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Polyclonal Antibody to p70 S6 Kinase (p70S6K) pSer434 - Aff - Purified

Catalog No.: SP6369P

Quantity: 50 µg

Concentration: 0.2 mg/ml

Background: The protein p70 S6 kinase is critical for cell cycle progression and cell survival. In response to mitogen stimulation, p70 S6 kinase activation up-regulates ribosomal biosynthesis and enhances the translational capacity. The p70S6K phosphorylates the S6 protein of the 40S subunit of the ribosome. This kinase was first characterized as an insulin/mitogen-activated protein kinase, whose major known substrate is the 40 S ribosomal subunit protein S6. The p70 S6 kinase is activated by diverse stimuli through a multi-site phosphorylation such as Thr-252 and Ser-434. In Alzheimer's disease, p70 S6 kinase activation is associated with PHF-tau (hyperphosphorylated tau) accumulation. In non-neuronal cells, p70 S6 kinase have been shown to regulate actin polymerization.

Host: Rabbit

Immunogen: Synthetic peptide of human, rat and mouse p70S6K at the phosphorylation site of Serine 434

Format:
State: Liquid Ig fraction
Purification: Epitope affinity chromatography
Buffer System: 1x PBS (pH 7.4) containing 0.05 % sodium azide

Applications:
ELISA (0.1 - 1.0 µg/ml).
Western blot (0.5 - 2.0 µg/ml).
Immunoprecipitation (3.0 - 5.0 µg/extract from 10e6 cells).
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: This antibody reacts specifically with phosphospecific p70S6K. The antibody was evaluated by Western blot, dot blot and ELISA. By dot blot assay, this antibody only recognizes the phosphospecific p70S6K at phosphorylation site Serine 434. It does not react with any other phosphorylated sites or nonphosphorylated peptides. By Western blot, an immunoreactive band around 70 kDa can be detected in the stimulated cell lysates derived from HEK293, 3T3 and MCF-7. This band can be blocked by the immunizing peptide.
Species: Human, Mouse, Rat.
Other species not tested.

Storage: Store the antibody at 2 - 8 °C or (in aliquots) at -20 °C. Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings:

1. Avruch, J. Mol. Cell Biochem. (1998) 182, 31-48.
2. Qing-Ping Weng et al. J Biol Chem, (1998) 273(26), 16621-16629.
3. An, WL et al. Am J Pathol. (2003) 163(2), 591-607.
4. Price, D, et al J. Biol. Chem., (1991) 266(25), 16281-16284.
5. Raymond C et al Neuroscience. (2002) 109,531-6.

Pictures:

WB: The stimulated HEK293 cell lysate was probed with rabbit anti-P70S6K (pSer434) at 1:500, a major band at 70 kDa was detected (A). This band was abolished upon addition of the blocking peptide (B).