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Product no AS10 704

Anti-PsbA | D1 protein of PSII, DE-loop

Product information

Immunogen	KLH-conjugated synthetic peptide, amino acids 234-242 of *Arabidopsis thaliana* D1 protein UniProt: P83755, TAIR:AtCg00020
Host	Rabbit
Clonality	Polyclonal
Purity	Serum
Format	Lyophilized
Quantity	50 µl
Reconstitution	For reconstitution add 50 µl of sterile water
Storage	Store lyophilized/reconstituted at -20°C; once reconstituted make aliquots to avoid repeated freeze-thaw cycles. 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.
Additional information	Antibody will detect 23 kDa N-terminal fragment

Application information

Recommended dilution	1 : 10 000, thylakoid fraction (WB)
Expected | apparent MW	38 | 28-30 kDa
Confirmed reactivity	*Arabidopsis thaliana, Chlamydomonas reinhardii, Hordeum vulgare, Medicago truncatula, Nannochloropsis oceanica strain IMET1, Neochloris oleoabundans* UTEX 1185 (chlorophyta)*, Nicotiana tabacum, Physcomitrium patens, Pisum sativum, Silene vulgaris, Sinapsis alba, Spinacia oleracea*, *Synechococcus* sp. PCC 7942, *Synechocystis* sp. PCC6803, *Triticum* sp.
Predicted reactivity	*Cucumis sativus, Glycine max, Nannochloropsis* sp.*, Oryza sativa, Populus balsamifera, Ricinus communis, Zea mays, Vitis vinifera* Species of your interest not listed? Contact us
Not reactive in	No confirmed exceptions from predicted reactivity are currently known
Additional information	Antibody is recognizing a 23 kDa fragment in spinach and Arabidopsis thylakoidsfor usage on total cell extracts the dilution needs to be determined experimentally
Selected references	Lu et al. (2021). Role of an ancient light-harvesting protein of PSI in light absorption and photoprotection. Nat Commun. 2021 Jan 29;12(1):679. doi: 10.1038/s41467-021-20967-1. PMID: 33514722; PMCID: PMC7846763. (blue-native PAGE) Mazur et al. (2021) The SnRK2.10 kinase mitigates the adverse effects of salinity by protecting photosynthetic machinery. Plant Physiol. 2021 Dec 4;187(4):2785-2802. doi: 10.1093/plphys/kiab438. PMID: 34632500; PMCID: PMC8644180. Rantala et al. (2020). PGR5 and NDH-1 systems do not function as protective electron acceptors but mitigate the consequences of PSI inhibition. Biochim Biophys Acta Bioenerg. 2020 Jan 11;1861(3):148154. doi: 10.1016/j.bbabio.2020.148154. Grieco et al. (2020). Adjustment of photosynthetic activity to drought and fluctuating light in wheat. Plant Cell Environ. 2020 Mar 16. doi: 10.1111/pce.13756. Rantala and Tikkanen et al. (2018). Phosphorylation?induced lateral rearrangements of thylakoid protein complexes upon light acclimation. Plant Direct Vol. 2, Issue 2.

Application example

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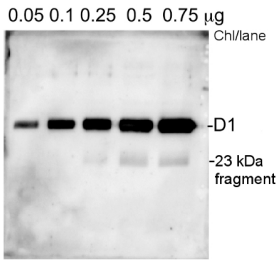

Thylakoid membranes from Arabidopsis (0.05-0.75 µg of Chl) were separated on 14%AA+ 6M urea gels and blotted 1h to PVDF. Blots were blocked immediately following transfer in 5% milk solution for 1h at room temperature with agitation. Blots were incubated in the primary antibody at a dilution of 1: 20 000 o.n. at 4°C with agitation. The antibody solution was decanted and the blot was rinsed briefly twice, then washed once for 15 min and 3 times for 5 min in TBS-T at room temperature with agitation. Blots were incubated in secondary antibody, HRP conjugated, diluted to 1:5 000. The blots were washed as above and developed for 5 min with ECL-Plus detection reagent according to the manufacturers instructions. Exposure time was 1 min in CCD camera Fuji4000.

Courtesy Professor Cornelia Spetea-Wiklund, University of Ghotenburg, Sweden