

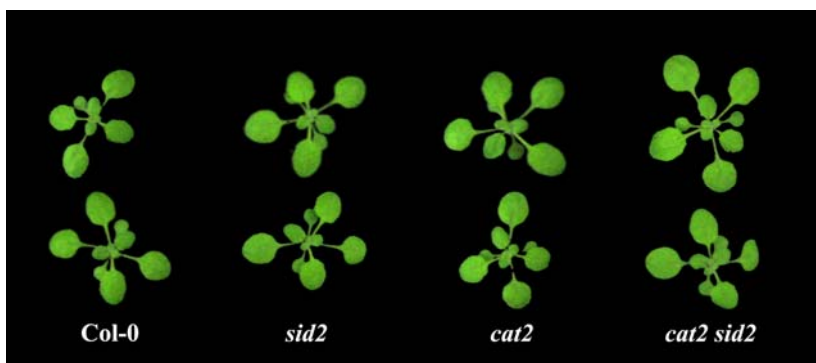
**Supplemental Figure S1.** Genotyping and detection of *cat2* and *sid2* mutations.

A, Genotyping of *cat2* T-DNA insertion. WP (wild-type primers), primer combination to detect the wild-type *CAT2* allele. The T-DNA insertion falls within the region amplified by the primer combination. MP (mutant primers), primer combination to detect the T-DNA insertion in the mutant allele (*cat2-1*). *cat2* homozygotes (genotype 1) show only the MP band (T-DNA insertion is present). For wild-type segregants (genotype 3), only the WP band is detected. Heterozygous plants such as genotype 2 show both WP and MP bands.

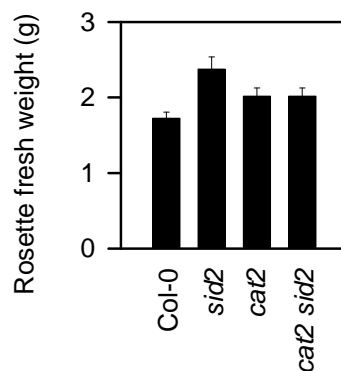
B, Genotyping of the *sid2-1* allele of ICS1. To detect *sid2-1* a PCR was performed on double mutants that yielded a predicted 243 bp amplicon. Further digestion with *Tru9I* cut the *sid2-1* allele (89+154 bp) but not the *SID2* allele as seen on the gel.

Primer sequences are given in Supplemental Table S4.

A



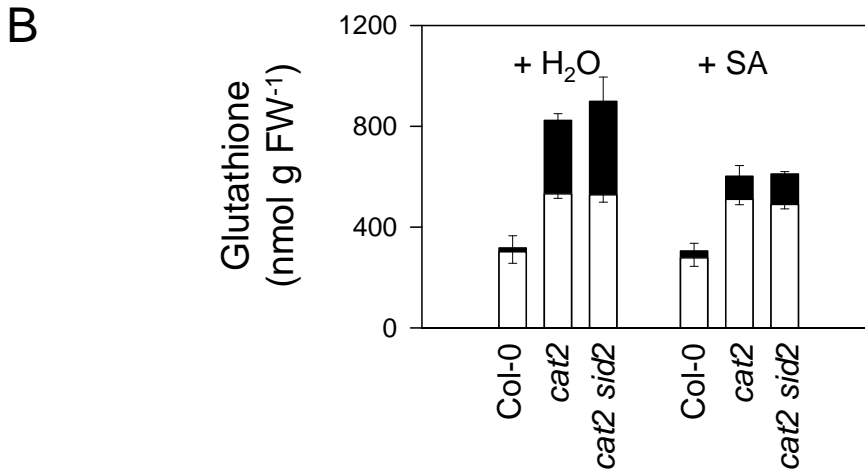
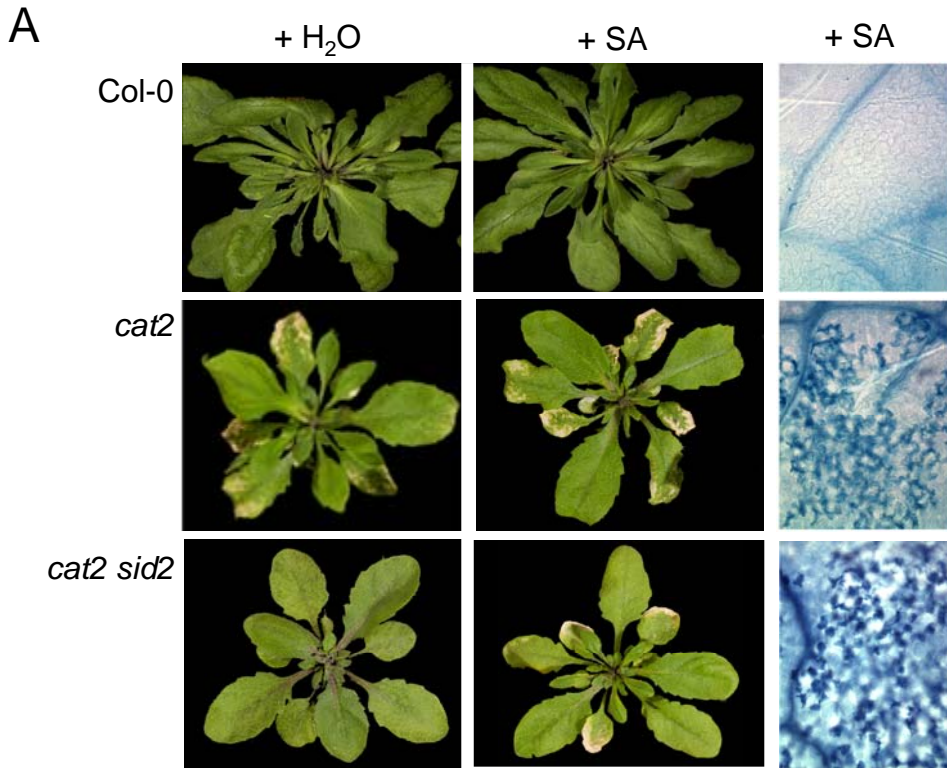
B



**Supplemental Figure S2.** Phenotypes of Col-0, *sid2*, *cat2* and *cat2 sid2* grown at high CO<sub>2</sub>.

A, Photographs of plants after 3 weeks growth at 3000  $\mu\text{L L}^{-1}$  CO<sub>2</sub>. Two representative plants of each genotype are shown.

B, Rosette fresh weights (g) after 5 weeks growth in the same conditions. Data are means  $\pm$  SE of 9 plants.



**Supplemental Figure S3.** Rescue of lesion formation in *cat2 sid2* in long days by complementation with exogenous salicylic acid.

A, Rosette phenotypes in plants grown in long days and sprayed with 1 mM SA or with H<sub>2</sub>O. Trypan blue staining for lesions in SA-treated plants is shown at the right. B, Effect of SA treatment on leaf glutathione contents. White bars, GSH. Black bars, GSSG. Data are means ± SE of three independent leaf extracts taken from different plants.