

## Product information

**Antibody name:** anti-PsbO (33 kDa protein of OEC)

**Product number:** P15S-1

**Product description:** polyclonal antibody;  
contains 0.01% NaN<sub>3</sub>

**Origin:** rabbit

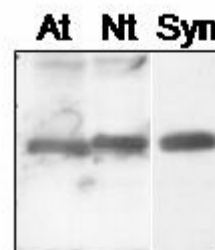
**Immunogen:** recombinant PsbO protein of the photosystem II

**Applications:** Western blot (ECL; 1 : 3.000 for higher plants and 1 : 1.000 for cyanobacteria)

**Immunocrossreaction:** higher plants, cyanobacteria, *Chlamydomonas*

**Storage:** short term +4°C; long term -20°. Repeated freezing and thawing is not recommended.

**Quantity:** 100 µl



Immunoblot analysis of *Arabidopsis* (At) and tobacco (Nt) chloroplast and *Synechocystis* sp. PCC 6803 membrane proteins with anti-PsbO

**Product description:** PsbO is an extrinsic subunit of photosystem II and has been proposed to play a central role in stabilisation of the catalytic manganese cluster. *Arabidopsis* genome encodes two *psbO* genes: *psbO1* and *psbO2*. PsbO1 protein is the major isoform in the wild-type. A mutant plant that lack PsbO1 shows considerable growth retardation despite the presence of PsbO2 (Murakami et al., 2002, FEBS Lett. 523, 138 – 142; Murakami et al., 2005, FEBS Lett. 272, 2165 – 2175). The accumulation of PsbOs limited the levels of other photosystem II proteins as well as the efficiency of photosystem II. *PsbO*-deletion mutant in *Chlamydomonas* had an enhanced turnover of PsbA, a major protein of the photosystem II reaction centre (Mayfield et al., 1987, EMBO J. 6, 313 – 318). In cyanobacteria, a *psbO*-deletion mutant accumulated photosystem II reaction centres at nearly normal levels. The differences in the behaviour of the deletion mutants between higher plants, green algae and cyanobacteria suggest a difference in the relationship between the extrinsic proteins.

*For research purposes only*