

## Rabbit Anti-RPS6KB1 antibody

SL1426R

<b>Product Name</b>	RPS6KB1
<b>Chinese Name</b>	核糖体 S6 蛋白激酶抗体
<b>Alias</b>	p70(S6K)-alpha; ribosomal protein S6 kinase; p70 S6 Kinase; P70 Beta1; KS6B1_HUMAN; Ribosomal protein S6 kinase beta-1; 70 kDa ribosomal protein S6 kinase 1; P70S6K1; p70-S6K 1; Ribosomal protein S6 kinase I; Serine/threonine-protein kinase 14A; p70 ribosomal S6 kinase alpha; p70 S6 kinase alpha; p70 S6K-alpha; p70 S6KA; S6K; PS6K; S6K1; STK14A; p70-S6K; p70 S6KA; p70-alpha; S6K-beta-1; p70(S6K)-alpha; p70 S6 kinase $\alpha$ ; p70 S6 kinase- $\alpha$ .
<b>Research Area</b>	Tumour Cell biology immunology transcriptional regulatory factor Kinases and Phosphatases
<b>Immunogen Species</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>React Species</b>	Human,Rat(predicted:Mouse,Chicken,Dog,Pig,Cow) IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1ug/test (Paraffin sections need antigen repair)
<b>Applications</b>	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Theoretical molecular weight</b>	58kDa
<b>Cellular localization</b>	The nucleus cytoplasmic The cell membrane
<b>Form</b>	Liquid
<b>Concentration</b>	1mg/ml
<b>immunogen</b>	KLH conjugated synthetic peptide derived from the middle of human p70 S6 Kinase: 265-380/525
<b>Lsotype</b>	IgG
<b>Purification</b>	affinity purified by Protein A
<b>Buffer Solution</b>	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
<b>Storage</b>	Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

**Attention**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

**PubMed**

[PubMed](#)

This gene encodes a member of the ribosomal S6 kinase family of serine/threonine kinases. The encoded protein responds to mTOR (mammalian target of rapamycin) signaling to promote protein synthesis, cell growth, and cell proliferation. Activity of this gene has been associated with human cancer. Alternatively spliced transcript variants have been observed. The use of alternative translation start sites results in isoforms with longer or shorter N-termini which may differ in their subcellular localizations. There are two pseudogenes for this gene on chromosome 17. [provided by RefSeq, Jan 2013].

**Function:**

Serine/threonine-protein kinase that acts downstream of mTOR 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.

**Product Detail**

**Subunit:**

Interacts with PPP1R9A/neurabin-1. Interacts with RPTOR. Interacts with IRS1. Interacts with EIF3B and EIF3C. Interacts with POLDIP3 and TRAF4.

**Subcellular Location:**

Cell junction, synapse, synaptosome.Mitochondrion outer membrane. Mitochondrion. Note=Colocalizes with URI1 at mitochondrion. 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 (By similarity). Activated by phosphorylation at Thr-252 by PDPK1. Dephosphorylation by PPP1CC at Thr-412 in mitochondrion.

