abcam

Product datasheet

Anti-S6K1 (phospho T398) antibody ab228513

1 Image

Overview

Product name	Anti-S6K1 (phospho T398) antibody
Description	Rabbit polyclonal to S6K1 (phospho T398)
Host species	Rabbit
Specificity	ab228513 is specific for endogenous levels of the S6K1 protein phosphorylated at Threonine. Immunolabeling is blocked by preadsorption with the phosphopeptide used as antigen, but not by the corresponding non-phosphopeptide.
Tested applications	**Suitable for:** WB
Species reactivity	**Reacts with:** Drosophila melanogaster
Immunogen	Synthetic peptide corresponding to Drosophila melanogaster S6K1 (phospho T398). Database link: **Q94533**
Positive control	WB: Drosophila S2 cell lysate.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.50 Constituents: 0.24% HEPES, 0.87% Sodium chloride, 0.01% BSA, 50% Glycerol
Purity	Immunogen affinity purified
Purification notes	ab228513 is prepared from pooled rabbit serum by affinity purification via sequential chromatography on phospho and non-phosphopeptide affinity columns.
Clonality	Polyclonal

Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab228513 in the following tested applications.

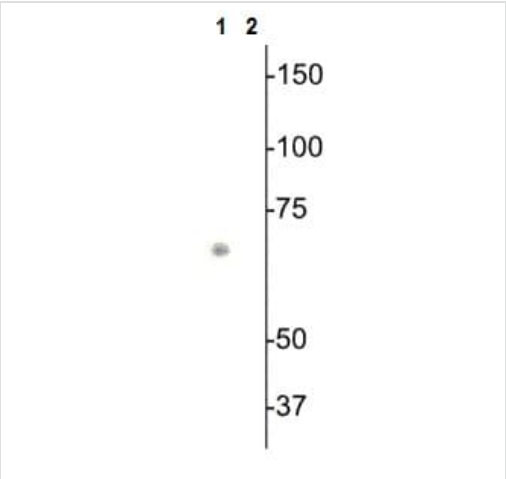
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Predicted molecular weight: 55 kDa.

Target

Function	Acts to integrate nutrient and growth factor signals in regulation of protein synthesis, cell proliferation, cell growth, cell cycle progression and cell survival. Downstream effector of the mTOR signaling pathway. Phosphorylates specifically ribosomal protein S6 in response to insulin or several classes of mitogens. During translation initiation, the inactive form associatess with the eIF-3 complex under conditions of nutrient depletion. Mitogenic stimulation leads to phosphorylation and dissociation from the eIF-3 complex and the free activated form can phosphorylate other translational targets including EIF4B. Promotes protein synthesis by phosphorylating PDCD4 at 'Ser-67' and targeting it for degradation. Phosphorylates RICTOR leading to regulation of mammalian target of rapamycin complex 2 (mTORC2) signaling; probably phosphorylates RICTOR at 'Thr-1135'. Phosphorylates IRS1 at multiple serine residues coupled with insulin resistance; probably phosphorylates IRS1 at 'Ser-270'. Required for TNF-alpha induced IRS-1 degradation. Phosphorylates EEF2K in response to IGF1 and inhibits EEF2K activity. Phosphorylates BAD at 'Ser-99' in response to IGF1 leading to BAD inactivation and inhibition of BAD-induced apoptosis. Phosphorylates mitochondrial RMP leading to dissociation of a RMP:PPP1CC complex; probably phosphorylates RMP at 'Ser-99'. The free mitochondrial PPP1CC can dephosphorylate RPS6KB1 at Thr-412 which is proposed to be a negative feed back mechanism for the RPS6KB1 antiapoptotic function. Phosphorylates GSK3B at 'Ser-9' under conditions leading to loss of the TSC1-TSC2 complex. Phosphorylates POLDIP3.
Tissue specificity	Widely expressed.
Sequence similarities	Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. S6 kinase subfamily. Contains 1 AGC-kinase C-terminal domain. Contains 1 protein kinase domain.
Domain	The autoinhibitory domain is believed to block phosphorylation within the AGC-kinase C-terminal domain and the activation loop. The TOS (TOR signaling) motif is essential for activation by mTORC1.
Post-translational modifications	Phosphorylation at Thr-412 is regulated by mTORC1. The phosphorylation at this site is maintained by an agonist-dependent autophosphorylation mechanism.
Cellular localization	Cytoplasm; Nucleus. Cytoplasm and Cell junction > synapse > synaptosome. Mitochondrion outer membrane.

Images



Western blot - Anti-S6K1 (phospho T398) antibody (ab228513)

All lanes : Anti-S6K1 (phospho T398) antibody (ab228513) at 1/1000 dilution

Lane 1 : Drosophila S2 cell lysate.
Lane 2 : Drosophila S2 cell lysate. with immunizing phosphopeptide

Predicted band size: 55 kDa

Immunolabeling is blocked by preadsorption with the phosphopeptide used as antigen (Lane 2), but not by the corresponding non-phosphopeptide (not shown)

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