

#21276

## p70 S6 Kinase (Ab-424) Antibody

**Catalog:** #21276-1      50µl      **Orders:** [order@signalwayantibody.com](mailto:order@signalwayantibody.com)  
#21276-2      100µl      **Support:** [tech@signalwayantibody.com](mailto:tech@signalwayantibody.com)  
**Storage:** Store at -20°C/1 year      **Web:** [www.signalwayantibody.com](http://www.signalwayantibody.com)



Application	Species Reactivity	Source	Molecular Wt.
WB IHC IF	Human	Rabbit Polyclonal Ab	70 85KD

**Description:** Antibodies were produced by immunizing rabbits with synthetic peptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific peptide.

**Specificity:** The antibody detects endogenous level of total p70 S6 Kinase protein.

**Immunogen:** Peptide sequence around aa.422~426 (P-V-S-P-V) derived from Human p70S6k.

**Formulation:** Supplied at 1.0mg/mL in phosphate buffered saline (without Mg<sup>2+</sup> and Ca<sup>2+</sup>), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.

**Synonyms:** KS6B1 P70-S6K RPS6KB1 S6K

**Accession No.:** Swiss-Prot#: P23443      NCBI Gene#: 6198  
NCBI Protein#: NP\_003152.1

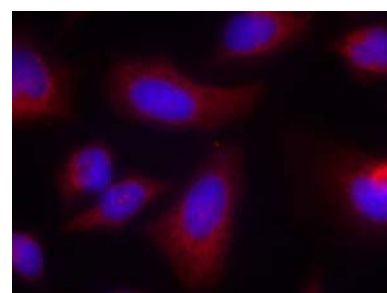
**Background:** RPS6KB1 phosphorylates the Ribosomal Protein-S6. Activation of RPS6KB1 requires a complex, ordered series of conformational changes and phosphorylation reactions. While the role of sequential, multi-site phosphorylation has been extensively detailed, characterization of the priming step required to initiate this cascade has remained elusive. Probably this priming process is dependent on calcium. Calcium-dependent regulation of RPS6KB1 does not specifically target Thr-229 and Thr-389, the key regulatory phosphorylation sites; rather, calcium chelation results in a global inhibition of RPS6KB1 phosphorylation. The initial calcium-dependent process is required to release an inhibitory interaction between the C- and N-termini of RPS6KB1, thus allowing phosphorylation of key domains. The priming event involves formation of a calcium-dependent protein complex that releases the interaction between the N- and C-termini. RPS6KB1 is then accessible for activation by the kinases that target the known regulatory phosphorylation sites .

### References:

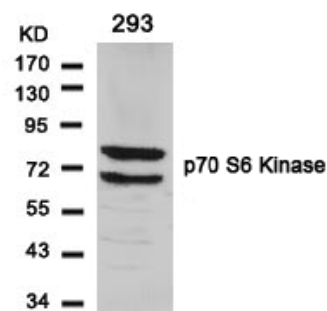
Satoru Eguchi et al. (1999) J Biol Chem, Vol. 274: 36843-36851  
Papst PJ, et al. (1998) J Biol Chem. 273(24):15077-84.  
Ulrike Krause et al. (2002) Eur. J. Biochem. 269: 3751-3759 c  
Le, X.F, et al. (2003) Oncogene 22: 484-97

### Recommended Dilutions:

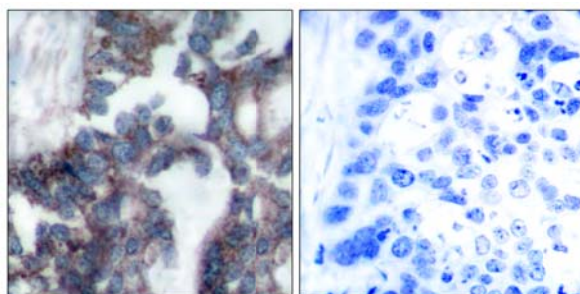
Western blotting      1:500~1:1000  
Immunohistochemistry      1:50~1:100  
Immunofluorescence      1:100~1:200



Immunofluorescence staining of methanol-fixed HeLa cells using p70 S6 Kinase (Ab-424) Antibody #21276.



Western blot analysis of extracts from 293 cells using p70 S6 Kinase (Ab-424) Antibody #21276.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using p70 S6 Kinase (Ab-424) Antibody #21276 (left) or the same antibody preincubated with blocking peptide (right).

**Citation:** If you publish research using #21276 please [let us know](#).

**Related Pathway:** Cancer/Apoptosis, Akt, Insulin/Glucose, Translation

**Note:** For western blotting, incubate membrane with diluted antibody in 5% nonfat milk, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

This product is for in vitro research use only and is not intended for use in humans or animals.