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Product datasheet for SC323689

RSK4 (RPS6KA6) (NM_014496) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RSK4 (RPS6KA6) (NM_014496) Human Untagged Clone
Tag:	Tag Free
Symbol:	RSK4
Synonyms:	p90RSK6; PP90RSK4; RSK-4; RSK4; S6K-alpha-6
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

>OriGene ORF within SC323689 sequence for NM_014496 edited (data generated by NextGen Sequencing)

ATGCTACCATTCGCTCCTCAGGACGAGCCCTGGGACCGAGAAATGGAAGTGTTCAGCGGC
GGCGGCGCGAGCAGCGGCGAGGTAAATGGTCTTAAAATGGTTGATGAGCCAATGGAAGAG
GGAGAAGCAGATTCTTGTCATGATGAAGGAGTTGTTAAAGAAATCCCTATTACTCATCAT
GTTAAGGAAGGCTATGAGAAAGCAGATCCTGCACAGTTTGAGTTGCTCAAGGTTCTTGGT
CAGGGGTCATTTGGAAAGGTTTTTCTTGTTAGAAAGAAGACCGGTCCTGATGCTGGGCAG
CTCTATGCAATGAAGGTGTTAAAAAAAGCCTCTTTAAAAGTTCGAGACAGAGTTCGGACA
AAGATGGAGAGGGATATACTGGTGGAAGTAAATCATCCATTTATTGTCAAATTGCACTAT
GCCTTTCAGACTGAAGGGAAACTGTACTTAATACTGGATTTTCTCAGGGGAGGAGATGTT
TTCACAAGATTATCCAAAGAGGTTCTGTTTACAGAGGAAGATGTGAAATTCTACCTCGCA
GAACTGGCCCTTGCTTTGGATCATCTGCACCAATTAGGAATTGTTTATAGAGACCTGAAG
CCAGAAAACATTTTGCTTGATGAAATAGGACATATCAAATTAACAGATTTTGGACTCAGC
AAGGAGTCAGTAGATCAAGAAAAGAAGGCTTACTCATTTTGTGGTACAGTAGAGTATATG
GCTCCTGAAGTAGTAAATAGGAGAGGCCATTCCCAGAGTGCTGATTGGTGGTCATATGGT
GTTCTTATGTTTGAAATGCTTACTGGTACTCTGCCATTTCAAGGTAAAGACAGAAATGAG
ACCATGAATATGATATTAAAAGCAAAACTTGGAATGCCTCAATTTCTTAGTGCTGAAGCA
CAAAGTCTTCTAAGGATGTTATTCAAAAGGAATCCAGCAAATAGATTGGGATCAGAAGGA
GTTGAAGAAATCAAAAGACATCTGTTTTTTGCAAATATTGACTGGGATAAATTATATAAA
AGAGAAGTTCAACCTCCTTTCAAACCTGCTTCTGGAAAACCAGATGATACTTTTTGTTTT
GATCCTGAATTTACTGCAAAAACACCTAAAGATTCTCCCGGTTTGCCAGCCAGTGCAAAT
GCTCATCAGCTCTTCAAAGGATTCAGCTTTGTTGCAACTTCTATTGCAGAAGAATATAAA
ATCACTCCTATCACAAGTGCAAATGTATTACCAATTGTTCAGATAAATGGAAATGCTGCA
CAATTTGGTGAAGTATATGAATTGAAGGAGGATATTGGTGTTGGCTCCTACTCTGTTTGC
AAGCGATGCATACATGCAACTACCAACATGGAATTTGCAGTGATGATCATTGACAAAAGT
AAGCGAGACCCTTCAGAAGAGATTGAAATATTGATGCGCTATGGACAACATCCCAACATT
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AGTGATATACTATATGTAATAAGTAAGACAGTTGACTATCTTCATTGTCAAGGAGTTGTT
CATCGTGATCTTAAACCTAGTAATATTTTATACATGGATGAATCAGCCAGTGCAGATTCA
ATCAGGATATGTGATTTTGGGTTTGCAAAACAACTTCGAGGAGAAAATGGACTTCTCTTA
ACTCCATGCTACACTGCAAACTTTGTTGCACCTGAGGTTCTTATGCAACAGGGATATGAT
GCTGCTTGTGATATCTGGAGTTTAGGAGTCCTTTTTTACACAATGTTGGCTGGCTACACT
CCATTTGCTAATGGCCCCAATGATACTCCTGAAGAGATACTGCTGCGTATAGGCAATGGA
AAATTCTCTTTGAGTGGTGGAAACTGGGACAATATTTCAGACGGAGCAAAGGATTTGCTT
TCCCATATGCTTCATATGGACCCACATCAGCGGTATACTGCTGAACAAATATTAAAGCAC
TCATGGATAACTCACAGAGACCAGTTGCCAAATGATCAGCCAAAGAGAAATGATGTGTCA
CATGTTGTTAAGGGAGCAATGGTTGCAACATACTCTGCCCTGACTCACAAGACCTTTCAA
CCAGTCCTAGAGCCTGTAGCTGCTTCAAGCTTAGCCCAGCGACGGAGCATGAAAAAGCGA
ACATCAACTGGCCTGTAA

