

## Product datasheet for **SC100775**

### Spingomyelin Synthase 2 (SGMS2) (NM\_152621) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Spingomyelin Synthase 2 (SGMS2) (NM_152621) Human Untagged Clone
Tag:	Tag Free
Symbol:	Spingomyelin Synthase 2
Synonyms:	CDL; SMS2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL6</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC100775 sequence for NM_152621 edited (data generated by NextGen Sequencing)

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ATGGATATCATAGAGACAGCAAACTTGAAGAACATTTGGAAAATCAACCCAGTGATCCT
ACGAACACTTATGCAAGACCCGCTGAACCTGTTGAAGAAGAAAACAAAAATGGCAATGGT
AAACCCAAGAGCTTATCCAGTGGGCTGCGAAAAGGCACCAAAAAGTACCCGGACTATATC
CAAATTGCTATGCCACTGAATCAAGGAACAAATTTCCACTAGAGTGGTGGAAAACGGGC
ATTGCCTTCATATATGCAGTTTTCAACCTCGTCTTGACAACCGTCATGATCACAGTTGTA
CATGAGAGGGTCCCTCCAAGGAGCTTAGCCCTCCACTCCAGACAAGTTTTTTGATTAC
ATTGATAGGGTGAATGGGCATTTTCTGTATCAGAAATAAATGGGATTATATTAGTTGGA
TTATGGATCACCCAGTGGCTGTTTCTGAGATACAAGTCAATAGTGGGACGCAGATTCTGT
TTTATTATTGGAACCTTATACCTGTATCGCTGCATTACAATGTATGTTACTACTCTACCT
GTGCTGGAATGCATTTCCAGTGTGCTCCAAGCTCAATGGAGACTCTCAGGCAAAAAGTT
CAACGGATTCTACGATTGATTTCTGGTGGTGGATTGTCCATAACTGGATCACATATCTTA
TGTGGAGACTTCTCTTCAGCGGTCACACGGTTACGCTGACACTGACTTATTTGTTTCATC
AAAGAATATTCGCTCGTCACTTCTGGTGGTATCATTTAATCTGCTGGCTGCTGAGTGTCT
GCCGGGATCATCTGCATTCTGTAGCACACGAACACTACACTATCGATGTGATCATTGCT
TATTATATCACAACACGACTGTTTTGGTGGTACCATTCAATGGCCAATGAAAAGAACTTG
AAGGTCTCTTACAGACTAATTTCTTATCTCGAGCATGGTGGTCCCCATCTTTATTTT
TTTGAGAAAAATGTACAAGGCTCAATTCCTTGTGCTTCTCCTGGCCGCTGTCTTGGCCT
CCTGGCTGCTTCAAATCATCATGCAAAAAGTATTCACGGGTTCAGAAGATTGGTGAAGAC
AATGAGAAATCGACCTGA

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Clone variation with respect to NM\_152621.5



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**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_152621 unedited  
TCTTACCCCCGCCGTTGNCGTAAAGGGCGGTAGGCGGTACGGTGGGAGGTCTATATAA  
GCAGAGCTCATTTAGGTGACACTATAGAATACAAGCTACTTGTTCTTTTGCAGCGGCCG  
CGAATTCGGCAGCAGGCAGGAACGGGCACTGCTGCCACCGGGCCGACGGAGCTGCATCCT  
GTGGCCCTATAACTCTTCTCCAAAAGGACCTGCCAGAGACTGGGAGTGTGACTGCTG  
CAAGGACCAAGGTGGGATAGTAACATCTTTTGGGGAAGAATTGGCTTCCTTTCTTGAA  
AGTGGTGAAGGTACAGCATATAGCTGCATGGAAGAAACAGTAATCGGATGGCTACCTTCT  
ACATTTTGTATTAGGAAACAAAGTCCATTGTAAGAGTCCATGTTGATCTTGAAAATAGAA  
GGATTGAAAAAGCTAAATTTCCACAAAGAACAAGAACTTGACCATCTCCTTTTGTATCT  
GAAGACTAGGGGACAATGGATATCATAGAGACAGCAAACTTGAAGAACATTTGGAAAAT  
CAACCCAGTGATCCTACGAACACTTATGCAAGACCCGCTGAACCTGTTGAAGAAGATAAC  
AAAAATGGCAATGGTAAACCAAGAGCTTATCCAGTGGGCTGCGAAAAGGCACCAAAAAG  
TACCCGGACTATATCCAAATGCTATGCCCACTGAATCAAGGAACAAATTTCCACTAGAG  
TGGTGGAAAACGGCATTGCCTTCATATATGCANGTTTCAACCCTCGTCTTGACAACCGT  
CATGATCACAGTTGTACATGAAGAGGGCCCTCCCAAGAGCTTAGCCCTCCACTCCAGAG  
CAAGGTTTTTGTATTACATTGATAGGGTGAATGGGCATTTTCTGTATCAGAAAATAAAGGG  
ATTATATTAGTTGGATAATGGATCACCCAGTGGCTGNTTCTGAGAACAGCCAATAGTGGC

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_152621 unedited  
CGGTTGACTATGNACCGCGNCCGATTCTANGATCGAGTTTTTTTTTTTTTTTTTAA  
TTTTGAAAAGACTGTTGATGTCAGTGTGGTTTATTAGGTAATAACAAAGTATAGGCTCTT  
GCATTTTTTAAAAAGCAAAACCAAGAGATTAGAAACCAAGTACACATATCCTCTTTAGA  
AGAGAAACATAAATCAGTTTTAAACAATTAGGCCTTAAAAATGTAATGTAAGACAACAT  
TATAGAAGTATAAATATAGTTACACTCCTAAATTCCTCCTGAAATGTTTACAAACACAA  
AATCACAAGCATGAAAAACAAATTTCTCTTTATCAAAAAGGAACCTGAATTTGAATCC  
AATGTGATAAACCAATGATTAAGGTACTGGTGGGTAGGAAAAAGAGCTTCTGAAATTTA  
CATATTTGATTAATAATGTAAGCATTTTCATAAACTATCACAATAGCCTACAGTAGATATC  
ATAATGAAAAATATATGTCAGGAAAAATAATGAATCTAGACTTAAAATTTACTTTACAAC  
AAGGCCTTAACACATTGAAACAGTACAGTAAATTTCCAAAAGAAATGCAATTTGGCTACCT  
CTGAAACCCTGTAATAATTTCTTTTGTGAATATACGGTGACATAACCCTACATTTTGC  
AGCATTAATCATTGGCTAGGAGGAAATTAATAATGAATTTCTAACTTGGGCATTAGATT  
AGATTTTGTTCATCGGTTCCCTCTTTTCTTTTAAAGGACAGTTTAAATAATTTTACAATAA  
AGCACTCTTCTATTCTGAGTTATTTGGACACAGCCTATGGGTGAGAGAATAAATCCCAA  
CTTTAAGTGTGGTCTGGTAAAAATAACTTGGGGACATTGACAGGATTTTCAGG

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_152621

**Insert Size:**

5500 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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_152621.3, NP_689834.1</u>
<b>RefSeq Size:</b>	2145 bp
<b>RefSeq ORF:</b>	1098 bp
<b>Locus ID:</b>	166929
<b>UniProt ID:</b>	<u>Q8NHU3</u>
<b>Cytogenetics:</b>	4q25
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Protein Pathways:</b>	Metabolic pathways, Sphingolipid metabolism
<b>Gene Summary:</b>	<p>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]</p> <p>Transcript Variant: This variant (1) represents the longest transcript. All three variants encode the same protein.</p>