

Datasheet for ABIN7554394  
**RPS6KA3 Protein (AA 1-740) (His tag)**



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## Overview

Quantity:	1 mg
Target:	RPS6KA3
Protein Characteristics:	AA 1-740
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This RPS6KA3 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

## Product Details

Purpose:	Custom-made recombinat RPS6KA3 Protein expressed in mammalien cells.
Sequence:	MPLAQLADPW QKMAVESPSD SAENGQQIMD EPMGEEEINP QTEEVSIKEI AITHHVKEGH EKADPSQFEL LKVLGQGSFG KVFLVKKISG SDARQLYAMK VLKKATLKVR DRVRTKMERD ILVEVNHPFI VKLHYAFQTE GKLYLILDFL RGGDLFTRLS KEVMFTEEDV KFYLAELALA LDHLHSLGII YRDLKPENIL LDEEGHIKLT DFGLSKESID HEKKAYSFCG TVEYMAPEVV NRRGHTQSAD WWSFGVLMFE MLTGTLPFQG KDRKETMTMI LKAKLGMPQF LSPEAQSLLR MLFKRNPANR LGAGPDGVVE IKRHSFFSTI DWNKLYRREI HPPFKPATGR PEDTFYFDPE FTAKTPKDSP GIPPSANAHQ LFRGFSAVAI TSDDSQAMQ TVGVHSIVQQ LHRNSIQFTD GYEVKEDIGV GSYSVCKRCI HKATNMEFAV KIIDKSKRDP TEEIEILLRY GQHPNIITLK DVYDDGKYVY VVTELMKGG E LLDKILRQKF FSEREASAVL FTITKTVEYL HAQGVVHRDL KPSNILYVDE SGNPESIRIC DFGFAKQLRA ENLLMTPCY TANFVAPEVL KRQGYDAACD IWSLGVLLYT MLTGYPFAN GPDDTPEEIL ARIGSGKFSL SGGYWNSVSD TAKDLVSKML

## Product Details

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HVDPHQRLTA ALVLRHPWIV HWDQLPQYQL NRQDAPHLVK GAMAATYSAL NRNQSPVLEP  
VGRSTLAQRR GIKKITSTAL **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 request, please contact us.**

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### Characteristics:

#### Key Benefits:

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian 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.

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### Purity:

> 90 % as determined by Bis-Tris Page, Western Blot

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### Grade:

custom-made

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## Target Details

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### Target:

RPS6KA3

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### Alternative Name:

RPS6KA3 ([RPS6KA3 Products](#))

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### Background:

Ribosomal protein S6 kinase alpha-3 (S6K-alpha-3) (EC 2.7.11.1) (90 kDa ribosomal protein S6 kinase 3) (p90-RSK 3) (p90RSK3) (Insulin-stimulated protein kinase 1) (ISPK-1) (MAP kinase-activated protein kinase 1b) (MAPK-activated protein kinase 1b) (MAPKAP kinase 1b) (MAPKAPK-1b) (Ribosomal S6 kinase 2) (RSK-2) (pp90RSK2),FUNCTION: Serine/threonine-protein kinase that acts downstream of ERK (MAPK1/ERK2 and MAPK3/ERK1) signaling and mediates mitogenic and stress-induced activation of the transcription factors CREB1, ETV1/ER81 and NR4A1/NUR77, regulates translation through RPS6 and EIF4B phosphorylation, and mediates cellular proliferation, survival, and differentiation by modulating mTOR signaling and repressing pro-apoptotic function of BAD and DAPK1 (PubMed:9770464,

PubMed:16223362, PubMed:17360704, PubMed:16213824). In fibroblast, is required for EGF-stimulated phosphorylation of CREB1 and histone H3 at 'Ser-10', which results in the subsequent transcriptional activation of several immediate-early genes (PubMed:9770464, PubMed:10436156). In response to mitogenic stimulation (EGF and PMA), phosphorylates and activates NR4A1/NUR77 and ETV1/ER81 transcription factors and the cofactor CREBBP (PubMed:16223362). Upon insulin-derived signal, acts indirectly on the transcription regulation of several genes by phosphorylating GSK3B at 'Ser-9' and inhibiting its activity (PubMed:8250835). Phosphorylates RPS6 in response to serum or EGF via an mTOR-independent mechanism and promotes translation initiation by facilitating assembly of the preinitiation complex (PubMed:17360704). In response to insulin, phosphorylates EIF4B, enhancing EIF4B affinity for the EIF3 complex and stimulating cap-dependent translation (PubMed:18508509, PubMed:18813292). Is involved in the mTOR nutrient-sensing pathway by directly phosphorylating TSC2 at 'Ser-1798', which potently inhibits TSC2 ability to suppress mTOR signaling, and mediates phosphorylation of RPTOR, which regulates mTORC1 activity and may promote rapamycin-sensitive signaling independently of the PI3K/AKT pathway (PubMed:18722121). Mediates cell survival by phosphorylating the pro-apoptotic proteins BAD and DAPK1 and suppressing their pro-apoptotic function (PubMed:16213824). Promotes the survival of hepatic stellate cells by phosphorylating CEBPB in response to the hepatotoxin carbon tetrachloride (CCl4) (PubMed:18508509, PubMed:18813292). Is involved in cell cycle regulation by phosphorylating the CDK inhibitor CDKN1B, which promotes CDKN1B association with 14-3-3 proteins and prevents its translocation to the nucleus and inhibition of G1 progression (By similarity). In LPS-stimulated dendritic cells, is involved in TLR4-induced macropinocytosis, and in myeloma cells, acts as effector of FGFR3-mediated transformation signaling, after direct phosphorylation at Tyr-529 by FGFR3 (By similarity). Negatively regulates EGF-induced MAPK1/3 phosphorylation via phosphorylation of SOS1 (By similarity). Phosphorylates SOS1 at 'Ser-1134' and 'Ser-1161' that create YWHAB and YWHAE binding sites and which contribute to the negative regulation of MAPK1/3 phosphorylation (By similarity). Phosphorylates EPHA2 at 'Ser-897', the RPS6KA-EPHA2 signaling pathway controls cell migration (PubMed:26158630). Acts as a regulator of osteoblast differentiation by mediating phosphorylation of ATF4, thereby promoting ATF4 transactivation activity (By similarity). {ECO:0000250|UniProtKB:P18654, ECO:0000269|PubMed:10436156, ECO:0000269|PubMed:16213824, ECO:0000269|PubMed:16223362, ECO:0000269|PubMed:17360704, ECO:0000269|PubMed:18722121, ECO:0000269|PubMed:26158630, ECO:0000269|PubMed:8250835, ECO:0000269|PubMed:9770464, ECO:0000303|PubMed:18508509, ECO:0000303|PubMed:18813292}.

## Target Details

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Molecular Weight:	83.7 kDa
UniProt:	<a href="#">P51812</a>
Pathways:	<a href="#">MAPK Signaling</a> , <a href="#">Neurotrophin Signaling Pathway</a> , <a href="#">Activation of Innate immune Response</a> , <a href="#">Toll-Like Receptors Cascades</a>

## Application Details

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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

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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