

## Product datasheet for **SC323446**

### RSK3 (RPS6KA2) (NM\_021135) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	RSK3 (RPS6KA2) (NM_021135) Human Untagged Clone
Tag:	Tag Free
Symbol:	RSK3
Synonyms:	HU-2; MAPKAPK1C; p90-RSK3; p90RSK2; pp90RSK3; RSK; RSK3; S6K-alpha; S6K-alpha2
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC323446 sequence for NM\_021135 edited (data generated by NextGen Sequencing)

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ATGGACCTGAGCATGAAGAAGTTCGCCGTGCGCAGGTTCTTCTGTGTACCTGCGCAGG
AAGTCCGCTCCAAGAGCTCCAGCTGAGCCGGCTCGAGGAAGAAGGTGTCGTGAAGGAG
ATAGACATCAGCCATCATGTGAAGGAGGCTTTGAGAAGGCAGATCCTTCCCAGTTTGAG
CTGCTGAAGGTTTTAGGACAAGGATCCTATGAAAGGTGTTCTTGGTGAAGGAGTGAAG
GGTCCGACGCTGGGCAGCTCTACGCCATGATGGTCCTTAAGAAAGCCACCCTAAAAGTT
CGGGACCGAGTGAGATCGAAGATGGAGAGAGACATCTTGGCAGAAGTGAATCACCCCTTC
ATTGTGAAGTTCATTATGCCTTTCAGACGGAAGGAAAGCTCTACCTGATCCTGGACTTC
CTGCGGGGAGGGGACCTTTCACCCGGCTCTCAAAGAGGTCATGTTACGGAGGAGGAT
GTCAAGTTCTACCTGGCTGAGCTGGCCTTGGCTTAGACCATCTCCACAGCCTGGGGATC
ATCTACAGAGATCTGAAGCCTGAGAACATCCTCCTGGATGAAGAGGGGCACATTAAGATC
ACAGATTCGGCCTGAGTAAGGAGGCCATTGACCACGACAAGAGAGCGTACTCCTTCTGC
GGGACGATCGAGTACATGGCCTCGAGGTGGTGAACCGGCGAGGACACACGAGAGTGCC
GACTGGTGGTCTTCGGCGTGCTCATGTTTGAAGTGTCTACGGGGTCCCTGCCGTTCCAG
GGGAAGGACAGGAAGGAGACCATGGCTCTCATCCTCAAAGCCAAGCTGGGGATGCCGCGAG
TTCTCAGTGGGGAGGCACAGAGTTTGGTGGGAGCTCTTCAAACGGAACCCCTGCAAC
CGGCTGGGTGCTGGCATTGACGGAGTGGAGGAAATTAAGCGCCATCCCTTCTTTGTGACC
ATAGACTGGAACACGCTGTACCGGAAGGAGATCAAGCCACCGTTCAAACAGCAGTGGGC
AGGCTGAGGACACCTTCCACTTTGACCCCGAGTTCACAGCGGGACGCCACAGACTCT
CCTGGCGTCCCCCGAGTGCAAACGCTCATCACCTGTTTAGAGGATTCAGCTTTGTGGCC
TCAAGCTGATCCAGGAGCCCTCACAGCAAGATCTGCACAAAGTCCCAGTTCACCCAATC
GTGCAGCAGTTACACGGGAACAACACTTCCACTTCCAGTGGCTACGAGATCAAGGAGGAC
ATCGGGGTGGGCTCCTACTCAGTGTGCAAGCGATGTGTGCATAAAGCCACAGACCCGAG
TATGCCGTGAAGATCATTGATAAGAGCAAGAGAGACCCCTCGGAAGAGATTGAGATCCTC
CTGCGGTACGGCCAGCACCCGAACATCATCACCTCAAGGATGTCTATGATGATGGCAAG
TTTGTGTACCTGGTAATGGAGCTGATGCGTGGTGGGGAGCTCCTGGACCGCATCTCCGG
CAGAGATACTTCTCGGAGCGGAAGCCAGTGACGCTCCTGTGCACCATACCAAGACCATG
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AGGATGAGTCCGGGAGCCAGAATCCATCCGAGTCTGCGACTTCGGCTTTGCCAAGCAG
CTGCGCGCGGGGAACGGGCTGCTCATGACACCCTGCTACACGGCCAATTCGTGGCCCCG
GAGGTCCTGAAGCGTCAAGGCTATGATGCGGCGTGTGACATCTGGAGTTTGGGGATCCTG
TTGTACACCATGCTGGCAGGATTTACCCCTTTTCAAATGGGCCAGACGATACCCCTGAG
GAGATTCTGGCGCGGATCGGCAGTGGGAAGTATGCCCTTCTGGGGGAAACTGGGACTCG
ATATCTGACGCAGCTAAAGACGTCGTGTCCAAGATGCTCCACGTGGACCCCTCATCAGCGC
CTGACGGCGATGCAAGTGTCAAACACCCGTGGTGGTCAACAGAGAGTACCTGTCCCCA
AACCAGCTCAGCCGACAGGACGTGCACCTGGTGAAGGGCGCGATGGCCGCCACCTACTTT
GCTCTAAACAGAACACCTCAGGCCCGCGGCTGGAGCCCGTGTGTCGTCCAACCTGGCT
CAGCGCAGAGGCATGAAGAGACTCACGTCCACGCGTTGTAG
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Clone variation with respect to NM\_021135.4  
108 c=>t;272 a=>t;2148 a=>g;2197 c=>t

