

Product no **AS05 092****Anti-PsbO | 33 kDa of the oxygen evolving complex (OEC) of PSII (anti-peptide)****Product information**

Immunogen	N-terminally located peptide chosen from <i>Arabidopsis thaliana</i> PsbO1 and PsbO2 isoforms. UniProt: P23321 , PsbO1, TAIR: At5g66570 ; UniProt: A0A178VBH5 , TAIR: At3g50820
Host	Rabbit
Clonality	Polyclonal
Purity	Serum
Format	Lyophilized
Quantity	50 µl
Reconstitution	For reconstitution add 100 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 | Loading based on 50-100 ng of chlorophyll is enough to obtain good signal with this antibody

Application information

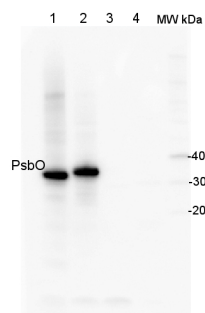
Recommended dilution	1 : 1000 (WB)
Expected apparent MW	33 kDa
Confirmed reactivity	<i>Arabidopsis thaliana</i> , <i>Cucumis sativus</i> , <i>Hordeum vulgare</i> , <i>Manihot esculenta</i> , <i>Nicotiana tabacum</i> , <i>Pisum sativum</i> , <i>Sinapis alba</i> , <i>Triticum aestivum</i> , <i>Zea mays</i>
Predicted reactivity	<i>Brassica oleracea</i> , <i>Pisum sativum</i> , <i>Populus tremula</i> , <i>Picea sitchensis</i> , <i>Vitis vinifera</i> Species of your interest not listed? Contact us
Not reactive in	<i>Chlamydomonas reinhardtii</i> , <i>Synechococcus</i> sp. PCC 7942
Additional information	Good signal is obtained with this antibody with a load from 0,5 chlorophyll µg/well
Selected references	Silvestre et al. (2025). A Holistic Investigation of Arabidopsis Proteomes Altered in Chloroplast Biogenesis and Retrograde Signalling Identifies PsbO as a Key Regulator of Chloroplast Quality Control. Plant Cell Environ. 2025 Aug;48(8):6373-6396. doi: 10.1111/pce.15611. Zhao et al. (2024). Psb28 protein is indispensable for stable accumulation of PSII core complexes in Arabidopsis. Plant J. 2024 May 26. doi: 10.1111/tj.16844. 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. Toubiana et al. (2020). Correlation-based Network Analysis Combined With Machine Learning Techniques Highlight the Role of the GABA Shunt in Brachypodium Sylvaticum Freezing Tolerance. Sci Rep, 10 (1), 4489 Wang et al. (2019). YR36/WKS1-mediated Phosphorylation of PsbO, an Extrinsic Member of Photosystem II, Inhibits Photosynthesis and Confers Stripe Rust Resistance in Wheat. Mol Plant. 2019 Oct 14. pii: S1674-2052(19)30330-2. doi: 10.1016/j.molp.2019.10.005. An et al. (2019). Protein cross-interactions for efficient photosynthesis in the cassava cultivar SC205 relative to its wild species. J Agric Food Chem. 2019 Jul 19. doi: 10.1021/acs.jafc.9b00046. Rozpadek et al. (2018). Acclimation of the photosynthetic apparatus and alterations in sugar metabolism in response to inoculation with endophytic fungi. Plant Cell Environ. 2018 Dec 5. doi: 10.1111/pce.13485.

Application example

This product is **for research use only** (not for diagnostic or therapeutic use)

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2 µg of total protein from (1) *Arabidopsis thaliana* leaf, (2) *Hordeum vulgare* leaf, (3) *Chlamydomonas reinhardtii* total cell, (4) *Synechococcus* sp. 7942 total cell were all extracted with PEB (**AS08 300**) and separated on **4-12% NuPage** (Invitrogen) **LDS-PAGE** and blotted 1h to **PVDF**. Blots were blocked immediately following transfer in 2% blocking reagent in 20 mM Tris, 137 mM sodium chloride pH 7.6 with 0.1% (v/v) Tween-20 (TBS-T) for 1h at room temperature with agitation. Blots were incubated in the primary antibody at a dilution of 1: 10 000 for 1h at room temperature 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 (anti-rabbit IgG horse radish peroxidase conjugated) diluted to 1:50 000 in 2% blocking solution for 1h at room temperature with agitation. The blots were washed as above and developed for 5 min with chemiluminescence detection reagent according to the manufacturers instructions. Images of the blots were obtained using a CCD imager (FluorSMax, Bio-Rad) and Quantity One software (Bio-Rad).