

## Product datasheet for **MR230691**

### Sphk2 (NM\_203280) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Sphk2 (NM_203280) 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:**

>MR230691 representing NM\_203280  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCCCCACCACACTACTGCCAGTGGCTGCCAGCACTCCAATCCTGCACGGCGAGTTGGTTCCTACC  
 CGGCCAACGGCCACGGTTTGCCTCACCTCACAAACACAAGCCCTACACATACAGCGACTACGCCAAA  
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 GCAGAGCTACGCGGACCTCCGGGCGGATGGGGCCACCACTTATGAGGAGAATCGTCAGAGGCCACGC  
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 TTGCTGCCCGGAAGCCAGGCTGCTCATATTGGTCAATCCCTTGGGGGGCGGGCCTGGCCTGGCAGC  
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 GGAGACGGGCTGCTTACGAGGTGCTGAATGGGCTCCTTGATCGCCAGACTGGGAGGATGCCGTGCGGA  
 TGCCCATTTGGTGTCTCCCTGTGGATCGGGCAATGCGCTAGCTGGGGCGGTGAACCATCATGGCGGTT  
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 TCTTGTGAGATGTGGACATTACAGTGAGCGCTTCAGGGCCCTGGGCAGCGCTCGATTACACTGGGTGC  
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 CGGCATCTCACGGGCTGCACTTCTACGCATTTTGTGGCCATGGAGCATGAAACCACTTACGCCTGGGC  
 TGCCCCATCTGGGCTATGCTGCAGCACGTGCCTTCCGCCTGAACCACTCACGCCTCGTGGCCTGCTCA  
 CTGTAGATGGGGAGTTAGTGGAGTATGGGCCAATACAGGGCGAGGTGCACCCAGGCTCGCCACGCTGCT  
 CACTGGGCTGCAGGTCAAAGCCACAAGCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
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**Protein Sequence:**

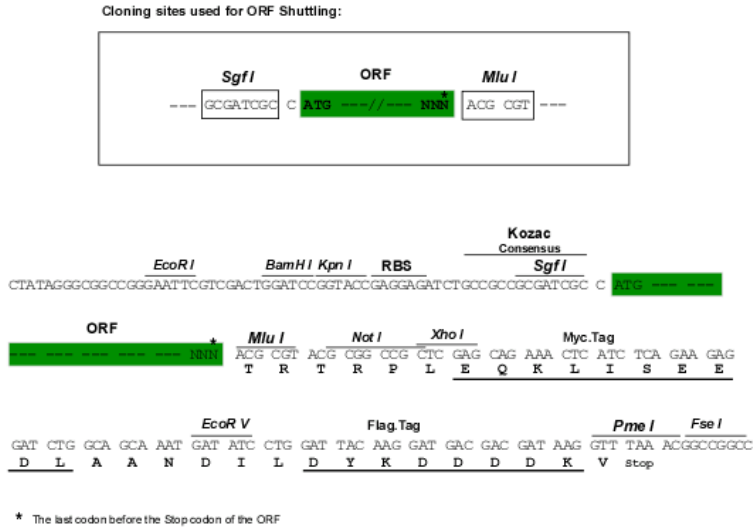
>MR230691 representing NM\_203280  
 Red=Cloning site Green=Tags(s)

MAPPPLLVAASTPILHGEFGSYPANGPRFALTLTTQALHIQRLRPKPEARPRDGLVSLDEVSGCGTLQS  
 RSPEDTAAAYFCIYTYPRGRRRGRRRATRTFRADGATTYEENRAEAQRWATALTCLLRGVPLSGDQEITPE  
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 GDGLLYEVLNGLLDRPDWEDAVRMPIGVLP CGSGNALAGAVNHGGFEQVVGVDLLNCSLLL CRGGSHPL  
 LDLLSVTLASGSRCSFSLVAVGFSDVDIHSERFRALGSARFTLGAVLGLASLHRYRGLSYLPATTEP  
 ALPIPGHSLPRAKSELVLAPAPAPAATHSPLHRSVSDLPLPLPQALVSPGSPEPLPDLNLGGGPELTG  
 DWGGAGDAPLSPDPLLPSSPNALKTAQLSPIAEGPPEMPASSGFLPPTHSAPEASTWGPVDHLLPPLGSP  
 LPQDWVTIEGEFVLMGLP SHLCADLMAAPHARFDDGVVHLCWVRSGISRAALLRILLAMEHGNHFSLG  
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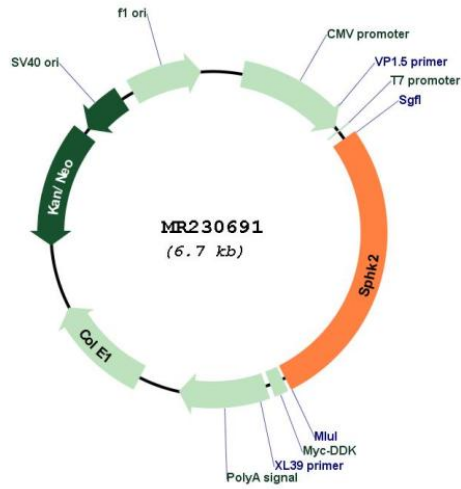
**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_203280

ORF Size: 1851 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_203280.3</a> , <a href="#">NP_975009.1</a>
<b>RefSeq Size:</b>	3552 bp
<b>RefSeq ORF:</b>	1854 bp
<b>Locus ID:</b>	56632
<b>UniProt ID:</b>	<a href="#">Q9JIA7</a>
<b>Cytogenetics:</b>	7 B3
<b>MW:</b>	66.1 kDa
<b>Gene Summary:</b>	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]