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35-1606: Polyclonal Antibody to p70 S6 Kinase (Ab-424)

Clonality :	Polyclonal
Application :	WB,IHC,IF
Reactivity :	Human,Mouse,Rat
Gene :	RPS6KB1
Gene ID :	6198
Uniprot ID :	P23443
Format :	Purified
Alternative Name :	KS6B1, P70-S6K, RPS6KB1, S6K
Isotype :	Rabbit IgG
Immunogen Information :	Peptide sequence around aa.422~426 (P-V-S-P-V) derived from Human p70S6k.

Description

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

Product Info

Amount :	50 µl / 100 µl
Content :	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage condition :	Store the antibody at 4°C, stable for 6 months. For long-term storage, store at -20°C. Avoid repeated freeze and thaw cycles.

Application Note

Predicted MW: 70 85 kd, Western blotting: 1:500~1:1000, Immunohistochemistry: 1:50~1:100, Immunofluorescence: 1:100~1:200

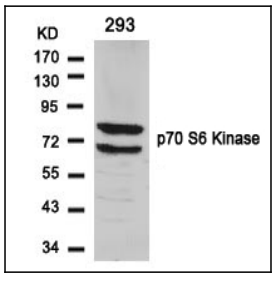

Figure 1: Western blot analysis of extracts from 293 cells using p70 S6 Kinase(Ab-424) Antibody 35-1606 .

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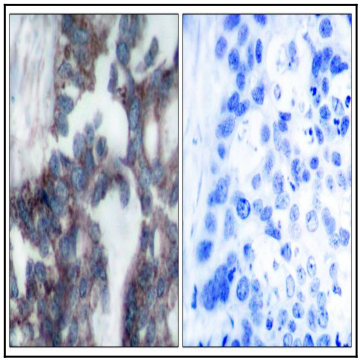

Figure 2: Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using p70 S6 Kinase(Ab-424) Antibody 35-1606 (left) or the same antibody preincubated with blocking peptide(right).

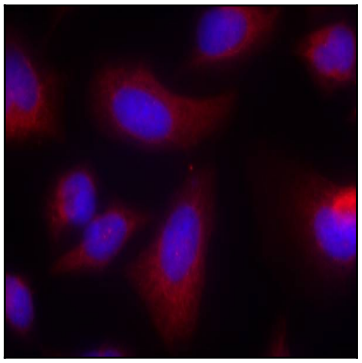

Figure 3: Immunofluorescence staining of methanol-fixed Hela cells using p70 S6 Kinase(Ab-424) Antibody 35-1606 .