

Rabbit RPS6KA1 Polyclonal Antibody | anti-RPS6KA1 antibody

RPS6KA1 Antibody (S732)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA286997	Rabbit	Human (Predicted Reactivity: Mouse, Rat)	Immunohistochemistry, ELISA, Western Blot

PRODUCT SYNONYMS

RPS6KA1; Polyclonal Antibody; RPS6KA1 Antibody (S732); Ribosomal protein S6 kinase alpha-1; S6K-alpha-1; 90 kDa ribosomal protein S6 kinase 1; p90-RSK 1; p90RSK1; p90S6K; MAP kinase-activated protein kinase 1a; MAPK-activated protein kinase 1a; MAPKAP kinase 1a; MAPKAPK-1a; Ribosomal S6 kinase 1; RSK-1; MAPKAPK1A; RSK1; anti-RPS6KA1 antibody

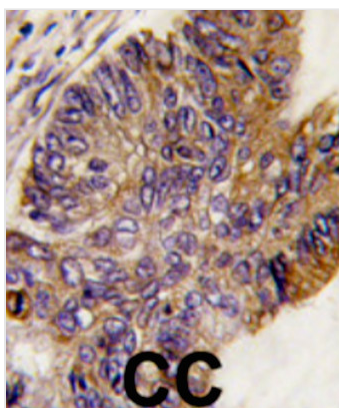
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human (Predicted Reactivity: Mouse, Rat)
Clonality	Polyclonal
Isotype	Rabbit Ig
Specificity	This RPS6KA1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 710-735 amino acids from human RPS6KA1.
Purity/Purification	This antibody is purified through a protein A column, followed by peptide affinity purification.
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.
Sequence Positions	710-735
Sequence Length	744
Applicable Applications for anti-RPS6KA1 antibody	IHC (Immunohistochemistry), ELISA, WB (Western Blot)
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. 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 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 (By similarity). 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 (PubMed:26158630).
Cellular Location	Nucleus. Cytoplasm.

Preparation and Storage

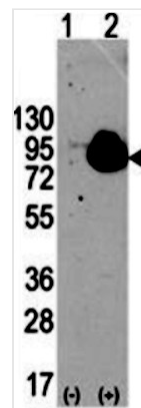
Maintain refrigerated at 2-8 degree C for up to 2 weeks. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.

IMAGES



IHC (Immunohistochemistry)

Formalin-fixed and paraffin-embedded human colon carcinoma tissue reacted with RPS6KA1 Antibody (S732), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



WB (Western Blot)

Western blot analysis of RPS6KA1 (arrow) using rabbit polyclonal RPS6KA1 Antibody (S732). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the RPS6KA1 gene (Lane 2) (Origene Technologies).

ADDITIONAL INFORMATION

Related Product Information for anti-RPS6KA1 antibody	RPS6KA1 is a member of the RSK (ribosomal S6 kinase) family of serine/threonine kinases. This kinase contains 2 nonidentical 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.
Product Categories/Family for anti-RPS6KA1 antibody	Signal Transduction
References	Cavet, M.E., et al., J. Biol. Chem. 278(20):18376-18383 (2003). Versteeg, H.H., et al., J. Biol. Chem. 277(30):27065-27072 (2002). Fingar, D.C., et al., Genes Dev. 16(12):1472-1487 (2002). Lu, H., et al., J. Pharmacol. Exp. Ther. 300(3):818-823 (2002). Saitoh, M., et al., J. Biol. Chem. 277(22):20104-20112 (2002).

NCBI AND UNIPROT INFORMATION

NCBI GI #	55743134
NCBI GeneID	6195
NCBI Accession #	NP_001006666.1 ; NP_002944.2
NCBI GenBank Nucleotide #	NM_001006665.1
UniProt Accession #	Q15418 ; Q5SVM5 ; Q5SVM8 ; Q5SVM9 ; Q96C05 ; Q9BQK2 ; A6NGG4 ; A8K9K7 ; B2RDY8 ; B7Z5J0 ; E9PRI4
Molecular Weight	82723
NCBI Official Full Name	ribosomal protein S6 kinase alpha-1 isoform b
NCBI Official Synonym Full Names	ribosomal protein S6 kinase, 90kDa, polypeptide 1
NCBI Official Symbol	RPS6KA1
NCBI Official Synonym Symbols	RSK; HU-1; RSK1; p90Rsk; MAPKAPK1A
NCBI Protein Information	ribosomal protein S6 kinase alpha-1

UniProt Protein Name	Ribosomal protein S6 kinase alpha-1
UniProt Gene Name	RPS6KA1
UniProt Synonym Gene Names	MAPKAPK1A; RSK1; S6K-alpha-1; p90-RSK 1; p90RSK1; p90S6K; MAPK-activated protein kinase 1a; MAPKAP kinase 1a; MAPKAPK-1a; RSK-1
UniProt Entry Name	KS6A1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/rps6ka1-antibody-immunohistochemistry-western-blot-elisa/286997>