

Product datasheet for **MG219071**

Sgms1 (NM_001168525) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sgms1 (NM_001168525) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Sgms1
Synonyms:	9530058O11Rik; AI841905; C80702; Mob; Sms1; Sor1; Tmem23
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	<p>>MG219071 representing NM_001168525</p> <p>Red=Cloning site Blue=ORF Green=Tags(s)</p>

TTTTGTATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGC**

ATGTTGTCTGCCAGGACCATGAAGGAAGTGGTTTACTGGTCACCCAAGAAGGTGGCAGACTGGCTGCTGG
 AGAATGCTATGCCAGAATACTGTGAGCCTCTGGAGCACTTCACAGGCCAGGACTTAATCAACCTAACCCA
 AGAGGATTTCAAAAAACCCCACTGTACCGAGTCTCCTCTGACAATGGGCAGCGACTCTTAGACATGATA
 GAGACCCTGAAGATGGAGCACCATATGGAAGCACACAAGAATGGCCACGCCAACGGACACCTCAGCATTG
 GCGTTGACATTCCCAACCCCGATGGCAGCTTCAGCATCAAGACTAAACCAACGGAATGCCAAATGGGTT
 TAGGAAAGAGATGATCAAGATCCCATGCCAGAACCGGAGCGCTCCAGTATCCCATGGAGTGGGGCAAG
 ACTTCTCGCCCTTTCTTATGCACTTTCTGTTTGTCTCACTACAGTGATGATCTCGGTCTGCCATG
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 GTGGGCGTTTTCTATTTGCGAAATTAACGGCATGATCCTTGAGGACTCTGGCTATTTCACTGGCTGCTC
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 TTACAATGTATGTAACACTACCTCCAGTACCTGGCATGCATTTCAACTGTTCTCCGAAGCTTTTGAGA
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 AACATGTGTGGGACTATCTGTACAGTGGCCACACGGTCATGCTAACGCTCACCTACCTATTTATCAAAG
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 TGGTGGTATCACACGATGGCCAATCAGCAAGTGCTTAAGGAAGCCTCCAGATGAACCTCCTGGCCAGGG
 TGTGGTGTACAGGCCATTTCACTACTTTGAAAAGAATGTCCAAGGAATTGTACCTCGATCTTACCATTG
 GCCCTTCCCTGGCCGGTAGTCCACCTTAGTAGGCAAGTTAAATATAGCCGGCTGGTAAACGACACA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG219071 representing NM_001168525
Red=Cloning site Green=Tags(s)

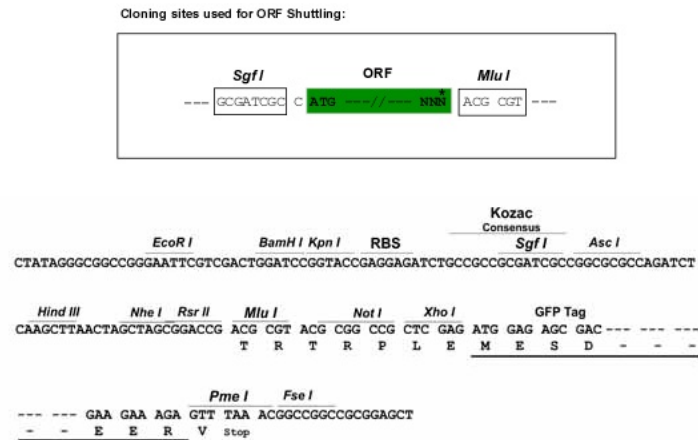
MLSARTMKEVVYWSPKKVADWLLNAMPEYCEPLEHFTGQDLINLTQEDFKKPPLYRVSSDNGQRLLDMI
ETLKMEHHMEAHKNGHANGHLSIGVDIPNDGFSIKTKPNGMPNGFRKEMIKIPMEPERSQYPMWGWK
TFLAFLYALSCFVLTTVMISVHERVPPKEVQPPLPDTFDFHNRVQWAFSICEINGMILVGLWLFQWLL
LKYKSIISRRFFCIVGTLTYLYRCITMYVTTLVPVGMHFNCSPLFGDWEAQVRRIMKLIAGGGLSITGSH
NMGCDYLYSGHTVMLTLTYLFIKEYSPRRLWYHWICWLLSVVGIFCILLAHDHYTVDVVVAYYITTRLF
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TRTRPLE - GFP Tag - V

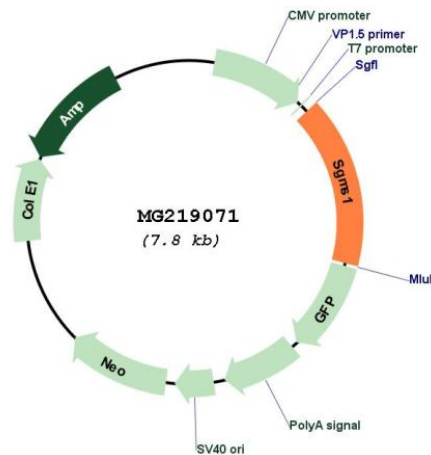
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001168525

ORF Size:	1257 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:	<u>NM_001168525.1, NP_001161997.1</u>
RefSeq Size:	4056 bp
RefSeq ORF:	1260 bp
Locus ID:	208449
UniProt ID:	<u>Q8VCQ6</u>
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]