

# Recombinant Human RPS6KA1 Protein (Q33-T353), His tagged

Cat. No. RPS6KA1-1149H Lot. No. (See product label)

## SPECIFICATION

<b>Product Overview</b>	Recombinant Human 8His-TEV-RSK1(Q33-T353) Protein was expressed in Insect cell.
<b>Species</b>	Human
<b>Source</b>	Insect Cells
<b>ProteinLength</b>	Q33-T353
<b>Description</b>	<p>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. In fibroblast, is required for EGF-stimulated phosphorylation of CREB1, which results in the subsequent transcriptional activation of several immediate-early genes. In response to mitogenic stimulation (EGF and PMA), phosphorylates and activates NR4A1/NUR77 and ETV1/ER81 transcription factors and the cofactor CREBBP. Upon insulin-derived signal, acts indirectly on the transcription regulation of several genes by phosphorylating GSK3B at 'Ser-9' and inhibiting its activity. Phosphorylates RPS6 in response to serum or EGF via an mTOR-independent mechanism and promotes translation initiation by facilitating assembly of the pre-initiation complex. In response to insulin, phosphorylates EIF4B, enhancing EIF4B affinity for the EIF3 complex and stimulating cap-dependent</p>

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translation. 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. Mediates cell survival by phosphorylating the pro-apoptotic proteins BAD and DAPK1 and suppressing their pro-apoptotic function. Promotes the survival of hepatic stellate cells by phosphorylating CEBPB in response to the hepatotoxin carbon tetrachloride (CCl4). Mediates induction of hepatocyte proliferation by TGFA through phosphorylation of CEBPB. 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. Phosphorylates EPHA2 at 'Ser-897', the RPS6KA-EPHA2 signaling pathway controls cell migration.

<b>Form</b>	Liquid
<b>Endotoxin</b>	< 0.01 EU per µg of the protein
<b>Purity</b>	90%
<b>Stability</b>	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.
<b>Storage</b>	Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
<b>Storage Buffer</b>	Supplied as sterile 50 mM Tris-HCl (pH7.5), 200 mM NaCl, 20% glycerol
<b>Shipping</b>	It is shipped out with blue ice.

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## GENE INFORMATION

<b>Gene Name</b>	RPS6KA1 ribosomal protein S6 kinase, 90kDa, polypeptide 1 [ Homo sapiens (human) ]
<b>Official Symbol</b>	RPS6KA1
<b>Synonyms</b>	RPS6KA1; ribosomal protein S6 kinase, 90kDa, polypeptide 1; ribosomal protein S6 kinase, 90kD, polypeptide 1; ribosomal protein S6 kinase alpha-1; HU 1; RSK; RSK1; RSK-1; p90S6K; p90RSK1; p90-RSK 1; MAPKAPK-1a; S6K-alpha 1; S6K-alpha-1; MAPKAP kinase 1a; ribosomal S6 kinase 1; MAPK-activated protein kinase 1a; ribosomal protein S6 kinase alpha 1; 90 kDa ribosomal protein S6 kinase 1; MAP kinase-activated protein kinase 1a; dJ590P13.1 (ribosomal protein S6 kinase, 90kD, polypeptide 1); HU-1; MAPKAPK1A;
<b>Gene ID</b>	6195
<b>mRNA Refseq</b>	NM_001006665
<b>Protein Refseq</b>	NP_001006666
<b>MIM</b>	601684
<b>UniProt ID</b>	Q15418

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