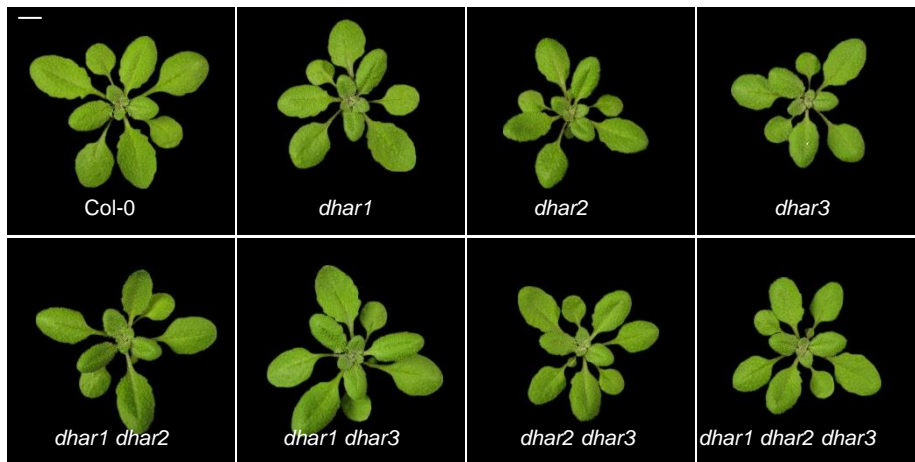


Supplemental Figure S1. Genotyping (A) and analysis of transcript abundance (B) in *dhar* mutant lines used in this study. The left half of the gels show data for *dhar* mutations in the Col-0 background, whereas plant lines shown on the right also carried the *cat2* mutation. Names of mutant lines are given at the bottom.

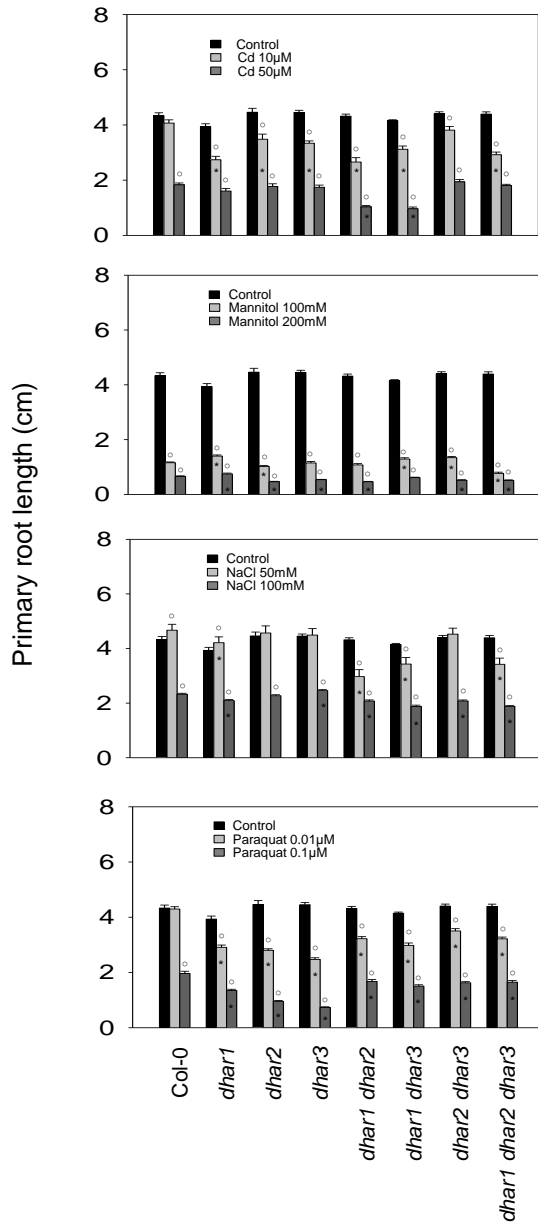
A, Plants were genotyped by PCR analysis.

B, Transcripts were measured by semi-quantitative RT-PCR

See Supplemental Table S6 for PCR and RT-PCR primers.

