abcam

Product datasheet

Recombinant Human S6K1 protein (His tag) ab229359

1 Image

Description

Product name	Recombinant Human S6K1 protein (His tag)
Purity	> 85 % SDS-PAGE. Affinity purified
Endotoxin level	< 1.000 Eu/µg
Expression system	Baculovirus infected insect cells
Accession	P23443
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	MRRRRRRDGFYPAPDFRDREAEDMAGVFDIDLDQPEDA GSEDELEEGGQL NESMDHGGVGPYELGMEHCEKFEISETSVNRGPEKIRPE CFELLRVLGKG GYGKVFQVRKVTGANTGKIFAMKVLKKAMIVRNAKDTAHT KAERNILEEV KHPFIVDLIYAFQTGGKLYLILEYLSGGELFMQLEREGIFME DTACFYLA EISMALGHLHQKGIIYRDLKPENIMLNHQGHVKLTDFGLCK ESIHDGTVT HTFCGTIEYMAPEILMRSGHNRAVDWWSLGALMYDMLTG APPFTGENRKK TIDKILKCKLNLPPYLTQEARDLLKKLLKRNAASRLGAGPG DAGEVQAHP FFRHINWEELLARKVEPPFKPLLQSEEDVSQFDSKFTRQT PVDSPDDSTL SESANQVFLGFTYVAPSVLESVKEKFSFEPKIRSPRRFIGS PRTPVSPVK FSPGDFWGRGASASTANPQTPVEYPMETSGIEQMDVTM SGEASAPLPIRQ PNSGPYKKQAFPMISKRPEHLRMNLLEHHHHHH
Predicted molecular weight	60 kDa including tags
Amino acids	1 to 525

Tags	His tag C-Terminus
Additional sequence information	NP_003152.

Specifications

Our **Abpromise guarantee** covers the use of **ab229359** in the following tested applications.

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

Applications	SDS-PAGE
Form	Liquid

Preparation and Storage

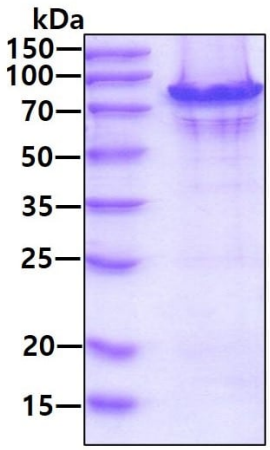
Stability and Storage	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle. pH: 7.5 Constituents: 0.79% Tris HCl, 2.9% Sodium chloride, 0.03% DTT, 0.002% PMSF, 40% Glycerol (glycerin, glycerine)

General Info

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



SDS-PAGE - Recombinant Human S6K1 protein (His tag) (ab229359)

SDS-PAGE analysis of 3 µg ab229359 under reducing condition and visualized by coomassie blue stain.

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors