

## Product datasheet for **SC323700**

### SGK1 (NM\_005627) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SGK1 (NM_005627) Human Untagged Clone
Tag:	Tag Free
Symbol:	SGK1
Synonyms:	SGK
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL6</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC323700 sequence for NM_005627 edited (data generated by NextGen Sequencing)

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ATGACGGTGAAAACCTGAGGCTGCTAAGGGCACCCCTCACTTACTCCAGGATGAGGGGCATG
GTGGCAATTCTCATCGCTTTCATGAAGCAGAGGAGGATGGGTCTGAACGACTTTATTCAG
AAGATTGCCAATAACTCCTATGCATGCAAACACCCTGAAGTTCAGTCCATCTTGAAGATC
TCCCAACCTCAGGAGCCTGAGCTTATGAATGCCAACCCCTTCTCCTCCACCAAGTCCTTCT
CAGCAAATCAACCTTGGCCCGTCGTCCTCAATCCTCATGCTAAACCATCTGACTTTCACTTC
TTGAAAGTGATCGGAAAGGGCAGTTTTGGAAAGGTTCTTCTAGCAAGACACAAGGCAGAA
GAAGTGTCTATGCAGTCAAAGTTTTACAGAAGAAAGCAATCCTGAAAAAGAAAGAGGAG
AAGCATATTATGTCGGAGCGGAATGTTCTGTTGAAGAATGTGAAGCACCCCTTTCCTGGTG
GGCCTTCACTTCTTTCCAGACTGCTGACAAATTGTACTTTGCTCCTAGACTACATTAAT
GGTGGAGAGTTGTTCTACCATCTCCAGAGGGAACGCTGCTTCTGGAACACGGGCTCGT
TTCTATGCTGCTGAAATAGCCAGTGCCTTGGGCTACCTGCATTCACTGAACATCGTTTAT
AGAGACTTAAAACCAGAGAATATTTTGCTAGATTCACAGGGACACATTGTCCTTACTGAC
TTCGGACTCTGCAAGGAGAACATTGAACACAACAGCACAAATCCACCTTCTGTGGCAGC
CCGGAGTATCTCGCACCTGAGGTGCTTCCATAAGCAGCCTTATGACAGGACTGTGGACTGG
TGGTGCCTGGGAGCTGTCTTGTATGAGATGCTGTATGGCTGCCGCTTTTTATAGCCGA
AACACAGCTGAAATGTACGACAACATTCTGAACAAGCCTCTCCAGCTGAAACCAATATT
ACAAATCCGCAAGACACCTCCTGGAGGGCCTCCTGCAGAAGGACAGGACAAAGCGGCTC
GGGGCCAAGGATGACTTCATGGAGATTAAGAGTCATGTCTTCTCCTTAATTAAGTGG
GATGATCTCATTAAATAAGAAGATTACTCCCCCTTTTAACCCAAATGTGAGTGGGCCAAC
GACCTACGGCACTTTGACCCGAGTTTACCGAAGAGCCTGTCCCAACTCCATTGGCAAG
TCCCCTGACAGCGTCTCGTCACAGCCAGCGTCAAGGAAGCTGCCGAGGCTTTCTAGGC
TTTTCTATGCGCCTCCACGGACTCTTCTCTGA

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Clone variation with respect to NM\_005627.3



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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for mutant NM_005627 unedited ACCGCCGTTGAGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAA CCGTCAGAATTTTGAATACGACTCACTATAGGGCGGCCGCAATTCGGCACGAGGGTACACCGGCTCCT CCATGGTGCACATCCCTCCAGGGGAGCCAGACTTCGAGTCTTCCCTGTGTCAAACATGCCTGGGTGAACA TGCTTTCCAAAGAGGGGTTCTCCCTCAGGAGAACGAGTCATGTTTCATGGGAACTCAATCTGGGTGTGAA GTGAGAGAGCCATGTAATCATGCCAACATCCTGACCAAGCCCGATCCAAGAACCTTCTGGACTAATGATG ATCCCAGCTTTTCATGAAGCAGAGGAGGATGGGGTCTGAACGACTTTATTTCAGAAGATTGCCAATAACTC TAATGCATGCAAACCCCTGGAGTTTCAAGTCAATCTTGAGAATCTCCCAACCTCAGGGACCCTGAGC TTAATGATTGCCACCCCTTCCCCTCAACCAGGTCTTTCTCAGCAAATAACCCTGGCCCTTGGTCAATT CTTAAGCCTAAACCAACCGGCTTCAATTCCTGGAAATGTACGGAAAAGGGCGAGTTTTGGGAAAGGTTT CTCCTGCCAGACAAAAGCGGAGAAAATGTTTCTAGCGGTCTCGGGTTTACAGAGAAAACACTCGTGA AAAAGAGAGGAGAGCATATTGTGTCAACCGATGTGCTCGTGTAAAAGTGAAGAGCCCTTCTCGTGGGG CCTTACTCTTTCAGAAGTGTACAATGTACTTGGCCAGAGCACTATAGTGGAGAGATTGTCACACTCCAG GAGACTTCTGGACACCGCTATGCTGGATACATGCTTGCCTGATCGGACTGTAAGCTAACAGACT GGATCAGACGTGCCTAGAGCTGAGCTCG
<b>Kinase Domain Sequence:</b>	>SC323700 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 ACYATGCTAACCATCTGACTTTCCTTCTTGAAGTGATCGGAAAGGGCAGTTTTGGAAAGTTCTTCTAGC AAGACACAAGGCAGAAGAAGTGTCTATGCAGTCATGGTTTTACAGAAGAAAGCAATCCTGAAAAAGAAA GAGGAGAAGCATATTATGTCGGAGCGGAATGTTCTGTTGAAGAATGTGAAGCACCTTCTCGTGGGCC TTCACTTCTTTCAGACTGCTGACAAATTGTACTTTGCCTAG
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_005627
<b>Insert Size:</b>	2560 bp
<b>OTI Disclaimer:</b>	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.  The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a>
<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).

**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\\_005627.2](#), [NP\\_005618.2](#)

**RefSeq Size:** 2386 bp

**RefSeq ORF:** 1296 bp

**Locus ID:** 6446

**UniProt ID:** [O00141](#)

**Cytogenetics:** 6q23.2

**Domains:** pkinase, S\_TK\_X, TyrKc, S\_TKc

**Protein Families:** Druggable Genome, Protein Kinase

**Gene Summary:** This gene encodes a serine/threonine protein kinase that plays an important role in cellular stress response. This kinase activates certain potassium, sodium, and chloride channels, suggesting an involvement in the regulation of processes such as cell survival, neuronal excitability, and renal sodium excretion. High levels of expression of this gene may contribute to conditions such as hypertension and diabetic nephropathy. Several alternatively spliced transcript variants encoding different isoforms have been noted for this gene. [provided by RefSeq, Jan 2009]  
Transcript Variant: This variant (1) represents the predominant transcript and encodes the shortest isoform (1).