

## Product datasheet for **RC229647**

### GM2A (NM\_001167607) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** GM2A (NM\_001167607) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** GM2A  
**Synonyms:** GM2-AP; SAP-3  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC229647 representing NM\_001167607  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGCAGTCCCTGATGCAGGCTCCCTCCTGATCGCCCTGGGCTTGCTTCTCGGGCCCTGCGCAAGCCC  
ACCTGAAAAGCCATCCCAGCTCAGTAGCTTTTCTGGGATAACTGTGATGAAGGGAAGGACCCTGCGGT  
GATCAGAAGCCTGACTCTGGAGCCTGACCCATCATCGTTCCTGGAAATGTGACCCTCAGTGTATGGGC  
AGCACCAGTGTCCCCTGAGTTCTCTGAAGGTGGATTTAGTTTTGGAGAAGGAGGTGGCTGGCCTCT  
GGATCAAGATCCCATGCACAGACTACATTGGCAGCTGTACCTTTGAACACTTCTGTGATGTGCTTGACAT  
GTTAATTCCTACTGGGGAGCCCTGCCAGAGCCCTGCGTACCTATGGGCTTCTTGCCACTGTCCCTTT  
TCCTCTGTTTTGTGTTTGCCAAGGCCAAACTCCCACTCTGCCCCCTTTAATCCCTTTCTACAGTGA  
GTCCACTACCCTCACTGAAAATCATTTTGTACCACTTACATTTTAGGCTGGGGCAAGCAGCCCTGACC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC229647 representing NM\_001167607  
Red=Cloning site Green=Tags(s)

MQSLMQAPLLIALGLLLAAQAHLKKPSQLSSFSDNCDEGKDPVIRSLTLEPDPIIVPGNVTLSVMG  
STSVPLSSPLKVDLVLEKEVAGLWIKIPCTDYIGSCTFEHFCVDLMDLIPTGEPCEPLRXYGLPCHCPF  
SSVLCLPRNLSLPPFNPLSTVSPLSLKIIILYHLHFRLGQAALT

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

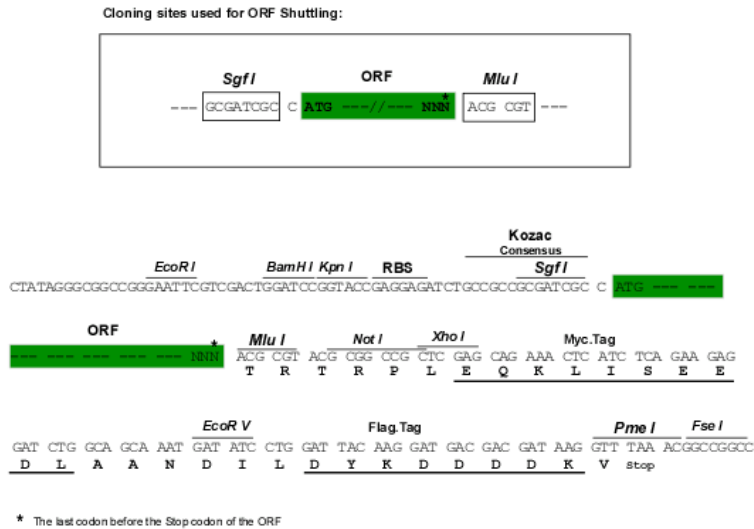
**Chromatograms:** [https://cdn.origene.com/chromatograms/ja1429\\_g01.zip](https://cdn.origene.com/chromatograms/ja1429_g01.zip)



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**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**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:**

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\\_001167607.2](#)

**RefSeq ORF:** 561 bp

**Locus ID:** 2760

**Cytogenetics:** 5q33.1

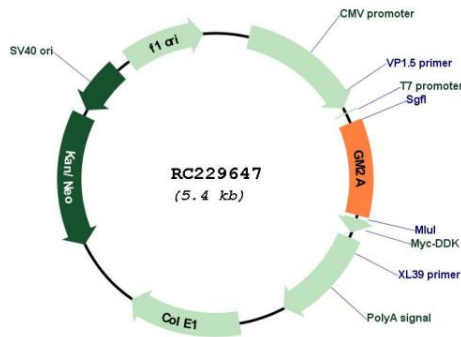
**Protein Families:** Druggable Genome

**Protein Pathways:** Lysosome

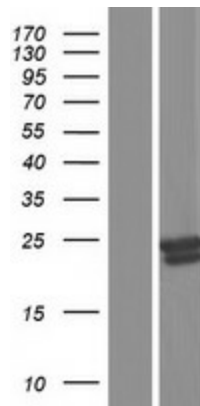
**MW:** 20.6 kDa

**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]

**Product images:**



Circular map for RC229647



Western blot validation of overexpression lysate (Cat# [LY432647]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC229647 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).