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Product no AS07 257

Anti-PRK ribulose-5-P-kinase | Phosphoribulokinase

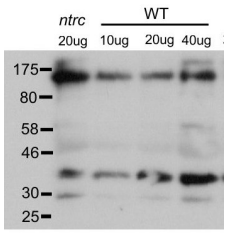
Product information

Immunogen	KLH-conjugated peptide derived from known PRK sequences including *Arabidopsis thaliana* UniProt: P25697, TAIR: At1g32060
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.
Additional information	Antibody can be used as a marker of chloroplast stroma

Application information

Recommended dilution	1 : 1000 (WB)
Expected | apparent MW	44 | 39 kDa (*A. thaliana*)
Confirmed reactivity	*Arabidopsis thaliana, Chlamydomonas reinhardtii, Hordeum vulgare, Synechocystis sp. PCC6803, Synechococcus PCC 7942, Thalassiosira pseudonana, Oryza sativa, Zea mays*
Predicted reactivity	*Glycine max, Hordeum vulgare, Lactuca sativa, Malus domestica, Micromonas sp., Ostreocossus tauri, Physcomitrium patens, Populus trichocarpa, Spinacia oleracea, Solanum tuberosum, Sorghum bicolor, Synechocystis PCC 6803, Synechococcus elongatus, Zea mays, Vitis vinifera* Species of your interest not listed? Contact us
Not reactive in	Proteobacteria
Additional information	Antibody detects PRK using a load from 4-20 µg/well of a chloroplast fraction, incubation over night at 4°C
Selected references	Fukayama et al. (2018). Expression level of Rubisco activase negatively correlates with Rubisco content in transgenic rice. Photosynth Res. 2018 May 30. doi: 10.1007/s11120-018-0525-9. Pérez-Ruiz et al. (2017). NTRC-dependent redox balance of 2-Cys peroxiredoxins is needed for optimal function of the photosynthetic apparatus. Proc Natl Acad Sci U S A. 2017 Nov 7;114(45):12069-12074. doi: 10.1073/pnas.1706003114. Rai et al. (2017). Real-time iTRAQ-based proteome profiling revealed the central metabolism involved in nitrogen starvation induced lipid accumulation in microalgae. Sci Rep. 2017 Apr 5;7:45732. doi: 10.1038/srep45732. (microalga, western blot) Nikkanen et al. (2016). Crosstalk between chloroplast thioredoxin systems in regulation of photosynthesis. Plant Cell Environ. 2016 Aug;39(8):1691-705. doi: 10.1111/pce.12718.

Applicaton example



WT-Col-0 *Arabidopsis thaliana* leaves were frozen in liquid nitrogen and soluble proteins were extracted in a buffer containing 50 mM HEPES, 5 mM NaCl and 10 mM MgCl2. 10 µg, 20 or 40 ug of eparated in SDS-PAGE (15% acrylamide with 6M urea) and blotted 1h to a PVDF membrane using Höefer semi-dry blotter. Blot was blocked with 4 % milk in TTBS for 1h at room temperature (RT) with agitation. Blot was incubated in the primary antibody at a dilution of 1: 1 000 overnight in +4°C. The antibody solution was decanted and the blot was washed 3 x 5 min with TTBS at

RT with agitation. Blot was incubated in secondary antibody (anti-rabbit IgG horse radish peroxidase conjugated, from Agrisera, AS09 602) diluted to 1:20 000 in 1% milk/TTBS for 2h at RT with agitation. The blot was washed 3x5 min in TTBS and 1x5 min in TBS at RT with agitation and developed for 5 min with chemiluminescent detection reagent, according to the manufacturer's instructions.

Courtesy of Lauri Nikkanen, University of Turku, Finland