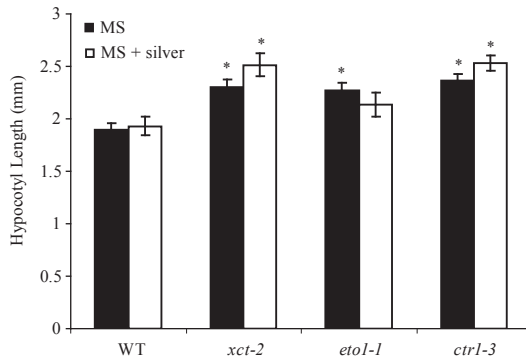


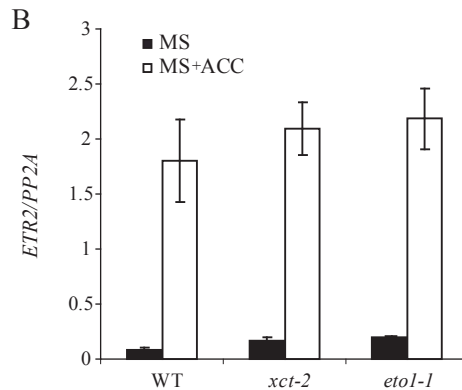
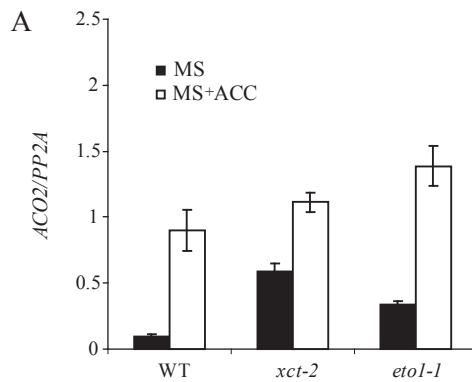
**Supplemental Figure S1. Analysis of *hy5-215 xct-2* double mutant growth patterns on various media conditions**

Hypocotyl length of various genotypes (n=35-40) grown on MS Suc media (A) or MS media (B). Plants were grown for six days under constant monochromatic blue light. All error bars represent standard error. Asterisks denote a significant difference from wild type under the same condition based on Student's *t*-test ( $p < 0.05$ ). All data presented are representative of at least two independent experiments.



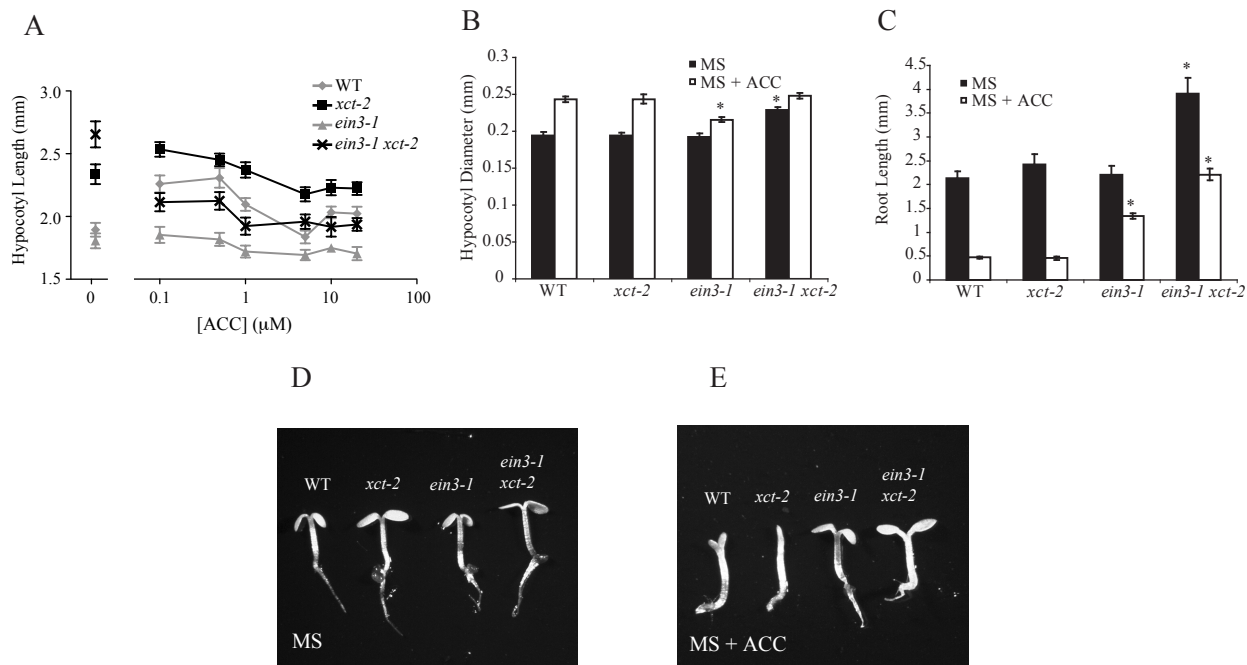
### Supplemental Figure S2. Hypocotyl response to silver nitrate when grown on MS media

Hypocotyl length of various genotypes (n=35-40) grown on MS media in the presence or absence of 50  $\mu\text{M}$   $\text{AgNO}_3$  (silver nitrate) for six days under constant monochromatic blue light. All error bars represent standard error. Asterisks denote a significant difference from wild type under the same condition based on Student's *t*-test ( $p < 0.05$ ). All data presented are representative of at least three independent experiments.



### Supplemental Figure S3. Ethylene-regulated gene expression in plants grown on MS media

Quantitative RT-PCR analysis of *ACO2* (A) and *ETR2* (B) in various genotypes in response to ACC treatment. Plants were grown under constant blue light for five days on MS media supplemented with or without 20  $\mu$ M ACC. Plants were harvested on the fifth day and RNA was extracted with subsequent cDNA synthesis and analysis. All data presented are representative of at least two independent experiments, with each sample in each experiment containing three technical replicates for analysis.



**Supplemental Figure S4. Analysis of *ein3-1 xct-2* double mutant growth patterns on MS media**

(A) Hypocotyl lengths of various genotypes (n=35-40) grown under blue light for six days on MS media supplemented with increasing concentrations of ACC. (B) Hypocotyl diameter of various genotypes (n=35-40) grown under blue light for six days on MS media supplemented with or without 10  $\mu\text{M}$  ACC. (C) Root length of various genotypes (n=25-30) grown under blue light for six days on MS media supplemented with or without 20  $\mu\text{M}$  ACC. (D) and (E) Six day old plants grown under constant blue light on MS media supplemented with (E) or without (D) 10  $\mu\text{M}$  ACC. All error bars represent standard error. Asterisks denote a significant difference from wild type under the same condition based on Student's *t*-test ( $p < 0.05$ ). All data presented are representative of at least three independent experiments.