

Active Recombinant Full Length Human RPS6KA2 Protein, N-His-tagged

Cat. No. RPS6KA2-168HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	N-terminal 6His-tagged recombinant full-length, human RSK3, expressed in Sf21 insect cells. Purified using Ni ²⁺ /NTA agarose. Activated using MAP Kinase 2 and PDK1 and repurified using glutathione-agarose, heparin Sepharose and Ni ²⁺ /NTA-agarose.
Species	Human
Source	Sf21
ProteinLength	Full Length
Description	Serine/threonine protein kinases RSKs contain three isoforms RSK1, RSK2 and RSK3 and act at the distal end of MAPK Signaling pathway. They are directly phosphorylated and activated by ERK1/2 in response to many growth factors, peptide hormones and neurotransmitters. RSKs have been shown to regulate apoptosis through phosphorylation and inactivation of the pro-apoptotic protein BAD, and cell cycle since the kinase Myt1 is a RSK target. RSK3 (Ribosomal protein S6 kinase 3, SK6-alpha, MAPKAPK1C) is especially interesting, because it features an additional nuclear targeting signal near its N-terminus, and can phosphorylate a variety of transcription factors (CREB, TCF/Lef, Myc, the estrogen receptor, and the Fos subunit of AP-1).
Form	1.688mg/ml of enzyme in 50mM Tris/HCl pH7.5, 0.1mM EGTA, 150mM NaCl, 0.03%

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

	Brij-35, 0.2mM PMSF, 1mM benzamidine, 0.1% 2-mercaptoethanol, 270mM sucrose. Frozen solution.
Bio-activity	243U/mg, where one unit of RSK3, active activity is defined as 1nmol phosphate incorporated into 30μM (KKKNRTLSVA) per minute at 30 centigrade with a final ATP concentration of 100μM.
Molecular Mass	87 kDa
AA Sequence	<p>1 MSYYHHHHHH DYDIPTTENL YFQGAMDPEF MDLSMKKFAV RFFFSVYLRR</p> <p>KSRKSSSL 61 RLEEEGVVKE IDISHHVKEG FEKADPSQFE LLKVLGQGSY</p> <p>GKVFLVRKVK GSDAGQLYAM 121 KVLKKATLKV RDRVRSKMER DILAENVNHPF</p> <p>IVKLHYAFQT EGKLYLILDF LRGGDLFTRL 181 SKEVMFTEED VKFYLAELAL</p> <p>ALDHLHSLGI IYRDLKPENI LLDEEGHIKI TDFGLSKEAI 241 DHDKRAYSFC</p> <p>GTIEYMAPEV VNRRGHTQSA DWWSFGVLMF EMLTGSLPFQ GKDRKETMAL 301</p> <p>ILKAKLGMPQ FLSGEAQSL RALFKRNPCN RLGAGIDGVE EIKRHPFFVT</p> <p>IDWNTLYRKE 361 IKPPFKPAVG RPEDTFHFDP EFTARTPTDS PGVPPSANAH</p> <p>HLFRGFSFVA SSLIQEPSQQ 421 DLHKVPVHPI VQQLHGNNIH FTDGYEIKED</p> <p>IGVGSYSVCK RCVHKATDTE YAVKIIDKSK 481 RDPSEEIEIL LRYGQHPII</p> <p>TLKDVYDDGK FVYLVMELMR GGELLDRIIR QRYFSEREAS 541 DVLCTITKTM</p> <p>DYLHSQGVVH RDLKPSNILEY RDESGSPESI RVCDFGFAKQ LRAGNGLLMT 601</p> <p>PCYTANFVAP EVLKRQGYDA ACDIWSLGIL LYTMLAGFTP FANGPDDTPE</p> <p>EILARIGSGK 661 YALSGGNWDS ISDAAKDVVS KMLHVDPHQR LTAMQVLKHP</p> <p>WVWNREYLSP NQLSRQDVHL 721 VKGAMAATYF ALNRTPQAPR LEPVLSSNLA</p> <p>QRRGMKRLTS TRL</p>
Purity	Purified to 27% by SDSPAGE and Coomassie blue staining.
Applications	Drug Discovery & Development

Storage	1 year at -70 centigrade.
Handling Advice	Rapidly thaw the vial under cold water and immediately place on ice. Aliquot unused material into prechilled micro-centrifuge tubes and immediately snap-freeze the vials in liquid nitrogen prior to re-storage at -70 centigrade.
Use/Stability	On receipt of material store at -70 centigrade. Unopened reagent is stable for a minimum of 1 year from date of shipment when stored at recommended storage temperature. Avoid repeat freeze/thaw cycles. For maximum recovery of product, centrifuge original vial prior to removing the cap.

GENE INFORMATION

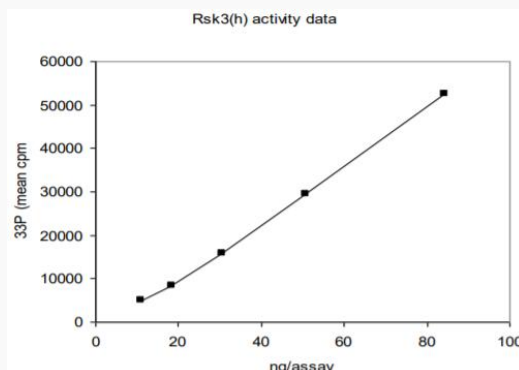
Gene Name	RPS6KA2 ribosomal protein S6 kinase A2 [Homo sapiens (human)]
Official Symbol	RPS6KA2
Synonyms	RPS6KA2; ribosomal protein S6 kinase A2; RSK; HU-2; RSK3; p90RSK2; p90-RSK3; pp90RSK3; MAPKAPK1C; S6K-alpha; S6K-alpha2
Gene ID	6196
mRNA Refseq	NM_021135.6
Protein Refseq	NP_066958.2
MIM	601685
UniProt ID	Q15349

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

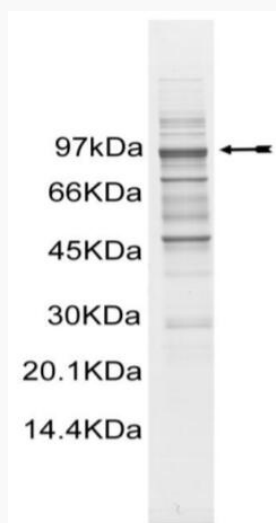
 45-1 Ramsey Road, Shirley, NY 11967, USA

Kinase Assay



11–84ng of this lot of enzyme phosphorylated 30μM (KKKNRTLSVA) in the assay.

SDS-PAGE



Purity was assessed by SDS-PAGE and Coomassie blue staining using 3μg of RSK3, active.

Tel: 1-631-559-9269 1-516-512-3133

Email: info@creative-biomart.com Fax: 1-631-938-8127

45-1 Ramsey Road, Shirley, NY 11967, USA