

Product datasheet for **MG209459**

Sphk2 (NM_020011) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sphk2 (NM_020011) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Sphk2
Synonyms:	C76851; Sk2; Spk2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG209459 representing NM_020011
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCCCACCACACTACTGCCAGTGGCTGCCAGCACTCCAATCCTGCACGGCAGTGGTTGTTCTTACC
 CGGCCAACGGCCACGGTTTGCCTCACCTCACAAACACAAGCCCTACACATACAGCGACTACGCCAAA
 GCCAGAAGCCCGGCCCGAGATGGTCTAGTCTCTGGATGAGGTCTCGGGCTGTGGCACCTGCAGAGC
 CGTAGCCCGAGGACACTGCAGCCTACTTCTGCATCTACACCTACCCACGTGGCCGTCGAGGGGGCCGGC
 GCAGAGCTACGCGGACCTCCGGGCGGATGGGGCCACCACTTATGAGGAGAATCGTCAGAGGCCACGC
 CTGGGCCACTGCCCTCACGTGTCTCTCCGAGGAGTGCCTCTGTCAGGGGACCAGAAATCACCCCTGAA
 TTGCTGCCCGGAAGCCAGGCTGCTCATATTGGTCAATCCCTTGGGGGGCGGGCCTGGCCTGGCAGC
 GCTGTATGGACCAGTGGTGCCAAATGATCTCTGAAGCTGGGCTGTCTTCAACCTCATACAGACAGAACG
 ACAGAACCATGCCCGTAGCTGGTGCAGGGGTTAAGCCTGAGTGAGTGGGAAGGCATTGCTACTGTGTCT
 GGAGACGGGCTGCTTACGAGGTGCTGAATGGGCTCCTTGATCGCCAGACTGGGAGGATGCCGTGCCGA
 TGCCCATTTGGTGTCTCCCTGTGGATCGGGCAATGCGCTAGCTGGGGCGGTGAACCATCATGGCGGTT
 TGAGCAGGTTGTGGTGTGACCTGTTGCTCAACTGCTCGCTTCTTCTGCTGCGTGGTGGCAGCCATCCT
 CTGGACCTGCTCTGTGACGCTAGCCTCGGGATCCCCTGTTTTCTTCTGTCAGTGGCCTGGGGAT
 TCTTGTGAGATGTGGACATTACAGTGAGCGCTTCAGGGCCCTGGGCAGCGCTCGATTACACTGGGTGC
 AGTGCTAGGCCTGGCCTCGTTCATACCTACCGTGGACGCTCTCCTACCTCCCCGCTACCACAGAACCA
 GCCTTGCCCATCCAGGCCACAGTCTGCCTCGAGCCAAGTCAGAACTAGTCTTGGCTCCAGCCCCAGCCC
 CGCGCCACCCACTCGCTCTACATCGATCTGTGTCTGACCTGCCCTGCCCTTCCCCAGCCTGCCTT
 GGCTCCCCCTGGTCCCCTGAGCCCTGCCTGACCTGTCCCTCAATGGTGGTGGTCCAGAGCTGACTGGA
 GACTGGGAGGAGCTGGGGATGCACCTCTGTCCCCAGACCCACTGCTGCCTTATCCCCAACGCTCTCA
 AAACAGCTCAGCTTTCACCCATCGCTGAAGGGCCCCAGAAATGCCAGCATCTTCGGGGTTCCTGCCTCC
 CACCCACAGTGCCCCAGAAGCCTCTACCTGGGGCCAGTGGACCACCTCTCCCTCCCCTGGGCTCTCCA
 CTGCCCAAGACTGGGTGACAATAGAGGGGGAGTTTGTACTCATGTTGGGCATCTTGCCGAGCCACCTCT
 GCGCAGACCTGATGGCAGCCCCACATGCACGCTTGTATGATGGCGTTGTGCACCTGTGTTGGTGGCGAG
 CGGCATCTCACGGGCTGCACTTCTACGATTTTGTGGCCATGGAGCATGAAACCACCTTACGCCTGGGC
 TGCCCCATCTGGGCTATGCTGCAGCACGTGCCTTCCGCTTGAACCACTCACGCCTCGTGGCCTGCTCA
 CTGTAGATGGGGAGTTAGTGGAGTATGGGCCAATACAGGGCAGGTGCACCCAGGCTCGCCACGCTGCT
 CACTGGGCTGCAGGTCAAAGCCACAAGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG209459 representing NM_020011
 Red=Cloning site Green=Tags(s)

MAPPPLLPVAASTPILHGEFGSYPANGPRFALTLTTQALHIQRLRPKPEARPRDGLVSLDEVSGCGLTQS
 RSPEDTAAFYCIYTYPRGRRGRRRATRTFRADGATTYEENRAEAQRWATALTCLLRGVPLSGDQEITPE
 LLPRKPRLLILVNPFGGRGLAWQRCMDHVPMISEAGLSFNLIQTERQNHARELVQGLSLSEWEGIVTVS
 GDGLLYEVLNGLLDRPDWEDAVRMPIGVLP CGSGNALAGAVNHHGGFEQVVGVDDLNLNCSLLL CRGGSH
 LDLLSVTLASGSRCSFLSVAWGFLSDVDIHSERFRALGSARFTLGAVLGLASLHRYRGLSYLPATTEP
 ALPIPGHSLPRAKSELVLAPAPAPAATHSPLHRSVSDLPPLPQPALVSPGSPEPLPDL SLNGGGPELTG
 DWGGAGDAPLSPDPLLPSSPNALKTAQLSPIAEGPPEMPASSGFLPPTHTSAPEASTWGPVDHLLPPLGSP
 LPQDWVTIEGEFVLMGLIPSHLCADLMAAPHARFDDGVVHLCWVRSGISRAALLRILLAMEHGNHFSLG
 CPHLGAAAARAFRLEPLTPRGLLTVDGELVEYGP IQAQVHPGLATLLTGPAQKPKQA

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_020011

ORF Size: 1851 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_020011.5](#)

RefSeq Size: 2969 bp

RefSeq ORF: 1854 bp

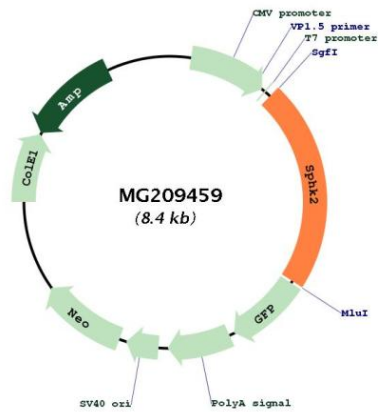
Locus ID: 56632

UniProt ID: [Q9JIA7](#)

Cytogenetics: 7 B3

Gene Summary: This gene encodes a kinase that phosphorylates sphingosine into sphingosine-1-phosphate, which is involved in cell differentiation, motility, and apoptosis. The encoded protein plays a role in maintaining cellular levels of sphingosine-1-phosphate. The gene product also enhances apoptosis in different cell types and suppresses cellular proliferation. In most cells, the encoded protein is necessary for influx of calcium, protein kinase C activation, and cytokine production and degranulation. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Feb 2010]

Product images:



Circular map for MG209459