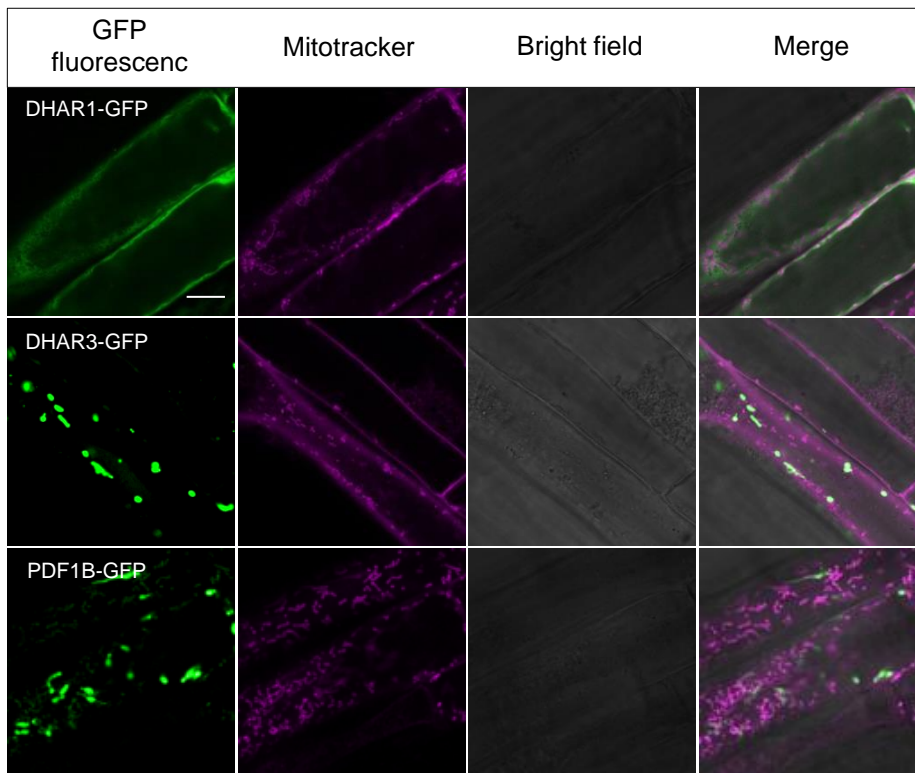


Supplemental Figure S2. Photographs of *dharc* mutants after three weeks growth at an irradiance of $200 \mu\text{mol}\cdot\text{m}^{-2}\cdot\text{s}^{-1}$ in a 16h photoperiod. The white bar indicates 1 cm.

