Datasheet for ABIN7554401

RPS6KB1 Protein (AA 1-525) (His tag)

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Overview

Quantity:	1 mg
Target:	RPS6KB1
Protein Characteristics:	AA 1-525
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This RPS6KB1 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat RPS6KB1 Protein expressed in mammalien cells.
Sequence:	MRRRRRRDGF YPAPDFRDRE AEDMAGVFDI DLDQPEDAGS EDELEEGGQL NESMDHGGVG PYELGMEHCE KFEISETSVN RGPEKIRPEC FELLRVLGKG GYGKVFQVRK VTGANTGKIF AMKVLKKAMI VRNAKDTAHT KAERNILEEV KHPFIVDLIY AFQTGGKLYL ILEYLSGGEL FMQLEREGIF MEDTACFYLA EISMALGHLH QKGIIYRDLK PENIMLNHQG HVKLTDFGLC KESIHDGTVT HTFCGTIEYM APEILMRSGH NRAVDWWSLG ALMYDMLTGA PPFTGENRKK TIDKILKCKL NLPPYLTQEA RDLLKKLLKR NAASRLGAGP GDAGEVQAHP FFRHINWEEL LARKVEPPFK PLLQSEEDVS QFDSKFTRQT PVDSPDDSTL SESANQVFLG FTYVAPSVLE SVKEKFSFEP KIRSPRRFIG SPRTPVSPVK FSPGDFWGRG ASASTANPQT PVEYPMETSG IEQMDVTMSG EASAPLPIRQ PNSGPYKKQA FPMISKRPEH LRMNL **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special**

Product Details

	request, please contact us.
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalien cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • State-of-the-art algorithm used for plasmid design (Gene synthesis). This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein. If you are not interested in a full length protein, please contact us for individual protein fragments. The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.
Purity:	> 90 % as determined by Bis-Tris Page, Western Blot
Grade:	custom-made

Target Details

Target:	RPS6KB1
Alternative Name:	RPS6KB1 (RPS6KB1 Products)
Background:	Ribosomal protein S6 kinase beta-1 (S6K-beta-1) (S6K1) (EC 2.7.11.1) (70 kDa ribosomal protein S6 kinase 1) (P70S6K1) (p70-S6K 1) (Ribosomal protein S6 kinase I) (Serine/threonine-protein kinase 14A) (p70 ribosomal S6 kinase alpha) (p70 S6 kinase alpha) (p70 S6K-alpha) (p70 S6KA),FUNCTION: Serine/threonine-protein kinase that acts downstream of mTOR signaling in response to growth factors and nutrients to promote cell proliferation, cell growth and cell cycle progression (PubMed:11500364, PubMed:12801526, PubMed:14673156, PubMed:15071500, PubMed:15341740, PubMed:16286006, PubMed:17052453, PubMed:17053147, PubMed:17936702, PubMed:18952604, PubMed:19085255, PubMed:19720745, PubMed:19935711, PubMed:19995915, PubMed:23429703, PubMed:28178239, PubMed:22017876). Regulates protein synthesis through phosphorylation of EIF4B, RPS6 and EEF2K, and contributes to cell survival by repressing the pro-apoptotic function of BAD (PubMed:11500364, PubMed:12801526, PubMed:14673156,

PubMed:15071500, PubMed:15341740, PubMed:16286006, PubMed:17052453, PubMed:17053147, PubMed:17936702, PubMed:18952604, PubMed:19085255, PubMed:19720745, PubMed:19935711, PubMed:19995915, PubMed:23429703, PubMed:28178239, PubMed:22017876). Under conditions of nutrient depletion, the inactive form associates with the EIF3 translation initiation complex (PubMed:16286006). Upon mitogenic stimulation, phosphorylation by the mechanistic target of rapamycin complex 1 (mTORC1) leads to dissociation from the EIF3 complex and activation (PubMed:16286006). The active form then phosphorylates and activates several substrates in the pre-initiation complex, including the EIF2B complex and the cap-binding complex component EIF4B (PubMed:16286006). Also controls translation initiation by phosphorylating a negative regulator of EIF4A, PDCD4, targeting it for ubiquitination and subsequent proteolysis (PubMed:17053147). Promotes initiation of the pioneer round of protein synthesis by phosphorylating POLDIP3/SKAR (PubMed:15341740). In response to IGF1, activates translation elongation by phosphorylating EEF2 kinase (EEF2K), which leads to its inhibition and thus activation of EEF2 (PubMed:11500364). Also plays a role in feedback regulation of mTORC2 by mTORC1 by phosphorylating RICTOR, resulting in the inhibition of mTORC2 and AKT1 signaling (PubMed:19720745, PubMed:19935711, PubMed:19995915). Also involved in feedback regulation of mTORC1 and mTORC2 by phosphorylating DEPTOR (PubMed:22017876). Mediates cell survival by phosphorylating the pro-apoptotic protein BAD and suppressing its pro-apoptotic function (By similarity). Phosphorylates mitochondrial URI1 leading to dissociation of a URI1-PPP1CC complex (PubMed:17936702). The free mitochondrial PPP1CC can then dephosphorylate RPS6KB1 at Thr-412, which is proposed to be a negative feedback mechanism for the RPS6KB1 anti-apoptotic function (PubMed:17936702). Mediates TNF-alpha-induced insulin resistance by phosphorylating IRS1 at multiple serine residues, resulting in accelerated degradation of IRS1 (PubMed:18952604). In cells lacking functional TSC1-2 complex, constitutively phosphorylates and inhibits GSK3B (PubMed:17052453). May be involved in cytoskeletal rearrangement through binding to neurabin (By similarity). Phosphorylates and activates the pyrimidine biosynthesis enzyme CAD, downstream of MTOR (PubMed:23429703). Following activation by mTORC1, phosphorylates EPRS and thereby plays a key role in fatty acid uptake by adipocytes and also most probably in interferon-gamma-induced translation inhibition (PubMed:28178239). {ECO:0000250|UniProtKB:P67999, ECO:0000250|UniProtKB:Q8BSK8, ECO:0000269|PubMed:11500364, ECO:0000269|PubMed:12801526, ECO:0000269|PubMed:14673156, ECO:0000269|PubMed:15071500, ECO:0000269|PubMed:15341740, ECO:0000269|PubMed:16286006, ECO:0000269|PubMed:17052453, ECO:0000269|PubMed:17053147, ECO:0000269|PubMed:17936702,

Target Details

	ECO:0000269|PubMed:18952604, ECO:0000269|PubMed:19085255, ECO:0000269|PubMed:19720745, ECO:0000269|PubMed:19935711, ECO:0000269|PubMed:19995915, ECO:0000269|PubMed:22017876, ECO:0000269|PubMed:23429703, ECO:0000269|PubMed:28178239}.
Molecular Weight:	59.1 kDa
UniProt:	P23443
Pathways:	PI3K-Akt Signaling, RTK Signaling, AMPK Signaling, Regulation of Cell Size, Skeletal Muscle Fiber Development, Feeding Behaviour, G-protein mediated Events, Smooth Muscle Cell Migration, Interaction of EGFR with phospholipase C-gamma, Warburg Effect

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months

