



Rabbit Anti-Phospho-RPS6KA1 (Thr573) antibody

SL3364R

Product Name:	Phospho-RPS6KA1 (Thr573)
Chinese Name:	磷酸化丝氨酸/苏氨酸激酶p90RSK蛋白抗体
Alias:	p90RSK (Phospho Thr573); Rsk 1 / MAPKAP Kinase 1a (phospho T573); p-Rsk 1 / MAPKAP Kinase 1a (phospho T573);p90 RSK1; p90rsk; p90S6K; pp90RSK1; Ribosomal protein S6 kinase 90kD 1; Ribosomal protein S6 kinase 90kD polypeptide 1; Ribosomal protein S6 kinase 90kDa polypeptide 1; Ribosomal protein S6 kinase alpha 1; Ribosomal protein S6 kinase polypeptide 1; Ribosomal S6 kinase 1; RPS6K1 alpha; rps6ka; Rps6ka1; RSK 1; RSK 1 p90; RSK; RSK1; S6K alpha 1; 90 kDa ribosomal protein S6 kinase 1; dJ590P13.1 (ribosomal protein S6 kinase, 90kD, polypeptide 1; dJ590P13.1; EC 2.7.11.1; HU 1; HU1; MAP kinase activated protein kinase 1a; MAPKAP kinase 1A; MAPKAPK1A; MGC79981; Mitogen-activated protein kinase-activated protein kinase 1A; OTTHUMP00000004113.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=0.2ug/testIF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	81kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human p90RSK around the phosphorylation site of Thr573:LM(p-T)P
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized

	antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	<p>Rsk1 is a member of a family of 90kDa ribosomal protein S6 kinases, which includes Rsk1, Rsk2 and Rsk3. These are broadly expressed serine/threonine protein kinases activated in response to mitogenic stimuli, including extracellular signal regulated protein kinases Erk1 and Erk2. Rsk1 is activated by MAPK in vitro and in vivo via phosphorylation. Active Rsks appear to play a major role in transcriptional regulation by translocating to the nucleus and phosphorylating c Fos and CREB.</p> <p>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 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.</p> <p>Subunit: Forms a complex with either MAPK1/ERK2 or MAPK3/ERK1 in quiescent cells. Transiently dissociates following mitogenic stimulation. Interacts with ETV1/ER81 and FGFR1.</p> <p>Subcellular Location: Nucleus. Cytoplasm.</p>

Post-translational modifications:

Activated by phosphorylation at Ser-221 by PDPK1. Autophosphorylated on Ser-380, as part of the activation process. May be phosphorylated at Thr-359 and Ser-363 by MAPK1/ERK2 and MAPK3/ERK1.

N-terminal myristoylation results in an activated kinase in the absence of added growth factors.

Similarity:

Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. S6 kinase subfamily.

Contains 1 AGC-kinase C-terminal domain.

Contains 2 protein kinase domains.

SWISS:

Q15418

Gene ID:

6195

Database links:

[Entrez Gene: 6195](#) Human

[Entrez Gene: 20111](#) Mouse

[Entrez Gene: 81771](#) Rat

[Omim: 601684](#) Human

[SwissProt: Q15418](#) Human

[SwissProt: P18653](#) Mouse

[SwissProt: Q63531](#) Rat

[Unigene: 149957](#) Human

[Unigene: 301827](#) Mouse

[Unigene: 34915](#) Rat

Important Note:

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

p90RSK蛋白属于广泛表达的丝氨酸/苏氨酸激酶。RSK家族包括RSK1、RSK2、RSK

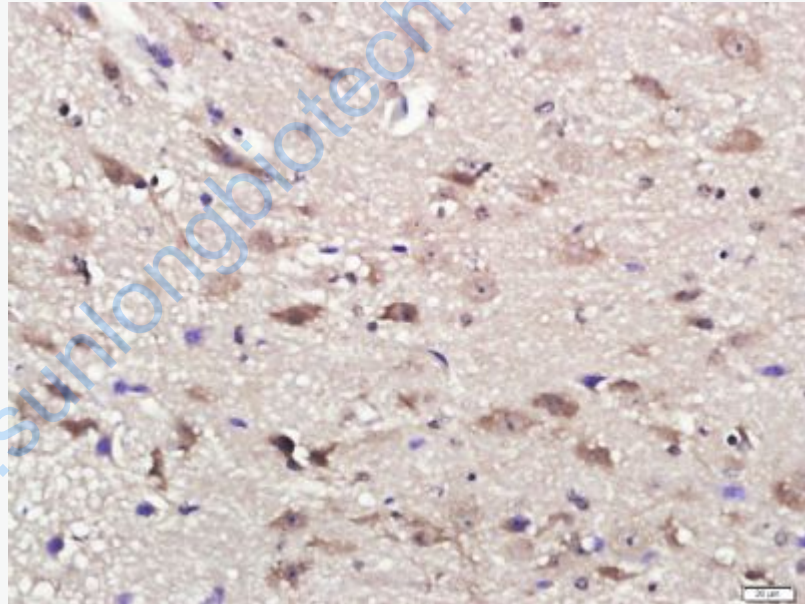
3和RSK4, 它们的典型特征是含有两个不同的功能性激酶结构域和羧基端ERKs(extracellular signal-regulated kinases)结合结构域。RSK激酶结构域内外的几个位点包括Ser380、Thr359、Ser363和Thr573的磷酸化都对RSK的激酶活性激活非常重要。

