

S6K1 Rabbit mAb
Catalog # AP76805**Specification**

S6K1 Rabbit mAb - Product Information

Application	WB
Primary Accession	P23443
Reactivity	Human, Rat
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	59140

S6K1 Rabbit mAb - Additional Information**Gene ID** 6198**Other Names**
RPS6KB1**Dilution**
WB~~1/500-1/1000**Format**
Liquid**S6K1 Rabbit mAb - Protein Information****Name** RPS6KB1**Synonyms** STK14A**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 (PubMed: [11500364](http://www.uniprot.org/citations/11500364)), PubMed: [12801526](http://www.uniprot.org/citations/12801526), PubMed: [14673156](http://www.uniprot.org/citations/14673156), PubMed: [15071500](http://www.uniprot.org/citations/15071500), PubMed: [15341740](http://www.uniprot.org/citations/15341740), PubMed: [16286006](http://www.uniprot.org/citations/16286006), PubMed: [17052453](http://www.uniprot.org/citations/17052453), PubMed: [17053147](http://www.uniprot.org/citations/17053147), PubMed: [17936702](http://www.uniprot.org/citations/17936702), PubMed: [18952604](http://www.uniprot.org/citations/18952604), PubMed: [19085255](http://www.uniprot.org/citations/19085255), PubMed: [19720745](http://www.uniprot.org/citations/19720745), PubMed: [19935711](http://www.uniprot.org/citations/19935711), PubMed: [19995915](http://www.uniprot.org/citations/19995915)),

PubMed: 22017876, PubMed: 23429703, PubMed: 28178239). Regulates protein synthesis through phosphorylation of EIF4B, RPS6 and EEF2K, and contributes to cell survival by repressing the pro-apoptotic function of BAD (PubMed: 11500364, PubMed: 12801526, PubMed: 14673156, PubMed: 15071500, PubMed: 15341740, PubMed: 16286006, PubMed: 17052453, PubMed: 17053147, PubMed: 17936702, PubMed: 18952604, PubMed: 19085255, PubMed: 19720745, PubMed: 19935711, PubMed: 19995915, PubMed: 22017876, PubMed: 23429703, PubMed: 28178239). Under conditions of nutrient depletion, the inactive form associates with the EIF3 translation initiation complex (PubMed: 16286006). Upon mitogenic stimulation, phosphorylation by the mechanistic target of rapamycin complex 1 (mTORC1) leads to dissociation from the EIF3 complex and activation (PubMed: 16286006). 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 (PubMed: 16286006). Also controls translation initiation by phosphorylating a negative regulator of EIF4A, PDCD4, targeting it for ubiquitination and subsequent proteolysis (PubMed: 17053147). Promotes initiation of the pioneer round of protein synthesis by phosphorylating POLDIP3/SKAR (PubMed: 15341740). In response to IGF1, activates translation elongation by phosphorylating EEF2 kinase (EEF2K), which leads to its inhibition and thus activation of EEF2 (PubMed: 11500364). Also plays a role in feedback regulation of mTORC2 by mTORC1 by phosphorylating RICTOR, resulting in the inhibition of mTORC2 and AKT1 signaling (PubMed: 19720745, PubMed: 19935711, PubMed: 19995915). Also involved in feedback regulation of mTORC1 and mTORC2 by phosphorylating DEPTOR (PubMed: 22017876). Mediates cell survival by phosphorylating the pro- apoptotic protein BAD and suppressing its pro-apoptotic function (By similarity). Phosphorylates mitochondrial URI1 leading to dissociation of a URI1-PPP1CC complex (PubMed: 17936702). 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 (PubMed: 17936702). Mediates TNF-alpha-induced insulin resistance by phosphorylating IRS1 at multiple serine residues, resulting in accelerated degradation of IRS1 (PubMed: 18952604). In cells lacking functional TSC1-2 complex, constitutively phosphorylates and inhibits GSK3B (PubMed: 17052453). May be involved in cytoskeletal rearrangement through binding to neurabin (By similarity).

Phosphorylates and activates the pyrimidine biosynthesis enzyme CAD, downstream of MTOR (PubMed:23429703). Following activation by mTORC1, phosphorylates EPRS and thereby plays a key role in fatty acid uptake by adipocytes and also most probably in interferon-gamma-induced translation inhibition (PubMed:28178239).

Cellular Location

Synapse, synaptosome. Mitochondrion outer membrane. Mitochondrion. Note=Colocalizes with URI1 at mitochondrion [Isoform Alpha II]: Cytoplasm.

Tissue Location

Widely expressed..

S6K1 Rabbit mAb - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

S6K1 Rabbit mAb - Images



