

## Product datasheet for **SC323412**

### **RPS6KA3 (NM\_004586) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	RPS6KA3 (NM_004586) Human Untagged Clone
Tag:	Tag Free
Symbol:	RPS6KA3
Synonyms:	CLS; HU-3; ISPK-1; MAPKAPK1B; MRX19; p90-RSK2; pp90RSK2; RSK; RSK2; S6K-alpha3
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\_004586, the custom clone sequence may differ by one or more nucleotides

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ATGCCGCTGGCGCAGCTGGCGGACCCGTGGCAGAAGATGGCTGTGGAGAGCCCGTCCGACAGCGCTGAGA
ATGGACAGCAAATATGGATGAACCTATGGGAGAGGAGGAGATTAACCCACAAACTGAAGAAGTCAGTAT
CAAAGAAATTGCAATCACACATCATGTAAGGAAGGACATGAAAAGGCAGATCCTCCCAGTTTGAACCT
TTAAAAGTATTAGGGCAGGGATCATTGGAAAGGTTTTCTTAGTTAAAAAATCTCAGGCTCTGATGCTA
GGCAGCTTTATGCCATGAAGGTATTGAAGAAGGCCACACTGAAAGTTCGAGACCGAGTTCGGACAAAAAT
GGAACGTGATATCTTGGTAGAGGTTAATCATCCTTTTATTGTCAAGTTGCATTATGCTTTTCAAAGTAA
GGGAAGTTGTATCTTATTTGGATTTTCTCAGGGGAGGAGATTTGTTTACACGCTTATCCAAAGAGGTGA
TGTTACACAGAAGAAGATGTCAAATCTACTTGGCTGAACCTGCACCTGCTTTAGACCATCTACATAGCCT
GGGAATAATTTATAGAGACTTAAAACAGAAAAATACTTCTTGATGAAGAAGGTCACATCAAGTTAACA
GATTTTCGGCTAAGTAAAGAGTCTATTGACCATGAAAAGAAGGCATATTCTTTTTGTGGAAGTGTGGAGT
ATATGGCTCCAGAAGTAGTTAATCGTCGAGGTCATACTCAGAGTCTGACTGGTGGTCTTTTGGTGTGT
AATGTTTTGAAATGCTTACTGGTACACTCCCTTTCCAAGGAAAAGATCGAAAAGAAAACAATGACTATGATT
CTTAAAGCCAAACTTGGAAATGCCACAGTTTTTGTAGTCTGAAGCGCAGAGTCTTTTACGAATGCTTTTCA
AGCGAAATCCTGCAACAGATTAGGTGCAGGACCAGATGGAGTTGAAGAAATTAAGACATTCAATTTTT
CTCAACGATAGACTGGAATAAAGTGTATAGAAGAGAAATTCATCCGCCATTTAAACCTGCAACGGGCAGG
CCTGAAGATACATTCTATTTTGTATCCTGAGTTTACTGCAAAAACCTCCCAAAGATTCACCTGGCATTCCAC
CTAGTGCTAATGCACATCAGCTTTTTCGGGGTTTGTAGTTTGTGCTATTACCTCAGATGATGAAAGCCA
AGCTATGCAGACAGTTGGTGTACATTCAATTGTTTCAGCAGTTACACAGGAACAGTATTGAGTTTACTGAT
GGATATGAAGTAAAAGAAGATATTGGAGTTGGCTCCTACTCTGTTTGAAGAGATGTATACATAAAGCTA
CAAACATGGAGTTTGCAGTGAAGATTATTGATAAAAGCAAGAGAGACCCAACAGAAGAAATGAAATTTCT
TCTTCGTTATGGACAGCATCAAACATTATCACTCTAAAGGATGTATATGATGATGGAAAGTATGTGAT
GTAGTAACAGAACTTATGAAAGGAGGTGAATTGCTGGATAAAAATCTTAGACAAAAATTTTCTCTGAAC
GAGAGGCCAGTGTCTGTTCACTATAACTAAAACCGTTGAATATCTTACGCACAAGGGGTGGTTCA
TAGAGACTTGAAACCTAGCAACATTCTTTATGTGGATGAATCTGGTAATCCGGAATCTATTGCAATTTGT
GATTTTGGCTTTGCAAAACAGCTGAGAGCGGAAAATGGTCTTCTCATGACTCCTGTGTACTGCAAAAT
TTGTTGCACCAGAGGTTTTAAAAGACAAGGCTATGATGCTGCTGTGATATATGGAGTCTTGGTGTCT
ACTCTATACAATGCTTACCGTTACTCCATTTGCAAAATGGTCTGATGATACACCAGAGGAAATATTG
GCACGAATAGGTAGCGGAAAATTCCTCACTCAGTGGTGGTACTGGAATCTGTTTCAGACACAGCAAAGG
