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Product datasheet for RG227377

Sphingomyelin Synthase 2 (SGMS2) (NM_001136257) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sphingomyelin Synthase 2 (SGMS2) (NM_001136257) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SGMS2
Synonyms:	CDL; SMS2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG227377 representing NM_001136257
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGATATCATAGAGACAGCAAAACTTGAAGAACATTTGGAAAATCAACCCAGTGATCCTACGAACACTT
ATGCAAGACCCGCTGAACCTGTTGAAGAAGAAAACAAAAATGGCAATGGTAAACCCAAGAGCTTATCCAG
TGGGCTGCGAAAAGGCACCAAAAAGTACCCGGACTATATCCAAATTGCTATGCCCACTGAATCAAGGAAC
AAATTTCCACTAGAGTGGTGGAAAACGGGCATTGCCTTCATATATGCAGTTTTCAACCTCGTCTTGACAA
CCGTCATGATCACAGTTGTACATGAGAGGGTCCCTCCCAAGGAGCTTAGCCCTCCACTCCCAGACAAGTT
TTTTGATTACATTGATAGGGTGAAATGGGCATTTTCTGTATCAGAAATAAATGGGATTATATTAGTTGGA
TTATGGATCACCCAGTGGCTGTTTCTGAGATACAAGTCAATAGTGGGACGCAGATTCTGTTTTATTATTG
GAACTTTATACCTGTATCGCTGCATTACAATGTATGTTACTACTCTACCTGTGCCTGGAATGCATTTCCA
GTGTGCTCCAAAGCTCAATGGAGACTCTCAGGCAAAAGTTCAACGGATTCTACGATTGATTTCTGGTGGT
GGATTGTCCATAACTGGATCACATATCTTATGTGGAGACTTCCTCTTCAGCGGTCACACGGTTACGCTGA
CACTGACTTATTTGTTCATCAAAGAATATTCGCCTCGTCACTTCTGGTGGTATCATTTAATCTGCTGGCT
GCTGAGTGCTGCCGGGATCATCTGCATTCTTGTAGCACACGAACACTACACTATCGATGTGATCATTGCT
TATTATATCACAACACGACTGTTTTGGTGGTACCATTCAATGGCCAATGAAAAGAACTTGAAGGTCTCTT
CACAGACTAATTTCTTATCTCGAGCATGGTGGTTCCCCATCTTTTATTTTTTTGAGAAAAATGTACAAGG
CTCAATTCCTTGCTGCTTCTCCTGGCCGCTGTCTTGGCCTCCTGGCTGCTTCAAATCATCATGCAAAAAG
TATTCACGGGTTCAGAAGATTGGTGAAGACAATGAGAAATCGACC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

View online »

Protein Sequence:

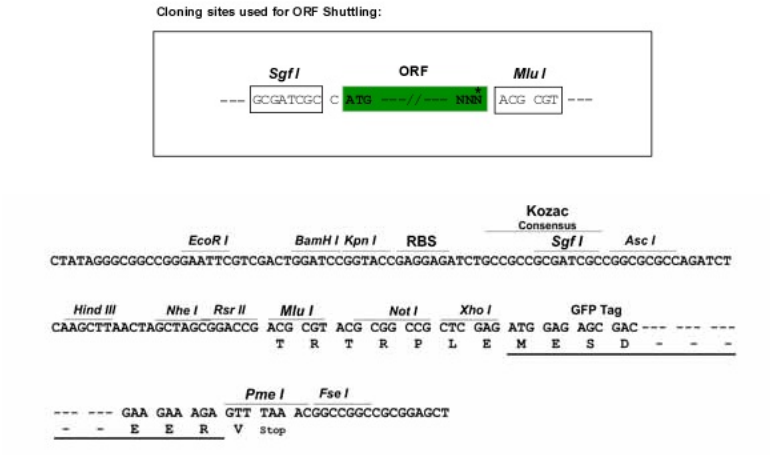
>RG227377 representing NM_001136257
Red=Cloning site Green=Tags(s)

MDIIETAKLEEHLENQPSDPTNTYARPAEPVEEENKNGNGKPKSLSSGLRKGTKKYPDYIQIAMPTESRN
KFPLEWWKTGIAFIYAVFNLVLTTVMITVVHERVPPKELSPPLPDKFFDYIDRVKWAFSVSEINGIILVG
LWITQWLFLRYKSIVGRRFCFIIGTLYLYRCITMYVTTLPVPGMHFQCAPKLNGDSQAKVQRILRLISGG
GLSITGSHILCGDFLFSGHTVTLTLTYLFIKEYSPRHFWWYHLICWLLSAAGIICILVAHEHYTIDVIIA
YYITTRLFWWYHSMANEKNLKVSSQTNFLSRAWWFPIFYFFEKNVQGSIPCCFSWPLSWPPGCFKSSCKK
YSRVQKIGEDNEKST

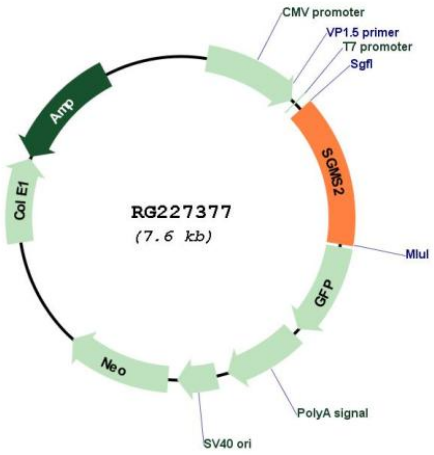
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001136257

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_001136257.2
RefSeq Size:	5970 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]