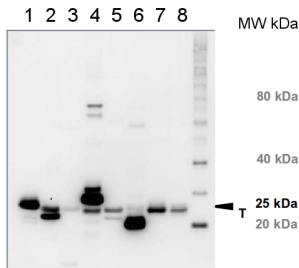


Product no **AS01 004****Lhcb1 | LHCII type I chlorophyll a/b-binding protein****Product information**

<b>Immunogen</b>	BSA-conjugated, 11 amino acids long synthetic peptide derived from a highly conserved sequence of Lhb1 proteins from angiosperms (monocots and dicots) and gymnosperms, including <i>Arabidopsis thaliana</i> Lhcb1.1 UniProt: <a href="#">P0CJ48-1</a> , TAIR: <a href="#">AT1G29920</a> , Lhcb1.2 UniProt: <a href="#">Q8VZ87-1</a> , TAIR: <a href="#">AT1G29910</a> , Lhcb1.3 (most expressed) UniProt: <a href="#">P04778-1</a> , TAIR: <a href="#">AT1G2993</a> , Lhcb1.4 UniProt: <a href="#">Q39142-1</a> , TAIR: <a href="#">AT2G34430</a> , Lhcb1.5 UniProt: <a href="#">Q39141-1</a> , TAIR: <a href="#">At2g34420</a>
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Purity</b>	Immunogen affinity purified serum in PBS pH 7.4.
<b>Format</b>	Lyophilized
<b>Quantity</b>	50 µg
<b>Reconstitution</b>	For reconstitution add 50 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 the tubes briefly prior to opening them to avoid any losses that might occur from material adhering to the cap or sides of the tube.

**Application information**

<b>Recommended dilution</b>	1 : 2000 (WB)
<b>Expected   apparent MW</b>	28   25 kDa for <i>Arabidopsis thaliana</i>
<b>Confirmed reactivity</b>	<i>Arabidopsis thaliana</i> , <i>Arachis hypogaea</i> , <i>Brassica napus</i> , <i>Camelina sinensis</i> , <i>Citrus reticulata</i> , <i>Chlorella vulgaris</i> , <i>Colobanthus quitensis</i> Kunt Bartl, <i>Craterostigma pumilum</i> , <i>Hordeum vulgare</i> , <i>Lycopersicon esculentum</i> ( <i>Solanum lycopersicon</i> ), <i>Mesembryanthemum crystallinum</i> , <i>Nicotiana benthamiana</i> , <i>Nicotiana tabacum</i> , <i>Oryza sativa</i> , <i>Pisum sativum</i> , <i>Phaseolus vulgaris</i> , <i>Rhoeo discolor</i> , <i>Silene vulgaris</i> , <i>Sinapsis alba</i> , <i>Solanum lycopersicum</i> , <i>Spinacia oleracea</i> , <i>Tillandsia flabellate</i> , <i>Triticum aestivum</i> , <i>Triticale</i> , <i>Zea mays</i>
<b>Predicted reactivity</b>	<i>Aegilops tauschii</i> , <i>Catalpa bungei</i> , <i>Cucumis sativus</i> , <i>Brachypodium distachyon</i> , <i>Lotus japonicus</i> , <i>Hordeum vulgare</i> , <i>Musa acuminata</i> , <i>Physcomitrium patens</i> , <i>Saccharum sp</i> , <i>Solanum tuberosum</i> , <i>Zosteria marina</i> , <i>Vitis vinifera</i> Species of your interest not listed? <a href="#">Contact us</a>
<b>Not reactive in</b>	<i>Picea abies</i>
<b>Additional information</b>	Lhcb1 Protein is processed into mature form ( <a href="#">Jansson 1999</a> ).  This product can be sold containing ProClin if requested
<b>Selected references</b>	<a href="#">Sulli et al. (2023)</a> . Generation and physiological characterization of genome edited <i>Nicotiana benthamiana</i> plants containing zeaxanthin as the only leaf xanthophyll. <i>Planta</i> . 2023 Oct 5;258(5):93. doi: 10.1007/s00425-023-04248-3. <a href="#">Ye et al. (2023)</a> . The light-harvesting chlorophyll a/b-binding proteins of photosystem II family members are responsible for temperature sensitivity and leaf color phenotype in albino tea plant. <i>J Adv Res</i> . 2023 Dec 25:S2090-1232(23)00404-6. doi: 10.1016/j.jare.2023.12.017. <a href="#">Hu et al. (2023)</a> . Drought affects both photosystems in <i>Arabidopsis thaliana</i> . <i>New Phytol</i> . 2023 Oct;240(2):663-675. doi: 10.1111/nph.19171. Epub 2023 Aug 2. <a href="#">Harchouni et al. (2022)</a> Guanosine tetraphosphate (ppGpp) accumulation inhibits chloroplast gene expression and promotes super grana formation in the moss <i>Physcomitrium</i> ( <i>Physcomitrella</i> ) <i>patens</i> . <i>New Phytol</i> . 2022;236(1):86-98. doi:10.1111/nph.18320 <a href="#">Gao Y et al. (2022)</a> Chloroplast translational regulation uncovers nonessential photosynthesis genes as key players in plant cold acclimation. <i>Plant Cell</i> . 2022 Apr 26;34(5):2056-2079. doi: 10.1093/plcell/koac056. PMID: 35171295; PMCID: PMC9048916. <a href="#">Ivanov et al. (2022)</a> The decreased PG content of ppp1 inhibits PSI photochemistry and limits reaction center and light-harvesting polypeptide accumulation in response to cold acclimation. <i>Planta</i> 255, 36 (2022). <a href="https://doi.org/10.1007/s00425-022-03819-0">https://doi.org/10.1007/s00425-022-03819-0</a> <a href="#">Medina-Puche et al (2021)</a> . Protocol for evaluating protein relocalization from the plasma membrane to chloroplasts. <i>STAR Protoc</i> . 2021 Sep 14;2(4):100816. doi: 10.1016/j.xpro.2021.100816. PMID: 34585156; PMCID: PMC8450296. <a href="#">Chen, Liu &amp; Liu (2021)</a> Loss-Function of EGY1 Results in Photosynthesis Damage through Reducing Stability of Photosystem II in <i>Arabidopsis thaliana</i> . <i>Russ J Plant Physiol</i> (2021). <a href="https://doi.org/10.1134/S1021443721060029">https://doi.org/10.1134/S1021443721060029</a>



10 µg of total protein from (1) *Arabidopsis thaliana* leaf, (2) *Hordeum vulgare* leaf, (3) *Zea mays* leaf, (4) *Chlamydomonas reinhardtii* total cell, (5) *Spinacia oleracea* total leaf, (6) *Physcomitrella patens*, (7) *Solanum tuberosum* total leaf, (8) *Solanum esculentum* total leaf, all extracted with Protein Extraction Buffer PEB ([AS08 300](#)) were separated on 4-12% NuPage (Invitrogen) LDS-PAGE and blotted 1h to PVDF. Blots were blocked immediately following transfer in 2-2.5 % 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, recommended secondary antibody [AS09 602](#)) diluted to 1:25 000 in TBS-T 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). Exposure time was 2 minutes.