

## Product datasheet for TP510996

### Rps6ka5 (NM\_153587) Mouse Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse ribosomal protein S6 kinase, polypeptide 5 (Rps6ka5), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>MR210996 protein sequence Red=Cloning site Green=Tags(s)

MEGEGGGSGGAGTSGDSGDGGEQLLTVKHELRTANLTGHAKEVGIENFELLKVLGTGAYGKVFLVRKISG  
 HDAGKLYAMKVLKATIVQAKTTEHTRTERQVLEHIRQSPFLVTLHYAFQTETKLHLILDYINGGELFT  
 HLSQRERFTEHEVQIYVGEIVLALEHLHLKLGIIYRDIKENILLDSNGHVLTDFGLSKEFVADETERAY  
 SFCGTIEYMAPDIVRGGDSGHDKAVDWWSLGVLMYELLTGASPFTVDGEKNSQAEISRRILKSEPPYPQE  
 MSTVAKDLLQRLLMKDPKKRLGCGPRDAEEIKEHLFFEKIKWDDLAACKVPAPFKPVIRDELVDVSNAEE  
 FTEMDPTYSPAALPQSSERLFQGYSFVAPSILFKRNAVIDPLQFHMGVDRPGVTNVARSAMMKDSPFYQ  
 HYDLDLKDKPLGEGSFSICRKCVCVHKTNQAFVAKIISKRMEANTQKEITALKCEGHPNIVKLHEVFHDQ  
 VAASAQPPGQVVLCSLLLLALLFNRSLTRKPVTTWLVHSTSQLPPLPPPMPEIVLFILLSDNGQLHTFL  
 VMELLNGGELFERIKRKHFSETEASYIMRKLVSASHMHDVGVVHRDLKPENLLFTDENDNLEIKVIDF  
 GFARLKPPDNQPLKTPCFTLHYAAPELLTHNGYDESCDLWSLGVILYTMISGQVPFQSHDRSLTCTSAVE  
 IMKKIKKGDFSFEGEAWKNVSQEAQDLIQGLLTVDPNKRLKMSGLRYNEWLQDGSQSSNPLMTPDILGS  
 SGAAVHTCVKATFHAFNKYKREGFCLQNVDKAPLAKRRKMKRTSTSTETRSSSSSESSRSSSSQSHGKTPP  
 TKTLQPSNPTEGSPNPDTLFQFSD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-MYC/DDK
Predicted MW:	96.6 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.


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<b>Storage:</b>	Store at -80°C after receiving vials.
<b>Stability:</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>RefSeq:</b>	<u><a href="#">NP_705815</a></u>
<b>Locus ID:</b>	73086
<b>UniProt ID:</b>	<u><a href="#">Q8C050</a></u>
<b>RefSeq Size:</b>	4406
<b>Cytogenetics:</b>	12 E
<b>RefSeq ORF:</b>	2589
<b>Synonyms:</b>	3110005L17Rik; 6330404E13Rik; AI854034; MSK1; MSPK1; RLPK; RLSK; S6K-alpha-5

**Summary:**

Serine/threonine-protein kinase that is required for the mitogen or stress-induced phosphorylation of the transcription factors CREB1 and ATF1 and for the regulation of the transcription factors RELA, STAT3 and ETV1/ER81, and that contributes to gene activation by histone phosphorylation and functions in the regulation of inflammatory genes (By similarity) (PubMed:11553624, PubMed:11909979, PubMed:16806820). Phosphorylates CREB1 and ATF1 in response to mitogenic or stress stimuli such as UV-C irradiation, epidermal growth factor (EGF) and anisomycin (PubMed:11909979). Plays an essential role in the control of RELA transcriptional activity in response to TNF and upon glucocorticoid, associates in the cytoplasm with the glucocorticoid receptor NR3C1 and contributes to RELA inhibition and repression of inflammatory gene expression (PubMed:12628924, PubMed:16806820). In skeletal myoblasts is required for phosphorylation of RELA at 'Ser-276' during oxidative stress (PubMed:12628924). In erythropoietin-stimulated cells, is necessary for the 'Ser-727' phosphorylation of STAT3 and regulation of its transcriptional potential (PubMed:11553624). Phosphorylates ETV1/ER81 at 'Ser-191' and 'Ser-216', and thereby regulates its ability to stimulate transcription, which may be important during development and breast tumor formation (By similarity). Directly represses transcription via phosphorylation of 'Ser-1' of histone H2A (By similarity). Phosphorylates 'Ser-10' of histone H3 in response to mitogenics, stress stimuli and EGF, which results in the transcriptional activation of several immediate early genes, including proto-oncogenes c-fos/FOS and c-jun/JUN (PubMed:15870105, PubMed:16517600). May also phosphorylate 'Ser-28' of histone H3 (PubMed:11441012, PubMed:15870105). Mediates the mitogen- and stress-induced phosphorylation of high mobility group protein 1 (HMGN1/HMG14) (By similarity). In lipopolysaccharide-stimulated primary macrophages, acts downstream of the Toll-like receptor TLR4 to limit the production of pro-inflammatory cytokines (PubMed:18690222). Functions probably by inducing transcription of the MAP kinase phosphatase DUSP1 and the anti-inflammatory cytokine interleukin 10 (IL10), via CREB1 and ATF1 transcription factors (PubMed:18690222). Plays a role in neuronal cell death by mediating the downstream effects of excitotoxic injury (PubMed:12807421). Phosphorylates TRIM7 at 'Ser-106' in response to growth factor signaling via the MEK/ERK pathway, thereby stimulating its ubiquitin ligase activity (By similarity). [UniProtKB/Swiss-Prot Function]