Clone variation with respect to NM_014496.4
1364 a=>t

5' Read Nucleotide Sequence:

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>OriGene 5' read for mutant NM_014496 unedited
ACCGCCGTTGAGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAA
CCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGGCTCCGTGGAGTGG
GCAGGTTTACCGAGGCGCTAGCAGGGGCTTTTACTACTCTTCAGTCGCCTCCCCAGCCCAGCTCCCAGCC
TCTGAGAGACCCGGCGGCGGCGGCGGCGGGCCAGTTCAATAGACAGGATGCGCGGCCGCGCCAGCGGTAG
GCGGCAGCTCCTGTTTGAGTGCTCCTGAAGGGAGATGCTACCATTCGCTCCTCAGGACGAGCCCTGGGAC
CCGAGAAATGGGAAGTGTTCAGGCGGCCGGCGGGCGCGAGCAGCGGCGAAGGTAAAATGTCCTTAAAATG
TTTGATGAGCCAAGGAAAAGGGGAGAAGGCAGAATTCTTGGTCTGAATGAAGGAGTGGTTAAGGAATTCC
TTTTAACCAATATTTGTAAGGGAAGGTAATGAAAAGCAGTTCCGGCCCGTTTAGTTGGCTCAGGGTTTTT
GTCAGGGTCTATTTGAAAGGTTTCTCTGTTAGAAAAAAACGGCCGTATGCTGGGCGCTTATGCTGAAAGT
GTAAAAAACCTTTTAAATGTCGAGACAGATTGCGAAGAGAAGAAGGGAATCGTGGAAGATACTCACTATA
TGGCAATTCCATGCCCTGAACTAGGAACTTGCTATACTGAATTCTAGGGAGAAGTTTCCAGATTCCAAGT
TGTTCAAGAGATGAAATCTCGAATGCTGTCGTACTGCCATAGGATGGAGTCAACACACGTGTGGAAAGAA
CAATGAATTGGGCCAAGCGTGTCAACAA
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Kinase Domain Sequence:

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>SC323689 kinase domain raw sequence. By performing BLASTX analysis with this sequence
against NCBI refernce protein database, you can confirm the presence of the kinase-
deficient mutation
AGAGAGWTTGGTGTTGGCTCCTACTCTGTTTGCAAGCGATGCATACATGCAACTACCAACATGGAATTTG
CAGTGATGATCATTGACAAAAGTAAGCGAGACCCTTCAGAAGAGATTGAAATATTGATGCGCTATGGACA
ACATCCCAACATTATTACTTTGAAGGATGTCTTTGATGATGGTAGATATGTTTACCTTGTTACGGATTTA
ATGAAAGGAGGAGAGTTACTTGACCGTATTCTCAAACAAAAATGT
```

Restriction Sites: Please inquire

ACCN: NM_014496

Insert Size: 5000 bp

OTI Disclaimer: 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).

OTI Annotation: 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." Cell. 2008 May p536-548.

Components: 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).

Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
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.

RefSeq: NM_014496.1, NP_055311.1

RefSeq Size: 2640 bp

RefSeq ORF:	2238 bp
Locus ID:	27330
UniProt ID:	Q9UK32
Cytogenetics:	Xq21.1
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 ribosomal S6 kinase family, serine-threonine protein kinases which are regulated by growth factors. The encoded protein may be distinct from other members of this family, however, as studies suggest it is not growth factor dependent and may not participate in the same signaling pathways. [provided by RefSeq, Jan 2010] Transcript Variant: This variant (2) differs in the 5' UTR and 5' coding region, compared to variant 1. The encoded isoform (2) is the same length as isoform 1, but has a distinct N-terminus. 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.