

Product datasheet for MR201862

Gm2a (NM_010299) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Gm2a (NM_010299) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Gm2a
Synonyms: AA408702; AW215435; GM2-AP; SAP-3
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR201862 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCACCGTCTACCGCTGCTGCTCCTGCTGGGCTTGTGCTCGCAGGCTCCGTCGCCCTGCGCGCCTCG
 TCCCGAAGCGCCTTTCCCAACTTGGTGGCTTCTCCTGGGATAACTGTGATGAAGGAAAGGACCCTGCAGT
 GATCAAAAGCCTCAGATCCAACCTGACCCATTGTGGTTCCTGGAGATGTAGTCGTCAGCCTTGAGGGC
 AAGACCAGCGTCCCTCACTGCTCCTCAGAAGGTGGAGCTCACCGTGGAGAAGGAAGTGGCTGGCTTCT
 GGGTCAAGATTCTTGTGTAGAACAGCTAGGCAGCTGTAGCTACGAGAACATCTGTGACCTGATAGACGA
 ATACATTCCTCCTGGAGAGAGCTGCCAGAGCCCTGCACACCTACGGGCTGCCCTGCCACTGTCCCTTC
 AAGGAAGGTACCTACTACTACCCACGAGCAACTTACAGTGCCTGACCTAGAGCTACCGAGCTGGCTGA
 GCACAGGCAACTACCGCATCCAGAGTATCTTGAGCAGTGGTGGGAAGCGCCTGGGCTGCATCAAGATTGC
 TGCCTCTCTCAAGGGCAGA

ACGCGTACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR201862 protein sequence
 Red=Cloning site Green=Tags(s)

MHRLPLLLLLLGLLLAGSVAPARLVPKRSLQLGGFSWDCDEGKDPVAVIKSLTIQPDPIVVPDGVVVSLEG
 KTSVPLTAPQKVELTVEKEVAGFWKIPCVEQLGSCSYENICDLIDEYIPPGESCEPLHTYGLPCHCPF
 KEGTYSLPTSNTVDPLELPSWLSSTGNRYIQSILSSGGKRLGCIKIAASLKGR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV



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Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_010299

ORF Size: 582 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 Size: 4257 bp

RefSeq ORF: 582 bp

Locus ID: 14667

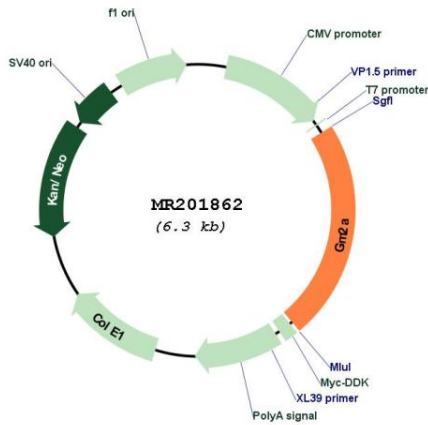
UniProt ID: [Q60648](#)

Cytogenetics: 11 32.13 cM

MW: 20.8 kDa

Gene Summary: Binds gangliosides and stimulates ganglioside GM2 degradation. It stimulates only the breakdown of ganglioside GM2 and glycolipid GA2 by beta-hexosaminidase A. It extracts single GM2 molecules from membranes and presents them in soluble form to beta-hexosaminidase A for cleavage of N-acetyl-D-galactosamine and conversion to GM3. The large binding pocket can accommodate several single chain phospholipids and fatty acids, GM2A also exhibits some calcium-independent phospholipase activity.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR201862