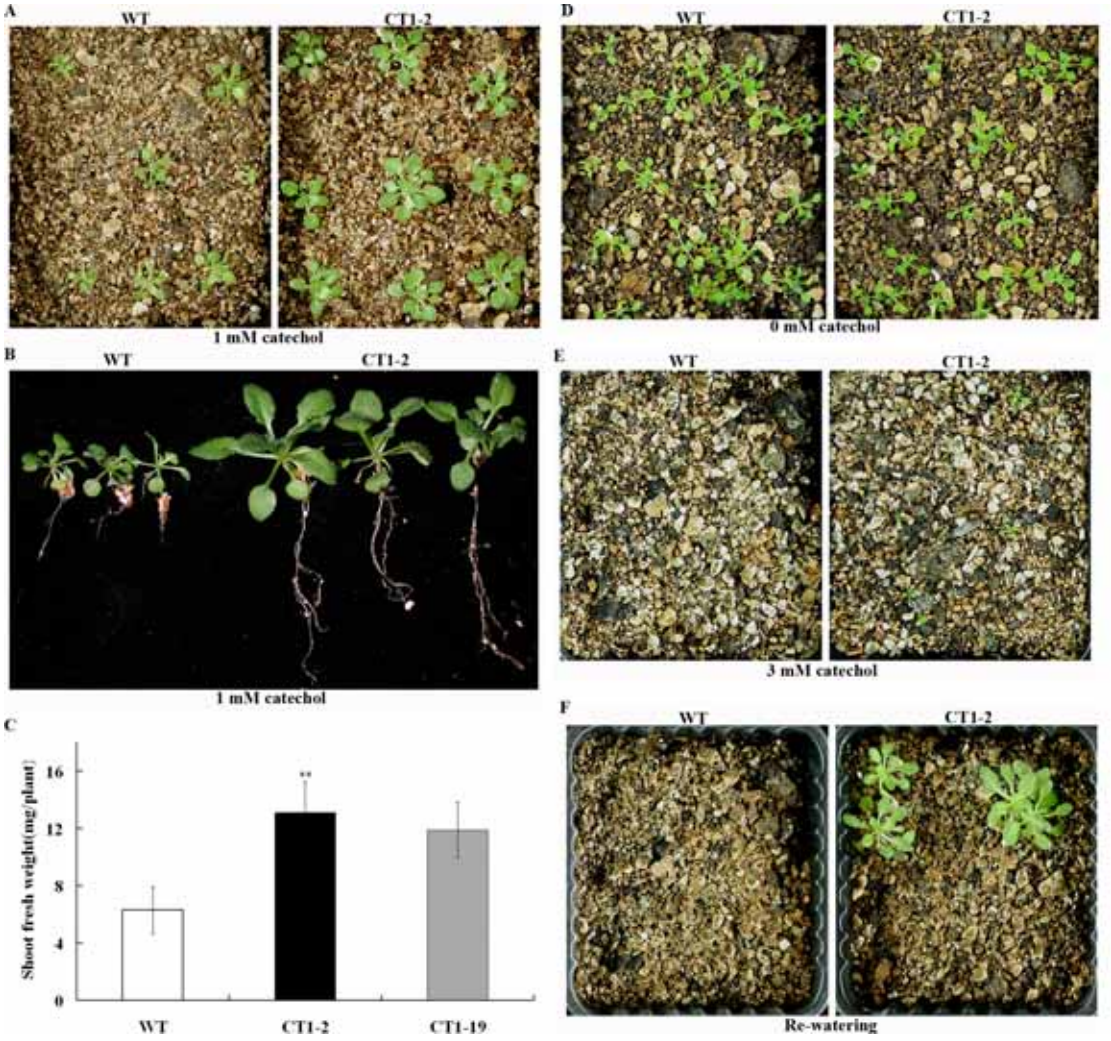
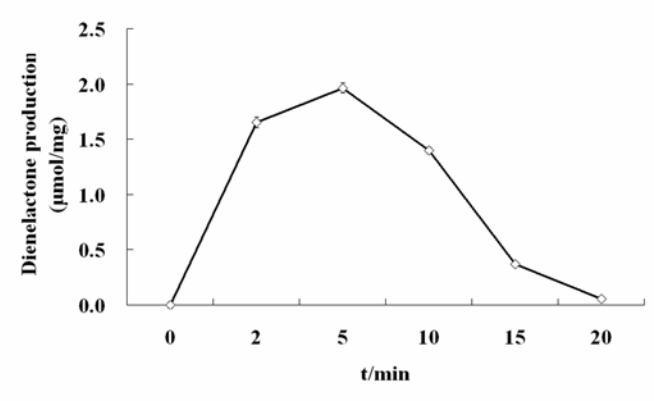
Supplementary figures

Supplementary Fig.1



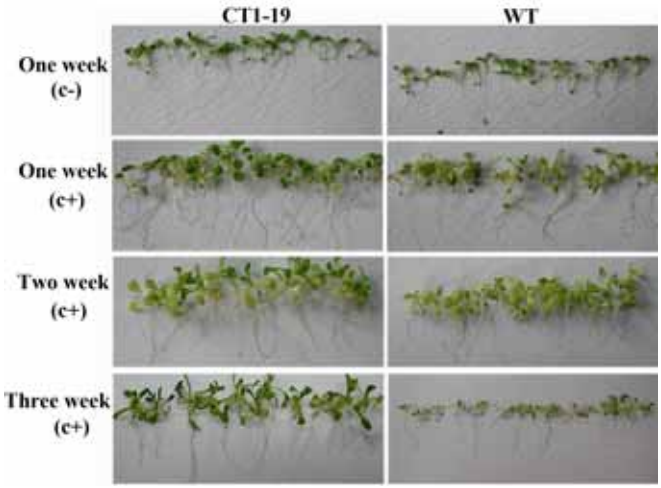
Supplementary Fig.1 Enhanced catechol tolerances of CT plants in soil. A and B, Plants were allowed to grow for 2 weeks in the soil soaked with PNS medium containing 1 mM catechol, followed by spraying 1 mM catechol solution at 3-d interval for three weeks. C, Fresh weights of seedlings in the above treatment. The data represent mean±SD (n=10). Statistical analysis of differences in CT lines with respect to VT was performed using two-tailed *t*-test. The significant difference is denoted with two asterisks ($P<0.01$). D, E and F, Plants were allowed to grow for 2 weeks in the soil soaked with PNS medium (D), followed by spraying with 3 mM catechol solution at 3-d interval for three weeks (E), recovered by re-watering for additional three weeks (F).

Supplementary Fig.2



Supplementary Fig.2 Assay of TfdD- and TfdE- like activities in the cell extracts of Arabidopsis plants. In the proceeding cause of enzymatic reaction, the production of dienelactone, the product of cis,cis-muconic acid catalyzed by TfdD, was monitored. The characteristic change in the concentration of dienelactone indicated the sequential functioning of TfdD and TfdE in the extracts. The data represent mean±SD (n=3).

Supplementary Fig.3



Supplementary Fig.3 Enhanced catechol tolerances of CT plants in plates. Wild-type and T3 plants of CT1-19 germinated and grown for one week on 1/2 MS agar plates in absence of catechol (c-), then transferred to 1/2 MS agar plates containing 0.1 mM catechol (c+), and grown for additional three weeks