

Product datasheet for **RC234574**

SPHK2 (NM_001204160) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SPHK2 (NM_001204160) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SPHK2
Synonyms:	SK-2; SK 2; SPK-2; SPK 2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC234574 representing NM_001204160
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCCCGCCACCACCCTGCTGCCAGCACCCCGTCTCCATGGCGAGTTGGCTCTACCCAG
 CCCGAGGCCACGCTTTGCCCTCACCTTACATCGCAGGCCCTGCACATACAGCGGCTGCGCCCAACC
 TGAAGCCAGGCCCGGGGTGGCCTGGTCCCGTTGGCCGAGGTCTCAGGCTGCTGCACCCTGCGAAGCCGC
 AGCCCTCAGACTCAGCGGCTACTTCTGCATCTACACCTACCCTCGGGCCGGCGGGGCCGGCGCA
 GAGCCACTCGCACCTCCGGGCAGATGGGGCCGCACCTACGAAGAGAACCCTGCCGAGGCCAGCGCTG
 GGCCACTGCCCTCACCTGTCTGCTCCGAGGACTGCCACTGCCGGGGATGGGAGATCACCCCTGACCTG
 CTACCTCGGCCCGCCGTTGCTTCTATTGGTCAATCCCTTTGGGGTGGGGCTGGCCTGGCAGTGGT
 GTAAGAACCACGTGCTTCCCATGATCTCTGAAGCTGGGCTGTCTTCAACCTCATCCAGACAGAACGACA
 GAACCACGCCCGGAGCTGGTCCAGGGCTGAGCTGAGTGGGATGGCATCGTCACGCTCTCGGGA
 GACGGGCTGCTCCATGAGGTGCTGAACGGCTCCTAGATCGCCCTGACTGGGAGGAAGCTGTGAAGATGC
 CTGTGGGCATCTCCCTGCGGCTCGGGCAACGCGCTGGCCGGAGCAGTGAACCAGCACGGGGATTGA
 GCCAGCCCTGGGCTCGACCTGTTGCTCAACTGCTCACTGTTGCTGTGCCGGGTGGTGGCCACCCACTG
 GACCTGCTCTCCGTGACGCTGGCCTCGGGCTCCCGCTGTTTCTCCTTCTGTCTGTGGCCTGGGGCTTCG
 TGTGAGATGTGGATATCCAGAGCGAGCGCTTACGGCCTTGGGCAGTGGCCGCTTACACTGGGCACGGT
 GCTGGGCTCGCCACACTGCACACTACCGCGGACGCCTCTCCTACCTCCCGCCACTGTGGAACCTGCC
 TCGCCACCCCTGCCATAGCCTGCCTCGTCCAAAGTCGGAGCTGACCTAACCCAGACCCAGCCCGC
 CCATGGCCCACTCACCCCTGCATGTTCTGTGTCTGACCTGCTTCCCTGCCAGCCTGCCCTGCCCTGC
 CTCTCCTGGCTCGCCAGAACCCTGCCATCCTGTCCCTCAACGTTGGGGCCAGAGCTGGCTGGGGAC
 TGGGTGGGGCTGGGATGCTCCGCTGTCCCGGACCCACTGCTGTCTTACCTCCTGGCTCCTCAAGG
 CAGCTCTACACTCACCCGTCTCCGAAGGGGCCCGTAATCCCCCATCCTCTGGGCTCCCACTCCAC
 CCCTGATGCCCGGTAGGGGCTCCACCTGCGGCCCGCCGACCACCTGCTGCCTCCGCTGGGCACCCCG
 CTGCCCCAGACTGGGTGACGCTGGAGGGGACTTTGTGCTCATGTTGGCCATCTCGCCAGCCACCTAG
 GCGCTGACCTGGTGGCAGCTCCGCATGCGCGCTTCGACGACGGCCTGGTGCACCTGTGCTGGGTGCGTAG
 CGGCATCTCGGGGCTGCGCTGCTGCGCCTTTTCTTGGCCATGGAGCGTGGTAGCCACTCAGCCTGGC
 TGTCCGACGTGGGCTACGCCGGGCCCTGCCTTCCGCTAGAGCCGCTCACACCAGCGGCGTGTCTCA
 CAGTGGACGGGGAGCAGGTGGAGTATGGCCGCTACAGGCACAGATGCACCTGGCATCGGTACTGCT
 CACTGGGCTCCTGGCTGCCCGGGCGGGAGCCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC234574 representing NM_001204160
 Red=Cloning site Green=Tags(s)

MAPPPPLAASTPLLHGEFGSYPARPRFALTLTSQALHIQRLRPKPEARPRGGLVPLAEVSGCCTLRSR
 SPSDSAAYFCIYTYPRRRGARRRATRTFRADGAATYEENRAEAQRWATALCCLRGLPLPGDGEITPDL
 LPRPPRLLLL VNPFGGRGLAWQWCKNHVLP MISEAGL SFNLIQTERQNHARELVQGLSLSEWDGIVTVSG
 DGLLHEVLNGLDRPDWEEAVKMPVGI LPCGSGNALAGAVNQHGFEALGLDLLNCSLLL CRGGGHP
 DLLSVTLASGSRCSFLSVAWGFVSDVDIQSERFRALGSARFTLGTVLGLATLHTYRGRLSYLPATVEPA
 SPTPAHSLPRAKSELTLTPDPAPMAHSPLHRSVSDLPPLPQPALASPGSPEPLPILSLNGGGPELAGD
 WGGAGDAPLSPDLLSSPPGSPKAAALHSPVSEGA PVI PPSSGLPLTPDARV GASTCGPPDHLLPPLGTP
 LPPDWVTLLEGDFVLM LAISPSHLGADLVAAPHARFDDGLVHLCWVRSGISRAALLRFLAMERGS HFSLG
 CPQLGYAAARAFRLEPLTPRGVL TVDGEQVEYGPLQAQMHPGIGTLLTGPPGCPGREGP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001204160

ORF Size: 1854 bp

OTI Disclaimer: 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_001204160.3](#)

RefSeq Size: 2684 bp

RefSeq ORF: 1857 bp

Locus ID: 56848

UniProt ID: [Q9NRA0](#)

Cytogenetics: 19q13.33

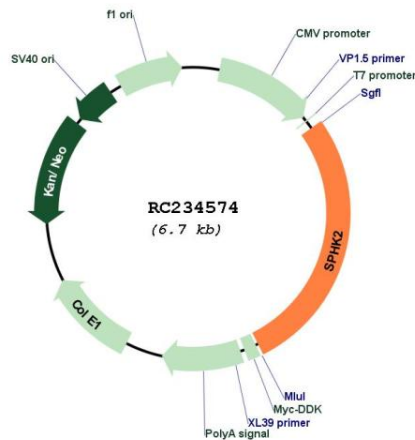
Protein Families: Druggable Genome

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

MW: 65.7 kDa

Gene Summary: This gene encodes one of two sphingosine kinase isozymes that catalyze the phosphorylation of sphingosine into sphingosine 1-phosphate. Sphingosine 1-phosphate mediates many cellular processes including migration, proliferation and apoptosis, and also plays a role in several types of cancer by promoting angiogenesis and tumorigenesis. The encoded protein may play a role in breast cancer proliferation and chemoresistance. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Aug 2011]

Product images:



Circular map for RC234574