

# Product datasheet for SC325000

## OriGene Technologies, Inc.

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# Sphingomyelin Synthase 2 (SGMS2) (NM\_001136257) Human Untagged Clone

### **Product data:**

**Product Type:** Expression Plasmids

**Product Name:** Sphingomyelin Synthase 2 (SGMS2) (NM\_001136257) Human Untagged Clone

Tag:Tag FreeSymbol:SGMS2

Synonyms: CDL; SMS2

Mammalian Cell Neomycin

Selection:

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)

Fully Sequenced ORF: >SC325000 representing NM\_001136257.

Blue=Insert sequence Red=Cloning site Green=Tag(s)

GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGGATATCATAGAGACAGCAAAACTTGAAGAACATTTGGAAAATCAACCCAGTGATCCTACGAACACT TATGCAAGACCCGCTGAACCTGTTGAAGAAGAAAACAAAAATGGCAATGGTAAACCCAAGAGCTTATCC AGTGGGCTGCGAAAAGGCACCAAAAAGTACCCGGACTATATCCAAATTGCTATGCCCACTGAATCAAGG AACAAATTTCCACTAGAGTGGTGGAAAACGGGCATTGCCTTCATATATGCAGTTTTCAACCTCGTCTTG GTTGGATTATGGATCACCCAGTGGCTGTTTCTGAGATACAAGTCAATAGTGGGACGCAGATTCTGTTTT TCTGGTGGTGGATTGTCCATAACTGGATCACATATCTTATGTGGAGACTTCCTCTTCAGCGGTCACACG GTTACGCTGACACTGACTTATTTGTTCATCAAAGAATATTCGCCTCGTCACTTCTGGTGGTATCATTTA ATCTGCTGGCTGAGTGCTGCCGGGATCATCTGCATTCTTGTAGCACACGAACACTACACTATCGAT GTGATCATTGCTTATTATATCACAACACGACTGTTTTTGGTGGTACCATTCAATGGCCAATGAAAAGAAC TTGAAGGTCTCTTCACAGACTAATTTCTTATCTCGAGCATGGTGGTTCCCCATCTTTTATTTTTTGAG TCATCATGCAAAAAGTATTCACGGGTTCAGAAGATTGGTGAAGACAATGAGAAATCGACC<mark>TGA</mark>

**ACGCGTACGCGGCCGCTC**GAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT

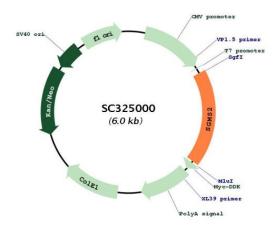
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

**Restriction Sites:** Sgfl-Mlul





#### Plasmid Map:



**ACCN:** NM 001136257

**Insert Size:** 1098 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).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning

into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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 001136257.1

RefSeq Size: 5970 bp
RefSeq ORF: 1098 bp
Locus ID: 166929



## Sphingomyelin Synthase 2 (SGMS2) (NM\_001136257) Human Untagged Clone - SC325000

UniProt ID: Q8NHU3

Cytogenetics: 4q25

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Metabolic pathways, Sphingolipid metabolism

MW: 42.3 kDa

**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]

Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. All three

variants encode the same protein.