



Anti-S6 Kinase 1 (Thr449) Antibody

Our Anti-S6 Kinase 1 (Thr449) rabbit polyclonal phosphospecific primary antibody from PhosphoSolutio Catalog # AN1547

## **Product Information**

ApplicationWBPrimary AccessionP42818HostRabbitClonalityPolyclonalIsotypeIgGCalculated MW52588

## **Additional Information**

Gene ID
Other Names

820020

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 alpha 2 antibody, p70 S6K 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, p70-S6K antibody, p70S6K1 antibody, p70S6Kb antibody, p70S6Kb antibody, Ribosomal protein S6 kinase 70kDa polypeptide 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).

**Dilution** WB~~1:1000

**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

## **Background**

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Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.