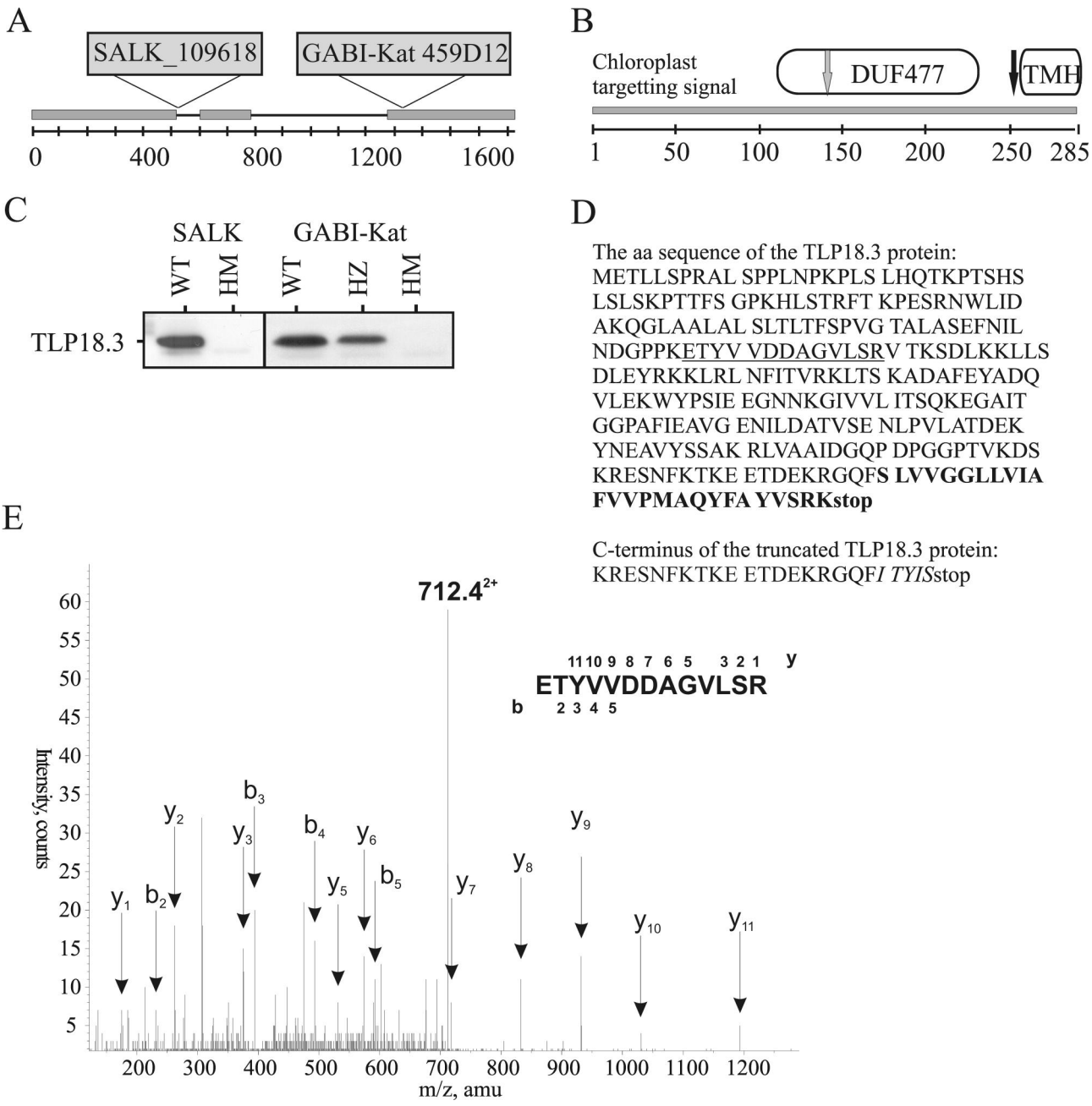
SUPPLEMENTARY DATA

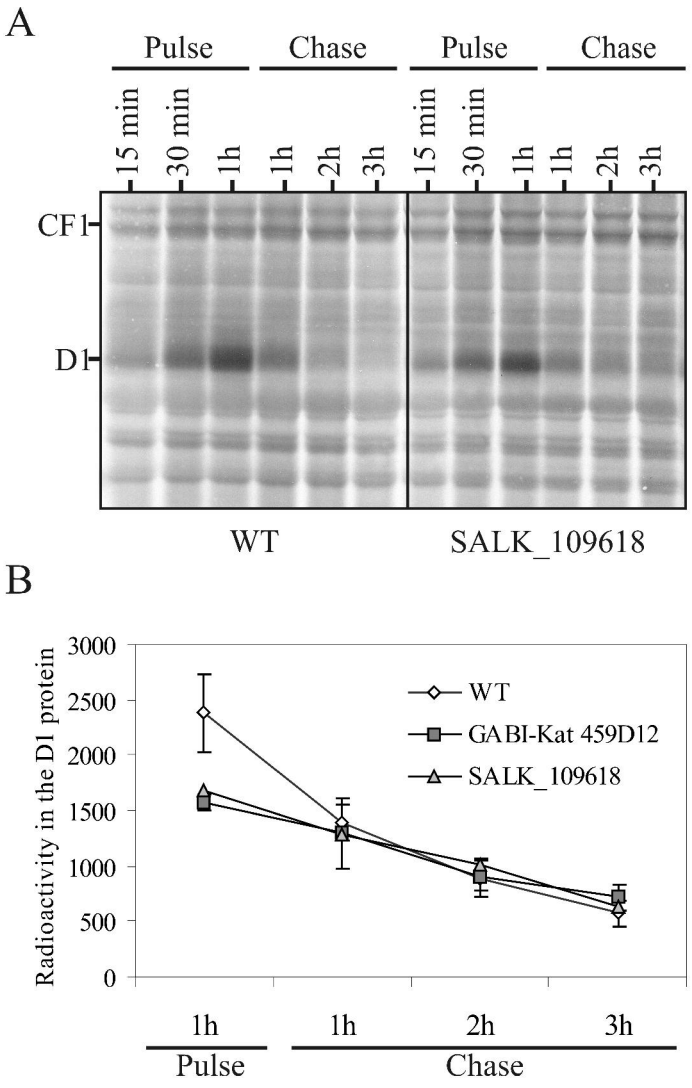
Fig 1



Supplementary Fig 1. ΔTLP18.3 mutant constructs and the truncated form of the TLP18.3 protein (TLP18.3*). A. Location of the T-DNA insertions in *At1g54780*-gene. Three exons are marked with boxes, introns with line. B. Structure of the TLP18.3 protein: the predicted domain of the unknown function 477

(DUF477) and the transmembrane helix (TMH) are indicated. Location of the T-DNA insertion in SALK_109618 line is marked as grey arrow and in GABI-Kat 459D12 line as black arrow. C. Immunoblots demonstrating the presence of the TLP18.3 protein in wild type, SALK_109618 (SALK) and GABI-Kat (GABI) 459D12 plants: wild type (WT), heterozygous (HZ) and homozygous (HM). D. Amino acid (aa) sequences of the TLP18.3 protein and the C-terminus of the TLP 18.3* protein. Based on sequence data, the TLP18.3* protein lacks 26 aa (bold) and has 5 additional aa (italics) in front of the stop codon. The peptide identified with mass spectrometry is underlined. E. The product ion spectrum of the peptide from TLP18.3* obtained by electrospray ionization and collision-induced dissociation of the doubly charged ion with m/z 712.4. The detected b (N-terminal) and y (C-terminal) fragment ions are indicated in the spectra as well as the corresponding amino acid sequence.

Fig 2



Supplementary Fig 2. Synthesis and degradation of the D1 protein in ΔTLP18.3 plants. Detached leaves from WT and ΔTLP18.3 plants were pulse labeled under HL (900 μmol photons $m^{-2}s^{-1}$) with [^{35}S] methionine for 15, 30 and 60 min followed by 1, 2 and 3 h chase in the presence of unlabeled methionine. A. 5 μg of Chl was loaded to each well and the synthesis and degradation of the D1 protein was followed using autoradiogram films. D1= D1 protein, CF1= ATP synthase α- / β- subunits. B. A line graph of the loss of radioactivity from the D1 protein during the 3h chase period. The amount of radioactivity incorporated into D1 protein was determined by comparing the amount of radioactivity incorporated into the D1 protein normalized to that incorporated into CF1. Data shown are means ± SD, n = 3 for WT and GABI-Kat 459D12 mutant and n = 1 for SALK_109618 mutant.