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Product no AS12 1855

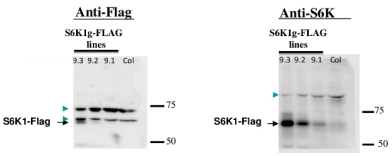
Anti-S6K1/2 | Ribosomal S6 kinase 1/2

Product information

Immunogen	KLH-conjugated peptide, derived from *Arabidopsis thaliana* S6K1: UniProt: P42818, TAIR: AT3G08730 and S6K2: UniProt: Q39030, TAIR: AT3G08720. Due to high amino acid homology, chosen peptide is conserved in both proteins: S6K1 and S6K2.
Host	Rabbit
Clonality	Polyclonal
Purity	Immunogen affinity purified serum in PBS pH 7.4. Contains 0.02% sodium azide.
Format	Lyophilized
Quantity	50 µg
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	So far in applied conditions and extracts endogenous S6K1/2 protein is detectable as a very weak band

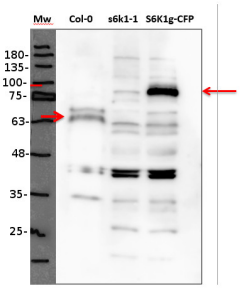
Application information

Recommended dilution	1 : 750-1 : 1000 (WB)
Expected | apparent MW	52.6 kDa (S6K1) and 53 kDa (S6K2)
Confirmed reactivity	*Arabidopsis thaliana*
Predicted reactivity	*Brassica oleracea, Hordeum vulgare, Oryza sativa, Physcomitrella patens, Thelungiella halophila, Triticum aestivum, Zea mays* Species of your interest not listed? Contact us
Not reactive in	*Setaria viridis, Solanum lycopersicum, Solanum tuberosum, Vitis vinifera*
Additional information	Keeping the samples at 4°C all times is of crucial importance. Laucs buffer was used in example below since this is the one which was used routinely by this test laboratory for the work with kinases. Some unspecific bands can be seen, depending upon western blot protocol which is used. Therefore please consider to use a negative control together with your samples
Selected references	O'Leary et al. (2025).T arget of rapamycin signaling in pea embryos is dependent on glutamine but detached from seed storage protein biosynthesis. New Phytol. 2025 Oct 15.doi: 10.1111/nph.70622. Tanigawa et al. (2024). FYVE1/FREE1 is involved in glutamine-responsive TORC1 activation in plants. iScience. 2024 Aug 26;27(9):110814. doi: 10.1016/j.isci.2024.110814. González-López et al. (2021). Growth promotion in Arabidopsis thaliana by bacterial cyclodipeptides involves the TOR/S6K pathway activation. Journal of Plant Physiology. Volume 257, 2021, 153343,ISSN 0176-1617, https://doi.org/10.1016/j.jplph.2020.153343. Salazar-Diaz et al. (2021) TOR senses and regulates spermidine metabolism during seedling establishment and growth in maize and Arabidopsis. iScience. 2021 Oct 12;24(11):103260. doi: 10.1016/j.isci.2021.103260. PMID: 34765910; PMCID: PMC8571727. Angelos & Brandizzi (2021). The UPR regulator IRE1 promotes balanced organ development by restricting TOR-dependent control of cellular differentiation in Arabidopsis. Plant J. 2021 Dec 11. doi: 10.1111/tpj.15629. Epub ahead of print. PMID: 34902186. Kazibwe et al. (2020). TOR mediates the autophagy response to altered nucleotide homeostasis in a ribonuclease mutant. J Exp Bot. 2020 Sep 9;eraa410.doi: 10.1093/jxb/eraa410. Dong et al. (2019). The Arabidopsis THADA homologue modulates TOR activity and cold acclimation. Plant Biol (Stuttg). 2019 Jan;21 Suppl 1:77-83. doi: 10.1111/plb.12893.



20 µg of total protein from flowers and leaves of transgenic *Arabidopsis thaliana* lines were analysed (expressing the genomic copy of S6K1 tagged with FLAG epitop under the control of its own promoter) extracted with homogenization buffer were separated on 10% SDS-PAGE and blotted 2h to PVDF. Blots were blocked with 5% milk in TBST for 1h at room temperature (RT) with agitation. Blot was incubated in the primary antibody at a dilution of 1:750 for overnight at 4C with agitation. The antibody solution was decanted and the blot was washed three times for 15 min in TBS-T at RT with agitation. Blot was incubated in secondary antibody (anti-rabbit IgG horse radish peroxidase conjugated from Agrisera, AS09 602) diluted to 1:10 000 in 2.5% milk in TBST for 1h at RT with agitation. The blot was washed as above and developed for 5 min with ECL according to the manufacturer's instructions. Exposure time was few minutes.

Courtesy of Dr. Rossana Henriques, CRAG, Spain



20 µg of total protein from *Arabidopsis thaliana* total wilde type (Col-0), deletion mutant (s6k1-1), overexpression mutant (S6K1g-CFP) extracted with homogenization buffer were separated on 10% SDS-PAGE and blotted 2h to PVDF. Blots were blocked with 5% milk in TBST for 1h at room temperature (RT) with agitation. Blot was incubated in the primary antibody at a dilution of 1:1000 for overnight at 4C with agitation. The antibody solution was decanted and the blot was washed three times for 15 min in TBS-T at RT with agitation. Blot was incubated in secondary antibody (anti-rabbit IgG horse radish peroxidase conjugated from Agrisera, AS09 602) diluted to 1:10 000 in 2.5% milk in TBST for 1h at RT with agitation. The blot was washed as above and developed for 5 min with ECL according to the manufacturer's instructions. Exposure time was few minutes.

Courtesy of Dr. Rossana Henriques, CRAG, Spain