

Product datasheet for **AP02525PU-S**

S6K1 (RPS6KB1) pSer424 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	Western Blot: 1/500 - 1/1000. Immunohistochemistry on paraffin sections: 1/50 - 1/100.
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic phosphopeptide derived from human p70 S6 Kinase around the phosphorylation site of serine 424 (P-V-SP-P-V).
Specificity:	p70 S6 Kinase antibody detects endogenous levels of p70 S6 Kinase only when phosphorylated at serine 424.
Formulation:	PBS(without Mg ²⁺ and Ca ²⁺), pH 7.4 containing 150mM NaCl, 0.02% sodium azide and 50% glycerol State: Aff - Purified State: Liquid purified IgG fraction
Concentration:	lot specific
Purification:	Affinity chromatography
Conjugation:	Unconjugated
Storage:	Store the antibody at -20°C. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	ribosomal protein S6 kinase B1
Database Link:	<u>Entrez Gene 72508 Mouse</u> <u>Entrez Gene 6198 Human</u> <u>P23443</u>



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Background:

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 EE2K in response to IGF1 and inhibits EE2K activity. Phosphorylates BAD at 'Ser-99' 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-99'. 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 GSK3B at 'Ser-9' under conditions leading to loss of the TSC1-TSC2 complex. Phosphorylates POLDIP3.

Synonyms:

Ribosomal protein S6 kinase I, S6K1, p70 S6 kinase alpha, p70 S6K-alpha, p70 S6KA, Serine/threonine-protein kinase 14A

Protein Families:

Druggable Genome, Protein Kinase

Protein Pathways:

Acute myeloid leukemia, ErbB signaling pathway, Fc gamma R-mediated phagocytosis, Insulin signaling pathway, mTOR signaling pathway, TGF-beta signaling pathway

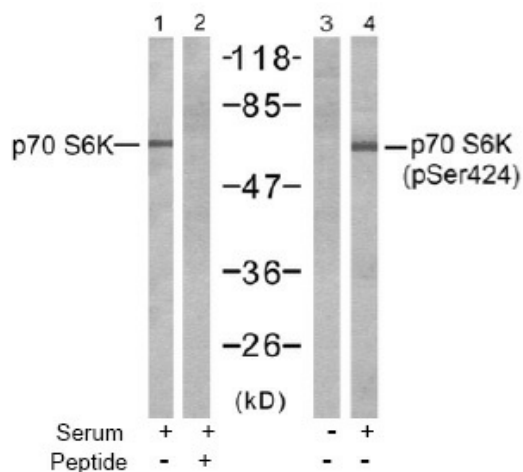
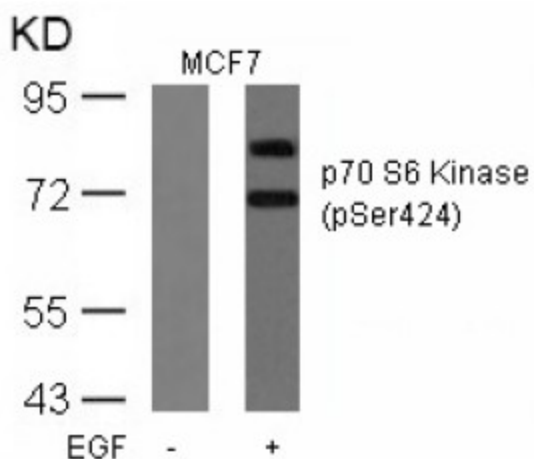
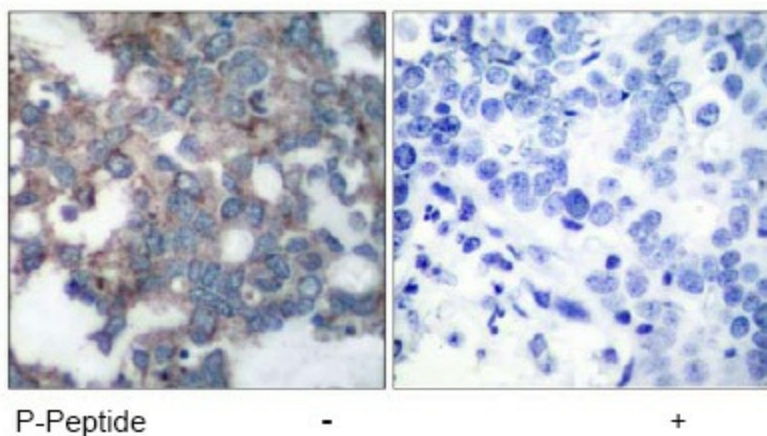
Product images:


Figure 4 Western Blot analysis of extracts from MCF cells untreated or treated with EGF using p70 S6 Kinase (pSer424) antibody



Western blot analysis of extracts from 293 cells, untreated or treated with serum (10min), using p70 S6 Kinase antibody (Line 1 and 2) and p70 S6 Kinase (pSer424) antibody (Line 3 and 4).



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using p70 S6 Kinase antibody.

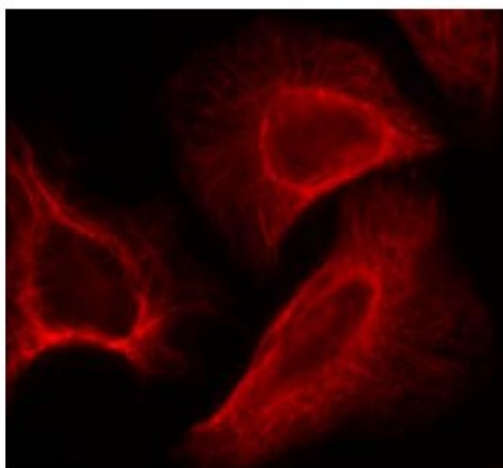


Figure 3 Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic, centrosomal and nuclear staining using p70 S6 Kinase (pSer424) Antibody