product AS13 2704
Lhcb1-P | LHCII type I chlorophyll a/b-binding protein, phosphorylated

product information

Background

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. Lhcb1 is the most abundant chlorophyll a/b-binding protein in eukaryotic phototrophs and often is coded by several nuclear genes.

Immunogen

KLH-conjugated synthetic peptide RKT*VAKPKGP, where T* indicates phospho-Thr

Host

Rabbit

Clonality

Polyclonal

Purity

Affinity purified serum in PBS, pH 7.4

Format

Lyophilized

Quantity

25 µg

Reconstitution

For reconstitution add 25 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

AS01 004 | Lhcb1 | LHCII type I chlorophyll a/b-binding protein , rabbit antibodies

AS13 2705 | Lhcb2 | LHCII type II chlorophyll a/b-binding protein, phosphorylated, rabbit antibodies

All anti-LHC antibodies

Antibodies to other proteins involved in photosynthesis

Plant and algal protein extraction buffer

Secondary antibodies

Application information

Recommended dilution

1 : 10 000 (WB)

Expected | apparent MW

25 | 25 kDa for Arabidopsis thaliana

Confirmed reactivity

Arabidopsis thaliana

Predicted reactivity

Arachis hypogaea, Colobanthus quitensis Kunt Bartl, Hordeum vulgare, Mesembryanthemum crystallinum, Nicotiana tabacum, Oryza sativa, Pismum sativum, Phaseolus vulgaris, Silene vulgaris, Solanum lycopersicum, Spinacia oleracea, Zea mays

Not reactive in

No confirmed exceptions from predicted reactivity are currently known.

Additional information

Selected references


application example

1 ug of thylakoid membranes isolated from Arabidopsis thaliana wide-type and mutants were solubilized with 3X LB (6 M urea, 12% SDS, 30% glycerol, 100 mM DTT, 150 mM Tris pH7.0, 0.8% Comassie G-250). 1 µg of total chlorophyll was loaded and separated on 16% SDS-PAGE, and then blotted for 2 h onto nitrocellulose membrane. Blots were blocked with milk powder for 2 h and then incubated in the primary antibody solution (AS01 004, 1: 5 000) for 2.5 h, which was then decanted and the blot was washed 3 times for 5 min in TBST. Membrane was incubated in secondary antibody (anti-rabbit IgG horse radish peroxidase conjugated) diluted to 1:10 000 in 1h, followed by washing steps as above. All the steps following transfer were performed in room temperature (RT) with agitation. Membrane was developed for 5 min with ECL according to the manufacturer’s instructions and recorded using FujiFilm CCD camera with 30 s increment time for around 5 min.

Courtesy of a phd candidate Małgorzata Pietrzykowska, Umeå Plant Science Centre, Sweden