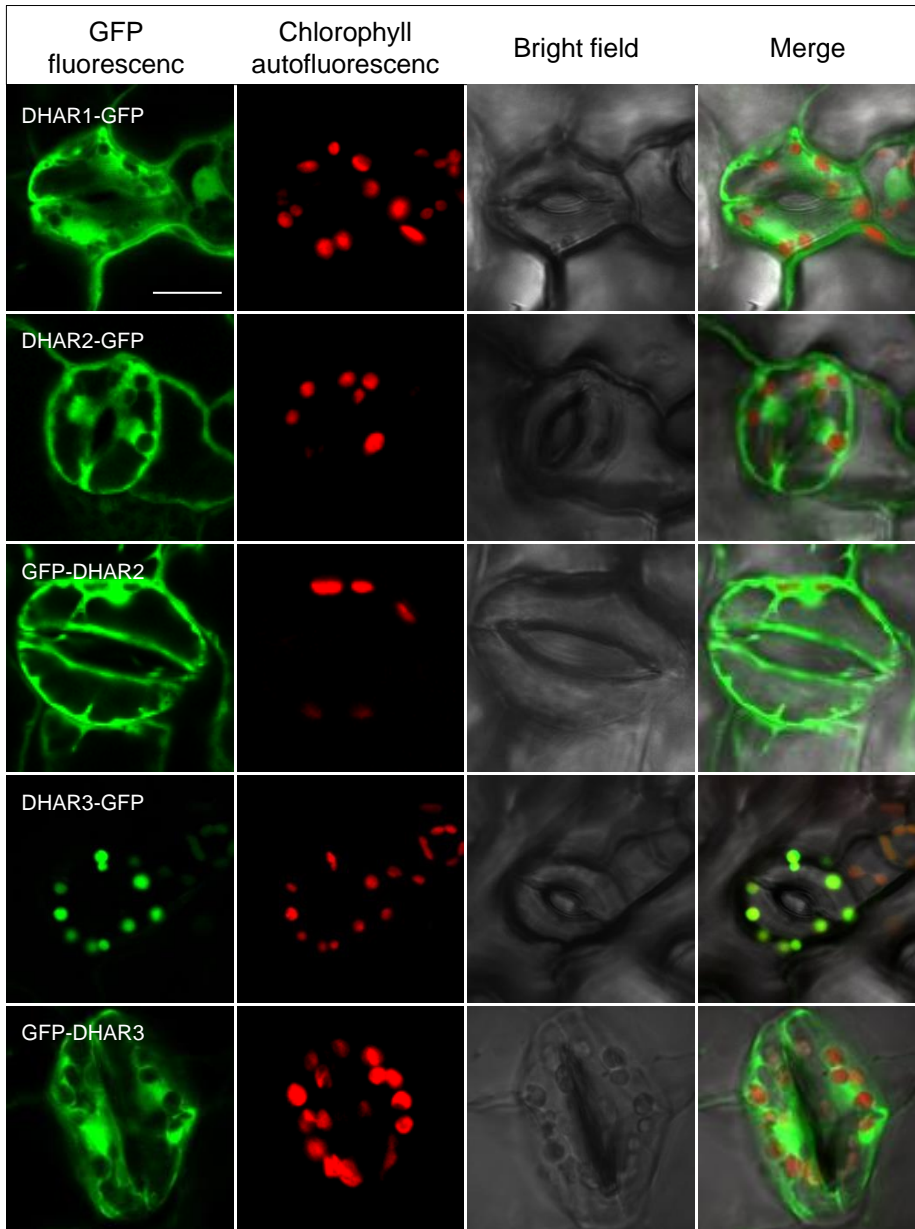


Supplemental Figure S3. Effects of various stresses on root growth in *dhar* mutants.

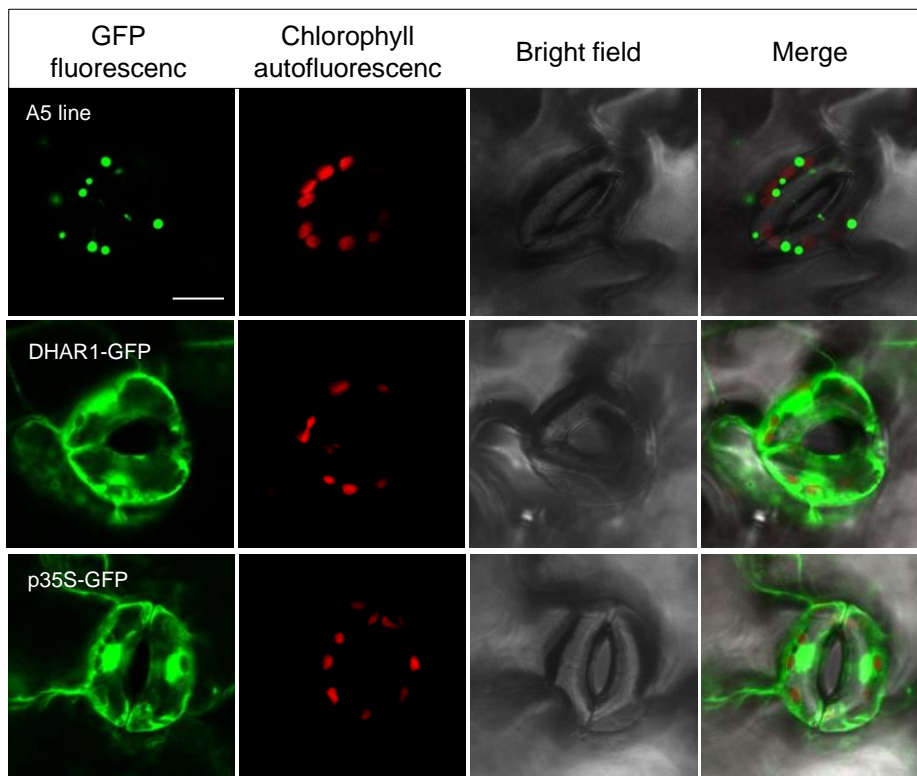
All data are means of 45 biological replicates. *Indicates significant impact of *dhar* mutation compared to Col-0 in the same stress condition (light gray and dark gray bars) and o indicates significant impact of stress in each line compared to control (black bars) at P-value < 0.05. The experiment was repeated three times and similar results were obtained.



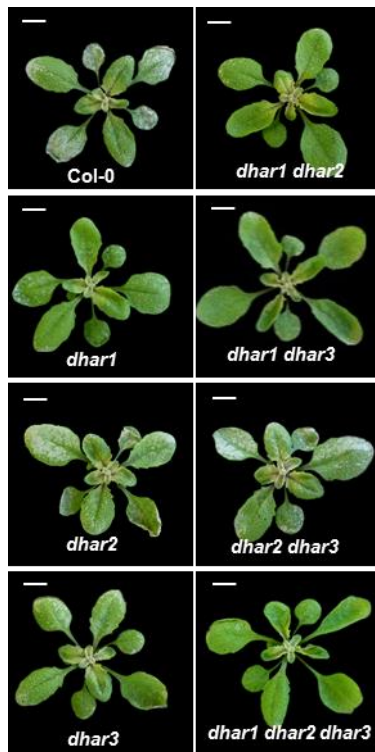
Supplemental Figure S4. Subcellular localization of DHAR1 and DHAR3 in roots. Comparison of DHAR1-GFP and DHAR3-GFP with the mitochondrial marker, mitotracker and the dual plastid-mitochondrion marker, PDF1B-GFP (Gigliione et al., 2000). The scale bar indicates 10 μm .



