

## Product datasheet for **SC323643**

### **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:** >NCBI ORF sequence for NM\_021135, the custom clone sequence may differ by one or more nucleotides

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ATGGACCTGAGCATGAAGAAGTTCGCCGTGCGCAGGTTCTTCTGTGTACCTGCCGAGGAAGTCGCGCT
CCAAGAGCTCCAGCCTGAGCCGGCTCGAGGAAGAAGGCGTCGTGAAGGAGATAGACATCAGCCATCATGT
GAAGGAGGGCTTTGAGAAGGCAGATCCTCCAGTTTGTAGCTGCTGAAGTTTTAGGACAAGGATCCTAT
GGAAAGGTGTTCCCTGGTGAAGGAGTGAAGGGTCCGACGCTGGGCAGCTCTACGCCATGAAGTCCCTTA
AGAAAGCCACCCTAAAAGTTCGGGACCGAGTGAGATCGAAGATGGAGAGAGACATCTTGCGAGAAGTGAA
TCAACCCCTTATTGTGAAGCTTATTATGCCTTTCAGACGGAAGGAAAGCTCTACCTGATCCTGGACTTC
CTGCGGGGAGGGGACCTTTCACCCGGCTCTCAAAGAGGTCATGTTACGAGGAGGATGTCAAGTTCT
ACCTGGCTGAGCTGGCCTTGGCTTTAGACCATCTCCACAGCCTGGGGATCATCTACAGAGATCTGAAGCC
TGAGAACATCCTCCTGGATGAAGAGGGGCACATTAAGATCACAGATTTCCGCTGAGTAAGGAGGCCATT
GACCACGACAAGAGAGCGTACTCCTTTCGCGGACGATCGAGTACATGGCGCCGAGGTGGTGAACCGGC
GAGGACACACGCAGAGTCCGACTGGTGGTCTTCGGCGTGCTCATGTTTGTAGATGCTCAGGGGTCCCT
GCCGTTCCAGGGGAAGGACAGGAAGGAGACCATGGCTCTCATCCTCAAAGCCAAGCTGGGGATGCCGAG
TTCCTCAGTGGGAGGCACAGAGTTTGTGCGAGCTCTTTCAAACGGAACCCCTGCAACCGGCTGGGTG
CTGGCATTGACGGAGTGGAGGAAATTAAGCGCCATCCCTTCTTTGTGACCATAGACTGGAACACGCTGTA
CCGGAAGGAGATCAAGCCACCGTTCAAACCAGCAGTGGGCAGGCCTGAGGACACCTTCCACTTTGACCCC
GAGTTCACAGCGCGGACGCCACAGACTCTCCTGGCGTCCCCCGAGTGCAAACGCTCATCACCTGTTTA
GAGGATTACAGCTTTGTGGCCTCAAGCCTGATCCAGGAGCCCTCACAGCAAGATCTGCACAAAGTCCCAGT
TCACCCAATCGTGCAGCAGTTACACGGGAACAACATCCACTTCACCGATGGCTACGAGATCAAGGAGGAC
ATCGGGGTGGCTCCTACTCAGTGTGCAAGCGATGTGTGCATAAAGCCACAGACCCGAGTATGCCGTGA
AGATCATTGATAAGAGCAAGAGAGACCCCTCGGAAGAGATTGAGATCCTCCTGCGGTACGGCCAGCACCC
GAACATCATCACCTCAAGGATGTCTATGATGATGGCAAGTTTGTGTACCTGGTAATGGAGCTGATGCGT
GGTGGGGAGCTCCTGGACCGCATCCTCCGGCAGAGATACTTCTCGGAGCGCAAGCCAGTACGCTCCTGT
GCACCATACCAAGACCATGGACTACCTCCATTCCAGGGGGTTGTTTCATCGAGACCTGAAGCCGAGTAA
CATCCTGTACAGGGATGAGTCCGGGAGCCAGAATCCATCCGAGTCTGCGACTTCGGCTTTGCCAAGCAG
CTGCGCGCGGGGAACGGGCTGCTCATGACACCCTGCTACACGGCCAATTCGTGGCCCCGGAGGTCTGA
AGCGTCAAGGCTATGATGCGGCGTGTGACATCTGGAGTTTGGGGATCCTGTTGTACACCATGCTGGCAGG
ATTTACCCCTTTTGCAAATGGGCCAGACGATACCCTGAGGAGATTCTGGCGCGGATCGGCAGTGGGAAG
TATGCCCTTTCTGGGGGAACTGGGACTCGATATCTGACGAGCTAAAGACGTCGTGTCCAAGATGCTCC
