

Product datasheet for **SC319307**

SPHK1 (NM_021972) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SPHK1 (NM_021972) Human Untagged Clone
Tag:	Tag Free
Symbol:	SPHK1
Synonyms:	SPHK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_021972.2
 GCTCCGCGGCGCCGGCTGCGAAGTTGAGCGAAAAGTTTGAGGCCGGAGGGAGCGAGGCCG
 GGGAGTCCGCTCCAGCGGGGCGCTCCAGTCCCTCAGACGTGGGCTGAGCTTGGGACGAGC
 TGCGTTCCGCCCCAGGCCACTGTAGGGAACGGCGGTGGCGCCTCCCAGCAAACCGGACC
 GACTGGGTCCAGCCGCCAGGGAATGACACCGGTGCTCTACAGCCACGGCTCCGGGCG
 GGAAGGCGAGCCCCACAGCCGGCCCTGCGACGCCCTCCTGGGCAGCACCATAAGGAGC
 TGAAGGCAGGAGCCGCCACGGGCAGCGCCCCACAGCGCCAGGGACCCCTGGCAGC
 GGGAGCCGCGGGTCGAGGTTATGGATCCAGTGGTTCGGTTGCGGACGTGGCCTCTTTGGTT
 TTGTTTTCTCAGCGGGCGGCCCCCGGGCGTGCTCCCGCGGCCCTGCCGCGTGCTGGTGC
 TGCTGAACCCGCGCGGCCAAGGGCAAGGCCCTTGACGCTCTCCGGAGTCACGTGCAGC
 CCCTTTTGGCTGAGGCTGAAATCTCCTTACGCTGATGCTCACTGAGCGGCGGAACCAG
 CGCGGGAGCTGGTGGGTGCGAGGAGCTGGGCCGCTGGGACGCTCTGGTGGTCATGTCTG
 GAGACGGGCTGATGCACGAGGTGGTGAACGGGCTCATGGAGCGGCCTGACTGGGAGACCG
 CCATCCAGAAGCCCTGTGTAGCCTCCCAGCAGGCTCTGGCAACGCGCTGGCAGCTTCT
 TGAACCATTATGTGGCTATGAGCAGGTACCAATGAAGACCTCTGACCAACTGCACGC
 TATTGCTGTGCCCGGGCTGCTGTACCCATGAACCTGCTGTCTCTGCACACGGCTTCGG
 GGCTGCGCCTTCTCTGTGCTCAGCCTGGCCTGGGGCTTCATTGCTGATGTGGACCTAG
 AGAGTGAGAAGTATCGGCGTCTGGGGGAGATGCGCTTCACTCTGGGCACCTTCTGCGTC
 TGGCAGCCCTGCGCACCTACCGCGGCCGACTGGCCTACCTCCCTGTAGGAAGAGTGGGT
 CCAAGACACCTGCCTCCCCGTTGTGGTCCAGCAGGGCCCGGTAGATGCACACCTTGTGC
 CACTGGAGGAGCCAGTGCCTCTCACTGGACAGTGGTCCCGACGAGGACTTTGTGCTAG
 TCCTGGCACTGCTGCACTCGCACCTGGGCAGTGAATGTTTGTGTCACCCATGGGCCGCT
 GTGCAGTGGCGTCATGCATCTGTTCTACGTGCGGGCGGGAGTGTCTCGTGCCATGCTGC
 TCGCCTCTTCTGGCCATGGAGAAGGGCAGGCATATGGAGTATGAATGCCCTACTTGG
 TATATGTGCCCGTGGTTCGCTTCCGCTTGGAGCCCAAGGATGGGAAAGGTGTGTTTGCAG
 TGGATGGGGAATTGATGGTTAGCGAGGCCGTGCAGGGCCAGGTGCACCCAACTACTTCT
 GGATGGTCAGCGTTGCGTGGAGCCCCCGCCAGCTGGAAGCCCCAGCAGATGCCACCGC
 CAGAAGAGCCCTATGACCCCTGGGCCGCGCTGTGCCTTAGTGTCTACTTGCAGGACCCT
 TCCTCCTCCCTAGGGCTGCAGAGCCTGTCCACAGCTCCTGTGGGGTGGAGGAGACTCC
 TCTGGAGAAGGGTGAAGGTGGAGGCTATGCTTTGGGGGACAGGCCAGAATGAAGTCC
 TGGGTGAGGAGCCAGCTGGCTGGGCCAGCTGCCTATGTAAGGCCTTCTAGTTTGTCT
 GAGACCCCAACCCACGAACCAATCAAATAAAGTGACATTCACGCTGAAAAA
 AAAAAA

Restriction Sites: Please inquire
ACCN: NM_021972
Insert Size: 1900 bp

OTI Disclaimer:	<p>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 custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. More info</p>
OTI Annotation:	<p>This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.</p>
Components:	<p>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).</p>
Reconstitution Method:	<ol style="list-style-type: none"> 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_021972.2 , NP_068807.2
RefSeq Size:	1869 bp
RefSeq ORF:	1197 bp
Locus ID:	8877
UniProt ID:	Q9NYA1
Cytogenetics:	17q25.1
Domains:	DAGKc
Protein Families:	Druggable Genome
Protein Pathways:	Calcium signaling pathway, Fc gamma R-mediated phagocytosis, Metabolic pathways, Sphingolipid metabolism, VEGF signaling pathway

Gene Summary:

The protein encoded by this gene catalyzes the phosphorylation of sphingosine to form sphingosine-1-phosphate (S1P), a lipid mediator with both intra- and extracellular functions. Intracellularly, S1P regulates proliferation and survival, and extracellularly, it is a ligand for cell surface G protein-coupled receptors. This protein, and its product S1P, play a key role in TNF-alpha signaling and the NF-kappa-B activation pathway important in inflammatory, antiapoptotic, and immune processes. Phosphorylation of this protein alters its catalytic activity and promotes its translocation to the plasma membrane. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Sep 2017]

Transcript Variant: This variant (1) has multiple differences in the coding region, compared to variant 2. The resulting protein (isoform 1) has a shorter N-terminus and contains an additional in-frame portion of the 5' coding region, compared to isoform 2.