

Product datasheet

Anti-S6K1 (phospho T229) antibody ab59208

★★★★★ [2 Abreviews](#) [27 References](#) [4 Images](#)

Overview

Product name	Anti-S6K1 (phospho T229) antibody
Description	Rabbit polyclonal to S6K1 (phospho T229)
Host species	Rabbit
Specificity	Detects endogenous levels of S6K1 only when phosphorylated at threonine 229 for human and rat, threonine 252 for mouse. This antibody was specifically designed for detection of S6K1 and binds to the protein kinase domain of isoforms alpha I and alpha II. We have some feedback to indicate that it may not be able to detect S6K2, but this has not been confirmed.
Tested applications	Suitable for: WB, IHC-P, ELISA
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide corresponding to Human S6K1 aa 150-250 (phospho T229). Synthetic phosphopeptide (Human) from around the phosphorylation site of threonine 229 (THTPFC) Database link: P23443
General notes	<p>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.</p> <p>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</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 50% Glycerol, 0.87% Sodium chloride Without Mg ⁺² and Ca ⁺²
Purity	Immunogen affinity purified
Purification notes	Affinity purified from rabbit antiserum by affinity chromatography using epitope specific

phosphopeptide. The antibody against non-phosphopeptide was removed by chromatography using a non-phosphopeptide corresponding to the phosphorylation site.

Clonality Polyclonal
Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab59208 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	★★★★★ (2)	1/500 - 1/1000. Detects a band of approximately 60 kDa (predicted molecular weight: 53 kDa).
IHC-P		Use at an assay dependent concentration.
ELISA		Use at an assay dependent concentration.

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 associates 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 feedback 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.

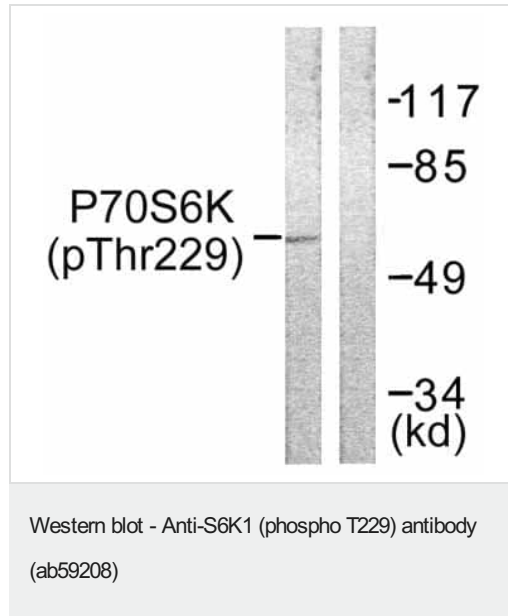
Post-translational modifications

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



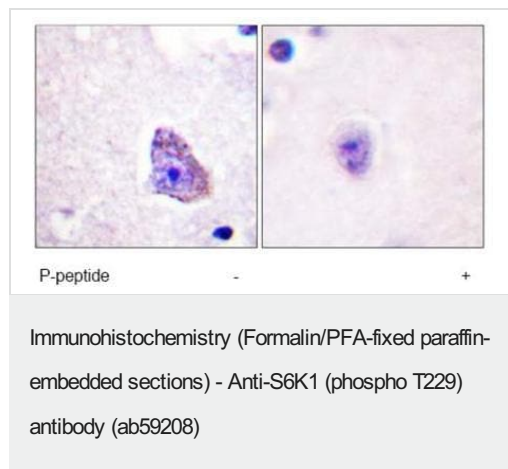
All lanes : Anti-S6K1 (phospho T229) antibody (ab59208) at 1/500 dilution

Lane 1 : Jurkat cell extract

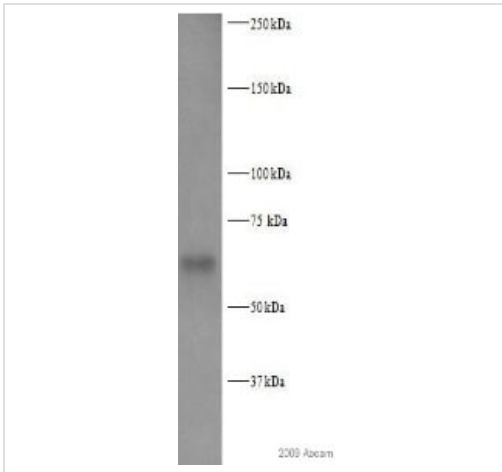
Lane 2 : Jurkat cell extract with immunizing phosphopeptide

Predicted band size: 53 kDa

Observed band size: 60 kDa



Immunohistochemical analysis of paraffin embedded human brain tissue using ab59208 at 1/50 dilution. Samples were treated +/- phosphopeptide.



Western blot - Anti-S6K1 (phospho T229) antibody (ab59208)

This image is a courtesy of Anonymous Abreview

Anti-S6K1 (phospho T229) antibody (ab59208) at 1/500 dilution + Lysates prepared from human HT1080 cell line at 10 µg

Secondary

HRP-conjugated donkey polyclonal to rabbit IgG at 1/5000 dilution

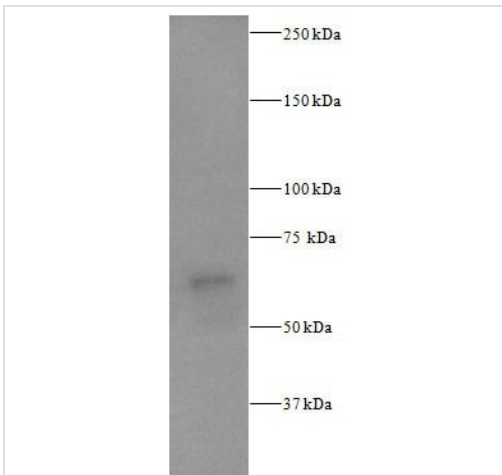
Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 53 kDa

Observed band size: 60 kDa

Exposure time: 8 minutes



Western blot - Anti-S6K1 (phospho T229) antibody (ab59208)

This image is a courtesy of Anonymous Abreview

Anti-S6K1 (phospho T229) antibody (ab59208) at 1/500 dilution + Lysate prepared from mouse NIH 3T3 cells at 10 µg

Secondary

HRP-conjugated donkey polyclonal to rabbit IgG at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 53 kDa

Observed band size: 60 kDa

Exposure time: 8 minutes

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