ACGTGGACCCATCAGCGCCTGACGGCGATGCAAGTGCTCAAACACCCGTGGGTGGTCAACAGAGAGTA
CCTGTCCCAAACAGCTCAGCCGACAGGACGTGCACCTGGTGAAGGGCGCGATGGCCGCCACTACTTT
GCTCTAAACAGAACACCTCAGGCCCGCGGCTGGAGCCCGTGTGTATCCAACCTGGCTCAGCGCAGAG
GCATGAAGAGACTCAGTCCACGCGGCTGTAG
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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for mutant NM_021135 unedited CCCCCCGTTGAGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGA ACCGTCAGAAATTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGGCCGGCGCGCCT GCCCTTTGTGACCGCAGCTCGCGCCCCACGCCCGCCCATGGCCGCGTGCCTGGGCTGGGCGCGGGC GATGGACCTGAGCATGAAGAAGTTCGCCGTGCGCAGGTTCTTCTGTGTACCTGCGCAGGAAGTCGCGC TCCAAGAGCTCCAGCCTGAGCCGGCTCGAGGAAGAAGGTGTCGTGAAGGAGATAGACATCAGCCATCATG TGAAGGAGGGCTTTGAGAAGGCAGATCCTTCCCAGTTTGAGCTGCTGAAAGTTTTAGACAAGGATCCTAT GGAAAGGTGTTCCCTGGTGAGGAAGTGAAGGGTCCGACGCTGGGCAGCTCTACGCCATGATGGTCCTTAGA AGCCACCCTAAAGTTCGGGACCGAGTGAGATCGAGATGAGAAGAGACATCTGCAGAAGTGATCACCCCTCA TTGTGAGCTCATTATGCTTTCAGACGAGAAGCTTACTGATCTGACTCTGGCGGGAGGGAACCTTTAC CGCTCTTCAGAAGGTCTATGTTACGAGAGAATGTGTCAAGTAACTGGCTTGACTGCTGCCTTAGACAC ATCTCCAGCCTGGGATTCATCTACACAGATTCGAGACCTTGAAATCCTCTCTGTGTAGAAAGGTACATA AGATATACAGATTCGGCCTAGTAAAGAGGGCATTGGCCGACAAGACGCTATCTCTCGGACATTCAGATA CATTGGTCCAGTGTGAACGAGAACCCGAATGCCACTGGTCTCTCCGCTTCTATGTTGAAGATGTCTAC AGTTCTC
<b>Kinase Domain Sequence:</b>	>SC323643 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 GAMAGGAGGMTCGGGTGGGCTCCTACTCAGTGTGCAAGCGATGTGTGCATAAAGCCACAGACACCGAGT ATGCCGTGATGATCATTGATAAGAGCAAGAGACCCCTCGGAAGAGATTGAGATCCTCCTGCGGTACGG CCAGCACCGAACATCATCACCTCAAGGATGTCTATGATGATGGCAAGTTTGTGTACCTGGTAATGGAG CTGATGCGTGGTGGGAGCTCCTGGACCGCATCTCCGGCAGAGA
<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, 2008 May p536-548.</a>
<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>

RefSeq Size:	5817 bp
RefSeq ORF:	2202 bp
Locus ID:	6196
UniProt ID:	<a href="#">Q15349</a>
Cytogenetics:	6q27
Domains:	pkinase, S_TK_X, TyrKc, PDZ, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Long-term potentiation, MAPK signaling pathway, mTOR signaling pathway, Neurotrophin signaling pathway, Oocyte meiosis, Progesterone-mediated oocyte maturation
Gene Summary:	<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>