

Product datasheet

Recombinant Human S6K1 protein (His tag) ab229359

1 Image

Description

Product name	Recombinant Human S6K1 protein (His tag)	
Purity	> 85 % SDS-PAGE. ab229359 was purified using conventional chromatography techniques.	
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	<pre> MRRRRRRRDGFYPAPDFRDREAEDMAGVFDIDLDQPEDA GSEDELEEGGQL NESMDHGGVGPYELGMEHCEKFEISETSVNRGPEKIRPE CFELLRVLGKG GYGKVFQVRKVTGANTGKIFAMKVLKKAMVRNAKDTAHT KAERNILEEV KHPFVDLIYAFQTGGKLYLILEYLSGGELFMQLEREGIFME DTACFYLA EISMALGHLHQGIYRDLKPENIMLNHQGHVKLTDGFLCK ESIHDGTVT HTFCGTIEYMAPEILMRSGHNRAVDWWSLGALMYDMLTG APPFTGENRKK TIDKILKCKLNLPPYLQEARDLLKLLKRNAASRLGAGPG DAGEVQAHP FFRHINWEELLARKVEPPFKPLLQSEEDVSQFDSKFTRQT PVDSPDDSTL SESANQVFLGFTYVAPSVLESVKEKFSFEPKIRSPRRFIGS PRTPVSPVK FSPGDFWGRGASASTANPQTPVEYPMETSGIEQMDVMTM SGEASAPLPIRQ PNSGPYKKQAFPMISKRPEHLRMNLEHHHHHHH </pre>	
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 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.

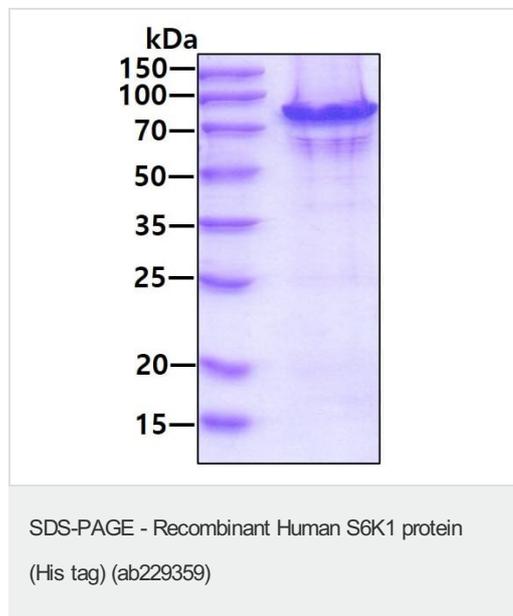
Post-translational modifications

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



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

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