Supplemental Material

Supplementary Figures

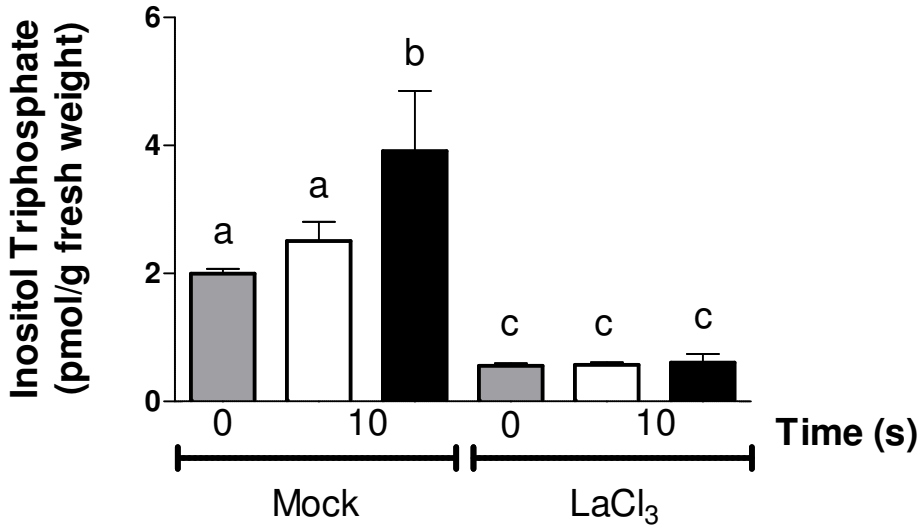

Figure S1. $LaCl_3$ reduced the inositol-1,4,5-trisphosphate (IP_3) levels in roots. Wild-type plants were grown hydroponically for two weeks with ammonium as the only nitrogen source and IP_3 content was assayed as described in the main text. Wild-type plants were pretreated with Mock and $LaCl_3$ and we evaluated the IP_3 content in Arabidopsis roots in response to 5 mM KNO_3 or 5mM KCl. Values plotted correspond to the mean of at least three independent biological replicates ± standard deviation. Gray bars represent time 0 (before treatment), white bars represent KCl treatment, and black bars represent KNO_3 treatment. The letter indicates means that significantly differ between control and treatment conditions ($p < 0.05$).

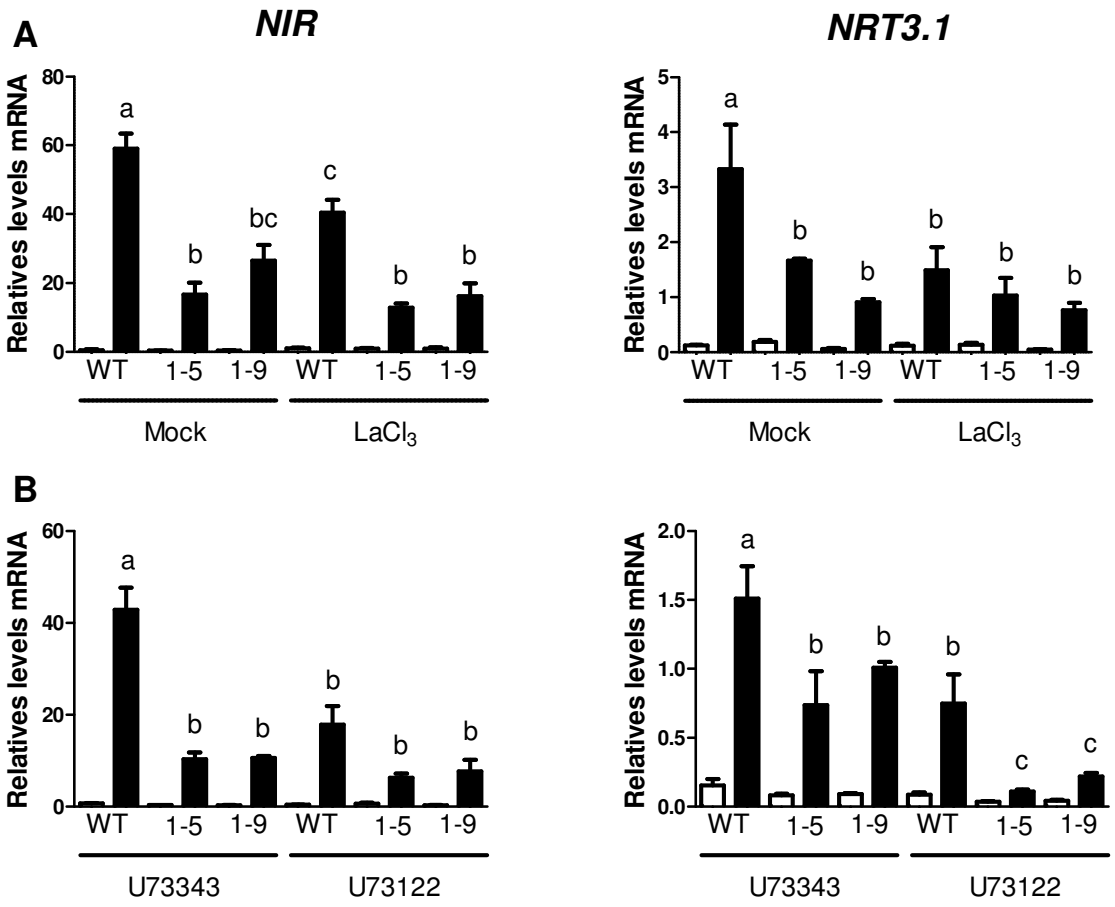

Figure S2. NRT1.1/AtNPF6.3, PLC activity and Ca^{2+} are required for the nitrate dependent upregulation of *NRT3.1* and *NIR*.

Col-0, *chl1-5* and *chl1-9* plants were grown for 15 days. Plants were pre-treated with (A) 5 mM $LaCl_3$ or (B) 10 µM U73122 or 10 µM U73343 and then treated with 5 mM KNO_3 or 5 mM KCl as control. Values plotted correspond to the mean of three independent biological replicates ± standard deviation. White bars represent KCl treatment and black bars represent KNO_3 treatment. The *ADAPTOR PROTEIN-4 MU-ADAPTIN* gene (At4g24550) was used as a normalization reference (Aceituno et al, 2008). The letter indicates means that significantly differ between control and pharmacological treatment ($p < 0.05$).