

Product datasheet for **RG207362**

Spingomyelin Synthase 2 (SGMS2) (NM_152621) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Spingomyelin Synthase 2 (SGMS2) (NM_152621) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Spingomyelin Synthase 2
Synonyms:	CDL; SMS2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG207362 representing NM_152621 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGATATCATAGAGACAGCAAACCTTGAAGAACATTTGGAAAATCAACCCAGTGATCCTACGAACACTT
ATGCAAGACCCGCTGAACCTGTTGAAGAAGAAAACAAAATGGCAATGGTAAACCCAAGAGCTTATCCAG
TGGGCTGCGAAAAGGCACCAAAAAGTACCCGACTATATCCAAATTGCTATGCCCACTGAATCAAGGAAC
AAATTTCCACTAGAGTGGTGGAAAACGGGCATTGCCTTCATATATGCAGTTTTCAACCTCGTCTTGACAA
CCGTCATGATCACAGTTGTACATGAGAGGGTCCCTCCCAAGGAGCTTAGCCCTCCACTCCAGACAAGTT
TTTTGATTACATTGATAGGGTAAATGGGCATTTTCTGTATCAGAAATAAATGGGATTATATTAGTTGGA
TTATGGATCACCCAGTGGCTGTTTCTGAGATACAAGTCAATAGTGGGACGAGATTCTGTTTTATTATTG
GAACCTTATACCTGTATCGCTGCATTACAATGTATGTTACTACTACCTGTGCCTGGAATGCATTTCCA
GTGTGCTCCAAAGCTCAATGGAGACTCTCAGGCAAAAGTTCAACGGATTCTACGATTGATTTCTGGTGGT
GGATTGTCATAACTGGATCACATATCTTATGTGGAGACTTCTCTTTCAGCGGTACACGGTTACGCTGA
CACTGACTTATTTGTTCAAAAGAATATTCGCCTCGTCACTTCTGGTGGTATCATTTAATCTGCTGGCT
GCTGAGTGCTGCCGGATCATCTGCATTCTGTAGCACACGAACACTACACTATCGATGTGATCATTGCT
TATTATACACAACAGACTGTTTTGGTGGTACCATTCAATGGCCAAATGAAAAGAAGTTGAAGGTCTTT
CACAGACTAATTTCTTATCTCGAGCATGGTGGTTCCCATCTTTTATTTTTTTGAGAAAAATGTACAAGG
CTCAATTCCTTGCTGCTTCTCCTGGCCGCTGTCTTGGCCTCCTGGCTGCTTCAAATCATCATGCAAAAAG
TATTCACGGGTTGAGAAGATTGGTGAAGACAATGAGAAATCGACC

ACGGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG207362 representing NM_152621
 Red=Cloning site Green=Tags(s)

MDIIEETAKLEEHLNQPSDPTNTYARPAEPVEEENKNGNGKPKSLSSGLRKGTKKYPDYIQIAMPTESRN
 KFPLEWWTGIAFIYAVFNLVLTVMITVVERVPPKELSPPLPDKFFDYIDRVKWFVSVSEINGIILVG
 LWITQWFLRYKSIVGRRFCFIIGTLYLYRCITMYVTTLPVPGMHFQCAPKLNQDSQAKVQIRLRLISGG
 GLSITGSHILCGDFLFSGHTVTLTLTYLFIKEYSPRHFWYHLICWLLSAAGIICILVAHEHYTIDVIAA
 YYITTRLFWWYHSMANEKNLKVSSQTNFLSRAWWFPIFYFFEKNVQGSIPCCFSWPLSWPPGCFKSSCKK
 YSRVQKIGEDNEKST

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_152621

ORF Size: 1095 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_152621.6](#)

RefSeq Size: 2145 bp

RefSeq ORF: 1098 bp

Locus ID: 166929

UniProt ID: [Q8NHU3](#)

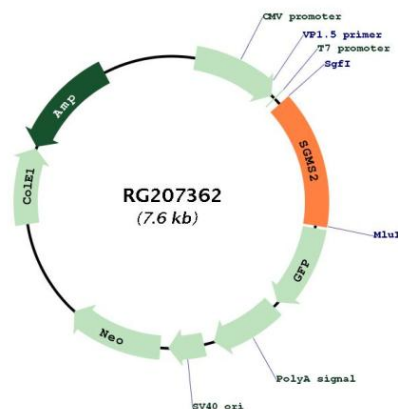
Cytogenetics: 4q25

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Metabolic pathways, Sphingolipid metabolism

Gene Summary: Sphingomyelin, a major component of cell and Golgi membranes, is made by the transfer of phosphocholine from phosphatidylcholine onto ceramide, with diacylglycerol as a side product. The protein encoded by this gene is an enzyme that catalyzes this reaction primarily at the cell membrane. The synthesis is reversible, and this enzyme can catalyze the reaction in either direction. The encoded protein is required for cell growth. Three transcript variants encoding the same protein have been found for this gene. There is evidence for more variants, but the full-length nature of their transcripts has not been determined.[provided by RefSeq, Oct 2008]

Product images:



Circular map for RG207362