

Product datasheet for **RG229647**

GM2A (NM_001167607) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: GM2A (NM_001167607) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: GM2A
Synonyms: GM2-AP; SAP-3
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG229647 representing NM_001167607
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCAGTCCCTGATGCAGGCTCCCCTCCTGATCGCCCTGGGCTTGCTTCTCGGGCCCTGCGCAAGCCC
 ACCTGAAAAGCCATCCCAGCTCAGTAGCTTTTCTGGGATAACTGTGATGAAGGAAGGACCCTGCGGT
 GATCAGAAGCCTGACTCTGGAGCCTGACCCATCATCGTTCCTGGAAATGTACCCTCAGTGTATGGGC
 AGCACCAGTGTCCCCTGAGTTCTCCTGAAGGTGGATTTAGTTTTGGAGAAGGAGGTGGCTGGCCTCT
 GGATCAAGATCCCATGCACAGACTACATTGGCAGCTGTACCTTTGAACACTTCTGTGATGTCTTGACAT
 GTTAATTCCTACTGGGGAGCCCTGCCAGAGCCCTGCGTACCTATGGGCTTCTTGCCACTGTCCCTTT
 TCCTCTGTTTTGTGTTTGCCAAGGCCAAACTCCCACTCTCGCCCCCTTAAATCCCTTTCTACAGTGA
 GTCCACTACCCTCACTGAAAATCATTTTGTACCACTTACATTTTAGGCTGGGGCAAGCAGCCCTGACC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG229647 representing NM_001167607
 Red=Cloning site Green=Tags(s)

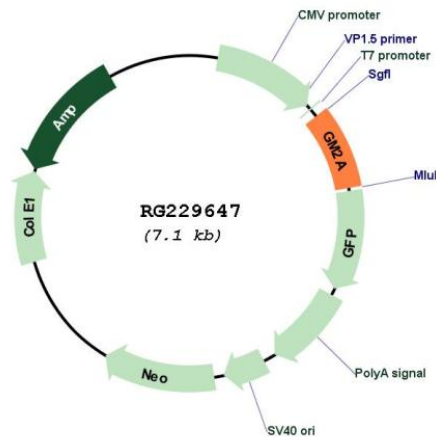
MQSLMQAPLLIALGLLLAAPAQAHLLKPSQLSSFSDNCDEGKDPVIRSLTLEPDIIVPGNVTLSVMG
 STSVPLSSPLKVDLVLEKEVAGLWIKIPCTDYIGSCTFEHFCVDLMLIPTGEPCEPLRTPYGLPCHCPF
 SSVLCLPRPNHSLPPFNPLSTVSPLPSLKIIILYHLHFRLGQAALT

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI



Cloning Scheme:

Plasmid Map:


ACCN: NM_001167607

ORF Size: 558 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_001167607.2</u>
RefSeq Size:	3480 bp
RefSeq ORF:	561 bp
Locus ID:	2760
Cytogenetics:	5q33.1
Protein Families:	Druggable Genome
Protein Pathways:	Lysosome
Gene Summary:	This gene encodes a small glycolipid transport protein which acts as a substrate specific co-factor for the lysosomal enzyme beta-hexosaminidase A. Beta-hexosaminidase A, together with GM2 ganglioside activator, catalyzes the degradation of the ganglioside GM2, and other molecules containing terminal N-acetyl hexosamines. Mutations in this gene result in GM2-gangliosidosis type AB or the AB variant of Tay-Sachs disease. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Nov 2009]