

Product no **AS01 006**

## Lhca2 | PSI type II chlorophyll a/b-binding protein

### Product information

**Immunogen** | BSA-conjugated synthetic peptide derived from the Lhca2 protein of *Arabidopsis thaliana* UniProt: [Q9SYW8](#), [Q8LCQ4](#), TAIR: [At3g61470](#). This sequence is highly conserved in Lhca2 proteins of angiosperms (monocots and dicots) and gymnosperms as well as in [At1g19150](#). This gene codes for the very low expressed Lhca6 protein which also has been denoted as Lhca2\*1.

**Host** | Rabbit

**Clonality** | Polyclonal

**Purity** | Total IgG

**Format** | Lyophilized in PBS pH 7.4.

**Quantity** | 0.5 mg

**Reconstitution** | For reconstitution add 100 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** | Antibody format is a [total IgG fraction](#), which means that it is a pool of polyclonal antibodies obtained by purification of serum on Protein G, not on a specific antigen column.

### Application information

**Recommended dilution** | 1 : 2000-1 : 5000 (WB)

**Expected | apparent MW** | 27.7 | 24 kDa for *Arabidopsis thaliana*

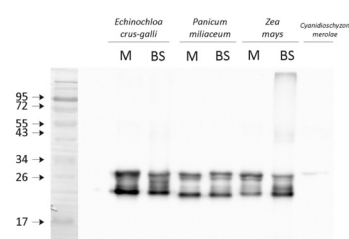
**Confirmed reactivity** | *Arabidopsis thaliana*, *Arachis hypogaea*, *Bryopsis corticulans*, *Colobanthus quitensis* Kunt Bartl, *Chlamydomonas reinhardtii* (one Lhca-type), *Citrus reticulata*, *Chromochloris zofingiensis*, *Cytisus cantabricus* (Wilk.) Rchb. F., *Hieracium pilosella* L., *Hordeum vulgare*, *Lasallia hispanica*, *Nicotiana tabacum*, *Oryza sativa*, *Pisum sativum*, *Phaseolus vulgaris*, *Physcomitrella patens*, *Pinus banksiana* (the higher of the two bands detected at 24 and 30 kDa is not considered to be specific to any Lhc protein), *Posidonia oceanica*, *Prasinoderma* sp., *Pyramimonas* sp., *Spinacia oleracea*, *Syntrichia muralis* (Hedw.) Raab, *Triticum aestivum*, *Triticale*, *Zea mays*

**Predicted reactivity** | Dicots, Gymnosperms

**Not reactive in** | No confirmed exceptions from predicted reactivity are currently known.

**Selected references** | [Zhu et al. \(2020\)](#). A NAC transcription factor and its interaction protein hinder abscisic acid biosynthesis by synergistically repressing NCED5 in *Citrus reticulata*. *J Exp Bot.* 2020 Jun 22;71(12):3613-3625. doi: 10.1093/jxb/eraa118.  
[Their et al. \(2020\)](#). VIPP2 interacts with VIPP1 and HSP22E/F at chloroplast membranes and modulates a retrograde signal for HSP22E/F gene expression. *Plant Cell Environ.* 2020 Jan 29. doi: 10.1111/pce.13732.  
[Voita and Fulgosi \(2019\)](#). Topology of TROL protein in thylakoid membranes of *Arabidopsis thaliana*. *Physiol Plant.* 2019 Jan 20. doi: 10.1111/ppl.12927.  
[Roth et al. \(2019\)](#). Regulation of Oxygenic Photosynthesis during Trophic Transitions in the Green Alga *Chromochloris zofingiensis*. *Plant Cell.* 2019 Feb 20. pii: tpc.00742.2018. doi: 10.1105/tpc.18.00742.  
[Mao et al. \(2018\)](#). Comparison on Photosynthesis and Antioxidant Defense Systems in Wheat with Different Ploidy Levels and Octoploid Triticale. *Int J Mol Sci.* 2018 Oct 2;19(10). pii: E3006. doi: 10.3390/ijms19103006.

### Application example



1.0 µg of chlorophyll from mesophyll (M) and bundle sheath (BS) thylakoids of various C4 plants (*Echinochloa crus-galli*, *Panicum miliaceum*, *Zea mays*) extracted with 0.4 M sorbitol, 50 mM Hepes NaOH, pH 7.8, 10 mM NaCl, 5 mM MgCl<sub>2</sub> and 2 mM EDTA. Samples were denatured with Laemmli buffer at 75 °C for 5 min and were separated on 12% SDS-PAGE and blotted 30 min to PVDF using wet transfer. Blot was blocked with 5% milk for 1 h at room temperature (RT) with agitation. Blot was incubated in the primary antibody at a dilution of 1: 2000 overnight at 4 °C with agitation in 1% milk in TBS-T. The antibody solution was decanted and the blot was washed 4 times for 5 min in TBS-T at RT with agitation. Blot was incubated in secondary antibody (anti-rabbit IgG horse radish peroxidase conjugated, from Agrisera, [AS09 602](#), Lot 1702) diluted to 1:25 000 in 1 % milk in TBS-T for 1h at RT with agitation. The blot was washed 5 times for 5 min in TBS-T and 2 times for 5 min in TBS, and developed for 1 min with 1.25 mM luminol, 0.198 mM coumaric acid and 0.009% H<sub>2</sub>O<sub>2</sub> in 0.1 M Tris- HCl, pH 8.5. Exposure time in ChemiDoc System was 15 seconds.

Courtesy of Dr. Wioleta Wasilewska, Warsaw University, Poland