

Product datasheet for **RC207086**

SPHK1 (NM_182965) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SPHK1 (NM_182965) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SPHK1
Synonyms:	SPHK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC207086 representing NM_182965
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGTCCGCTCAAGTTCTGGGATTTTACGCAGCTGGACTCCCCTCCCCCTGGCAGCCCCAGGGGTCCAG
 CCGCCGCAGGGAATGACGCCGGTCTCCTACAGCCACGGCTCCGGCGGGGAAGGCGAGCCCCACAGCCG
 GCCCTGCGACGCCCGCTGGGCAGCACCGATAAAGGAGCTGAAGGACAGGAGCCGCCACCGGCAGCGCC
 CCCACAGCGCCAGGGACCCCCTGGCAGCGGGAGCCGCGGGTTCGAGGTTATGGATCCAGCGGGCGGCC
 GGGCGTCTCCCGCGCCCTGCCGCTGCTGGTCTGCTGAACCCGCGCGGGCAAGGCAAGGCCTT
 GCAGCTTTCGGAGTACGTGCAGCCCCTTTGGCTGAGGCTGAAATCTCCTTCACGCTGATGCTCACT
 GAGCGCGGAACACGCGGGAGCTGGTGGGTGGAGGAGCTGGGCCGCTGGGACGCTCTGGTGGTCA
 TGTCTGGAGACGGCTGATGCACGAGGTGGTGAACGGGCTCATGGAGCGCCTGACTGGGAGACCCAT
 CCAGAAGCCCCTGTGTAGCCTCCAGCAGGCTCTGGCAACGCGCTGGCAGCTTCTTGAACCATTATGCT
 GGCTATGAGCAGTACCAATGAAGACCTCTGACCAACTGCACGCTATTGCTGTGCCCGCGCTGCTGT
 CACCCATGAACCTGCTGTCTCTGCACACGGCTTCGGGGCTGCGCCTTCTCTGTGCTCAGCCTGGCCTG
 GGGCTTATTGCTGATGTGGACCTAGAGAGTGAGAAGTATCGGCGTCTGGGGGAGATGCGCTTCACTCTG
 GGCACCTTCTGCGTCTGGCAGCCCTGCCACCTACCGCGCCGACTGGCCTACCTCCCTGTAGGAAGAG
 TGGGTTCCAAGACACCTGCCTCCCCGTTGGTCCAGCAGGGCCCGGTAGATGCACACCTTGTGCCACT
 GGAGGAGCCAGTGCCTCTCACTGGACAGTGGTGGCCGACGAGGACTTTGTGCTAGTCTGGCACTGCTG
 CACTCGCACCTGGCAGTGAGATGTTTGGTGCACCCATGGGCCGCTGTGCAGCTGGCGTCATGCATCTGT
 TCTACGTGCGGGCGGAGTGTCTCGTGCATGCTGCTGCGCCTTCTCTGGCCATGGAGAAGGGCAGGCA
 TATGGAGTATGAATGCCCTACTTGGTATATGTGCCGTTGGTTCGCTTCCGCTTGGAGCCCAAGGATGGG
 AAAGGTGTGTTTGCAGTGGATGGGAATTGATGGTTAGCGAGGCCGTGCAGGGCCAGGTGCACCCAACT
 ACTTCTGGATGGTCAAGGTTGCGTGGAGCCCCGCCAGCTGGAAGCCCAAGCAGATGCCACCGCCAGA
 AGAGCCCTTA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC207086 representing NM_182965
 Red=Cloning site Green=Tags(s)

MSAQVLGFLRSWTPLPLAAPRGPAAAGNDAGAPTATAPGGEPEPHSRPCDARLGSTDKELKAGAAATGSA
 PTAPGTPWQREPRVEVMDPAGGPRGVLPRPCRVLVLLNPRGGKQKALQLFRSHVQPLLAEEISFTLMLT
 ERRNHARELVRSEELGRWDALVMSGDGLMHEVVNGLMERPDWETAIQKPLCSLPAGSGNALAASLNHYA
 GYEQVTNEDLLTNCTLLLCRLLSPMNLISLHTASGLRFLSVLSLAWGFIADVLESEKYRRLGEMRFTL
 GTFRLAALRTYRGLAYLPVGRVGSKTPASPVVQGPVDAHLVPLEEPVPSHWTVVPDEDFVLVALL
 HSHLGSEMFAAPMGRCAAGVMHLFYVRAGVSRAMLLRFLAMEKGRHMEYECPYLYVVPVVAFRLEPKDG
 KGVFAVDGELMVSEAVQGVHPNYFWMVSGCEPPPSWKPQQMPPPEEPL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

ACCN: NM_182965

ORF Size: 1410 bp

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 clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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

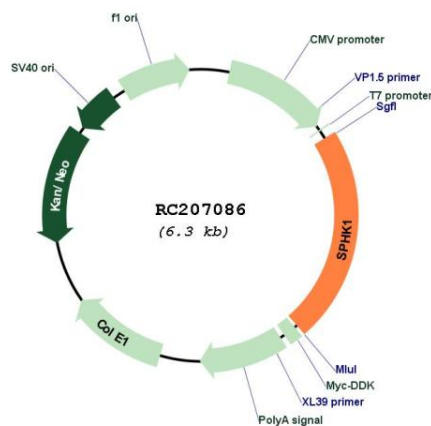
Protein Families: Druggable Genome

Protein Pathways: Calcium signaling pathway, Fc gamma R-mediated phagocytosis, Metabolic pathways, Sphingolipid metabolism, VEGF signaling pathway

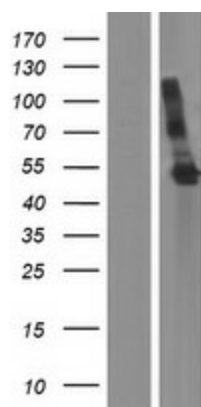
MW: 50.9 kDa

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]

Product images:



Circular map for RC207086



Western blot validation of overexpression lysate (Cat# [LY405282]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207086 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).