

Product datasheet for **MG223097**

Sphk2 (NM_001172561) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sphk2 (NM_001172561) 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:

>MG223097 representing NM_001172561
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGGCCCCACCACACTACTGCCAGTGGCTGCCAGCACTCCAATCCTGCACGGCAGTGGTTGTTCTTACC
 CGGCCAACGGCCACGGTTTGCCTCACCTCACAAACACAAGCCCTACACATACAGCGACTACGCCAAA
 GCCAGAAGCCCGGCCCGAGATGGTCTAGTCTCTGGATGAGGTCTCGGGCTGTGGCACCTGCAGAGC
 CGTAGCCCGAGGACACTGCAGCCTACTTCTGCATCTACACCTACCCACGTGGCCGTCGAGGGGGCCGGC
 GCAGAGCTACGCGGACCTCCGGGCGGATGGGGCCACCACTTATGAGGAGAATCGTCAGAGGCCACGG
 CTGGGCCACTGCCCTCACGTGTCTCTCCGAGGAGTGCCTCTGTCAGGGGACCAGAAATCACCCCTGAA
 TTGCTGCCCGGAAGCCAGGCTGCTCATATTGGTCAATCCCTTGGGGGGCGGGCCTGGCCTGGCAGC
 GCTGTATGGACCAGTGGTGCCATGATCTCTGAAGCTGGGCTGTCTTCAACCTCATACAGACAGAACG
 ACAGAACCATGCCGTGAGCTGGTGCAGGGGTTAAGCCTGAGTGAGTGGGAAGGCATTGTCAGTGTCT
 GGAGACGGGCTGCTTACGAGGTGCTGAATGGGCTCCTTGATCGCCAGACTGGGAGGATGCCGTGCCGA
 TGCCATTGGTGTCTCCCTGTGGATCGGGCAATGCGCTAGCTGGGGCGGTGAACCATCATGGCGGTT
 TGAGCAGGTTGTGCGTGTGACCTGTTGCTCAACTGCTCGCTTCTTCTGCTGCGTGGTGGCAGCCATCCT
 CTGGACCTGCTCTGTGACGCTAGCCTCGGGATCCCCTGTTTTCTTCTGTCAGTGGCCTGGGGAT
 TCTTGTGAGATGTGGACATTACAGTGAGCGCTTACAGGGCCCTGGGCAGCGCTCGATTACACTGGGTGC
 AGTGCTAGGCCTGGCCTCGTTCATACCTACCGTGGACGCTCTCCTACCTCCCCGCTACCACAGAACCA
 GCCTTGCCATCCCAGGCCACAGTCTGCCTCGAGCCAAGTCAGAACTAGTCTTGGCTCCAGCCCCAGCCC
 CGCGCCACCCACTCGCTCTACATCGATCTGTGTCTGACCTGCCTCTGCCCCCTCCCCAGCCTGCCTT
 GGCTCCCCCTGGTCCCCTGAGCCCTGCCTGACCTGTCCCTCAATGGTGGTGGTCCAGAGCTGACTGGA
 GACTGGGAGGAGCTGGGGATGCACCTCTGTCCCCAGACCCACTGCTGCCTTATCCCCAACGCTCTCA
 AAACAGCTCAGCTTTCACCCATCGCTGAAGGGCCCCAGAAATGCCAGCATCTTCGGGGTTCCTGCCTCC
 CACCCACAGTGCCCCAGAAGCCTCTACCTGGGGCCAGTGGACCACCTCCTCCCTCCCCTGGGCTCTCCA
 CTGCCCAAGACTGGGTGACAATAGAGGGGGAGTTTGTACTCATGTTGGGCATCTTGCCGAGCCACCTCT
 GCGCAGACCTGATGGCAGCCCCACATGCACGCTTGTGATGATGGCGTTGTGCACCTGTGTTGGGTGCGGAG
 CGGCATCTCACGGGCTGCACTTCTACGCATTTTGTGGCCATGGAGCATGAAACCACCTTACGCCTGGGC
 TGCCCCATCTGGGCTATGCTGCAGCACGTGCCTTCCGCCTGAACCACTCACGCCTCGTGGCCTGCTCA
 CTGTAGATGGGGAGTTAGTGGAGTATGGGCCAATACAGGGCAGGTGCACCCAGGCTCGCCACGCTGCT
 CACTGGGCTGCAGGTCAAAGCCGCAAGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG223097 representing NM_001172561
 Red=Cloning site Green=Tags(s)

MAPPPLLPVAASTPILHGEFGSYPANGPRFALTLTTQALHIQRLRPKPEARPRDGLVSLDEVSGCGLTQS
 RSPEDTAAFYCIYTYPRGRRGRRRATRTFRADGATTYEENRAEAQRWATALTCLLRGVPLSGDQEITPE
 LLPRKPRLLILVNPFGGRGLAWQRCMDHVPMISEAGLSFNLIQTERQNHARELVQGLSLSEWEGIVTVS
 GDGLLYEVLNGLLDRPDWEDAVRMPIGVLP CGSGNALAGAVNHHGGFEQVVGVDLLNCSLLL CRGGSH
 LDLLSVTLASGSRCSFLSVAWGFLSDVDIHSERFRALGSARFTLGAVLGLASLHRYRGLSYLPATTEP
 ALPIPGHSLPRAKSELVLAPAPAPAATHSPLHRSVSDLPPLPQPALVSPGSPEPLPDL SLNGGGPELTG
 DWGGAGDAPLSPDPLLPSSPNALKTAQLSPIAEGPPEMPASSGFLPPTHSAP EASTWGPVDHLLPPLGSP
 LPQDWVTIEGEFVLMGLIPSHLCADLMAAPHARFDDGVVHLCWVRSGISRAALLRILLAMEHGNHFSLG
 CPHLGYAAARAFRLEPLTPRGLLTVDGELVEYGP IQAQVHPGLATLLTGPAQKPKQA

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_001172561

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_001172561.1](#), [NP_001166032.1](#)

RefSeq Size: 3481 bp

RefSeq ORF: 1854 bp

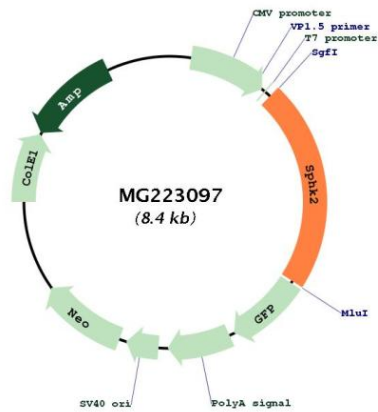
Locus ID: 56632

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 MG223097