RSK1-

3可被MAPKs所磷酸化激活, 也可以通过自身磷酸化激活, 还可被一些生长因子或神经递质等诱导激活的PI3K信号通路所激活。RSK在被MAPK磷酸化激活时, 是由Ras、Raf-1、MAP kinase kinase(MEK)和MAP kinase信号通路所介导。PI3K诱导的RSK1激活是由丝氨酸/苏氨酸激酶mTOR介导的。

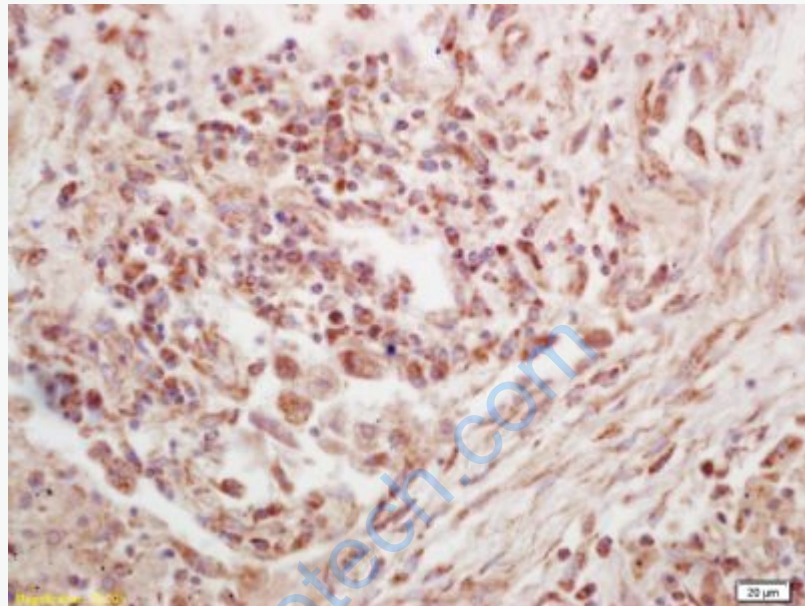
RSK1在葡萄糖稳态调控和细胞大小的调控中起重要作用。RSK可以磷酸化并调节转录因子c-fos和糖原合成酶激酶3(GSK3, glycogen synthase kinase 3)的活性。有报道RSK1可以和MAPK1、I κ B α 、TOB和TSC2等相互作用。RSK可以在有丝分裂信号刺激下会转位到The nucleus内。

Picture:



Paraformaldehyde-fixed, paraffin embedded (mouse brain); 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 (P-RPS6KA1 (Thr573)) Polyclonal Antibody, Unconjugated (SL3364R) at 1:400 overnight at 4°C, followed by a conjugated

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

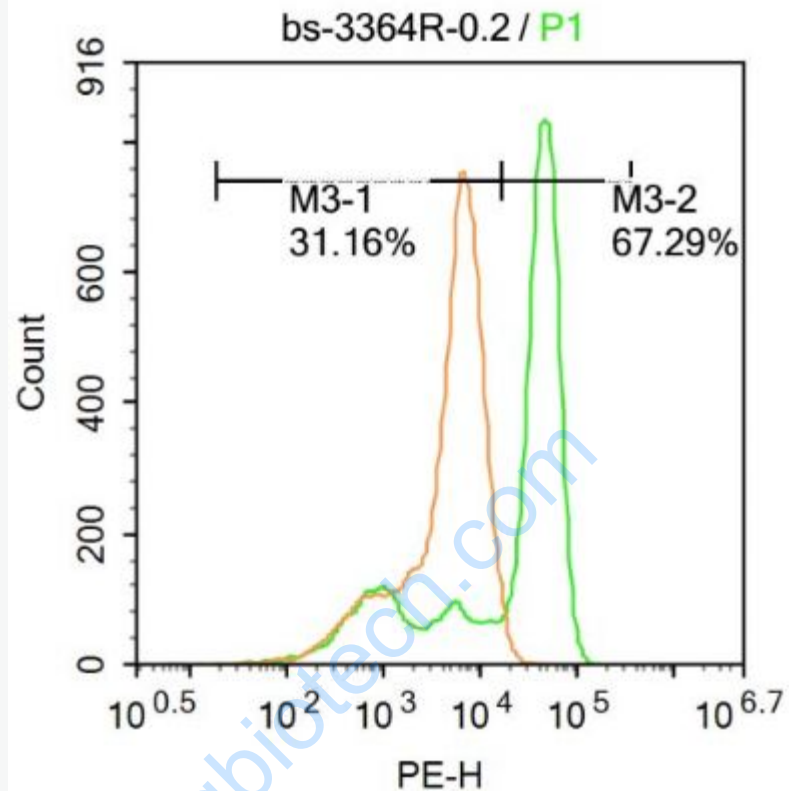


Tissue/cell: human lung carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-Phospho-p90RSK(Thr573) Polyclonal Antibody,

Unconjugated(SL3364R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



U-937 cells were fixed with 4% PFA for 10min at room temperature, permeabilized with 90% ice-cold methanol for 20 min at room temperature, and incubated in 5% BSA blocking buffer for 30 min at room temperature. Cells were then stained with Phospho-RPS6KA1 (Thr573) Antibody(SL3364R) at 1:500 dilution in blocking buffer and incubated for 30 min at room temperature, washed twice with 2% BSA in PBS, followed by secondary antibody incubation for 40 min at room temperature. Acquisitions of 20,000 events were performed. Cells stained with primary antibody (green), and isotype control (orange).