

## Product datasheet for MR216921

### Sgms1 (NM\_001168526) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Sgms1 (NM_001168526) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Sgms1
Synonyms:	9530058O11Rik; AI841905; C80702; Mob; Sms1; Sor1; Tmem23
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR216921 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTTGTCTGCCAGGACCATGAAGGAAGTGGTTTACTGGTCACCCAAGAAGGTGGCAGACTGGCTGCTGG  
AGAATGCTATGCCAGAATACTGTGAGCCTCTGGAGCACTTCACAGGCCAGGACTTAATCAACCTAACCCA  
AGAGGATTTCAAAAACCCCACTGTACCGAGTCTCCTCTGACAATGGGCAGCGACTCTTAGACATGATA  
GAGACCCTGAAGATGGAGCACCATATGGAAGCACACAAGAATGGCCACGCCAACGGACACCTCAGCATTG  
GCGTTGACATTCACACCCGATGGCAGCTTCAGCATCAAGACTAAACCAACGGAAATGCCAAATGGGTT  
TAGGAAAGAGATGATCAAGATCCCATGCCAGAACCGGAGCGCTCCAGTATCCCATGGAGTGGGGCAAG  
ACTTCTCTGGCCTTTCTTATGCACTTTCTGTTTTGTTCTCACTACAGTGATGATCTCGGTCTGCCATG  
AACGAGTACCTCCTAAGGAGGTGCAAGCCTCCACTACCGGACACGTTTTTTGACCATTTTAAACGGGTGCA  
GTGGGCGTTTTCTATTTGCGAAATTAACGGCATGATCCTTGAGGACTCTGGCTATTTCACTGGCTGCTC  
TAAAAACAAGTCTATTATTAGCAGAAGATTTTCTGCATAGTTGGCACGCTGTACCTGTATCGGTGTA  
TTACAATGTATGTAACACTACCTCCAGTACCTGGCATGCATTTCAACTGTTCTCCGAAGCTTTGGAGA  
CTGGGAAGCTCAAGTGCGGAGAATAATGAAGCTCATTGCTGGAGTGGCTTATCCATCACAGGCTCGCAC  
AACATGTGTGGGACTATCTGTACAGTGGCCACACGGTCATGCTAACGCTCACCTACCTATTTATCAAAG  
AGTATTCTCCTCGCGGCTCTGGTGGTACCACTGGATTTGCTGGCTCCTCAGCTCGTTGGAATCTTCTG  
TATTCTCTTAGCGCATGACCACTACACTGTGGAGTGGTGGTGGCCTACTACATCACCAAGACTCTTC  
TGGTGGTATCACAGGATGGCCAATCAGCAAGTGTAAAGGAAGCCTCCAGATGAACCTCCTGGCCAGGG  
TGTGGTGTACAGGCCATTTCACTACTTTGAAAAGAATGTCCAAGGAATTGTACCTCGATCTTACCATTG  
GCCCTTCCCTGGCCGGTAGTCCACCTTAGTAGGCAAGTTAAATATAGCCGGCTGGTAAACGACACA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



**Protein Sequence:** >MR216921 protein sequence  
 Red=Cloning site Green=Tags(s)

MLSARTMKEVVYVSPKKVADWLLLENAMPEYCEPLEHFTGQDLINLTQEDFKKPLLYRVSSDNGQRLDDMI  
 ETLKMEHHMEAHKNGHANGHLSIGVDIPNDGGSFSIKTKPNGMPNGFRKEMIKIPMEPEPERSQYPMWGWK  
 TFLAFLYALSCFVLTVMISVHERVPPKEVQPPLPDTFFDHFNRVQWAFSICEINGMILVGLWLFQWLL  
 LKYKSIISRFFCIVGTLTYLYRCITMYVTLLPVPGMHFNCSPKLFGDWEAQVRRIMKLIAGGGLSITGSH  
 NMGDYLYSGHTVMLTLTYLFIKEYSPRRLWYHWHICWLLSVVGI FCILLAHDHYTVDVVVAYYITTRLF  
 WWYHTMANQQVLKEASQMNLLARVWYRPFQYFEKNVQGI VPRSYPFPWPVVHLSRQVKYSRLVNDT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001168526

**ORF Size:** 1260 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\\_001168526.1](#), [NP\\_001161998.1](#)

**RefSeq Size:** 3280 bp

**RefSeq ORF:** 1260 bp

**Locus ID:** 208449

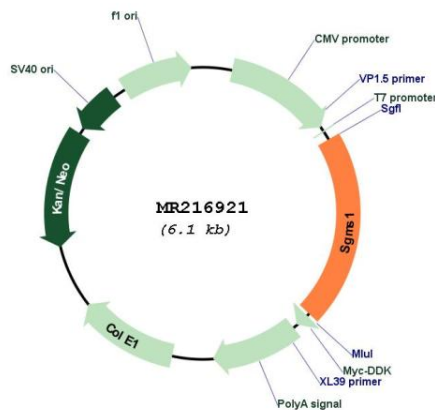
**UniProt ID:** [Q8VCQ6](#)

**Cytogenetics:** 19 C1

**MW:** 49.3 kDa

**Gene Summary:** Sphingomyelin synthases synthesize the sphingolipid, sphingomyelin, through transfer of the phosphatidyl head group, phosphatidylcholine, on to the primary hydroxyl of ceramide. The reaction is bidirectional depending on the respective levels of the sphingolipid and ceramide. Golgi apparatus SMS1 directly and specifically recognizes the choline head group on the substrate, requiring two fatty chains on the choline-P donor molecule in order to be recognized efficiently as a substrate. Major form in macrophages. Required for cell growth in certain cell types (By similarity). Suppresses BAX-mediated apoptosis and also prevents cell death in response to stimuli such as hydrogen peroxide, osmotic stress, elevated temperature and exogenously supplied sphingolipids. May protect against cell death by reversing the stress-inducible increase in levels of proapoptotic ceramide.[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR216921