

Product datasheet for **SC323952**

SPHK1 (NM_182965) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SPHK1 (NM_182965) 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_182965.1
 GAAAAGTTTGAGGCCGGAGGGAGCGAGGCCGGGGAGTCCGCTCCAGCGGGGGCTCCAGT
 CCCTCAGACGTGGGCTGAGCTTGGGACGAGCTGCGTTCGCCCCAGGCCACTGTAGGGAA
 CGGCGTGGCGCTCCCCAGCAAACCGGACCGACTGGGTAGGGCCGCCACCCTGCCTTC
 GCGCCGCTCGTGGCTCCTGTGCGGCCCGCCCTCGCGGGCCCCGGGAACCTGGCCACTTG
 TCGCTTGGGCGAGAGCAGCGCGCAGCTGGTGGCCCGTTTCGGGCTTGGCTTTGGCGCGAC
 CCGGGAGCGGCTCCCACGAGCGCCGCGCGCTCGCAACGAGCGGGGCCCTGAGAAGCGC
 GCGCCGCGGCTCCACCGCTCTGGAGCTCCGGGACAGGGACACGGCAACCTGGATGGCTG
 GGCAGGGATCCTCTCCAGAACTTCGTGCCAGCAATGTCCGCTCAAGTTCTGGGATTT
 TTACGCAGCTGGACTCCCCTCCCCTGGCAGCCCCGAGGGGTCCAGCCGCCGAGGGAAT
 GACGCCGTGCTCCTACAGCCACGGCTCCGGGCGGGGAAGGCGAGCCCCACAGCCGGCCC
 TGCGACGCCCGCTGGGCAGCACCGATAAAGGAGCTGAAGGCAGGAGCCGCCCGCCACGGGC
 AGCGCCCCACAGCGCCAGGACCCCTGGCAGCGGGAGCCGCGGTTCGAGTTATGGAT
 CCAGCGGGCGGCCCGGGCGTGTCTCCGCGCCCTGCCGCTGCTGGTGTCTGTAAC
 CCGCGCGCGGCAAGGGCAAGGCCTTGCAGCTTTCGGAGTCAGTGCAGCCCCTTTTG
 GCTGAGGCTGAAATCTCCTTACGCTGATGCTCACTGAGCGGCGGAACACGCGCGGGAG
 CTGGTGGGTCGGAGGAGCTGGGCCGCTGGGACGCTCTGGTGGTTCATGTCTGGAGACGGG
 CTGATGCACGAGGTGGTGAACGGGCTCATGGAGCGCCTGACTGGGAGACCGCCATCCAG
 AAGCCCCGTGTAGCCTCCCAGCAGGCTCTGGCAACGCGCTGGCAGCTTCCTTGAACCAT
 TATGCTGGCTATGAGCAGGTACCAATGAAGACCTCTGACCAACTGCACGCTATTGCTG
 TGCCGCCGGTGTGTACCCATGAACCTGCTGTCTGACACCGGCTTCGGGGCTGCGC
 CTCTTCTGTGCTCAGCCTGGCCTGGGCTTCATTGCTGATGTGGACCTAGAGAGTGAG
 AAGTATCGGCGTCTGGGGAGATGCGCTTCACTCTGGCACCTTCTGGTCTGGCAGCC
 CTGCGCACCTACCGCGGCGACTGGCCTACCTCCCTGTAGGAAGAGTGGGTTCCAAGACA
 CCTGCCTCCCCGTTGTGGTCCAGCAGGGCCCGGTAGATGCACACCTTGTGCCACTGGAG
 GAGCCAGTGCCCTCTCACTGGACAGTGGTGCCCGACGAGGACTTTGTGCTAGTCTGGCA
 CTGCTGCACTCGCACCTGGGCAGTGAAGTGTGGTGTGCTGACCCATGGGCCGCTGTGCACT
 GCGTCTGATGCTGTTCTACGTGCGGGCGGGAGTGTCTCGTGCCATGCTGCTGCGCCTC
 TTCCTGGCCATGGAGAAGGGCAGGCATATGGAGTATGAATGCCCTACTTGGTATATGTG
 CCCGTGGTGCCTTCCGCTTGGAGCCCAAGGATGGGAAAGGTGTGTTGCAGTGGATGGG
 GAATTGATGGTTAGCGAGGCCGTGCAGGGCCAGGTGCACCCAACTACTTCTGGATGGTC
 AGCGGTTGCGTGGAGCCCCGCCAGCTGGAAGCCCCAGCAGATGCCACCGCCAGAAGAG
 CCCTTATGACCCCTGGGCCGCGCTGTGCCTTAGTGTCTACTTGCAGGACCCTTCCTCCTT
 CCCTAGGGCTGCAGGGCCTGTCCACAGCTCCTGTGGGGGTGGAGGAGACTCCTCTGGAGA
 AGGGTGAGAAGGTGGAGGCTATGCTTTGGGGGGACAGGCCAGAATGAAGTCTGGGTGAG
 GAGCCCAGCTGGCTGGGCCAGCTGCCTATGTAAGGCCTTCTAGTTTGTCTGAGACCCC
 CACCCACGAACCAATCCAAATAAAGTGACATTCACCAAAAAAAAAAAAAAAAAAAAAA
 AAAAAAAAAAAAAA

Restriction Sites: ECoRI-NOT
ACCN: NM_182965

OTI Disclaimer: 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.

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](#)

OTI Annotation: 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.

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_182965.1](#), [NP_892010.1](#)

RefSeq Size: 2174 bp

RefSeq ORF: 1413 bp

Locus ID: 8877

UniProt ID: [Q9NYA1](#)

Cytogenetics: 17q25.1

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 (2) represents the longest transcript and encodes the longest isoform (2).