RPS6KA3 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	RPS6KA3, Polyclonal Antibody
Full Product Name	RPS6KA3 Antibody, HRP conjugated
Product Gene Name	anti-RPS6KA3 antibody
Product Synonym Names	Ribosomal protein S6 kinase alpha-3; S6K-alpha-3; 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; RPS6KA3; ISPK1; MAPKAPK1B; RSK2
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid
Purity/Purification	>95%, Protein G purified
Preparation and Storage	Upon receipt, store at -20 degree C or -80 degree C. Avoid repeated freeze.
Matching Pairs	Unconjugated Antibody: RPS6KA3 (MBS7105093) HRP Conjugated Antibody: RPS6KA3 (MBS7105094)
Molecular Weight	83,736 Da
OMIM	U08316 mRNA
3D Structure	ModBase 3D Structure for P51812
Immunogen	Recombinant Human Ribosomal protein S6 kinase alpha-3 protein (214-431AA)
Conjugation	HRP
Buffer	Preservative: 0.03% Proclin 300 Constituents: 50% Glycerol, 0.01M PBS, pH 7.4
Product Categories/Family for anti-RPS6KA3 antibody	Signal Transduction
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-RPS6KA3 antibody	ELISA (EIA)

Related Product Information for anti-RPS6KA3 antibody	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 and histone H3 at 'Ser-10', 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 preinitiation complex. In response to insulin, phosphorylates EIF4B, enhancing EIF4B affinity for the EIF3 complex and stimulating cap-dependent 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). 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. 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. Negatively regulates EGF-induced MAPK1/3 phosphorylation via phosphorylation of SOS1. 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).
Other Notes	Small volumes of anti-RPS6KA3 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for RPS6KA3 purchase	MBS7105094 is an antibody targeting RPS6KA3. Also known as RPS6KA3 Antibody, HRP conjugated. Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for RPS6KA3. It may not necessarily be applicable to this product.

NCBI GI #	4759050
NCBI GeneID	6197
NCBI Accession #	NP_004577.1
UniProt Primary Accession #	P51812
UniProt Secondary Accession #	Q4VAP3; Q59H26; Q5JPK8; Q7Z3Z7; B2R9V4
UniProt Related Accession #	P51812
GenBank Nucleotide #	NM_004586.2
NCBI Official Full Name	ribosomal protein S6 kinase alpha-3
NCBI Official Synonym Full Names	ribosomal protein S6 kinase A3
NCBI Official Symbol	RPS6KA3
NCBI Official Synonym Symbols	CLS; RSK; HU-3; RSK2; MRX19; ISPK-1; p90-RSK2; pp90RSK2; MAPKAPK1B; S6K-alpha3
UniProt Protein Name	Ribosomal protein S6 kinase alpha-3
UniProt Synonym Protein Names	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
Protein Family	Ribosomal protein S6 kinase

UniProt Gene Name	RPS6KA3
UniProt Synonym Gene Names	ISPK1; MAPKAPK1B; RSK2; S6K-alpha-3; p90-RSK 3; p90RSK3; ISPK-1; MAPK-activated protein kinase 1b; MAPKAP kinase 1b; MAPKAPK-1b; RSK-2
NCBI Protein Information	ribosomal protein S6 kinase alpha-3
NCBI Summary for RPS6KA3	This gene encodes a member of the RSK (ribosomal S6 kinase) family of serine/threonine kinases. This kinase contains 2 non-identical kinase catalytic domains and phosphorylates various substrates, including members of the mitogen-activated kinase (MAPK) signalling pathway. The activity of this protein has been implicated in controlling cell growth and differentiation. Mutations in this gene have been associated with Coffin-Lowry syndrome (CLS). [provided by RefSeq, Jul 2008]
UniProt Comments for RPS6KA3	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 and histone H3 at 'Ser-10', 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 preinitiation complex. In response to insulin, phosphorylates EIF4B, enhancing EIF4B affinity for the EIF3 complex and stimulating cap-dependent 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). 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. 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. Negatively regulates EGF-induced MAPK1/3 phosphorylation via phosphorylation of SOS1. 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 (). Phosphorylates EPHA2 at 'Ser-897', the RPS6KA-EPHA2 signaling pathway controls cell migration (PubMed:26158630).
Research Articles on RPS6KA3	**1.** RSK2 affects mitotic progression by regulating the distribution, basal level and the stability of mitotic spindles.
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