

Product datasheet for **RG234517**

SPHK2 (NM_001204158) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SPHK2 (NM_001204158) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SPHK2
Synonyms:	SK-2; SK 2; SPK-2; SPK 2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG234517 representing NM_001204158
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAATGGACACCTTGAAGCAGAGGAGCAGCAGGACCAGGCCCTGCACATACAGCGGCTGCGCCCCAAC
 CTGAAGCCAGGCCCGGGTGGCTGGTCCCGTTGGCCGAGGTCTCAGGCTGCTGCACCCTGCGAAGCCG
 CAGCCCCCTCAGACTCAGCGGCCTACTTCTGCATCTACACCTACCCTCGGGGCCGCGCGGGGCCCGCGC
 AGAGCCACTCGCACCTCCGGGAGATGGGGCCGCCACCTACGAAGAGAACCCTGCCGAGGCCAGCGCT
 GGGCCACTGCCCTCACCTGTCTGCTCCGAGGACTGCCACTGCCCGGGATGGGGAGATCACCCCTGACCT
 GCTACCTCGGCCCGCCGGTTGCTTCTATTGGTCAATCCCTTTGGGGTGGGGCTGGCCTGGCAGTGG
 TGTAAGAACCACGTGCTCCCATGATCTCTGAAGCTGGGTGCTCCTTCAACCTCATCCAGACAGAACGAC
 AGAACCACGCCCGGAGCTGGTCCAGGGCTGAGCCTGAGTGAGTGGGATGGCATCGTACGGTCTCGGG
 AGACGGGTGCTCCATGAGGTGCTGAACGGCTCCTAGATCGCCCTGACTGGGAGGAAGCTGTAAGATG
 CCTGTGGGCATCCTCCCTGCGGCTCGGCAACGCGCTGGCCGGAGCAGTGAACCAGCACGGGGATTTG
 AGCCAGCCCTGGGCTCGACCTGTTGCTCAACTGCTCACTGTTGCTGTGCCGGGTGGTGGCCACCCACT
 GGACCTGCTCTCCGTGACGCTGGCTCGGGCTCCCGCTGTTTCTCCTTCTGTGTGGCCTGGGGCTTC
 GTGTGAGATGGGATATCCAGAGCGAGCGCTTCCAGGGCTTGGGAGTGGCCGCTTACACTGGGACCG
 TGCTGGGCTCGCCACTGCACACTACCGGGACGCTCTCCTACCTCCCGCCACTGTGAACCTGC
 CTCGCCACCCCTGCCATAGCCTGCCTCGTCCAAGTCGGAGCTGACCCTAACCCAGACCCAGCCCCG
 CCCATGGCCACTCACCCCTGCATCGTTCTGTCTGACTGCTCCTTCCCCTGCCCCAGCCTGCCCTGG
 CCTCTCTGGCTCGCCAGAACCCTGCCATCCTGTCCCTCAACGGTGGGGGCCAGCTGGTGGGGA
 CTGGGGTGGGGCTGGGGATGCTCCGCTGTCCCGGACCCACTGCTGTCTTCACTCCTGGCTCTCCAAG
 GCAGCTTACACTCACCCGTCTCCGAAGGGGCCCGTAATTCCCCATCCTCTGGGCTCCCACTTCCCA
 CCCCTGATGCCCGGTAGGGCTCCACCTGCGGCCCGCCGACCACCTGCTGCCTCCGCTGGGACCCC
 GCTGCCCCAGACTGGGTGACGCTGGAGGGGACTTTGTGCTCATGTTGGCCATCTCGCCAGCCACCTA
 GCGCTGACCTGGTGGCAGCTCCGCATGCGCGCTTCGACGACGGCTGGTGCACCTGTGCTGGGTGCGTA
 GCGGCATCTCGCGGCTGCGCTGCTGCGCCTTTCTTGGCCATGGAGCGTGGTAGCCACTTACGCTGGG
 CTGTCCGAGCTGGGCTACGCCGCGCCGCTGCCTTCCGCTAGAGCCGCTCACACCACGCGGCGTGTCT
 ACAGTGGACGGGAGCAGGTGGAGTATGGGCCGCTACAGGCACAGATGCACCCTGGCATCGGTACTGCT
 TCACTGGGCTCCTGGCTGCCCGGGCGGGAGCCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG234517 representing NM_001204158
 Red=Cloning site Green=Tags(s)

MNGHLEAEEQQDQALHIQRLRPKPEARPRGGLVPLAEVSGCCTLRSPSPSDSAAYFCIYTYPRRRGARR
 RATRTFRADGAATYEENRAEAQRWATALTCLLRGLPLPGDGEITPDLLRPPRLLLLVNPFGGRGLAWQW
 CKNHVLPMISEAGLSFNLIQTERQNHARELVQGLSLSEWDGIVTVSGDGLLHEVLNGLLDRPDWEEAVKM
 PVGILPCGSGNALAGAVNQHGFEALGLDLLNCSLLLRCGGHPLDLLSVTLASGSRCSFLSVAWGF
 VSDVDIQSERFRALGSARFTLGTVLGLATLHTYRGRLSYLPATVEPASPTPAHSLPRAKSELTLTPDPAP
 PMAHSPVSEGAPVIPSSGLPLPTDARVGASTCGPPDHLLPPLGTPLPDWVTLLEGDFVLMIAISPSHL
 GADLVAAPHARFDDGLVHLCWVRSGISRAALLRFLAMERGSFSLGCPQLGYAAARAFRLEPLTPRGVL
 TVDGEQVEYGPLQAMHPGIGTLLTGPPGCPGREP

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001204158

ORF Size: 1785 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_001204158.3](#)

RefSeq Size: 2787 bp

RefSeq ORF: 1788 bp

Locus ID: 56848

UniProt ID: [Q9NRA0](#)

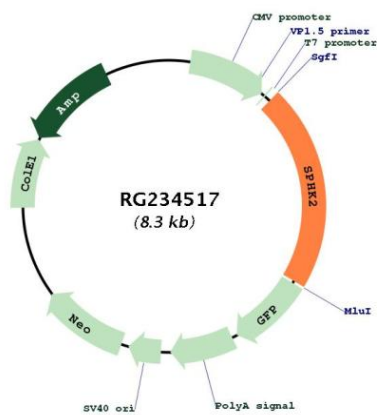
Cytogenetics: 19q13.33

Protein Families: Druggable Genome

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

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 RG234517