10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-S6 Kinase 1 (Thr449) Antibody

Our Anti-S6 Kinase 1 (Thr449) rabbit polyclonal phosphospecific primary antibody from PhosphoSolutio

Catalog # AN1547

Specification

Anti-S6 Kinase 1 (Thr449) Antibody - Product Information

Primary Accession	P42818
Reactivity	**Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**52588**

Anti-S6 Kinase 1 (Thr449) Antibody - Additional Information

Gene ID	**820020**

Other Names

70 kDa ribosomal protein S6 kinase 1 antibody, KS6B1_HUMAN antibody, p70 alpha antibody, P70 beta 1 antibody, p70 ribosomal S6 kinase alpha antibody, p70 ribosomal S6 kinase beta 1 antibody, p70 S6 kinase alpha antibody, P70 S6 Kinase antibody, p70 S6 kinase alpha 1 antibody, p70 S6 kinase alpha 2 antibody, p70 S6K antibody, p70 S6K-alpha antibody, p70 S6KA antibody, p70(S6K) alpha antibody, p70(S6K)-alpha antibody, p70-alpha antibody, p70-S6K 1 antibody, p70-S6K antibody, P70S6K antibody, P70S6K1 antibody, p70S6Kb antibody, PS6K antibody, Ribosomal protein S6 kinase 70kDa polypeptide 1 antibody, Ribosomal protein S6 kinase beta 1 antibody, Ribosomal protein S6 kinase beta-1 antibody, Ribosomal protein S6 kinase I antibody, RPS6KB1 antibody, S6K antibody, S6K-beta-1 antibody, S6K1 antibody, Serine/threonine kinase 14 alpha antibody, Serine/threonine-protein kinase 14A antibody, STK14A antibody

Target/Specificity

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).

Format

Antigen Affinity Purified from Pooled Serum

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Anti-S6 Kinase 1 (Thr449) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

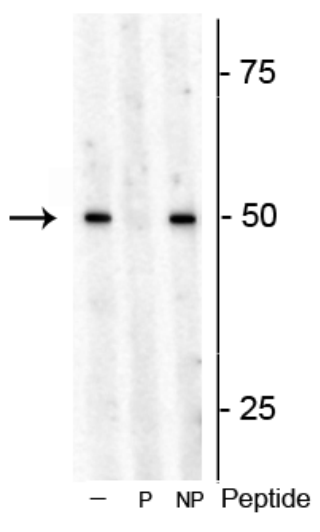
Shipping
Blue Ice

Anti-S6 Kinase 1 (Thr449) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-S6 Kinase 1 (Thr449) Antibody - 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).

Anti-S6 Kinase 1 (Thr449) Antibody - 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 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).