ARG52420
anti-S6 Kinase 1 phospho (Thr449) antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes S6 Kinase 1 phospho (Thr449)
Tested Reactivity	Arabi
Tested Application	WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	S6 Kinase 1
Species	Arabidopsis
Immunogen	Synthetic phospho-peptide corresponding to amino acid residues surrounding Thr449 conjugated to KLH
Conjugation	Un-conjugated
Alternate Names	ARABIDOPSIS THALIANA PROTEIN-SERINE KINASE 1; ARABIDOPSIS THALIANA PROTEIN-SERINE KINASE 6; ATPK1; ATPK6; ATS6K1; P70 RIBOSOMAL S6 KINASE; PK1; PK6; PROTEIN-SERINE KINASE; protein-serine kinase 1; ROTEIN-SERINE KINASE 6; S6K1

Application Instructions

Application table

Application	Dilution
WB	1:1000

Application Note: Specific for the ~53k S6K1 protein phosphorylated at Thr 449. The immunolabeling of the S6K1 band was completely blocked by the phosphopeptide used as antigen while the dephosphopeptide had no effect on the immunolabeling.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

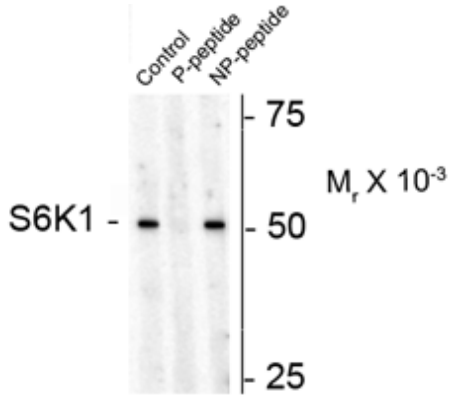
Properties

Form	Liquid
Purification	Affinity Purified
Buffer	10 mM HEPES (pH 7.5), 150 mM NaCl, 0.1 mg/ml BSA and 50% Glycerol
Stabilizer	0.1 mg/ml BSA, 50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 820020 Arabidopsis
Gene Symbol	S6K1
Background	Ribosomal s6 kinase is a member of a family of protein kinases involved in signal transduction. The subfamily S6K has two known homologues: S6K1 and S6K2. First characterized in mammals, S6K1 is controlled by target-of-rapamycin (TOR) kinase, which plays a central regulatory role in growth signaling pathways (Dufner and Thomas 1999). Osmotic stress inhibition of S6K is mediated by the TOR kinase pathway (Mahfouz et al., 2006). The activation of mammalian S6K1 involves phosphorylation at thr389 (Pearson et al., 2005), however its orthologue in Arabidopsis suggests that plant S6K1 thr449 is its functional equivalent (Schepetilnikov et al., 2011). The phytohormone auxin triggers TOR activation, which is followed by S6K1 phosphorylation at thr449, which in turn is critical for translation reinitiation (Schepetilnikov et al., 2013). Rapamycin effectively inactivates S6K1 thr449 phosphorylation in Arabidopsis seedlings, which suppresses TOR PK activity and ultimately plant growth (Xiong Y and Sheen J, 2011).
Highlight	Related news: Antibodies for Arabidopsis thaliana;
Research Area	Cancer antibody; Gene Regulation antibody; Metabolism antibody; Signaling Transduction antibody
Calculated Mw	53 kDa

Images



ARG52420 anti-S6 Kinase 1 phospho (Thr449) antibody WB image

Western blot: Arabidopsis lysate showing specific immunolabeling of the ~53k S6K1 phosphorylated at Thr449 by using ARG52420 anti-S6 Kinase 1 phospho (Thr449) antibody.
Immunolabeling is blocked by preadsorption with the phospho-peptide used as antigen (P-peptide), but not by the corresponding nonphospho-peptide (NP-peptide).