

Human PS6K / RPS6KB1 Protein (GST Tag)

Catalog Number: 10099-H09B



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

p70 S6KA; p70(S6K)-alpha; p70-alpha; p70-S6K; PS6K; RPS6KB1; S6K; S6K-beta-1; S6K1; STK14A

Protein Construction:

A DNA sequence encoding the human RPS6KB1 (P23443-Alpha I) (Met1-Leu525) was fused with the GST tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio Activity:

No Kinase Activity

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant human RPS6KB1 consists of 750 amino acids and predicts a molecular mass of 85.4 KDa. The apparent molecular mass of the protein is approximately 96 Kda in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.4, 10% gly, 1mM GSH

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

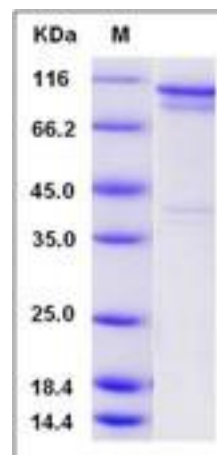
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

PS6K, also known as RPS6KB1, is a serine/threonine-protein kinase. It belongs to the RSK (ribosomal s6 kinase) family. Members of this family function in signal transduction. PS6K is an isoform of p70 ribosomal S6 kinase (S6K). S6K can be activated by mitogenic stimuli such as growth factors, insulin and cytokines. It phosphorylates the ribosomal protein S6. PS6K also phosphorylates other proteins such as eIF4B, eEF2K and SKAR. It is a crucial effector of mTOR(rapamycin) signaling. PS6K is dissociated from the EIF3 complex and activated upon mitogenic stimulation, phosphorylation by the mammalian target of mTOR complex 1 (mTORC1). Its active form then phosphorylates and activates several substrates in the preinitiation complex, including the EIF2B complex and the cap-binding complex component EIF4B. PS6K also functions in cell proliferation, cell growth and cell cycle progression.

References

1. Panasyuk, *et al.* (2006) Nuclear export of PS6K II is regulated by protein kinase CK2 phosphorylation at Ser-17. *J Biol Chem.* 281(42):31188-201.
2. Carnevalli L, *et al.* (2010) PS6K Plays a Critical Role in Early Adipocyte Differentiation. *Dev Cell.* 18 (5):763-74.
3. Grove JR, *et al.* (1991) Cloning and expression of two human p70 S6 kinase polypeptides differing only at their amino termini. *Mol Cell Biol.* 11(11):5541-50.

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