

Product datasheet for **MR224639**

Rgma (NM_177740) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rgma (NM_177740) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Rgma
Synonyms:	BC059072; C230063O06
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>MR224639 representing NM_177740
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCAGCCGCCAAGGGAGAGGCTAGTGGTAACAGGCCAGCTGGATGGATGGGTATGGGGAGAGGGGCAG
 GACGTTACAGCCCTGGGATTGTGGCCGACCTCGCCTTCTCTGCAGCTTCCCCGAGCCATCTCCCC
 CTGCAAAATCCTCAAGTCAACTCTGAGTTCTGGAGCGCCACGTATCAGGCAGCCACGCCCTGCCTCC
 GACGACGTGCCGGAGTTCTGTGCAGCCCTGCGCACCTACGCCCTGTGCACTCGGGGACAGCCCGCACCT
 GCCGGGGCAGCTGGCTTACCACTCGGCTGTCCATGGCATAGAGGACCTTATGAGCCAGCACAACCTGCTC
 CAAGGACGGCCCCACCTCACAGCCGCGAGTGCGCACGCTCCGCCAGCTGGGGACAGCCAGGAGCGCTCG
 GATAGCCCCGAGATCTGCCACTATGAGAAGAGTTTCCACAAGCACTCAGCTGCCCACTACACTCACT
 GCGGCCTCTTTGGGGACCCACACCTCAGGACTTTCACAGACCACTCCAGACATGCAAGGTGCAAGGCGC
 CTGGCCTCTCATGACAATAATTACCTGAACGTGCAAGTACCAATACACTGTGCTGCCGGCTCCGCA
 GCTACCGCCACCAGCAAGCTCACCATCATCTTCAAGAACTTCCAAGAGTGTGTGGACCAGAAAGTCTACC
 AAGCTGAAATGGACGAATTCCTGCTGCCTTTGCGGACGGCTCCAAAAATGGGGGAGATAAACACGGGGC
 CAACAGCTGAAGATCACAGAGAAGGTGTGGGCCAGCACGTGGAGATCCAGGCCAAGTACATCGGCACC
 ACCATCGTGGTGCAGAGTGGGCCGCTACCTGACCTTTGCCGTCCGGATGCCCGAGGAGGTAGTCAACG
 CCGTGGAGGACCGTGACAGCCAAGGCCTACCTCTGCCTGCGGGGCTGCCCGCTCAACCAGCAGATCGA
 CTTCCAGGCTTTCCGTGCCAACGCTGAAAGCCCTCGCAGGCCAGCAGCCGCCAGTCCCTCTCCCGTGGTC
 CCCGAGACATTTCCCTATGAGACAGCCGTGGCCAAGTGCAAAGAGAAGCTGCCCGTAGAAGACCTGTACT
 ACCAGGCTGTGTCTTCGACCTCTCACGACTGGTGATGTGAACCTCACGCTGGCTGCTACTATGCTTT
 GGAGGATGGCAAGATGCTCCACTCCAACAAGGACAAGCTGCATCTGTTTCAAAGGACTCGGGAGCTGCCA
 GGAGCCGTGGCCCGCCGCCGCTGCCACCACATTCCCTTGCCCCCAGATTCTCCTTGGCACCA
 TCCCACTTCTGCTCCTGCTGTGTTGTGG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR224639 representing NM_177740
 Red=Cloning site Green=Tags(s)

MQPPRERLVVTGRAGWMGMGRGAGRSALGLWPTLAFLLCSFPAAISPCKILKCNSEFWSATSSGSHAPAS
 DDVPEFCAALRXYALCTRRARTCRGDLAYHSAVHGIEDLMSQHNSKDGPTSQPRVRTLPPAGDSQERS
 DSPEICHYEKSFHKHSAAPNYTHCGLFGDPHLRTFTDHFQTCKVQGAWPLIDNNYLNQVNTNTPVLP
 ATATSKLTIIFKNFQECVDQKVVQAEMDELPSAFADGSKNGGDKHGANSKITEKVSQGHVEIQAYIGT
 TIVVRQVGRYLTFAVRMPEEVVNAVEDRDSQGLYLCLRGCPNQQIDFQAFRANAESP RPAAASPSPV
 PETFPYETAVAKCKEKLPEVDLYYQACVFDLLTTGDVNFTLAAYYALDYGKMLHSNKDKLHLFERTREL
 P
 GAVAAAAAATTFPLAPQILLGTIPLLVLPLVW

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

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

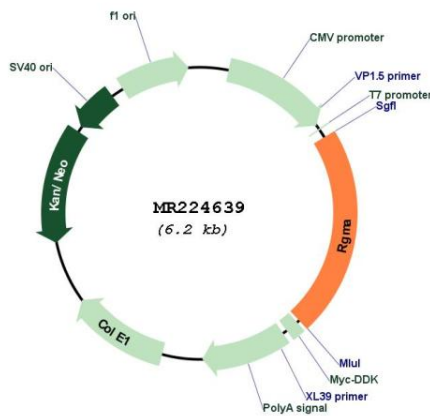
UniProt ID: [Q6PCX7](#)

Cytogenetics: 7 D1

MW: 50.1 kDa

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 MR224639