

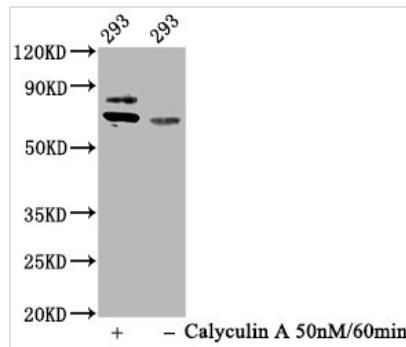


# Phospho-RPS6KB1 (T421+S424) Recombinant Monoclonal Antibody

<b>Product Code</b>	CSB-RA020470A421phHU
<b>Abbreviation</b>	Ribosomal protein S6 kinase beta-1
<b>Storage</b>	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
<b>Uniprot No.</b>	P23443
<b>Immunogen</b>	A synthesized peptide derived from Human Phospho-RPS6KB1 (T421+S424)
<b>Species Reactivity</b>	Human
<b>Tested Applications</b>	ELISA, WB, IF, IP; Recommended dilution: WB:1:500-1:5000, IF:1:20-1:200, IP:1:200-1:1000
<b>Relevance</b>	<p>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 pre-initiation 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. Phosphorylates and activates the pyrimidine biosynthesis enzyme CAD, downstream of MTOR.</p>
<b>Form</b>	Liquid
<b>Conjugate</b>	Non-conjugated



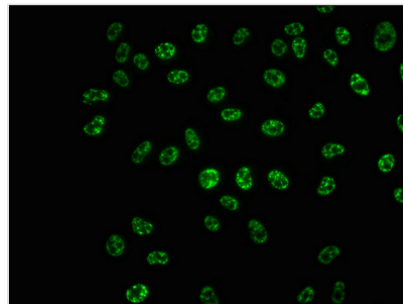
<b>Storage Buffer</b>	Rabbit IgG in 10mM phosphate buffered saline , pH 7.4, 150mM sodium chloride, 0.05% BSA, 0.02% sodium azide and 50% glycerol.
<b>Purification Method</b>	Affinity-chromatography
<b>Isotype</b>	Rabbit IgG
<b>Clonality</b>	Monoclonal
<b>Alias</b>	Ribosomal protein S6 kinase beta-1, 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, RPS6KB1, STK14A
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Research Area</b>	Cell Biology
<b>Target Names</b>	RPS6KB1
<b>Clone No.</b>	3B6

**Image**

**Western Blot**

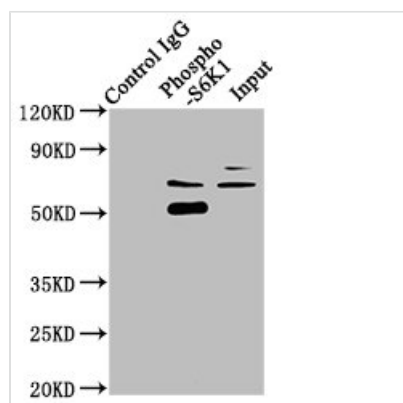
Positive WB detected in 293 whole cell lysate (treated with Calyculin A or not)  
All lanes Phospho-RPS6KB1 antibody at 0.93µg/ml

**Secondary**

Goat polyclonal to rabbit IgG at 1/50000 dilution  
Predicted band size: 70 KDa  
Observed band size: 70 KDa



Immunofluorescence staining of HeLa cells with CSB-RA020470A421phHU at 1:100, counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeabilized using 0.2% Triton X-100 and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4?. The secondary antibody was Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).


**Immunoprecipitating Phospho-RPS6KB1 in HeLa whole cell lysate**

Lane 1: Rabbit control IgG (1µg) instead of CSB-RA020470A421phHU in HeLa whole cell lysate. For western blotting, a HRP-conjugated Protein G antibody was used as the secondary antibody (1/2000)

Lane 2: CSB-RA020470A421phHU (3µg) + HeLa whole cell lysate (1mg)

Lane 3: HeLa whole cell lysate (20µg)

**Usage**

For Research Use Only. Not for use in diagnostic or therapeutic procedures.