

## p70 S6 Kinase(Ab-424) Antibody

Catalog No: #21276



Package Size: #21276-1 50ul #21276-2 100ul #21276-4 25ul

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Support: tech@signalwayantibody.com

## Description

Product Name	p70 S6 Kinase(Ab-424) Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were produced by immunizing rabbits with synthetic peptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific peptide.
Applications	WB IHC IF
Species Reactivity	Human Mouse Rat
Specificity	The antibody detects endogenous level of total p70 S6 Kinase protein.
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around aa.422~426 (P-V-S-P-V) derived from Human p70S6k.
Target Name	p70 S6 Kinase
Other Names	KS6B1; P70-S6K; RPS6KB1; S6K;
Accession No.	Swiss-Prot: P23443NCBI Protein: NP_003152.1
Concentration	1.0mg/ml
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.
Storage	Store at -20°C for long term preservation (recommended). Store at 4°C for short term use.

## Application Details

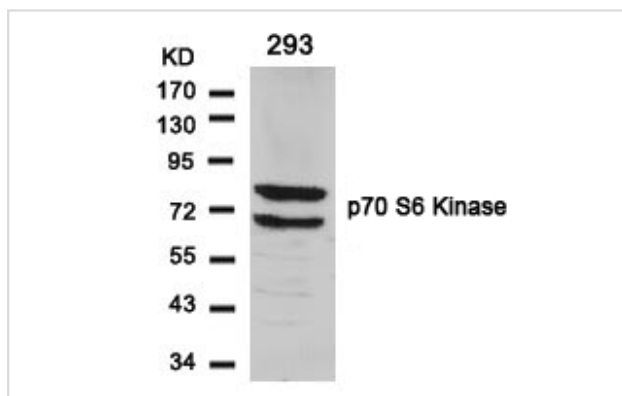
Predicted MW: 70 85 kd

Western blotting: 1:500~1:1000

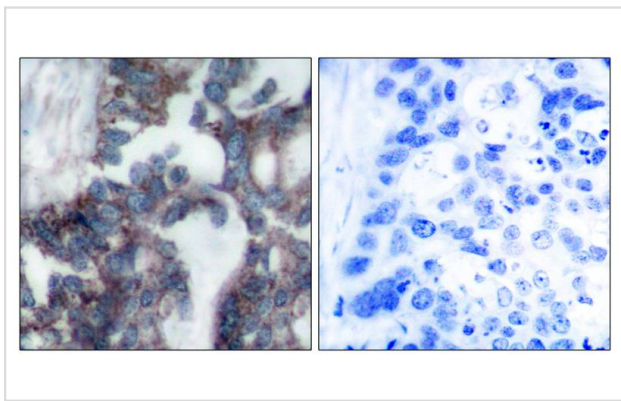
Immunohistochemistry: 1:50~1:100

Immunofluorescence: 1:100~1:200

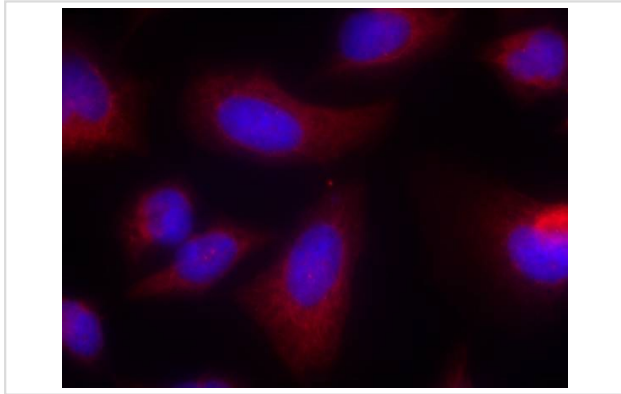
## Images



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).



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

## 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 .

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

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