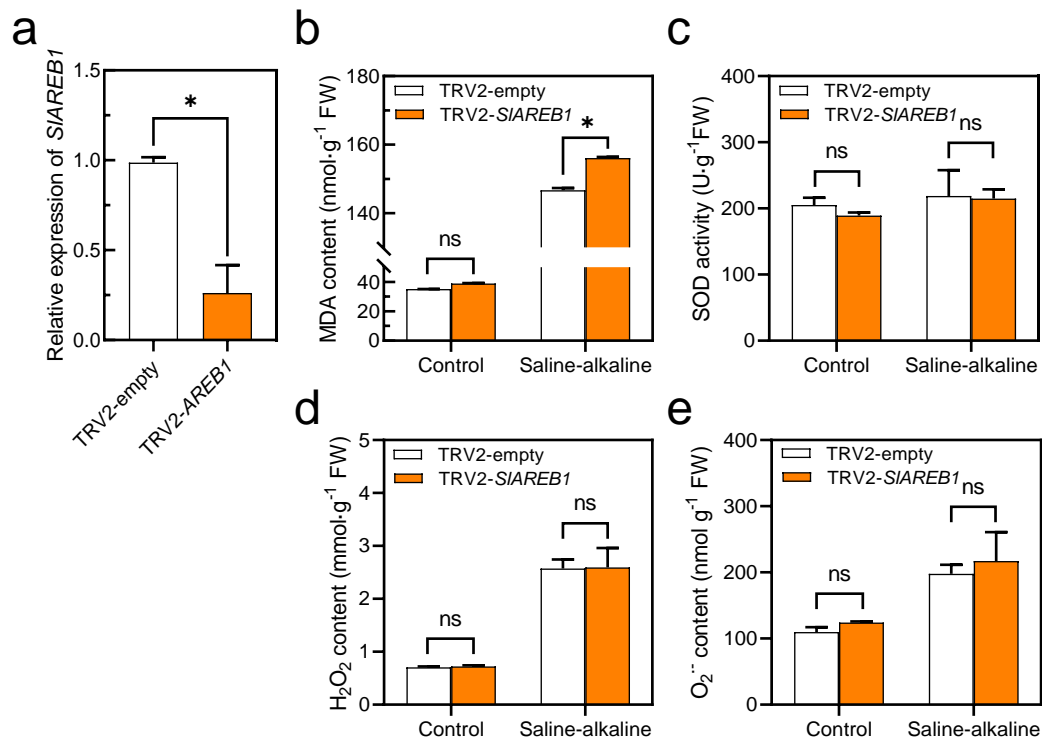


Figure S4 Analysis of the plant damage oxidative parameters in *SIAREB1* gene silenced lines with saline-alkaline stress. (a) The *SIAREB1* gene was silenced in ‘Ailsa Craig’ background tomato, and *SIAREB1* gene expression was analyzed at 30 days after *Agrobacterium*-infection VIGS plants. The expression of genes was based on TRV2-empty tomato. (b) MDA content, (c) SOD activity, (d) H<sub>2</sub>O<sub>2</sub> and (e) O<sub>2</sub><sup>-</sup> content were measured in silenced plants after 7 d of treatment with 300 mM saline-alkaline mixed solution. Distilled water was used as control. Values represent averages of four independent measurements, and error bars represent standard errors. Asterisks denote a significant difference compared with the control (\**P* < 0.05)