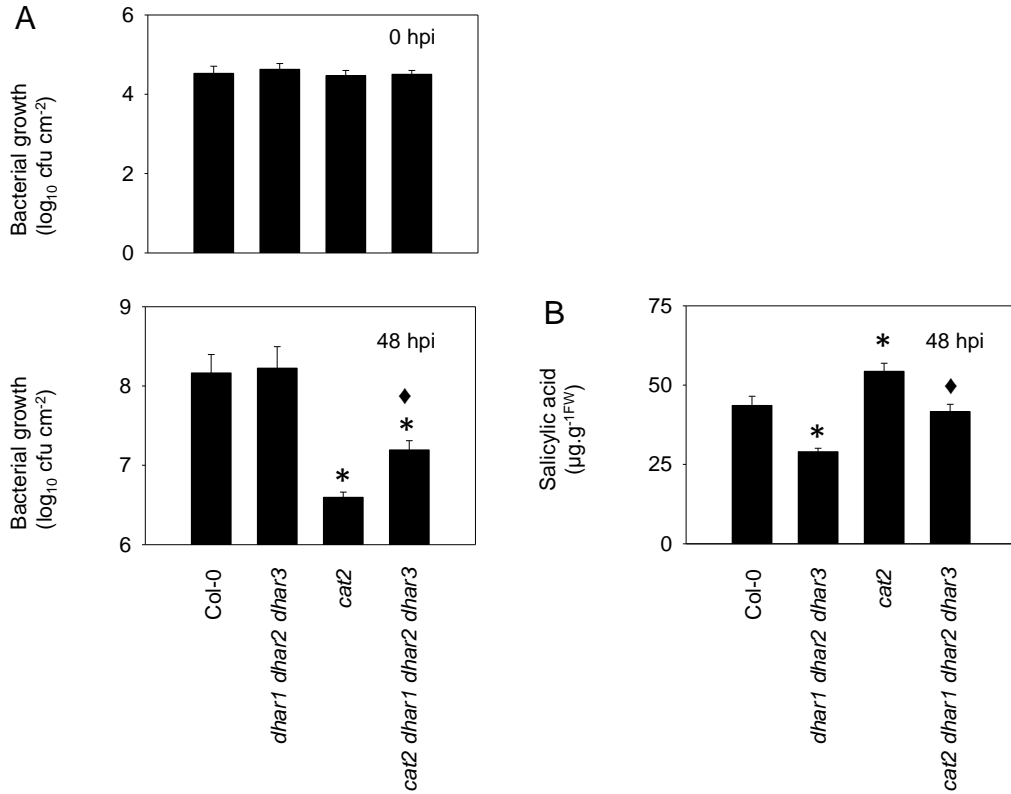
Supplemental Figure S5. Subcellular localization of DHARs in the absence of the *cat2* mutation. The indicated fusion proteins were expressed in the triple mutant *dhar1 dhar2 dhar3*. The images correspond to epidermal cells of the leaves of 10 day old seedlings. From left to right : GFP fluorescence (green), chlorophyll autofluorescence (red), bright field and merged images. The scale bar indicates 10 μ m.



Supplemental Figure S6. Comparison of DHAR1-GFP signals in leaves with a positive control for peroxisomal targeting. Fluorescence signals were examined in leaves of the *cat2 dhar1 dhar2 dhar3* mutant transformed with the genes indicated, as follows. Top, positive control for peroxisomal targeting sequence 1 (A5 line; Cutler et al., 2000). Middle, DHAR1-GFP. Bottom, 35S-GFP. The scale bar indicates 10 μ m.



Supplemental Figure S7. Bleaching phenotypes of *Col-0* and *dharm* mutants 2d after spraying with 3-AT. The scale bar indicates 1 cm.



Supplemental Figure S8. Effect of *dhar1 dhar2 dhar3* triple mutation on resistance to *Pto* DC3000 in the Col-0 and *cat2* backgrounds.

(A) Bacterial growth in the four genotypes. Top, 0 hours post-inoculation (hpi). Bottom, 48 hpi.

(B) Leaf salicylic acid at 48 hpi.

*Significant difference between mutant and Col-0 at $P < 0.05$. ♦ Significant difference between *cat2* and the quadruple mutant at $P < 0.05$.