Agrisera

This product is **for research use only** (not for diagnostic or therapeutic use) **contact: support@agrisera.com**

Agrisera AB | Box 57 | SE-91121 Vännäs | Sweden | +46 (0)935 33 000 | www.agrisera.com

Product no AS09 461

PsaD | PSI-D subunit of photosystem I

Product information

Immunogen	KLH-conjugated synthetic peptide 100% conserved in all known plant PsaD sequences including *Arabidopsis thaliana* PSI-D1 UniProt:Q9S7H1 , TAIR: At4g02770 and PSI-D2 UniProt: Q9SA56 , TAIR At1g03130 as well as *Physcomitrella patens*. The conservation in *Chlamydomonas reinhardtii* is high (14 of 16 aminoacids are identical).
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 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.
Additional information	PsaD has frequently been used as a marker for intact PSI reaction centers. This product can be sold containing proclin if requested.

Application information

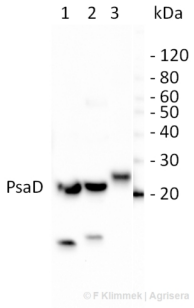
Recommended dilution	1 : 1000 (WB)
Expected | apparent MW	17.9 | 20 (for *Arabidopsis thaliana*)
Confirmed reactivity	*Arabidopsis thaliana, Chlamydomonas reinhardtii, Hordeum vulgare, Lactuca sativa, Oryza sativa, Physcomitrella patens, Picea glauca, Pinus strobus, Oryza sativa, Physcomitrella patens, Spinacia oleracea, Synechocystis PCC 6803, Triticum aestivum, Triticale, Zea mays*
Predicted reactivity	Alge, Dicots, *Catalpa bungei*, *Cucumis melo,* Conifers, *Cyanidioschyzon merolae, Bigelowiella natans, Nannochloropsis* sp. ,*Nicotiana tabacum, Phaeodactylum tricornutum, Phyla dulcis, Zosteria marina* Species of your interest not listed? Contact us
Not reactive in	*Synechococcus elongatus* sp. PCC 7942
Additional information	This antibody is a replacement for former product, anti-PsaD AS04 046 **Contains 0.1% ProClin.**For high resolution images, please visit the specific product page at www.agrisera.com
Selected references	Aso et al. (2021). Unique peripheral antennas in the photosystems of the streptophyte alga Mesostigma viride. Plant Cell Physiol. 2021 Jan 8:pcaa172. doi: 10.1093/pcp/pcaa172. Epub ahead of print. PMID: 33416834.

Agrisera

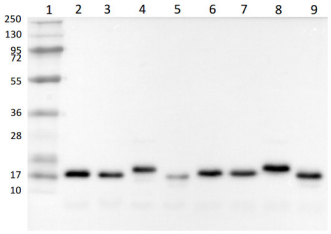
contact: support@agrisera.com

Agrisera AB | Box 57 | SE-91121 Vännäs | Sweden | +46 (0)935 33 000 | www.agrisera.com

Application example



10 µg of **total leaf protein** extracted with PEB (**AS08 300**) from (**1**) *Zea mays*, (**2**) *Chlamydomonas reinhardtii*, and (**3**) *Spinacia oleracea* were separated on **4-12%** NuPage (Invitrogen) **LDS-PAGE** and blotted 80 min (30V) to **nitrocellulose**. Filter was blocked 1h with 2% **low-fat milk powder** in TBS-T (0.1% TWEEN 20) and probed with **anti-PsaD** (AS09 461, **1:1000**, 1h) and secondary anti-rabbit (**1:40000**, 1h) 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 with **chemiluminescent detection reagent** using a GenoPlex Chemi CCD (accumulated signal 10 x 30s exposure, bin 2x2).



Total cellular (lanes 2 – 5) and membrane proteins (lanes 6 – 9) from various environmental isolated of *Chlamydomonas reinhardtii* were extracted with a buffer containing 62.5mM Tris-HCl pH 6.8, 10% glycerol, 2% SDS, 50mM DTT, 10mM NaF and 1% protease inhibitors (P9599, Sigma Aldrich) and denatured at 65°C for 5 min. Samples (0.25 µg of chlorophyll per lane) were separated on 12% SDS-PAGE containing 6M urea and blotted 1h to PVDF using tank transfer. Blots were blocked with 5% skim milk powder in TBS-T for 1h at room temperature (RT) with agitation. Blots were incubated in the primary antibody at a dilution of 1:5000 overnight at 4°C. The antibody solution was decanted and the blots were rinsed briefly once, then washed 3 times for 10 min in TBS-T at RT with agitation. Blots were incubated in secondary antibody (anti-rabbit IgG HRP-conjugated, Agrisera AS09 602) diluted to 1:20 000 for 1h at RT with agitation. The blots were washed as above, developed for 5 min with chemiluminescent detection reagent and then imaged using a ChemiDoc MP imaging system and Image Lab software (Bio-Rad Laboratories). Exposure time was 10 seconds.

Courtesy of Kenneth Wilson, University of Saskatchewan, Canada