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Product datasheet

Recombinant Human S6K1 protein ab167933

1 Image

Description

Product name	Recombinant Human S6K1 protein
Purity	> 90 % Densitometry. Affinity purified.
Expression system	Baculovirus infected Sf9 cells
Accession	P23443
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	MRRRRRRDGFYPAPDFRDREAEDMAGVFDIDLDQPEDA GSEDELEEGGQL NESMDHGGVGPYELGMEHCEKFEISETSVNRGPEKIRPE CFELLRVLGKG GYGKVFQVRKVTGANTGKIFAMKVLKKAMIVRNAKDTAHT KAERNILEEV KHPFIVDLIYAFQTGGKLYLILEYLSGGELFMQLEREGIFME DTACFYLA EISMALGHLHQKGIIYRD LKPENIMLNHQGHVKLTDFGLCKESIHDGT VTHTFCGTIEYMAPEILMRSGHNRAVDWWSLGALMYDMLT GAPPFTGENR KKTIDKILKCKLNLPPYLTQEARDLLKKLLKRNAASRLGAG PGDAGEVQA HPFFRHINWEELLARKVEPPFKPLLQSEEDVSQFDSKFTR QTPVDSPDDS TLSESANQVFLGFTYVAPSVLESVKEKFSFEPKIRSPRRFI GSPRTPVSP VKFSPGDFWGRGASASTANPQTPVEYPMETSGIEQMDVT MSGEASAPLPI RQPNSGPYKKQAFPMISKRPEHLRMNL
Predicted molecular weight	76 kDa including tags
Amino acids	1 to 525
Tags	His tag N-Terminus

Specifications

Our Abpromise guarantee covers the use of **ab167933** in the following tested applications.

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

Applications	Western blot SDS-PAGE
Form	Liquid

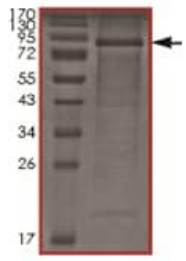
Preparation and Storage

Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80ºC. Avoid freeze / thaw cycles. pH: 7.00 Preservative: 1.02% Imidazole Constituents: 0.002% PMSF, 0.82% Sodium phosphate, 0.004% DTT, 25% Glycerol (glycerin, glycerine), 1.75% Sodium chloride

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 (ab167933)

SDS-PAGE analysis of ab167933.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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