## **Supplementary material:**

## Figure 1

Alignment of predicted Abc1 proteins related to AtOSA1: Arabidopsis, AtOSA1 (NP\_201299), Oryza, (Os02g0575500), Oryza, (Os09g0250700), Nostoc NP\_488555 Nos (NP\_488555), Synechocystis, P73627 Syn (P73627), Arabidopsis, ABC1 A.th. (CAA16542), and Saccharomyces cerevisiae, ABC1 S. cerev. (CAA41759). Conserved amino acids within the Abc1 domain are indicated with an asterisk. Chloroplast targeting pre-sequences within AtOSA1 proteins as predicted with TargetP are presented in bold. Putative trans-membrane spans are presented in bold italic. The Abc1 region is underlined in AtOSA1.

## Figure 2

AtOSA1 T-DNA insertion mutants. (A) Schematic representation of the T-DNA insertion sites in atosa1-1 (SALK 045739) and atosa1-2 (GABI 132G06). For PCR screening of homozygote lines, combinations of DNAg left and right border primers and a T-DNA left border primer were used.

## Figure 3

Verification of a truncated transcript in *atosa1-1* (SALK 045739) and *atosa1-2* (GABI 132G06). We have designed 3 sets of primers in different position of the transcript. A transcript could be only detected with primers 1 (close to the 5' end).