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Mouse Rps6kb1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14292b

Specification

Mouse Rps6kb1 Antibody (C-term) - Product Information

Application	**WB,E**
Primary Accession	Q8BSK8
Other Accession	P67999, P67998, P23443, Q6TJY3, NP_001107806.1
Reactivity	**Human, Mouse**
Predicted	**Bovine, Rabbit, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**59146**
Antigen Region	**481-509**

Mouse Rps6kb1 Antibody (C-term) - Additional Information

Gene ID 72508

Other Names
Ribosomal protein S6 kinase beta-1, S6K-beta-1, S6K1, 70 kDa ribosomal protein S6 kinase 1, P70S6K1, p70-S6K 1, Ribosomal protein S6 kinase I, S6K, p70 ribosomal S6 kinase alpha, p70 S6 kinase alpha, p70 S6K-alpha, p70 S6KA, Rps6kb1

Target/Specificity
This Mouse Rps6kb1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 481-509 amino acids from the C-terminal region of mouse Rps6kb1.

Dilution
WB~~1:1000

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Mouse Rps6kb1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Mouse Rps6kb1 Antibody (C-term) - Protein Information

Name Rps6kb1

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:11493700, PubMed:11500364, PubMed:15060135). Regulates protein synthesis through phosphorylation of EIF4B, RPS6 and EEF2K, and contributes to cell survival by repressing the pro-apoptotic function of BAD (PubMed:11493700, PubMed:11500364). Under conditions of nutrient depletion, the inactive form associates with the EIF3 translation initiation complex (By similarity). Upon mitogenic stimulation, phosphorylation by the mechanistic target of rapamycin complex 1 (mTORC1) leads to dissociation from the EIF3 complex and activation (By similarity). 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 (By similarity). Also controls translation initiation by phosphorylating a negative regulator of EIF4A, PDCD4, targeting it for ubiquitination and subsequent proteolysis (By similarity). Promotes initiation of the pioneer round of protein synthesis by phosphorylating POLDIP3/SKAR (By similarity). 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 (By similarity). Also involved in feedback regulation of mTORC1 and mTORC2 by phosphorylating DEPTOR (By similarity). Mediates cell survival by phosphorylating the pro-apoptotic protein BAD and suppressing its pro- apoptotic function (PubMed:11493700). Phosphorylates mitochondrial URI1 leading to dissociation of a URI1-PPP1CC complex (By similarity). 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 (By similarity). 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 (By similarity). May be involved in cytoskeletal rearrangement through binding to neurabin (By similarity). Phosphorylates and activates the pyrimidine biosynthesis enzyme CAD, downstream of MTOR (By similarity). 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
Cytoplasm. Synapse, synaptosome. Mitochondrion outer membrane. Mitochondrion
Note=Colocalizes with URI1 at mitochondrion.

Mouse Rps6kb1 Antibody (C-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Mouse Rps6kb1 Antibody (C-term) - Images

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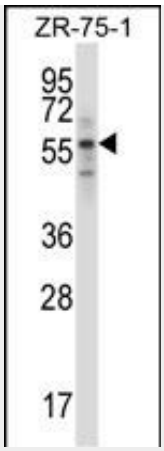
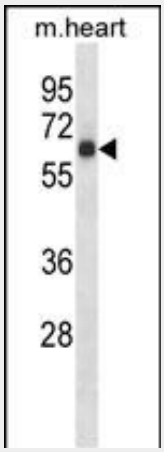


Mouse Rps6kb1 Antibody (C-term) (Cat. #AP14292b) western blot analysis in ZR-75-1 cell line lysates (35ug/lane).This demonstrates the Rps6kb1 antibody detected the Rps6kb1 protein (arrow).



Mouse Rps6kb1 Antibody (C-term) (Cat. #AP14292b) western blot analysis in mouse heart tissue lysates (35ug/lane).This demonstrates the Rps6kb1 antibody detected the Rps6kb1 protein (arrow).

Mouse Rps6kb1 Antibody (C-term) - Background

Rps6kb1 acts to integrate nutrient and growth factor signals in regulation of protein synthesis, cell proliferation, cell growth, cell cycle progression and cell survival. Downstream effector of the mTOR signaling pathway. Phosphorylates specifically ribosomal protein S6 in response to insulin or several classes of mitogens. During translation initiation, the inactive form associatess with the eIF-3 complex under conditions of nutrient depletion. Mitogenic stimulation leads to phosphorylation and dissociation from the eIF-3 complex and the free activated form can phosphorylate other translational targets including EIF4B. Promotes protein synthesis by phosphorylating PDCD4 at 'Ser-67' and targeting it for degradation. Phosphorylates RICTOR leading to regulation of mammalian target of rapamycin complex 2 (mTORC2) signaling; probably phosphorylates RICTOR at 'Thr-1135'. Phosphorylates IRS1 at multiple serine residues coupled with insulin resistance; probably phosphorylates IRS1 at 'Ser-270'. Required for TNF-alpha induced IRS-1 degradation. Phosphorylates EEF2K in response to IGF1 and inhibits EEF2K activity. Phosphorylates BAD at 'Ser-136' in response to IGF1 leading to BAD inactivation and inhibition of BAD-induced apoptosis. Phosphorylates mitochondrial RMP leading to dissociation of a RMP:PPP1CC complex; probably phosphorylates RMP at 'Ser-136'. The free mitochondrial PPP1CC can dephosphorylate RPS6KB1 at Thr-412 which is proposed to be a negative feed back mechanism for the RPS6KB1 antiapoptotic function. Phosphorylates POLDIP3 (By similarity).

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Mouse Rps6kb1 Antibody (C-term) - References

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