

Product datasheet for **MR206975**

Rgma (BC023870) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rgma (BC023870) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Rgma
Synonyms:	C230063O06, MGC38550, MGC69915
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR206975 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGGGTATGGGGAGAGGGGCAGGACGTTACGCCCTGGGATTGTGGCCGACCCTCGCCTTCTCTCTGCA
 GCTTCCCGCAGCCATCTCCCCCTGCAAAATCCTCAAGTGCAACTCTGAGTTCTGGAGCGCCACGTCATC
 AGGCAGCCACGCCCTGCCTCCGACGACGTGCCGGAGTTCTGTGACGCCCTGCGCACCTACGCCCTGTG
 ACTCGGGCAGCAGCCGACCTGCCGGGGCAGCTGGCTTACCACTCGGCTGTCCATGGCATAGAGGACC
 TTATGAGCCAGCACAAGTCTCAAGGACGGCCCCACCTCACAGCCGCGAGTGCGCACGCTCCCGCCAGC
 TGGGGACAGCCAGGAGCGCTCGGATAGCCCCGAGATCTGCCACTATGAGAAGAGTTCCACAAGCACTCA
 GCTGCCCCCAACTACACTCACTGCGGCCTTTTGGGGACCCACACCTCAGGACTTTCACAGACCCTTCC
 AGACATGCAAGGTGCAAGGCGCCTGGCCTCTCATCGACAATAATTACCTGAACGTGCAAGTACCAATAC
 ACCTGTGTGCCGGGCTCCGAGCTACCGCCACCAGCAAGCTCACCATCATCTTCAAGAACTTCCAAGAG
 TGTGTGGACCAGAAAGTCTACCAAGCTGAAATGGACGAACTTCCGTCTGCCTTTGCGGACGGCTCCAAAA
 ATGGGGGAGATAAACACGGGGCCAAACAGCCTGAAGATCACAGAGAAGGTGTGGGGCCAGCAGCTGGAGAT
 CCAGGCCAAGTACATCGGCACCACCATCGTGGTGCACAGGTGGGCCGCTACCTGACCTTTGCCGTCCGG
 ATGCCCGAGGAGGTAGTCAACGCCGTGGAGGACCGTGACAGCCAAAGGCCTTACCTCTGCCTGCGGGGCT
 GCCCGCTCAACCAGCAGATCGACTTCCAGGCTTCCGTGCCAACGCTGAAAGCCCTCGCAGGCCAGCAGC
 CGCCAGTCCCTCTCCCGTGGTCCCGGAGACATCCCTATGAGACAGCCGTGGCCAAGTGCAAGAGAAG
 CTGCCCCGTAGAAGACCTGTACTACCAGGCTGTGTCTTCGACCTCCTCAGACTGGTGATGTGAACCTCA
 CGCTGGCTGCCTACTATGCTTTGGAGGATGGCAAGATGCTCCACTCCAACAAGGACAAGCTGCATCTGTT
 TGAAGGACTCGGGAGCTGCCAGGAGCCGTGGCCGCCGCGCTGCCACCACATTCCCCTTGGCCCCC
 CAGATTCTCCTTGGCACCATCCCACTTCTGGTCTCCTGCCTGTGTTGTGG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR206975 protein sequence
 Red=Cloning site Green=Tags(s)

MGMGRGAGRSALGLWPTLAFLLCSFPAAISPCKILKCNSEFWSATSSGSHAPASDDVPEFCAALRTYALC
 TRRTARTCRGDLAYHSAVHGIEDLMSQHNSKDGPTSQPRVRTLPPAGDSQERSDSPEICHYEKSFHKHS
 AAPNYTHCGLFGDPHLRTFTDHFQTCKVQAWPLIDNNYLNQVNTNPVLPGSAATATSKLTIIFKNFQE
 CVDQKVYQAEMDELPSAFADGSKNGGDKHGANSKITEKVSQHVETQAKYIGTTIVVRQVGRYLTFVR
 MPEEVVNAVEDRDSQGLYLCLRGCPNQQIDFQAFRANAESP RRPAASPSVVPETFPYETAVAKCKEK
 LPVEDLYYQACVFDLLTTGDVNF TLAAYYAL EDGKMLHSNKDKLHL FERTRELP GAVAAAAAATTFPLAP
 QILLGTIPLLVLPLVW

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

ACCN: BC023870

ORF Size: 1311 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: [BC023870](#), [AAH23870](#)
RefSeq Size: 3384 bp

RefSeq ORF: 1313 bp

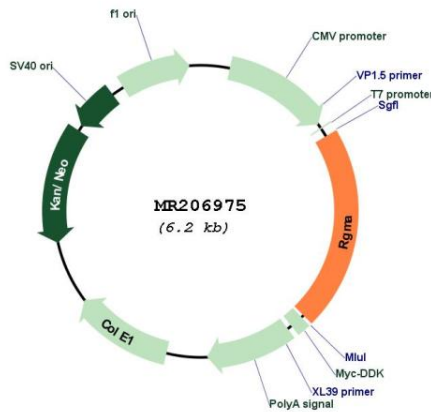
Locus ID: 244058

Cytogenetics: 7 D1

MW: 47.8 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 MR206975