

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 **AS06 142-16**

PsbQ | 16 kDa protein of the oxygen evolving complex (OEC) of PSII

Product information

Background	PSII reaction centre components are generating the redox potential required to drive highly oxidizing water splitting reaction. Four Mn atoms are present on a luminal surface and form the catalytic site of the water-splitting reaction which is in close association with the 33 kDa (PsbO), 23 kDa (PsbP) and 17 kDa (PsbQ) extrinsic subunits of oxygen evolving complex OEC. A 33-kDa extrinsic protein is also termed the Mn-stabilizing protein (MSP), however recent evidences shown that it is C-terminal domain of PsbA (D1) protein which is involved in the assembly and stabilization of the OEC. Synonyms: PSBQ, PSBQA
Immunogen	<u>KLH-conjugated synthetic peptide derived from available PsbQ protein sequences including <i>Arabidopsis thaliana</i> At4g21280.</u> Peptide used to elicit this antibody is conserved in both isoforms, <i>Arabidopsis thaliana</i> PsbQ1 and PsbQ2.
Host	Rabbit
Clonality	Polyclonal
Purity	Serum
Format	Lyophilized
Quantity	200 µl
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.
Tested applications	Western blot (WB)
Related products	AS05 092 Anti-PsbO 33 kDa of the oxygen evolving complex (OEC) of PSII, rabbit antibodies AS06 142-33 Anti-PsbO 33 kDa of the oxygen evolving complex (OEC) of PSII, rabbit antibodies AS06 167 Anti-PsbP 23 kDa protein of the oxygen evolving complex (OEC) of PSII, rabbit antibodies AS08 305 Anti-PsbP 23 kDa protein of the oxygen evolving complex (OEC) of PSII, rabbit antibodies Plant protein extraction buffer Secondary antibodies

Application information

Recommended dilution	1 : 1000 (WB)
Expected apparent MW	23.8 16 kDa
Confirmed reactivity	<i>Arabidopsis thaliana</i> , <i>Hordeum vulgare</i> , <i>Picea abies</i> , <i>Pisum sativum</i> , <i>Triticum aestivum</i> , <i>Zea mays</i>
Predicted reactivity	<i>Catalpa bungei</i> , <i>Oryza sativa</i> , <i>Picea sitchensis</i> , <i>Populus balsamifera</i> , <i>Spinacia oleracea</i> , <i>Triticum aestivum</i> Species of your interest not listed? Contact us
Not reactive in	<i>Chlamydomonas reinhardtii</i> , <i>Physcomitrella patens</i> , <i>Zostera marina</i>
Additional information	This product can be sold with ProClin if requested For high resolution images, please visit the specific product page at www.agrisera.com

Agrisera

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

contact: support@agrisera.com

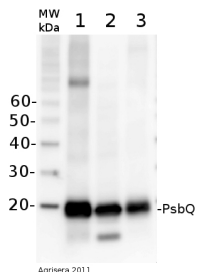
Agrisera AB | Box 57 | SE-91121 Vännäs | Sweden | +46 (0)935 33 000 | www.agrisera.com

Selected references

- [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.
- [Pavlovič et al. \(2016\)](#). Light-induced gradual activation of photosystem II in dark-grown Norway spruce seedlings. *Biochim Biophys Acta*. 2016 Feb 18. pii: S0005-2728(16)30028-7. doi: 10.1016/j.bbabi.2016.02.009.
- [Albanese et al. \(2016\)](#). Isolation of novel PSII-LHCII megacomplexes from pea plants characterized by a combination of proteomics and electron microscopy. *Photosynth Res*. 2016 Jan 9.
- [Grassl et al. \(2012\)](#). Early events in plastid protein degradation in stay-green *Arabidopsis* reveal differential regulation beyond the retention of LHCII and chlorophyll. *J. Proteome Res*. October 2.

For high resolution images, please visit the specific product page at www.agrisera.com

Application example



5 µg of total protein from *Arabidopsis thaliana* (1), *Hordeum vulgare* (2), *Zea mays* (3) extracted with Agrisera PEB buffer ([AS08_300](#)) were separated on **4-12 % NuPAGE Bis-Tris gel** (Invitrogen) and blotted 1h to **PVDF**. Blots were blocked with blocking reagent for 1.5 h at room temperature (RT) with agitation. Blot was incubated in the primary antibody at a dilution of 1: 10 000 for 1h at RT 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 RT with agitation. Blot was incubated in secondary antibody (anti-rabbit IgG horse radish peroxidase conjugated, Agrisera, [AS09_602](#)) diluted to 1:25 000 in for 1h at RT with agitation. The blot was washed as above and developed for 5 min with chemiluminescent detection reagent, according to the manufacturers instructions. Exposure time was 44 seconds.