

Product no **AS04 045**

## Lhcb4 | CP29 chlorophyll a/b binding protein of plant PSII

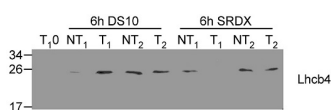
### Product information

<b>Immunogen</b>	BSA-conjugated synthetic peptide derived from a highly conserved sequence of Lhcb4 proteins from angiosperms (monocots and dicots) and gymnosperms, including <i>Arabidopsis thaliana</i> (Lhcb4.1 <a href="#">At5g01530</a> and Lhcb4.2 <a href="#">At3g08940</a> and Lhcb4.3 <a href="#">At2G40100</a> ).
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Purity</b>	Total IgG
<b>Format</b>	Lyophilized in PBS pH 7.4
<b>Quantity</b>	0.5 mg
<b>Reconstitution</b>	For reconstitution add 250 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>Additional information</b>	An overview about the different Lhc-protein types in plants can be found in <a href="#">Klímek</a> et al. (2006) Abundantly and rarely expressed Lhc protein genes exhibit distinct regulation patterns in plants. <i>Plant Physiol</i> 140: 793-804.  Lhcb4 protein is processed into mature form ( <a href="#">Jansson</a> 1999).

### Application information

<b>Recommended dilution</b>	1 : 7 000 (WB)
<b>Expected   apparent MW</b>	31.9   29 kDa for <i>Arabidopsis thaliana</i>
<b>Confirmed reactivity</b>	<i>Arabidopsis thaliana</i> , <i>Cucumis sativus</i> L. cv. Jihong no. 2, <i>Drosera capensis</i> , <i>Hordeum vulgare</i> , <i>Nicotiana tabacum</i> , <i>Oryza sativa</i> , <i>Pisum sativum</i> , <i>Phaseolus vulgaris</i> , <i>Triticum aestivum</i> , <i>Triticale</i> , <i>Zea mays</i>
<b>Predicted reactivity</b>	<i>Catalpa bungei</i> , <i>Cucumis sativus</i> , <i>Populus</i> , gymnosperms and microalgae <i>Ostreococcus tauri</i> ; the target sequence is only weakly conserved in <i>Physcomitrella patens</i>  Species of your interest not listed? <a href="#">Contact us</a>
<b>Not reactive in</b>	<i>Chlamydomonas reinhardtii</i> (please use <a href="#">AS06 117</a> for this organism)
<b>Selected references</b>	<a href="#">Chen</a> et al. (2021) Degradation of the photosystem II core complex is independent of chlorophyll degradation mediated by Stay-Green Mg2+ dechelataase in Arabidopsis, <i>Plant Science</i> , Volume 307, 2021, 110902, ISSN 0168-9452, <a href="https://doi.org/10.1016/j.plantsci.2021.110902">https://doi.org/10.1016/j.plantsci.2021.110902</a> . <a href="#">Grieco</a> et al. (2020). Adjustment of photosynthetic activity to drought and fluctuating light in wheat. <i>Plant Cell Environ.</i> 2020 Mar 16. doi: 10.1111/pce.13756. <a href="#">Grimmer</a> et al. (2020). Mild Proteasomal Stress Improves Photosynthetic Performance in Arabidopsis Chloroplasts. <i>Nat Commun</i> , 11 (1), 1662 <a href="#">Chen</a> et al. (2019). Effects of Stripe Rust Infection on the Levels of Redox Balance and Photosynthetic Capacities in Wheat. <i>Int J Mol Sci.</i> 2019 Dec 31;21(1). pii: E268. doi: 10.3390/ijms21010268. <a href="#">Fristedt</a> et al. (2015). The thylakoid membrane protein CGL160 supports CF1CF0 ATP synthase accumulation in Arabidopsis thaliana. <i>PLoS One.</i> 2015 Apr 2;10(4):e0121658. doi: 10.1371/journal.pone.0121658.

### Application example



5 µg of total protein from embebed seeds of *Nicotiana tabacum* growing during 4 d in dark (0) and then transfer to continue light growing for 6 h (6) extracted with LB2x buffer and denatured 90 °C for 2-5 min, were separated on 12.5 % SDS-PAGE and blotted 1h to PVDF using tank transfer. Blots were blocked with TBS-T with 5% dry-milk for 3h at room temperature (RT) with agitation. Blot was incubated in the primary antibody at a dilution of 1: 10 000 overnight at 4 °C with agitation in TBS-T with 5% dry-milk. The antibody solution was decanted and the blot was rinsed briefly twice, then washed 4 times for 15 min in TBS-T at RT with agitation. Blot was incubated in secondary antibody (anti-rabbit IgG horse radish peroxidase conjugated, [AS09 602](#), from Agrisera) diluted to 1:30 000 in TBS-T with 5% dry-milk for 1h at RT with agitation. The blot was

washed as above and developed for 5 min with chemiluminescent detection. Exposure time was 60 seconds.

Courtesy of Dr. Concha Almoguera, Inst. de Recursos Naturales y Agrobiología –CSIC, Spain