**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.

**SWISS:**

P23443

**Gene ID:**

6198

**Database links:**

[Entrez Gene: 6198](#) Human

[Entrez Gene: 72508](#) Mouse

[Entrez Gene: 83840](#) Rat

[Omim: 608938](#) Human

[SwissProt: P23443](#) Human

[SwissProt: Q8BSK8](#) Mouse

[SwissProt: P67999](#) Rat

[Unigene: 463642](#) Human

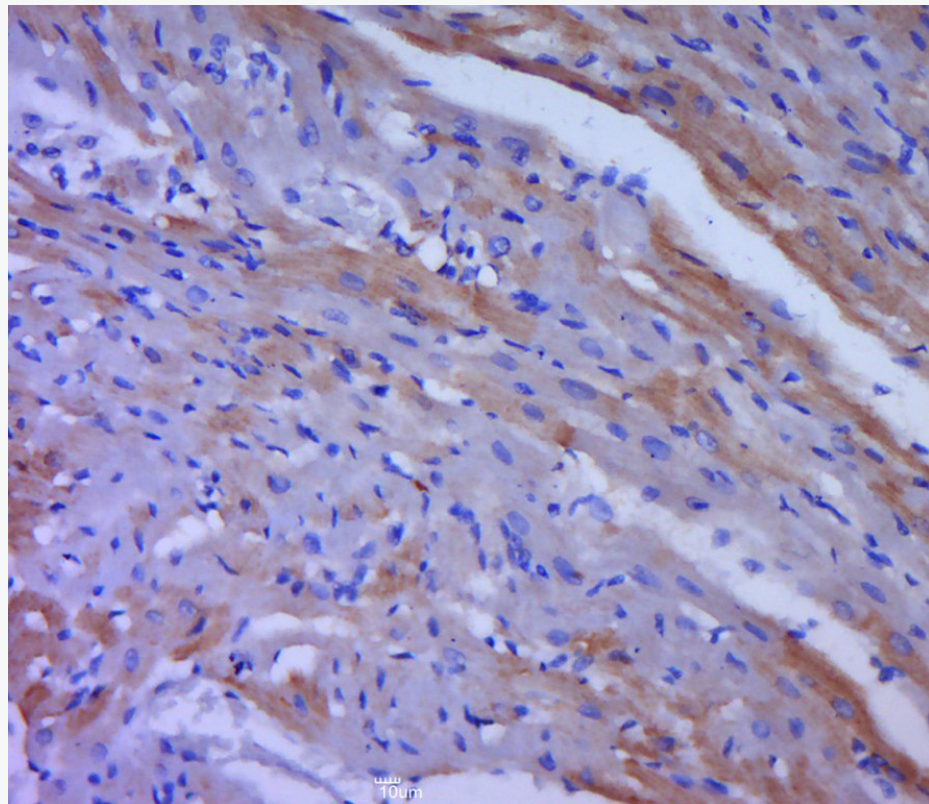
[Unigene: 394280](#) Mouse

[Unigene: 446624](#) Mouse

[Unigene: 479484](#) Mouse

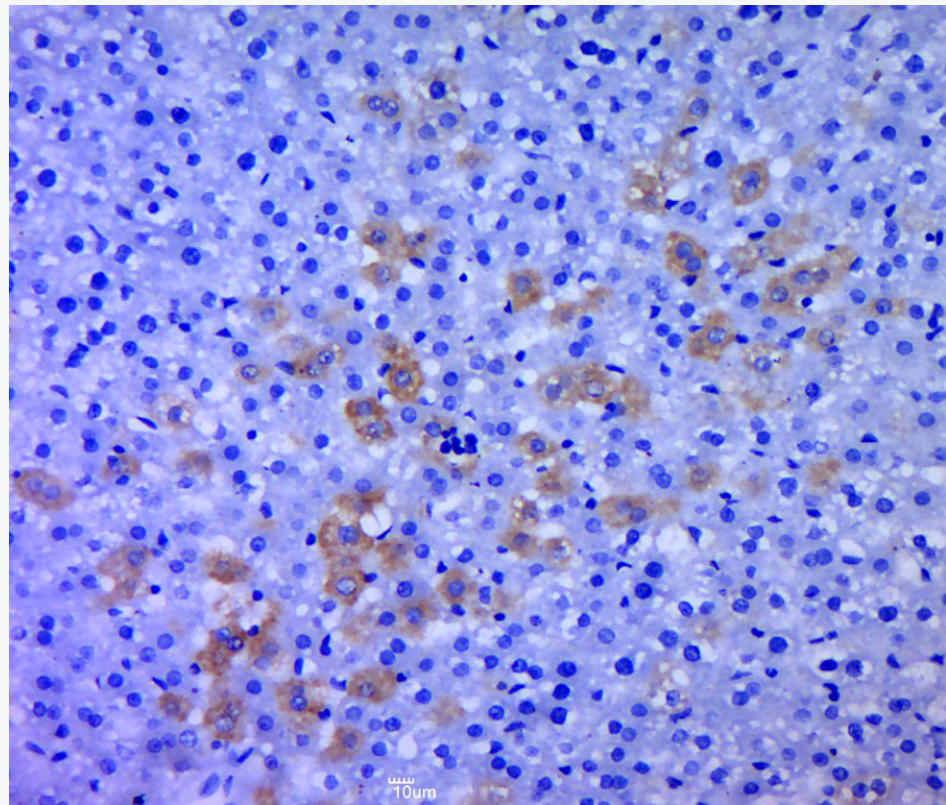
[Unigene: 4042](#) Rat

## Product Picture

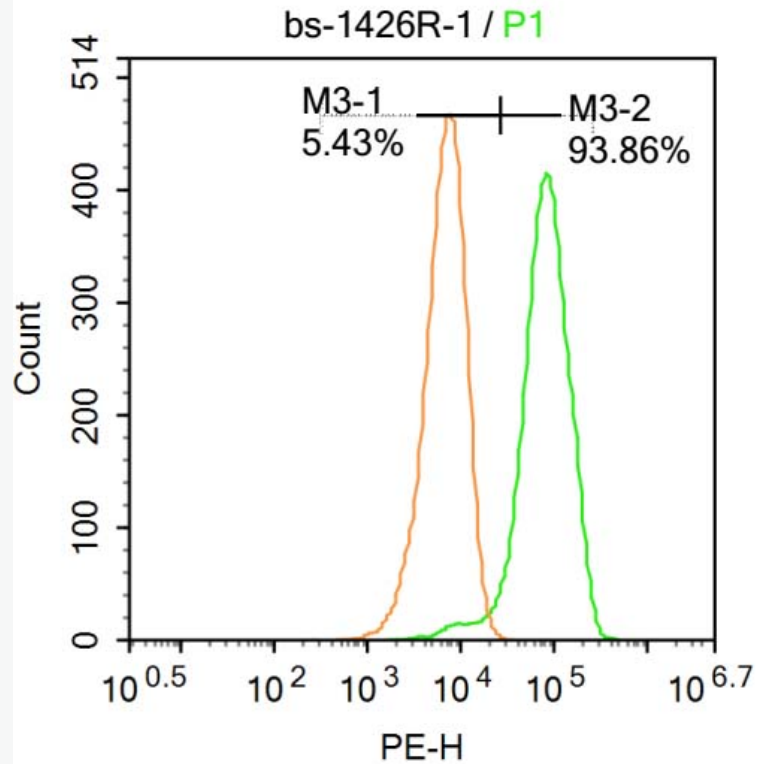


Paraformaldehyde-fixed, paraffin embedded (rat heart tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (RPS6KB1) Polyclonal Antibody, Unconjugated (SL1426R) at 1:400 overnight at 4°C, followed by a conjugated secondary

(sp-0023) for 20 minutes and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat liver 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 (SL1426R) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



Blank control:Molt-4.

Primary Antibody (green line): Rabbit Anti-RPS6KB1 antibody  
 (SL1426R)

Dilution: 1 $\mu$ g /10<sup>6</sup> cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody : Goat anti-rabbit IgG-AF647

Dilution: 1 $\mu$ g /test.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at-20°C. The cells



were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.