

S6K Antibody

Catalog No: #33720

Package Size: #33720-1 50ul #33720-2 100ul

Orders: order@signalwayantibody.com

Support: tech@signalwayantibody.com

Description

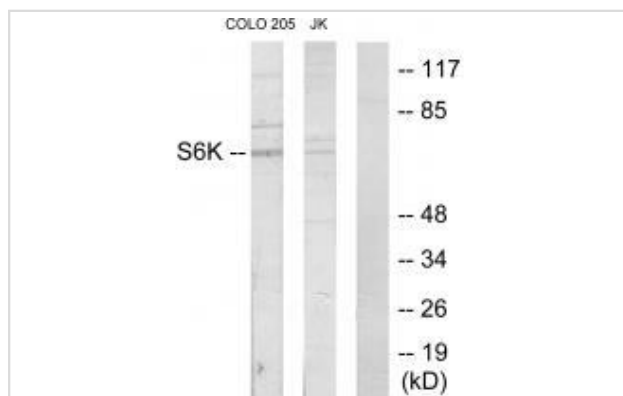
Product Name	S6K Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Applications	WB IHC
Species Reactivity	Hu Ms Rt
Specificity	The antibody detects endogenous levels of total S6K protein.
Immunogen Type	Peptide
Immunogen Description	Synthesized peptide derived from internal of human S6K.
Target Name	S6K
Other Names	EC 2.7.11.1; KS6B1; P70-S6K; RPS6KB1; Ribosomal protein S6 kinase
Accession No.	Swiss-Prot: P23443NCBI Gene ID: 6198
Uniprot	P23443
GeneID	6198;
SDS-PAGE MW	70kd
Concentration	1.0mg/ml
Formulation	Rabbit IgG in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

Application Details

Western blotting: 1:500~1:3000

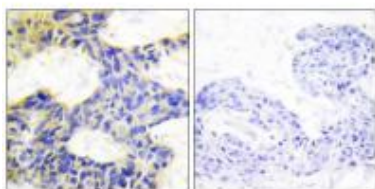
Immunohistochemistry: 1:50~1:100

Images



Western blot analysis of extracts from COLO205 cells and Jurkat cells, using S6K antibody #33720.

Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue using S6K antibody #33720.



Background

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.

Grove J., Mol. Cell. Biol. 11:5541-5550(1991).

Gout I., J. Biol. Chem. 273:30061-30064(1998).

Olsen J.V., Cell 127:635-648(2006).

Note: This product is for in vitro research use only