

product **AS06 142-16**

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

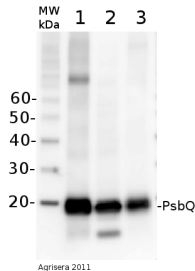
### product information

<b>background</b>	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. Synonymes: PSBQ, PSBQA
<b>immunogen</b>	<u>KLH</u> -conjugated synthetic peptide derived from available PsbQ protein sequences including <i>Arabidopsis thaliana</i> <a href="#">At4g21280</a>
<b>antibody format</b>	rabbit polyclonal serum lyophilized
<b>quantity</b>	200 µl for reconstitution add 200 µl of sterile water.
<b>storage</b>	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.
<b>tested applications</b>	western blot (WB)
<b>additional information</b>	to be added when available

### application information

<b>recommended dilution</b>	1: 1000 with standard ECL (WB)
<b>expected   apparent MW</b>	23.8   16 kDa
<b>confirmed reactivity</b>	<i>Arabidopsis thaliana</i> , <i>Hordeum vulgare</i> , <i>Pisum sativum</i> , <i>Zea mays</i>
<b>predicted reactivity</b>	dicots including: <i>Spinacia oleracea</i> , monocots including: <i>Oryza sativa</i> , <i>Triticum aestivum</i> , trees: <i>Picea sitchensis</i> , <i>Populus balsamifera</i>
<b>not reactive in</b>	no confirmed exceptions from predicted reactivity known in the moment
<b>additional information</b>	to be added when available
<b>selected references</b>	to be added when available

### 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 ECL Advance 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 ECL according to the manufacturers instructions. Exposure time was 44 seconds.