

Product datasheet for **MR223097**

Sphk2 (NM_001172561) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sphk2 (NM_001172561) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Sphk2
Synonyms:	C76851; Sk2; Spk2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>MR223097 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCCCACCACACTACTGCCAGTGGCTGCCAGCACTCCAATCCTGCACGGCAGTGGTTGTTCTTACC
 CGGCCAACGGCCACGGTTTGCCTCACCTCACAAACACAAGCCCTACACATACAGCGACTACGCCAAA
 GCCAGAAGCCCGGCCCGAGATGGTCTAGTCTCTGGATGAGGTCTCGGGCTGTGGCACCTGCAGAGC
 CGTAGCCCGAGGACACTGCAGCCTACTTCTGCATCTACACCTACCCACGTGGCCGTCGAGGGGGCCGGC
 GCAGAGCTACGCGGACCTCCGGGCGGATGGGGCCACCACTTATGAGGAGAATCGTCAGAGGCCACGC
 CTGGGCCACTGCCCTCACGTGTCTCTCCGAGGAGTGCCTCTGTCAGGGGACCAGAAATCACCCCTGAA
 TTGCTGCCCGGAAGCCAGGCTGCTCATATTGGTCAATCCCTTGGGGGGCGGGCCTGGCCTGGCAGC
 GCTGTATGGACCAGTGGTGCCATGATCTCTGAAGCTGGGCTGTCTTCAACCTCATACAGACAGAACG
 ACAGAACCATGCCGTGAGCTGGTGCAGGGGTTAAGCCTGAGTGAGTGGGAAGGCATTGCTACTGTGTCT
 GGAGACGGGCTGCTTACGAGGTGCTGAATGGGCTCCTTGATCGCCAGACTGGGAGGATGCCGTGCGGA
 TGCCCATTTGGTGTCTCCCTGTGGATCGGGCAATGCGCTAGCTGGGGCGGTGAACCATCATGGCGGTT
 TGAGCAGGTTGTGCGTGTGACCTGTTGCTCAACTGCTCGCTTCTTCTGCTGCGTGGTGGCAGCCATCCT
 CTGGACCTGCTCTGTGACGCTAGCCTCGGGATCCCCTGTTTTTCTTCTGTCAGTGGCCTGGGGAT
 TCTTGTGAGATGTGGACATTACAGTGAGCGCTTACGGGCCCTGGGCAGCGCTCGATTACACTGGGTGC
 AGTGCTAGGCCTGGCCTCGTGCATACCTACCGTGGACGCTCTCCTACCTCCCCGCTACCACAGAACCA
 GCCTTGCCCATCCAGGCCACAGTCTGCCTCGAGCCAAGTCAGAACTAGTCTTGGCTCCAGCCCCAGCCC
 CGGCCCCACCCACTCGCCTCTACATCGATCTGTGTCTGACCTGCCCTGCCCTTCCCCAGCCTGCCTT
 GGCTCCCCCTGGTCCCCTGAGCCCTGCCTGACCTGTCCCTCAATGGTGGTGGTCCAGAGCTGACTGGA
 GACTGGGAGGAGCTGGGGATGCACCTCTGTCCCCAGACCCACTGCTGCCTTATCCCCAACGCTCTCA
 AAACAGCTCAGCTTTCACCCATCGCTGAAGGGCCCCAGAAATGCCAGCATCTTGGGGTTCCTGCCTCC
 CACCCACAGTGCCCCAGAAGCCTCTACCTGGGGCCAGTGGACCACCTCTCCCTCCCCTGGGCTCTCCA
 CTGCCCAAGACTGGGTGACAATAGAGGGGGAGTTTGTACTCATGTTGGGCATCTTGCCGAGCCACCTCT
 GCGCAGACCTGATGGCAGCCCCACATGCACGCTTGTGATGATGGCGTTGTGCACCTGTGTTGGGTGCGGAG
 CGGCATCTCACGGGCTGCACTTCTACGCATTTTGTGGCCATGGAGCATGAAACCACCTCAGCCTGGGC
 TGCCCCATCTGGGCTATGCTGCAGCACGTGCCTTCCGCTTGAACCACTCAGCCTCGTGGCCTGCTCA
 CTGTAGATGGGGAGTTAGTGGAGTATGGGCCAATACAGGGCAGGTGCACCCAGGCTCGCCACGCTGCT
 CACTGGGCTGCAGGTCAAAGCCACAAGCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR223097 protein sequence
 Red=Cloning site Green=Tags(s)

MAPPPLLVAASTPILHGEFGSYPANGPRFALTLTTQALHIQRLRPKPEARPRDGLVSLDEVSGCGTLQS
 RSPEDTAAAYFCIYTYPRGRRRGRRRATRTFRADGATTYEENRAEAQRWATALTCLLRGVPLSGDQEITPE
 LLPRKPRLLILVNPFGGRGLAWQRCMDHVVPMISEAGLSFNLIQTERQNHARELVQGLSLSEWEGIVTVS
 GDGLLYEVLNGLLDRPDWEDAVRMPIGVLP CGSGNALAGAVNHGGFEQVVGVLDLLNCSLLL CRGGSH
 LDLLSVTLASGSRCSFSLVAVGFLSDVDIHSERFRALGSARFTLGAVLGLASLHRYRGLSYLPATTEP
 ALPIPGHSLPRAKSELVLAPAPAPAATHSPLHRSVSDLPLPLPQALVSPGSPEPLPDLNLGGGPELGTG
 DWGGAGDAPLSPDPLLPSSPNALKTAQLSPIAEGPPEMPASSGFLPPTHSAPEASTWGPVDHLLPPLGSP
 LPQDWVTIEGEFVLMGLP SHLCADLMAAPHARFDDGVVHLCWVRSGISRAALLRILLAMEHGNHFSLG
 CPHLGAAARAFRLEPLTPRGLLTVDGELVEYGP IQAQVHPGLATLLTGPAGQKPQA

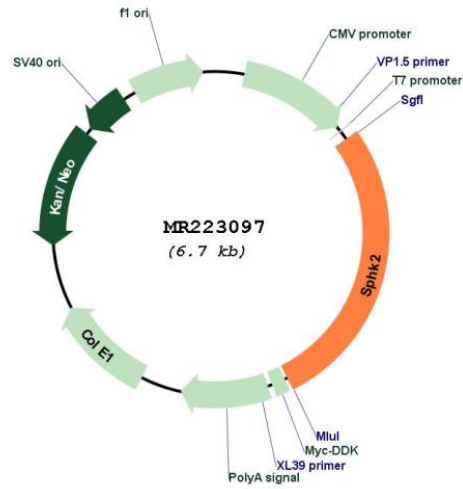
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



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:	<ol style="list-style-type: none">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
MW:	65.6 kDa
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]