

RSK3 Protein, Human, Recombinant (GST)

General Information

Synonyms:	HU-2;ribosomal protein S6 kinase, 90kDa, polypeptide 2;S6K- α ;S6K- α 2;RSK;pp90RSK3;RSK3;MAPKAPK1C;p90-RSK3;S6K-alpha;S6K-alpha2
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. Predicted N terminal: Met
Species:	Human
Expression Host:	Baculovirus Insect Cells
Accession:	Q15349-1
Molecular Weight:	110 kDa (predicted); 110 kDa (reducing conditions)

QC Testing

Biological Activity:	The specific activity was determined to be 41 nmol/min/mg using synthetic RSK peptide (KRRRLSSLRA) as substrate.
Purity:	> 84 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/ μ g of the protein as determined by the LAL method.
Formulation:	Supplied as sterile 20 mM Tris, 500 mM NaCl, pH 7.0, 20 mM GSH.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store the product under sterile conditions at -20°C to -80°C . Samples are stable for up to 12 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

Proteins are shipped with blue ice.

Protein Background

Ribosomal protein S6 kinase alpha-2, also known as 9 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 that 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.

Reference

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.

Mungall A.J.,et al., (2003), The DNA sequence and analysis of human chromosome 6.Nature 425:805-811.

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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