



Figure S3. ROS detection in *adt3-6* mutant by CellRox™.

A. Seedlings were grown and treated as described for Fig. 2. Merged (DAPI, FITC and Cy5) images of the cotyledon epidermis of live 6-d-old dark-grown seedlings of WT and *adt3-6* incubated with CellRox™ Deep Red are shown. WT (top panels) and *adt3-6* (middle panels) 6-d-old dark-grown seedlings were either mock irradiated (control) (left panels, top and middle row) or irradiated with 254 nm (UV-C) (right panels, top and middle row) as described in Methods. *adt3-6* were also treated with 500 μ M Phe (+Phe) for 3h and then irradiated with 254nm (+UV-C) (bottom left panel). Cy5 fluorescence (false-colored pink) was quantitated in PC in relative artificial units using ImageJ as described in Methods (bar graph, bottom right panel). $n = \min 6$ quantitated cells of 4 replicates, where each replicate = 20 representative seedlings. Error bars are SEM. * = $p < 0.05$. Feeding Phe to *adt3-6* seedlings 3h before irradiation was able to prevent ROS accumulation (bottom left panel and bar graph). All scale bars = 10 μ m. **B.** ROS were detected in the epidermis of 6-d-old dark-grown *fah1-7/tt4-1* seedlings pre-treated with 0.5XMS/MES (control) (left panel) or Phe (middle panel) for 3h before UV-C irradiation. Scale bars = 50 μ m. $n = 3$ replicates (20-30 seedlings per replicate). Quantification of CellRox™ signal (Cy5 LED) in pavement cells is shown in the bar graph in relative artificial units. Error bars are SEM. ** = $p < 0.01$.