

Product no **AS07 257****PRK ribulose-5-P-kinase | Phosphoribulokinase****Product information**

<b>Immunogen</b>	KLH-conjugated peptide derived from known PRK sequences including <i>Arabidopsis thaliana</i> UniProt: <a href="#">P25697</a> , TAIR: <a href="#">At1g32060</a>
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Purity</b>	Immunogen affinity purified serum in PBS pH 7.4.
<b>Format</b>	Lyophilized
<b>Quantity</b>	50 µg
<b>Reconstitution</b>	For reconstitution add 50 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 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.
<b>Additional information</b>	Antibody can be used as a marker of chloroplast stroma

**Application information**

<b>Recommended dilution</b>	1 : 1000 (WB)
<b>Expected   apparent MW</b>	44   39 kDa ( <i>A. thaliana</i> )
<b>Confirmed reactivity</b>	<i>Arabidopsis thaliana</i> , <i>Chlamydomonas reinhardtii</i> , <i>Hordeum vulgare</i> , <i>Synechocystis sp. PCC6803</i> , <i>Synechococcus PCC 7942</i> , <i>Thalassiosira pseudonana</i> , <i>Oryza sativa</i> , <i>Zea mays</i>
<b>Predicted reactivity</b>	<i>Glycine max</i> , <i>Hordeum vulgare</i> , <i>Lactuca sativa</i> , <i>Malus domestica</i> , <i>Micromonas sp.</i> , <i>Ostreococcus tauri</i> , <i>Physcomitrium patens</i> , <i>Populus trichocarpa</i> , <i>Spinacia oleracea</i> , <i>Solanum tuberosum</i> , <i>Sorghum bicolor</i> , <i>Synechocystis PCC 6803</i> , <i>Synechococcus elongatus</i> , <i>Zea mays</i> , <i>Vitis vinifera</i>
	Species of your interest not listed? <a href="#">Contact us</a>
<b>Not reactive in</b>	Proteobacteria
<b>Additional information</b>	Antibody detects PRK using a load from 4-20 µg/well of a chloroplast fraction, incubation over night at 4°C

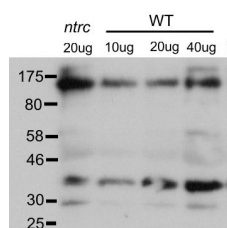
**Selected references**

[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.

[Raj 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.

**Application 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 MgCl<sub>2</sub>. 10 µg, 20 or 40 µg of separated in SDS-PAGE (15% acrylamide with 6M urea) and blotted 1h to a PVDF membrane using Høefer 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

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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