

## Product datasheet for MR205386

### Sgpp2 (NM\_001004173) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Sgpp2 (NM_001004173) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Sgpp2
Synonyms:	Spp2; SPPase2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR205386 representing NM_001004173 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCGAACGTGCGGAGCCTGCGGGATTCACAGCTCGTGGCGCGCTCCAGCGCCGCTGCGGGCTCT  
TCCAGCGCGGGAGGCTTCTGGAGAGGAGCATGTGGTGAAGAATTATTTCTACTATTACCTGTTCCGGTT  
TTCAGCCGCTTTGGGCCAGGAAGTGTCTACATCACGTTTCTCCCTTTCACCCACTGGAATATCGACCT  
AATTTGTCCAGAAGATTGGTTGTGATATGGTTTTGGTGTATATTGGCCAGGTGGCCAAGGACATCC  
TGAAGTGGCCCCGGCCCTCTTCTCCGTTGTGAGACTTGAAAAGAGAATTATTGCAGAGTACGGAAT  
GCCATCCACCACGCCATGGCGGCCACCGCCATCTCCTTACCCTCCTCATCTCTACCATGGACCGGAT  
CAGTACCCTTTTCATTTAGGCCCTGATGATGGCTGTGGTGTCTCTACGCTGGTGTGTCTCAGCAGACTCT  
ACACGGGGATGCACACGGTCTGGATATCTGGGTGGCGTTCTGATCACTGCAGTCTCATTGCTGTGAC  
CTACCCTGCCTGGACCCTCATCGATTCCCTGGACTCTGCCAGCCCCCTTCCCTGTGTGTGCATAGTT  
GTACCGTTCTCTGTGCTACAATTACCCTGTGTCTGACTACTACAGCCCCAGCAGGGCAGACACCA  
CCATCGTGGCTGCTGGGGCTGGAGTGACCCTGGGATTCTGGATCAACATTTCTCCAGCTCGTGTCCAA  
GCCACCCCATCTCTTCTGTCAATCAGAACATCCCACCCCTTACCACTGACATGCTGGTTTTAGGTCG  
ACCAAATTTATGGTGGGAATCATGTTGATCCTCTTGGTTCGCAACTGGTGCAAAAAGCTCTCCCTGCAAG  
TATTATTCTCATGGTTCAAGGTGGTACTAGGAACAAGGAGGCCAGGCGAAGACTAGAGATTGAAGTCCC  
TTACAAGTTTGTACCTACACATCTGTTGGCATCTGTGCCACAACCTTTGTGCCAATGTTGCACAGGTTT  
TTGGGATTGCTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTAA



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**Protein Sequence:** >MR205386 representing NM\_001004173  
Red=Cloning site Green=Tags(s)

MAELLRSLRDSQLVARFQRRCLFPAREASGEEHVKNYFYLYLFRFSAALGQEVFYITFLPFTHWNIDP  
 NLSRRLVVIWVLYMYIGQVAKDILKWPRPSFPVVRLEKRIIAEYGMPPSTHAMAATAISFTLLISTMDRY  
 QYPFILGLMMAVVFSTLVCLSRLYTGMHTVLDILGGVLITAVLIALTYPAWTLIDSLDSASPLFPVCVIV  
 VPFLLCYNYPVSDYYSPTRADTTTIVAAGAGVTLGFWINHHFQLVSKPTPSLPVIQNIPLTTDMLVGL  
 TKFMVGIILLVRLVQKLSLQVLF SWFKVVTNRNKEARRRLEIEVPYKFVITYTSVIGCATTFVPLHRF  
 LGLL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mm9019\\_g09.zip](https://cdn.origene.com/chromatograms/mm9019_g09.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001004173

**ORF Size:** 1062 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\\_001004173.2](#), [NP\\_001004173.1](#)

**RefSeq Size:** 3998 bp

**RefSeq ORF:** 1065 bp

**Locus ID:** 433323

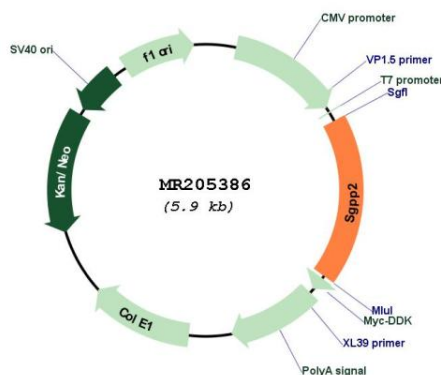
**UniProt ID:** [Q810K3](#)

**Cytogenetics:** 1 C4

**MW:** 40.7 kDa

**Gene Summary:** Has specific phosphohydrolase activity towards sphingoid base 1-phosphates. Has high phosphohydrolase activity against dihydrosphingosine-1-phosphate and sphingosine-1-phosphate (S1P) in vitro (Probable). Sphingosine-1-phosphate phosphatase activity is needed for efficient recycling of sphingosine into the sphingolipid synthesis pathway (By similarity). May play a role in attenuating intracellular sphingosine 1-phosphate (S1P) signaling. May play a role in pro-inflammatory signaling (By similarity). Plays a role in the regulation of pancreatic islet beta-cell endoplasmic reticulum stress and proliferation (PubMed:27059959). [UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for MR205386