

Anti-Phospho-S6 Kinase 1 (Thr449) ATPK1 Antibody

Catalog Number: P30408

About S6K1

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 Thr-389 (Pearson et al., 2005), however its orthologue in Arabidopsis suggests that plant S6K1 Thr-449 is its functional equivalent (Schepetilnikov et al., 2011). The phytohormone auxin triggers TOR activation, which is followed by S6K1 phosphorylation at Thr-449, which in turn is critical for translation reinitiation (Schepetilnikov et al., 2013). Rapamycin effectively inactivates S6K1 Thr-449 phosphorylation in Arabidopsis seedlings, which suppresses TOR PK activity and ultimately plant growth (Xiong Y and Sheen J, 2011).

Overview

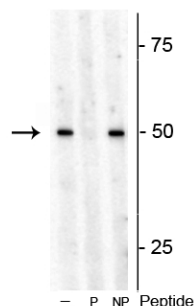
Product Name	Anti-Phospho-S6 Kinase 1 (Thr449) ATPK1 Antibody
Reactive Species	Arabidopsis
Description	Boster Bio Anti-Phospho-S6 Kinase 1 (Thr449) ATPK1 Antibody (Catalog # P30408). Tested in WB applications. This antibody reacts with Arabidopsis.
Application	WB
Clonality	Polyclonal 1B9
Formulation	10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per ml BSA and 50% glycerol.
Storage Instructions	Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C. After date of receipt, stable for at least 1 year at -20°C.
Host	Rabbit
Uniprot ID	P42818

Technical Details

Immunogen	Synthetic phospho-peptide corresponding to amino acid residues surrounding Thr449 of Arabidopsis S6K1, conjugated to keyhole limpet hemocyanin (KLH). Immunogen species is Arabidopsis.
Predicted Reactive Species	Bovine, Canine, Chicken, Primate, Sheep, Xenopus, Zebrafish
Cross Reactivity	No cross reactivity with other proteins.
Isotype	IgG

Form	Liquid
Concentration	0.5-1mg/ml, actual concentration vary by lot. Use suggested dilution ratio to decide dilution procedure.
Purification	Prepared from pooled rabbit serum by affinity purification via sequential chromatography on phospho and non-phosphopeptide affinity columns.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>WB: 1:1000</p>

Anti-Phospho-S6 Kinase 1 (Thr449) ATPK1 Antibody (P30408) Images



Western blot of *Arabidopsis* lysate showing specific immunolabeling of the ~53 kDa S6K1 phosphorylated at Thr⁴⁴⁹ in the first lane (-). Phosphospecificity is shown in the second lane (P) where immunolabeling is blocked by preadsorption with the phosphopeptide used as antigen, but not by the corresponding non-phosphopeptide in the third lane (NP).

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