

product **AS09 522**

## Lhcb1 | LHCII type I chlorophyll a/b-binding protein

### product information

<b>background</b>	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. <b>Lhcb1</b> is the most abundant chlorophyll a/b-binding protein in eukaryotic phototrophs and often is coded by several nuclear genes.
<b>immunogen</b>	<u>BSA</u> -conjugated synthetic peptide derived from <i>Arabidopsis thaliana</i> <a href="#">At1g29910</a> (Lhcb1.1), <a href="#">At1g29920</a> (Lhcb1.2), <a href="#">At1g29930</a> (Lhcb1.3, most expressed), <a href="#">At2g34430</a> (Lhcb1.4), and <a href="#">At2g34420</a> (Lhcb1.5)
<b>antibody format</b>	rabbit polyclonal, affinity purified serum in PBS pH 7.4, lyophilized
<b>quantity</b>	100 µg - for reconstitution add 100 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>related products</b>	<a href="#">AS01_002</a> Lhcb3   LHCII type III chlorophyll a/b-binding protein <a href="#">AS01_003</a> Lhcb2   LHCII type II chlorophyll a/b-binding protein <a href="#">LHC</a> available antibodies against pigment-binding proteins
<b>additional information</b>	A molecular characterisation of the LHCII proteins can be found in <a href="#">Caffarri et al. (2004)</a> 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

### application information

<b>recommended dilution</b>	1 : 2500 - 1 : 5000 with standard ECL (WB)
<b>expected   apparent MW</b>	25   25 kDa for <i>Arabidopsis thaliana</i>
<b>confirmed reactivity</b>	<i>Arabidopsis thaliana</i> , <i>Digitaria sanguinalis</i> , <i>Echinochloa crus-galli</i> , <i>Pinus strobus</i>
<b>predicted reactivity</b>	mainly dicots and some monocots, mosses, green algae
<b>not reactive in</b>	no confirmed exceptions from predicted reactivity known in the moment
<b>additional information</b>	This Lhcb1 antibody is directed specifically against the <i>Arabidopsis</i> Lhcb1 gene products, for those that would prefer higher specific activity over broader specificity offered by Agrisera older Lhcb1 antibody, <a href="#">AS01_004</a>
<b>selected references</b>	<a href="#">Wientjes et al (2013)</a> . LHCII is an antenna of both photosystems after long-term acclimation. <i>BBA</i> , Jan 6.