

Product no **AS06 142-23**

PsbP | 23 kDa protein of the oxygen evolving complex (OEC) of PSII (anti-protein)

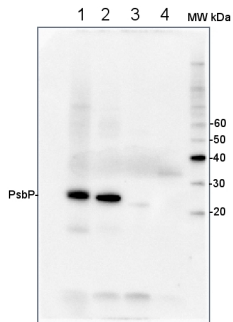
Product information

Immunogen	native, purified 23 kDa protein from <i>Spinacia oleracea</i> , UniProt: P12302
Host	Rabbit
Clonality	Polyclonal
Purity	Total IgG
Format	Lyophilized in PBS pH 7.4
Quantity	260 µg
Reconstitution	For reconstitution add 200 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 tubes briefly prior to opening them to avoid any losses that might occur from lyophilized material adhering to the cap or sides of the tubes.

Application information

Recommended dilution	1 : 2000-1 : 5000 (WB)
Expected apparent MW	28 23 kDa
Confirmed reactivity	<i>Arabidopsis thaliana</i> , <i>Chlamydomonas reinhardtii</i> , <i>Hordeum vulgare</i> , <i>Pinus banksiana</i> , <i>Spinacia oleracea</i> , <i>Triticum aestivum</i>
Predicted reactivity	<i>Musa acuminata</i> , <i>Oryza sativa</i> , <i>Pinus monticola</i> , <i>Pisum sativum</i> , <i>Populus balsamifera</i> , <i>Solanum lycopersicum</i> Species of your interest not listed? Contact us
Not reactive in	<i>Synechococcus</i> sp. PCC 7942
Additional information	<p>Load per well on cell extract of <i>Pinus banksiana</i> (Jack Pine) was 7 µg.</p> <p>This antibody can be used as a loading control for <i>Chlamydomonas reinhardtii</i> while it not so suitable for higher plants as accumulation of these proteins might drop to 12.5-25 % of the WT level in mutants defective for PSII core (Schult et al. 2007).</p> <p>For high resolution images, please visit the specific product page at www.agrisera.com</p>
Selected references	<p>Cecchin et al (2021) LPA2 protein is involved in photosystem II assembly in <i>Chlamydomonas reinhardtii</i>. Plant J. 2021 Jul 4. doi: 10.1111/tpj.15405. Epub ahead of print. PMID: 34218480.</p> <p>Jiang et al. (2020). Plastid chaperone HSP90C guides precursor proteins to the SEC translocase for thylakoid transport. J Exp Bot. 2020 Aug 27;eraa399.doi: 10.1093/jxb/eraa399.</p> <p>Nama et al. (2018). Non-photochemical quenching-dependent acclimation and thylakoid organization of <i>Chlamydomonas reinhardtii</i> to high light stress. Photosynth Res. 2018 Jul 7. doi: 10.1007/s11120-018-0551-7.</p> <p>Yang-Er Chen et al. (2017). Responses of photosystem II and antioxidative systems to high light and high temperature co-stress in wheat. J. of Exp. Botany, Volume 135, March 2017, Pages 45–55.</p> <p>Wang et al. (2008). Beta-lactone probes identify a papain-like peptide ligase in <i>Arabidopsis thaliana</i>. Nat Chem Biol. 4: 557-563.</p>

Application example



2 µg of total protein from *Arabidopsis thaliana* leaf (1) *Hordeum vulgare* leaf (2), *Chlamydomonas reinhardtii* total cell (3), *Synechococcus* sp. 7942 total cell (4), *Anabaena* sp. total cell (5), 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 chemiluminescent detection reagent according the manufacturers instructions. Images of the blots were obtained using a CCD imager (FluorSMax, Bio-Rad) and Quantity One software (Bio-Rad).