

## Product datasheet for **MC218652**

### Rgma (BC023870) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Rgma (BC023870) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Rgma
Synonyms:	C230063O06, MGC38550, MGC69915
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>BC023870 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGTATGGGGAGAGGGGCAGGACGTTACGCCCTGGGATTGTGGCCGACCCCTCGCCTTCTTCTCTGCA  
GCTTCCCCGAGCCATCTCCCCGCAAAATCCTCAAGTGCAACTCTGAGTTCTGGAGCGCCACGTCATC  
AGGCAGCCAGCCCTGCCTCCGACGACGTGCCGAGTTCTGTGACGCCCTGCGCACCTACGCCCTGTGC  
ACTCGGGCGACAGCCCGACCTGCCGGGGCGACCTGGCTTACCACTCGGCTGTCCATGGCATAGAGGACC  
TTATGAGCCAGCACAACCTGCTCCAAGGACGGCCCCACCTCACAGCCGCGAGTGCGCACGCTCCCGCCAGC  
TGGGGACAGCCAGGAGCGCTCGGATAGCCCCGAGATCTGCCACTATGAGAAGAGTTTCCACAAGCACTCA  
GCTGCCCCCAACTACACTCACTGCGGCCTCTTTGGGGACCCACACCTCAGGACTTTCACAGACCCTTCC  
AGACATGCAAGGTGCAAGGCGCCTGGCCTCTCATCGACAATAATTACCTGAACGTGCAAGTACCAATAC  
ACCTGTGCTGCCGGGCTCCGACGCTACCGCCACCAGCAAGCTCACCATCATCTTCAAGAACTTCCAAGAG  
TGTGTGGACCAGAAAGTCTACCAAGCTGAAATGGACGAACCTCCGTCTGCCTTTGCGGACGGCTCCAAAA  
ATGGGGGAGATAAACACGGGGCCAACAGCCTGAAGATCACAGAGAAGGTGTCGGGCCAGCACGTGGAGAT  
CCAGGCCAAGTACATCGGCACCACCATCGTGGTGCACAGGTGGGCCGCTACCTGACCTTTGCCGTCCGG  
ATGCCCGAGGAGGTAGTCAACGCGTGGAGGACCGTGACAGCCAAGGCTCTACCTCTGCCTGCGGGGCT  
GCCCGCTCAACCAGCAGATCGACTTCCAGGCTTTCCGTGCCAACGCTGAAAGCCCTCGCAGGCCAGCAGC  
CGCCAGTCCCTCTCCCGTGGTCCCCGAGACATCCCTATGAGACAGCCGTGGCCAAGTGCAAGAGAAG  
CTGCCCGTAGAAGACCTGTACTACCAGGCTGTGTCTTCGACCTCCTCACGACTGGTGATGTGAACCTCA  
CGCTGGCTGCCTACTATGCTTTGGAGGATGGCAAGATGCTCCACTCCAACAAGGACAAGCTGCATCTGTT  
TAAAAGGACTCGGGAGCTGCCAGGAGCCGTGGCCGCCCGCCGCTGCCACCACATCCCTTGGCCCC  
CAGATTCTCTTGGCACCATCCCACTTCTGGTCTCTGCTGTGTTGTGGTAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCTGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



<b>Restriction Sites:</b>	Sgfl-Mlul
<b>ACCN:</b>	BC023870
<b>Insert Size:</b>	1314 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u><a href="#">BC023870</a></u> , <u><a href="#">AAH23870</a></u>
<b>RefSeq Size:</b>	3407 bp
<b>RefSeq ORF:</b>	1313 bp
<b>Locus ID:</b>	244058
<b>Cytogenetics:</b>	7 D1
<b>Gene Summary:</b>	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]