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Product no AS03 032

Anti-PsbS | 22 kDa Lhc-like PSII protein (chicken antibody)

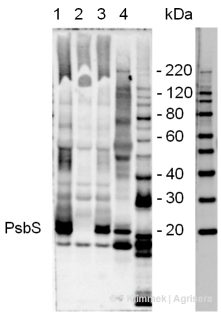
Product information

Immunogen	KLH-conjugated synthetic peptide derived from available di and monocot PsbS sequences, including *Arabidopsis thaliana* (At1g44575). This sequence is even conserved in conifers.
Host	Chicken
Clonality	Polyclonal
Purity	Purified, total IgY (chicken egg yolk immunoglobulin) in PBS pH 8. Contains 0.02 % sodium azide.
Format	Liquid
Quantity	100 µl
Storage	Store at 4°C; make aliquots to avoid working with a stock. Please remember to spin the tubes briefly prior to opening them to avoid any losses that might occur from material adhering to the cap or sides of the tube.

Application information

Recommended dilution	1 : 2000-1 : 4000 (WB)
Expected | apparent MW	28 | 22 kDa for *Arabidopsis thaliana*
Confirmed reactivity	*Arabidopsis thaliana, Avena sativa, Brassica napus, Hordeum vulgare, Oryza sativa, Pinus sylvestris, Populus tremula, Spinacia oleracea*
Predicted reactivity	Dicots, Conifers
Not reactive in	*Chlamydomonas reinhardtii, Chlorella sp.*
Selected references	Devadasu et al. (2025). Dynamic changes to the plastoglobule lipidome and proteome in maize over a dehydration-rehydration cycle. J Exp Bot . 2025 Oct 14:eraf453. doi: 10.1093/jxb/eraf453. Armbruster et al. (2014). Ion antiport accelerates photosynthetic acclimation in fluctuating light environments. Nat. Commun. 5:5439 doi: 10.1038/ncomms6439. Hubbart et al. (2012). The photoprotective protein PsbS exerts control over CO2 assimilation rate in fluctuating light in rice. The Plant J. March 2012.

Application example



15 µg of *Arabidopsis thaliana* thylakoids from (**1**) PsbS-overexpressing line, (**2**) PsbS-deficient npq4-line, and (**3**) wt (col) together with (**4**) total leaf protein from *Arabidopsis thaliana* wt extracted with PEB (**AS08 300**) were separated on **4-12%** NuPage (Invitrogen) **LDS-PAGE** and blotted 1h to **nitrocellulose**. Filters were blocked 1h with 2% low-fat **milk powder** in TBS-T (0.1% TWEEN 20) and probed with **anti-PsbS** (AS03 032, **1:2000**, 1h) and secondary anti-rabbit (1:20000, 1 h) antibody (HRP conjugated) in TBS-T containing 2% low fat milk powder. Antibody incubations were followed by washings in TBS-T (15, +5, +5, +5 min). All steps were performed at RT with agitation. Signal was detected chemiluminescent reagent, using a Fuji LAS-3000 CCD (300s, standard sensitivity). Technical note(s): (a) This IgY shows reactivity to both markers loaded in lane M (MagicMark and NovexSharp, both Invitrogen), for comparison a marker lane from same filter (probed seperately with a IgG-antiserum) is shown to the right. (b) the IgY reacts with 2 bands in leafs and thylakoids that both are absent in the PsbS-deficient npq4 line and therefore both might represent PsbS-forms with a difference in molecular weight of ~1 kDa.

Note: For this antibody, blocking needs to be increased to 10 % non-fat milk 1h/RT incubation.