

Human RSK3 / RPS6KA2 Protein (GST Tag)

Catalog Number: 10833-H09B



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

HU-2; MAPKAPK1C; p90-RSK3; pp90RSK3; RSK; RSK3; S6K-alpha; S6K-alpha2; 90kDa; D17Wsu134e; p90rsk; pp90rsk; Rps6ka-rs1; Rsk3

Protein Construction:

A DNA sequence encoding the human RPS6KA2 isoform 1 (Q15349-1) (Met 1-Leu 733) was fused with the GST tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 84 % as determined by SDS-PAGE

Bio Activity:

The specific activity was determined to be 41 nmol/min/mg using synthetic RSK peptide (KRRRLSSLRA) as substrate.

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 RPS6KA2/GST chimera consists of 957 amino acids and migrates as an approximately 110 kDa band in SDS-PAGE under reducing conditions as predicted.

Formulation:

Supplied as sterile 20mM Tris, 500mM NaCl, pH 7.0, 20mM 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:

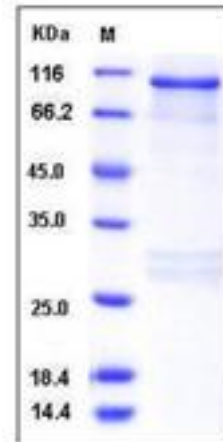
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Ribosomal protein S6 kinase alpha-2, also known as 90 kDa ribosomal protein S6 kinase 2, MAP kinase-activated protein kinase 1c, MAPK-activated protein kinase 1c, Ribosomal S6 kinase 3, RSK-3, RPS6KA2 and MAPKAPK1C, is a nucleus protein which belongs to the protein kinase superfamily, AGC Ser/Thr protein kinase family and S6 kinase subfamily. RPS6KA2 / RSK-3 is expressed in many tissues. Highest expression is in lung and skeletal muscle. The expression of RPS6KA2 reduced proliferation, caused G1 arrest, increased apoptosis, reduced levels of phosphorylated extracellular signal-regulated kinase and altered other cell cycle proteins. RPS6KA2 / RSK-3 contains one AGC-kinase C-terminal domain and two protein kinase domains. It forms a complex with either ERK1 or ERK2 in quiescent cells. It transiently dissociates following mitogenic stimulation. RPS6KA2 / RSK-3 is a serine/threonine kinase that may play a role in mediating the growth-factor and stress induced activation of the transcription factor CREB. RPS6KA1, RPS6KA2, RPS6KB1, RPS6KB2, and PDK1 are involved in several pathways central to the carcinogenic process, including regulation of cell growth, insulin, and inflammation.

References

- 1.Zhao Y., *et al.*,(1995), RSK3 encodes a novel pp90rsk isoform with a unique N-terminal sequence: growth factor-stimulated kinase function and nuclear translocation. *Mol. Cell. Biol.* 15:4353-4363.
- 2.Mungall A.J., *et al.*, (2003), The DNA sequence and analysis of human chromosome 6. *Nature* 425:805-811.
- 3.Ota T., *et al.*,(2004), Complete sequencing and characterization of 21,243 full-length human cDNAs. *Nat. Genet.* 36:40-45.

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