

## Product datasheet for **MC222274**

### **Rps6ka5 (NM\_153587) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Rps6ka5 (NM_153587) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Rps6ka5
Synonyms:	3110005L17Rik; 6330404E13Rik; AI854034; MSK1; MSPK1; RLPK; RLSK; S6K-alpha-5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >MC222274 representing NM\_153587  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAGGGGGAGGGCGGCCGAGCGGGCGCGGGCACCAGCGGGGACAGCGGCCAGCGGGCGGAGCAGC  
 TCCTTACTGTCAAGCACGAGCTGCGGACCGCCAACTTAACAGGACACGCAGAGAAGGTGGGATTGAAAA  
 CTTTGAGCTGCTGAAGGTCCTAGGAACTGGAGCTTATGGGAAAGTATTTCTAGTTCGTAATAAAGCGGC  
 CATGATGCTGAAAGCTGTATGCTATGAAGTTTTAAAAAGGCAACAATAGTTCAGAAGGCTAAAACCTA  
 CAGAGCATACAAGGACAGAACGACAGTTCTGGAGCACATTAGACAGTCGCCATTTTGGTGACATTGCA  
 CTATGCTTTCCAGACAGAGACCAAGCTTCATCTCATCTTAGATTATATAAATGGTGGAGAAGCTTTTACT  
 CATCTTTCTCAAAGAGAGCGTTTACAGAGCACGAAGTGCAGATCTATGTTGGAGAGATTGTCTTGCCC  
 TGGAACACCTGCACAAGTTGGGGATTATATACCGTGACATTAAGCTTGAAAAATTTCTCCTGGATTCTAA  
 CGCCCATGTGGTCTGACAGATTTCCGCTGAGTAAGGAGTTTGTGGCCGATGAAACTGAAAGAGCATAT  
 TCTTTTGTGGAAGTATTGAATACATGGCTCCAGATATTGTCAGAGGGGGTATTTCGGGACACGACAAGG  
 CAGTTGACTGGTGGAGCTTAGGTGTTCTAATGTATGAGCTACTAACTGGAGCATCTCTTTCACTGTCTGA  
 TGGAGAAAAAATTTCCAGGCTGAGATATCTAGGAGAAATTTAAAAAGTGAAGCTCCGATCCCCAGGAA  
 ATGAGCACAGTAGCTAAAGACCTACTTCAGCGTCTCTTGTGAAAGATCCCAAGAAGCGATTGGGATGTG  
 GCCACGGGATGCAGAAGAAATCAAAGAATCTCTTCTTTGAGAAGATAAAGTGGGATGACTTAGCTGC  
 CAAAAAGTGCCTGCGCCATTCAAGCCGGTATCCGGGATGAGTTAGATGTGAGTAACTTCGCTGAAGAG  
 TTCACAGAGATGGACCCCACTACTCTCCCGCTGCCTTGCCACAGAGCTCCGAGCGACTGTTTCAGGGCT  
 ATTCTTCGTTGCTCCATCTATTCTCTCAAGCGTAACGACGCTGCATAGATCCTTTCAGTCCATAT  
 GGGAGTTGACCGTCTGGAGTGACAAATGTTGCCAGGAGTGAATGATGAAGGACTCACCTTCTATCAA  
 CACTATGACCTAGATCTGAAGGACAAACCTTTGGGAGAAGGAAGTTTTTCAATTTGTCGCAAGTGTGAC  
 ACAAAAAAATAACCAAGCATTGCTGTCAAATAATCAGCAAAAGGATGGAAGCCAATACTCAGAAAGA  
 AATAACAGCTCTGAAACTCTGCGAAGGACACCCCAATATTGTGAAACTACATGAAGTTTTTCAGCATCAG  
 GTGGCAGCGTCTGCTCAGCCCCAGGACAGGTTGTTCTATGCTCTCTTACTCTTAGCTCTGCTTTTCA  
 ACAGAAGTCTCACACGGAAGCCTGTCACCTGGACATGGCTGGTCCATAGCACCTCTCAGCTCCCTCCATT  
 GCCACCTCCCATGCTGAAATTGTCTATTTATCTTCTCTCTGATAATGGACAGCTTCATACGTTTCTT  
 GTGATGGAAGTCTGAATGGCGGAGAGCTGTTGAGCGCATCAAGAGAAAGAAGCACTTCAGCGAGACTG  
 AGGCCAGCTACATCATGCGGAAGCTTGTGTCAGCTGTGAGCCACATGCACGATGTAGGAGTGGTGCACAG  
 AGATCTGAAGCCTGAGAATCTGTTGTTCACTGATGAAAACGACAATTTGGAAATTAAGTGAATGACTTT  
 GGGTTTGACAGCCTCAAGCCACCTGACAATCAGCCCTCAAGACCCCGTCTTACCCTCCACTACGCAG  
 CACCGGAGCTCTTGACGCACAATGGCTACGATGAGTCTGTGACCTGTGGAGCTTGGGTGCATCTGTGA  
 TACAATGCTGTGAGGACAGTGCATTCCAGTCTCATGACAGAAGTTAACATGCACCAAGTGCAGTGGAA  
 ATCATGAAGAAAATTAAGGGGAGACTTCTCTTTGAAGGAGAAGCGTGAAGAATGTATCCCAAGAGG  
 CTAAGATTTGATTCAAGGGCTTCTTACAGTTGATCCAATAAAAGGCTGAAAATGTCTGGTTTGAGATA  
 CAATGAATGGCTTCAGGATGGCAGTCAAGTGCCTCCAATCCTCTGATGACTCCAGACATCTGGGATCG  
 TCAGGAGCAGCTGTGCACCTGTGTGAAAGCAACCTTTTCATGCCTTTAACAAGTATAAGAGAGAAGGAT  
 TTTGCCTGCAGAATGTGATAAAGCCCCCTTTGGCTAAGAGGAGGAAAAATGAAGAGGACCAGCACCAGCAC  
 AGAGACTCGCAGCAGCTCCAGCGAGAGCTCCCGCTCCTCCTCCTCCAGTCCCACGGCAAGACAACGCCCT  
 ACCAAGACGCTGCAGCCAGCAATCCCACCGAAGGCAAGTAAACCAGACACCCTCTCCAGTTCTCAGACT  
 GA

**ACGGGT**ACGGCGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI  
**ACCN:** NM\_153587  
**Insert Size:** 2592 bp

<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_153587.2</a> , <a href="#">NP_705815.1</a>
<b>RefSeq Size:</b>	4406 bp
<b>RefSeq ORF:</b>	2592 bp
<b>Locus ID:</b>	73086
<b>UniProt ID:</b>	<a href="#">Q8C050</a>
<b>Cytogenetics:</b>	12 E

**Gene 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]

Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.