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[Primary Antibody]

Rabbit Anti-RPS6KB1 antibody

Catalog Number: SL6370R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	RPS6KB1
Immunogen:	KLH conjugated synthetic peptide derived from human RPS6KB1: 251-350/525
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB=1:500-2000 IHC-P=1:100-500 IHC-F=1:100-500 IF=1:100-500 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human,Rat (predicted:Mouse,Chicken,Dog,Pig,Cow,Horse,Rabbit,Goat)
Predicted MW.:	70kDa
Subcellular Location:	The nucleus cytoplasmic The cell membrane Mitochondrion
Background:	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 several residues of the S6 ribosomal protein. The kinase activity of this protein leads to an increase in protein synthesis and cell proliferation. Amplification of the region of DNA encoding this gene and overexpression of this kinase are seen in some breast cancer cell lines. Alternate translational start sites have been described and alternate transcriptional splice variants have been observed but have not been thoroughly characterized. [provided by RefSeq, Jul 2008]. **Function:** Serine/threonine-protein kinase that acts downstream of mTOR

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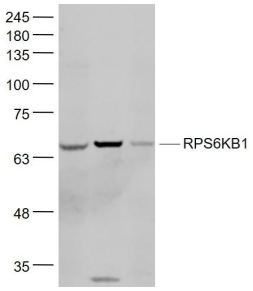
	signaling in response to growth factors and nutrients to promote cell proliferation, cell growth and cell cycle progression. Regulates protein synthesis through phosphorylation of EIF4B, RPS6 and EEF2K, and contributes to cell survival by repressing the pro-apoptotic function of BAD. Under conditions of nutrient depletion, the inactive form associates with the EIF3 translation initiation complex. Upon mitogenic stimulation, phosphorylation by the mammalian target of rapamycin complex 1 (mTORC1) leads to dissociation from the EIF3 complex and activation. The active form then phosphorylates and activates several substrates in the preinitiation complex, including the EIF2B complex and the cap-binding complex component EIF4B. Also controls translation initiation by phosphorylating a negative regulator of EIF4A, PDCD4, targeting it for ubiquitination and subsequent proteolysis. Promotes initiation of the pioneer round of protein synthesis by phosphorylating POLDIP3/SKAR. In response to IGF1, activates translation elongation by phosphorylating EEF2 kinase (EEF2K), which leads to its inhibition and thus activation of EEF2. Also plays a role in feedback regulation of mTORC2 by mTORC1 by phosphorylating RICTOR, resulting in the inhibition of mTORC2 and AKT1 signaling. Mediates cell survival by phosphorylating the pro-apoptotic protein BAD and suppressing its pro-apoptotic function. Phosphorylates mitochondrial URI1 leading to dissociation of a URI1-PPP1CC complex. 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. Mediates TNF-alpha-induced insulin resistance by phosphorylating IRS1 at multiple serine residues, resulting in accelerated degradation of IRS1. In cells lacking functional TSC1-2 complex, constitutively phosphorylates and inhibits GSK3B. May be involved in cytoskeletal rearrangement through binding to neurabin. **Subunit:** Interacts with PPP1R9A/neurabin-1. **Subcellular Location:** Cell junction, synapse, synaptosome. Mitochondrion outer membrane. Isoform Alpha I: Nucleus. Cytoplasm. Isoform Alpha II: Cytoplasm. **Tissue Specificity:** Widely expressed. **Post-translational modifications:** Phosphorylation at Thr-412 is regulated by mTORC1. The phosphorylation at this site is maintained by an agonist-dependent autophosphorylation mechanism. Activated by phosphorylation at Thr-252 by PDPK1. Dephosphorylation by PPP1CC at Thr-412 in mitochondrion.

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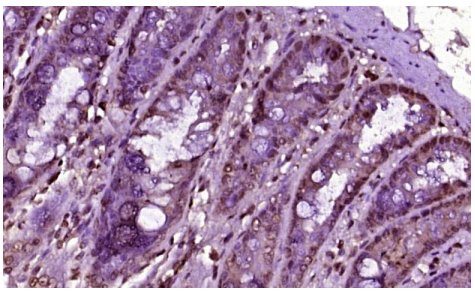
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	Similarity: Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. S6 kinase subfamily. Contains 1 AGC-kinase C-terminal domain. Contains 1 protein kinase domain. **Database links:** **Entrez Gene:** 6198 Human **Entrez Gene:** 72508 Mouse **Entrez Gene:** 100009260 Rabbit **Entrez Gene:** 83840 Rat Omim: 608938 Human **SwissProt:** Q6TJY3 Cow **SwissProt:** P23443 Human **SwissProt:** Q8BSK8 Mouse **SwissProt:** P67998 Rabbit **Unigene:** 463642 Human **Unigene:** 394280 Mouse **Unigene:** 4042 Rat

[VALIDATION IMAGES]



Sample:
MCF-7(Human) Cell Lysate at 30 ug
U-2OS(Human) Cell Lysate at 30 ug
MOLT-4(Human) Cell Lysate at 30 ug
Primary: Anti- RPS6KB1 (SL6370R) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 70 kD
Observed band size: 68 kD



Paraformaldehyde-fixed, paraffin embedded (rat colon tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (RPS6KB1) Polyclonal Antibody, Unconjugated (SL6370R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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