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Product no AS08 316

CURT1A | Curvature thylakoid 1A

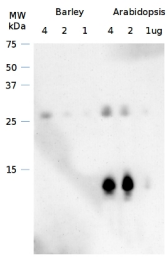
Product information

Immunogen	KLH-conjugated synthetic peptide derived from *Arabidopsis thaliana* CURT1A sequence, TAIR: AT4G01150
Host	Rabbit
Clonality	Polyclonal
Purity	Immunogen affinity purified serum in PBS pH 7.4.
Format	Lyophilized
Quantity	50 µg
Reconstitution	For reconstitution add 50 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 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

Recommended dilution	1: 1000 (CN-PAGE), 1 : 1000 (WB)
Expected | apparent MW	17,6 | 11 kDa (due to N-terminal processing)
Confirmed reactivity	*Arabidopsis thaliana, Pisum sativum*
Predicted reactivity	*Nicotiana tabacum, Zea mays* Species of your interest not listed? Contact us
Not reactive in	*Hordeum vulgare, Phaseolus coccineus*
Selected references	Nishioka et al. (2021). Phos-tag-based approach to study protein phosphorylation in the thylakoid membrane. Photosynth Res. 2021 Jan;147(1):107-124. doi: 10.1007/s11120-020-00803-1. Epub 2020 Dec 2. PMID: 33269435; PMCID: PMC7728655. Fukura et al. (2021) Enrichment of chlorophyll catabolic enzymes in grana margins and their cooperation in catabolic reactions. J Plant Physiol. 2021 Nov;266:153535. doi: 10.1016/j.jplph.2021.153535. Epub 2021 Sep 25. PMID: 34607178. Liang et al. (2018). Thylakoid-Bound Polysomes and a Dynamin-Related Protein, FZL, Mediate Critical Stages of the Linear Chloroplast Biogenesis Program in Greening Arabidopsis Cotyledons. Plant Cell. 2018 Jul;30(7):1476-1495. doi: 10.1105/tpc.17.00972. Epub 2018 Jun 7. Armbruster et al. (2013). Arabidopsis CURVATURE THYLAKOID1 Proteins Modify Thylakoid Architecture by Inducing Membrane Curvature. 2013 Jul;25(7):2661-78. doi: 10.1105/tpc.113.113118. Epub 2013 Jul 9.

Application example



The dillution series of *Hordeum vulgare* (4; 2; 1 µg Chl) and *Arabidopsis thaliana* (4; 2; 1 µg Chl) thylakois were separated on 12% Criterion XT Bis-Tris SDS-PAGE (BioRad) gels and blotted for 25min 100V to PVDF membrane. Blot was blocked with 5% fat free skimmed milk in PBS-T for 1h at room temperature (RT) with agitation. Blot was incubated in the primary antibody at a dilution of 1:1000 overnight with agitation in 4˚C. The antibody solution was decanted and the blot was washed 3 times for 5 min in PBS-T at RT with agitation. Blot was incubated in secondary antibody (swine anti-rabbit IgG horse radish peroxidase conjugated, from Dako) diluted to 1: 5000 in 1% fat free skimmed milk in PBS-T for 1h at RT with agitation. The blot was washed 5 min in PBS-T and 1 min in PBS developed for 5 min with ECL according to the manufacturers instructions. Exposure time was 60 min.

Courtesy of Dr. Marta Powikrowska, University of Copenhagen, Danmark

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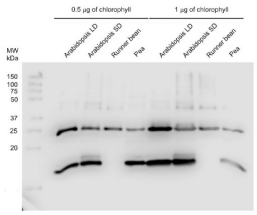

Plant species: *Arabidopsis* LD – *Arabidopsis thaliana* grown under long day conditions *Arabidopsis* SD – *Arabidopsis thaliana* grown under short day conditions Runner bean – *Phaseolus coccineus* L. Pea – *Pisum sativum* L. Experimental procedure: Samples of isolated thylakoids containing 50 µg of chlorophyll were denatured with 150 mL double diluted Roti®-Load 1 (ROTH, Art.-Nr. K929.1) at 95 °C for 2 min. Denatured samples containing 0.5 and 1 µg of chlorophyll were loaded in the gel wells and separated on 14% SDS-PAGE gels and blotted for 45 min at 105 V to PVDF membrane using wet transfer. Blot was blocked with 5% Amersham™ ECL Prime Blocking Agent (cat no: RPN418) in TBS-T for 30 min at room temperature (RT) with agitation. The blot was incubated with the primary antibody at a dilution of 1:1000 overnight at 4˚C with agitation. The antibody solution was decanted and the blot was washed 2 times for 5 min in TBS-T at RT with agitation. The blot was incubated using a secondary antibody (goat anti-rabbit IgG HRP conjugated, from Agrisera, AS09 602) diluted to 1: 25000 in 1% Blocking Agent in TBS-T for 1h at RT with agitation. The blot was washed 2 times for 5 min in TBS-T and developed for 5 min with chemiluminescent reagent, according to instructions. Exposure time was 12 minutes in C-Digit chemiluminescence scanner (Li-COR).

Dr Radosław Mazur, Faculty of Biology, University of Warsaw, Poland