

Product datasheet for **MG224639**

Rgma (NM_177740) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rgma (NM_177740) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Rgma
Synonyms:	BC059072; C230063O06
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>MG224639 representing NM_177740
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCAGCCGCCAAGGGAGAGGCTAGTGGTAACAGGCCGAGCTGGATGGATGGGTATGGGGAGAGGGGCAG
 GACGTTACAGCCCTGGGATTGTGGCCGACCTCGCCTTCCTTCTCTGCAGCTTCCCCGAGCCATCTCCCC
 CTGCAAAATCCTCAAGTCAACTCTGAGTTCTGGAGCGCCACGTCATCAGGCAGCCACGCCCTGCCTCC
 GACGACGTGCCGGAGTTCTGTGCAGCCCTGCGCACCTACGCCCTGTGCACTCGGGGACAGCCCGCACCT
 GCCGGGGCAGCTGGCTTACCACTCGGCTGTCCATGGCATAGAGGACCTTATGAGCCAGCACAACCTGCTC
 CAAGGACGGCCCCACCTCACAGCCGCGAGTGCGCACGCTCCCGCCAGCTGGGGACAGCCAGGAGCGCTCG
 GATAGCCCGGAGATCTGCCACTATGAGAAGAGTTTCCACAAGCACTCAGCTGCCCAACTACACTCACT
 GCGGCCTCTTTGGGGACCCACACCTCAGGACTTTCACAGACCCTCCAGACATGCAAGGTGCAAGGCGC
 CTGGCCTCTCATGCAATAATTACCTGAACGTGCAAGTACCAATACACCTGTGCTGCCGGCTCCGCA
 GCTACCGCCACCAGCAAGCTCACCATCATCTTCAAGAACTTCCAAGAGTGTGTGGACCAGAAAGTCTACC
 AAGCTGAAATGGACGAATTCCTGCTGCCTTTGCGGACGGCTCCAAAAATGGGGGAGATAAACACGGGGC
 CAACAGCTGAAGATCACAGAGAAGGTGTGGGCCAGCACGTGGAGATCCAGGCCAAGTACATCGGCACC
 ACCATCGTGGTGCAGAGGTGGGCCGCTACCTGACCTTTGCCGTCCGGATGCCCGAGGAGGTAGTCAACG
 CCGTGGAGGACCGTGACAGCCAAGGCTCTACCTGCTGCGGGGCTGCCCGCTCAACCAGCAGATCGA
 CTTCCAGGCTTTCCGTGCCAACGCTGAAAGCCCTCGCAGGCCAGCAGCCGCCAGTCCCTCTCCGTGGTC
 CCCGAGACATTTCCCTATGAGACAGCCGTGGCCAAGTGCAAAGAGAAGCTGCCCGTAGAAGACCTGTACT
 ACCAGGCTGTGCTTTGACCTCTCACGACTGGTGTGATGTGAACCTCACGCTGGCTGCCTACTATGCTTT
 GGAGGATGGCAAGATGCTCCACTCCAACAAGGACAAGCTGCATCTGTTTGAAGGACTCGGGAGCTGCCA
 GGAGCCGTGGCCCGCCGCCGCTGCCACCACATTCCCTTGCCCGCCAGATTCTCCTTGGCACCA
 TCCCACTTCTGCTCCTGCTGTGTTGTGG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG224639 representing NM_177740
 Red=Cloning site Green=Tags(s)

MQPPRERLVVTGRAGWMGMGRGAGRSALGLWPTLAFLLCSFPAAISPCKILKCNSEFWATSSGSHAPAS
 DDVPEFCAALRTYALCTRRTARTCRGDLAYHSAVHGIEDLMSQHNSKDGPTSQPRVRTLPPAGDSQERS
 DSPEICHYEKSFHKHSAAPNYTHCGLFGDPHLRTFTDHFQTCKVQGAWPLIDNNYLNQVNTNPVLP
 ATATSKLTIIFKNFQECVDQKVYQAEMDELPSAFADGSKNGGDKHGANSKITEKVSQGHVEIQAKYIGT
 TIVVRQVGRYLTFAVRMPEEVVNAVEDRDSQGLYLCLRGCP LNQQIDFQAFRANAESP RPAAASPSPVV
 PETFPYETA VAKCKEKL PVEDLYYQACVFDLLTTGDVNF TLAAYY ALEDGKMLHSNKDKLHL FERTREL
 P GAVAAAAAATTFPLAPQILLGTIPLL VLLPVLW

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_177740

ORF Size: 1362 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_177740.5](#), [NP_808408.2](#)

RefSeq Size: 3586 bp

RefSeq ORF: 1365 bp

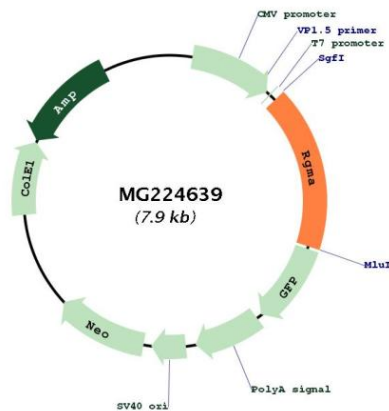
Locus ID: 244058

UniProt ID: [Q6PCX7](#)

Cytogenetics: 7 D1

Gene Summary:

Member of the repulsive guidance molecule (RGM) family that performs several functions in the developing and adult nervous system. Regulates cephalic neural tube closure, inhibits neurite outgrowth and cortical neuron branching, and the formation of mature synapses. Binding to its receptor NEO1/neogenin induces activation of RHOA-ROCK1/Rho-kinase signaling pathway through UNC5B-ARHGEF12/LARG-PTK2/FAK1 cascade, leading to collapse of the neuronal growth cone and neurite outgrowth inhibition. Furthermore, RGMA binding to NEO1/neogenin leads to HRAS inactivation by influencing HRAS-PTK2/FAK1-AKT1 pathway. It also functions as a bone morphogenetic protein (BMP) coreceptor that may signal through SMAD1, SMAD5, and SMAD8.[UniProtKB/Swiss-Prot Function]

Product images:


Circular map for MG224639