ACCTGGTGTCAAAGATGCTTCATGTAGACCCTCATCAGAGACTGACTGCTGCTCTGTGCTCAGACATCC
TTGGATCGTCCACTGGGACCAACTGCCACAATACCAACTAAAACAGACAGGATGCACCACATCTAGTAAAG
GGTGCCATGGCAGCTACATATTCTGCTTTGAACCGTAATCAGTACCAGTTTTTGAACCAGTAGGCCGCT
CTACTCTTGTCTCAGCGGAGAGGTATTAATAAATCACCTCAACAGCCCTGTGA
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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for mutant NM_004586 unedited ACGCCGTTGTAGCAATGGGCGGTAGGCGGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAA CCGTCAGAATTTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGGAAGATGCCGCTGG CGCAGCTGGCGGACCCGTGGCAGAAGATGGCTGTGGAGAGCCCGTCCGACAGCGCTGAGAATGGACAGCA AATTATGGATGAACCTATGGGAGAGGAGGATTAACCCACAACTGAAGAAGTCAGTATCAAAGAAATT GCAATCACACATCATGTAAGGAAGGACATGAAAAGGCAGATCCCTTCCCAGTTTGAACTTTTAAAA GTATTAGGGCAGGGGATCATTTTGGAAAGTTTTCTTAGTAAAAAAATCTCAGGCTCTGATGCCTAGGC AGCTTTTATGCCATGATGGTATTTGGAGAAAGGCCACCCTGAAAAGTCCAAAACCGATTTCGGACAAAA ATTGGAACCGTGATATTCTGGGTGAAGTTAATCATCCCTTTAATGTGCAAGTTGACATTAGCGCTT TCAAACTGGAGGGGAGTTTGTATCTAATTTGGTTTTTCTCAGGGGAGGGGAGATTTGTTTACAC GCTATATCCAAGAGAGTGAGATGTACAGAAAGAGAAGTGTCAAATTTCTATTGGCTGAGACTTTGCATGT GCTTTGACACCTCTCACATCCCGGATATATTTATAGACACTACCCGAATATACTCTTTGTGAGGAAGGG CACTCGTTTCACATATCTGCGCCATATAAGTCTCTGTACCGAGAAAGAGGCATCTTTTGGACTGCTGT ATAGTCCCAGATTATACTCAGGCGTCCCACAGGTCCTGCGGGCCTTGTTGGTTTAGATGCAGACTCTGGA CAACGTTCAGGATCACGGAACGGCTGTAATCTCAGGGCACATGTGATGCACCAGTTGTTACTCGTACACG A
<b>Kinase Domain Sequence:</b>	>SC323412 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 ASACTGMGCAATGGGCGGTAGGCGGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAACCGT CAGAATTTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGGAAGATGCCGCTGGCGCA GCTGGCGGACCCGTGGCAGAAGATGGCTGTGGAGAGCCCGTCCGACAGCGCTGAGAATGGACAGCAAATT ATGGATGAACCTATGGGAGAGGAGGAGATTAACCCACAACTGAA
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_004586
<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_004586.2</a> , <a href="#">NP_004577.1</a>
<b>RefSeq Size:</b>	7723 bp

RefSeq ORF:	2223 bp
Locus ID:	6197
UniProt ID:	<a href="#">P51812</a>
Cytogenetics:	Xp22.12
Domains:	pkinase, S_TK_X, TyrKc, 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:	This gene encodes a member of the RSK (ribosomal S6 kinase) family of serine/threonine kinases. This kinase contains 2 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. Mutations in this gene have been associated with Coffin-Lowry syndrome (CLS). [provided by RefSeq, Jul 2008]