<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for mutant NM_021135 unedited CCGCCGTTGAGCAATGGGCGGTAGGCGGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAAC CGTCAGAAATTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGGCCGGCGGCCTGC CCTTTGTGACCGCAGCTCGCGCCCCACGCCCGGCCCATGGCCGCCGTGCCGGGCTCCCTGGCCACGCG TGCCCCCGCCGGACCTGAGCCCCGCGCCTGGGATGCCGGGGATGCGCGTCCCCGGCCCTGCGGCTGCT CCGGGCTGGGCGCGGGCGATGGACCTGAGCATGAAGAAGTTCGCCGTGCGCAGGTTCTTCTCTGTGTAC CTGCGCAGGAAGTCGCGCTCCCAAGAGCTCCAGCCTGAGCCCGGCTCGAGGAAGAAGGTGTCGTGAAGGA GATAGACATCAGCCCATCATGGTGAAGGAGGGCTTTGGAGAAGGCAGATCCTTCCAGTTGAGCTGCTGA AGGTTTTAGGAACAGGATCCCATGAAAAGGTGTTCTGTTGAGGAAGGTGAAGGGTCCAACCTGGCAACC TAACCCATGAGGTCTAGAAAAGCCCTTAAATTCGGGACCAATAAATCCACATGAAA
<b>Kinase Domain Sequence:</b>	>SC323446 kinase domain raw sequence. By performing <a href="#">BLASTX</a> analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation TRTTAAGCAGWCTATGGAAGGTGTTCTGGTGAGGAAGGTGAAGGGTCCGACGCTGGGCAGCTCTACGC CATGATGGTCTTAAGAAAGCCACCCTAAAAGTTCGGGACCGAGTGAGATCGAAGATGGAGAGACATC TTGGCAGAAGTGAATCACCCCTTATTGTGAAGCTTATTATGCCTTTCAGACGGAAGGAAAGCTTACC TGATCCTGGACTTCTGCGGGGAGGGGACCTTTCACCCGGCTCT
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_021135
<b>Insert Size:</b>	4310 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>OTI Annotation:</b>	This kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." <a href="#">Cell</a> , 2008 May p536-548.
<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_021135.4</a> , <a href="#">NP_066958.2</a>
<b>RefSeq Size:</b>	5817 bp
<b>RefSeq ORF:</b>	2202 bp
<b>Locus ID:</b>	6196

<b>UniProt ID:</b>	<u>Q15349</u>
<b>Cytogenetics:</b>	6q27
<b>Domains:</b>	pkinase, S_TK_X, TyrKc, PDZ, S_TKc
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>Protein Pathways:</b>	Long-term potentiation, MAPK signaling pathway, mTOR signaling pathway, Neurotrophin signaling pathway, Oocyte meiosis, Progesterone-mediated oocyte maturation
<b>Gene Summary:</b>	<p>This gene encodes a member of the RSK (ribosomal S6 kinase) family of serine/threonine kinases. This kinase contains two non-identical kinase catalytic domains and phosphorylates various substrates, including members of the mitogen-activated kinase (MAPK) signalling pathway. The activity of this protein has been implicated in controlling cell growth and differentiation. Alternative splice variants, encoding different isoforms, have been characterized. [provided by RefSeq, Jan 2016]</p> <p>Transcript Variant: This variant (1) encodes isoform a. 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.</p>