

## Product datasheet for **MC202951**

### **Sgms1 (NM\_144792) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Sgms1 (NM_144792) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Sgms1
Synonyms:	9530058O11Rik; AI841905; C80702; Mob; Sms1; Sor1; Tmem23
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >BC019443 sequence for NM\_144792  
 AGTCCCTTGAGCTCCGTGTCTCTGCGTCTGGCTGTGCTTCCCAGAGGCGGCTGTGGGACCGCTGGCC  
 ACTCCCAACCGCTGGCCAGCTGCACGCAGAGACCCGCGTAAACTTGTGAGAACTTTCCAGGAGGCTGCC  
 TTTGGGAGGAGAGAAGGAAGAATTCTGTTTCAGAAATGAGGCGAACGAATGTTTGGACACCGTTGCATGAA  
 GTGTTTTAAAACCTGCCCTGACCATCTTGCCAAATGAGTCTCTGCTCATGAGGCCAACAAAGATGAACCAG  
 CCAAGGAGGGATAGTGTCTGCCCTGTACGAACAGTACTGCTGACGCTGAGAGCAAGCTGGGGTACT  
 GAATGTTGTCTGCCAGGACCATGAAGGAAGTGGTTTACTGGTCACCCAAGAAGGTGGCAGACTGGCTGCT  
 GGAGAATGCTATGCCAGAATACTGTGAGCCTCTGGAGCACTTACAGGCCAGGACTTAATCAACCTAACCC  
 CAAGAGGATTTCAAAAAACCCCACTGTACCGAGTCTCCTCTGACAATGGGCAGCGACTCTTAGACATGA  
 TAGAGACCCTGAAGATGGAGCACCATATGGAAGCACACAAGAATGGCCACGCCAACCGACACCTCAGCAT  
 TGGCGTTGACATTTCCCAACCCCGATGGCAGCTTACAGTCAAGACTAAACCCAACGGAATGCCAAATGGG  
 TTTAGGAAAGAGATGATCAAGATCCCCATGCCAGAACCGAGCGCTCCAGTATCCCATGGAGTGGGGCA  
 AGACTTCTGCGCTTTCTTTATGCACTTCTGTTTTGTTCTCACTACAGTGATGATCTCGGTGCTCCA  
 TGAACGAGTACCTCCTAAGGAGGTGCAGCTCCACTACCGGACACGTTTTTTGACCATTTAAACCGGGT  
 CAGTGGGCGTTTTCTATTTGCGAAATTAACGGCATGATCCTTGTAGGACTCTGGCTATTTTCAAGTGGCTG  
 TCTTAAAATACAAGTCTATTATTAGCAGAAGATTTTTCTGCATAGTTGGCACGCTGTACCTGTATCGGTG  
 TATTACAATGTATGTAACCTACACTCCCAGTACCTGGCATGCAATTTCAACTGTTTCTCCGAAGCTCTTTGGA  
 GACTGGGAAGCTCAAGTGCAGGAGAATAATGAAGCTCATTGCTGGAGGTGGCTTATCCATCACAGGCTCGC  
 ACAACATGTGTGGCGACTATCTGTACAGTGGCCACACGGTCATGCTAACGCTCACCTACCTATTTATCAA  
 AGAGTATTCTCCTCGGCGGCTCTGGTGGTACCCTGGATTTGCTGGCTCCTCAGCGTCGTTGGAATCTTC  
 TGTATTCTCTTAGCGCATGACCACTACACTGTGGACGTGGTGGTGGCCTACTACATCACCAAGACTCT  
 TCTGGTGGTATCACACGATGGCCAATCAGCAAGTGTAAAGGAAGCTCCAGATGAACCTCCTGGCCAG  
 GGTGTGGTGTACAGGCCATTTAGTACTTTGAAAAGAATGTCCAAGGAATTTGACCTCGATCTTACCAT  
 TGGCCCTTCCCCTGGCCGGTAGTCCACCTTAGTAGGCAAGTTAAATATAGCCGGCTGGTAAACGACACAT  
 AACAGCTCTGCCACTAGGGAATGAAGAACAGTCCGAAGTGTAAAGAACTCCATGACAGAAGATGCCATA  
 AAGTAACCACTCCCCTGCTATCTCTCAAGTTACCTTGACTTAACCTATTGCGTTACCTGCTCAGCACT  
 GTGATCTTTTTTTTTCTCTCAAAGGACCCGCTTGGACAACAATAAAGAAAAGTTCCACATCATGCAC  
 TGTAGACATTTCTGTTGTTAAGCTTGGGGCTTCTATAACAGGCAGCCACCGTGTCCCTCTGTGTCATTC  
 AGCCGCACCACCGTGTGCTTCTGTATCCTAAGCTCCGGCCTTTCCAGCCATATCTGGAAAATAAGTGTGT  
 TATTTTCTGGGAAAACATACTTTTCATATCTCTTCCCCAAAGACAGGGCTGTAAGCCATTTTCTAGTA  
 AATGTCTCTATGAAGGTCCTAAGTGTCTGCATGGGAGTTGATTTAGAATCTCTCTGCTATTGCACTGA  
 TGCTCGGCTGAAGACGATAGGTCCAGAGAGGTTTCTCGCTGGGTTTTATACAGTCAGCAGAGACGGT  
 GTATCAAAAAGTGCAAAAAAAAAAAAAAAAAA

**Restriction Sites:** RsrII-NotI

**ACCN:** NM\_144792

**Insert Size:** 1260 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**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:** [BC019443](#), [AAH19443](#)

**RefSeq Size:** 2199 bp

**RefSeq ORF:** 1260 bp

**Locus ID:** 208449

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

**Cytogenetics:** 19 C1

**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] Transcript Variant: This variant (2, also known as Sms1alpha1) differs in the 5' UTR compared to variant 1. Variants 1, 2 and 3 encode the same protein.