

Agrisera

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Product no **AS01 002**

Lhcb3 | LHCII type III chlorophyll a/b-binding protein

Product information

Background	<p>The major light-harvesting antenna complex II (LHCII) in photosynthetic eukaryotes is located in the thylakoid membrane of the chloroplast. It is a heterotrimeric complex formed by up to 3 different individual subtypes of chlorophyll a/b-binding proteins: Lhcb1, Lhcb2, and Lhcb3. While Lhcb1 and Lhcb2 are quite similar and regularly present in multiple gene-copies, the Lhcb3 protein differs in pigment-composition and molecular size and often is coded by only a single gene. Lhcb3 seems not to be present in the mobile LHCII trimers involved in state 1-state 2 transitions.</p> <p>A molecular characterisation of the LHCII proteins can be found in Caffari et al. (2004) A Look within LHCII: Differential Analysis of the Lhcb1–3 Complexes Building the Major Trimeric Antenna Complex of Higher-Plant Photosynthesis. <i>Biochemistry</i> 43 (29): 9467–9476.</p>
Immunogen	<p><u>BSA</u>-conjugated synthetic peptide derived from a highly conserved sequence of Lhcb3 proteins from angiosperms (monocots and dicots) and gymnosperms, including <i>Arabidopsis thaliana</i> Lhcb3 UniProt: Q9S7M0, TAIR:AT5G54270. This sequence is highly conserved even in <i>Ginkgo biloba</i> and one of the major LHCII-forms of <i>Physcomitrella patens</i>.</p>
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.
Tested applications	Western blot (WB)
Related products	<p>AS01 002PRE Lhcb3 LHCII type III chlorophyll a/b-binding protein, pre-immune serum</p> <p>AS01 003 Anti-Lhcb2 LHCII type II chlorophyll a/b-binding protein, rabbit antibodies</p> <p>AS01 004 Anti-Lhcb1 LHCII type I chlorophyll a/b-binding protein, rabbit antibodies</p> <p>Plant protein extraction buffer</p>
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 (WB)
Expected apparent MW	28.7 26 kDa for <i>Arabidopsis thaliana</i>
Confirmed reactivity	<i>Arabidopsis thaliana</i> , <i>Arachis hypogaea</i> , <i>Chlorella vulgaris</i> , <i>Cucumis sativa</i> , <i>Dactylis glomerata</i> , <i>Hordeum vulgare</i> , <i>Lycopersicon esculentum</i> (<i>Solanum lycopersicon</i>), <i>Mesembryanthemum crystallinum</i> , <i>Nicotiana tabacum</i> , <i>Oryza sativa</i> , <i>Pisum sativum</i> , <i>Phaseolus vulgaris</i> , <i>Physcomitrella patens</i> , <i>Prasinoderma sp.</i> , <i>Pyramimonas sp.</i> , <i>Spinacia oleracea</i> , <i>Triticum aestivum</i> , <i>Triticale</i> , <i>Zea mays</i> , <i>Verbascum lychnitis</i>
Predicted reactivity	<i>Cucumis melo</i> , Dicots, Gymnosperms, Mosses
	Species of your interest not listed? Contact us

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

Additional information | Protein is processed into mature form ([Jansson](#) 1999). For high resolution images, please visit the specific product page at www.agrisera.com

Selected references | [Furukawa](#) et al. (2019). Formation of a PSI–PSII megacomplex containing LHCSR and PsbS in the moss *Physcomitrella patens*. *J Plant Res* <https://doi.org/10.1007/s10265-019-01138-2>.

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