

Product datasheet for **MG207106**

Rtn4rl1 (NM_177708) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rtn4rl1 (NM_177708) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Rtn4rl1
Synonyms:	Ngr3; Ngrh2; Ngrl2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG207106 representing NM_177708
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTTCGCAAAGGGTGTGTGGAATTGCTGCTGTTGCTGCTCGCTGGAGAGCTACCTCTGGGTGGT
 GTTGTCCCTCGAGACTGTGTGTGCTACCCTGCGCCCATGACTGTCAGCTGCCAGGCACACAACCTTTGCTGC
 CATCCCGGAGGGCATCCCAGAGGACAGTGAAGCCTCTTCTGCGAACAATCGCATCACCTTCTCCAG
 CAGGGCCACTTCAGCCCCGCCATGGTACCCTCTGGATCTACTCCAACAACATCACTTTTATTGCTCCCA
 ACACCTTCGAGGGCTTTGTGCATCTGGAGGAGCTAGACCTTGGAGACAACCGACAGCTGCGAACGCTGGC
 ACCCGAGACCTTCCAAGGCCTGGTGAAGCTTACGCCCTCTACCTCTATAAGTGTGGACTGAGCGCCCTG
 CCCGAGGCATCTTTGGTGGCTGCACAGCCTGCAGTATCTCTACTTGCAGGACAACCATATCGAGTACC
 TCCAAGATGACATCTTTGTGGACCTGGTCAATCTCAGTCACTTGTCTCCATGGTAACAAGCTATGGAG
 CCTGGGCCAAGGCATCTCCGGGGCCTGGTGAACCTGGACCGGTTGCTGCTGCATGAGAACCAGCTACAG
 TGGGTTACCACAAGGCTTTCCATGACCTCCACAGGCTAACCCACCTCTTTCTCTCAACAACAGCCTCA
 CTGAGCTGCAGGGTGACTGTCTGGCCCCCTGGTGGCCTTGGAGTTCTTCGCTCAATGGGAATGCTTG
 GGACTGTGGCTGCCGGGCACGTTCCCTGTGGGAATGGCTGCGAAGGTTCCGTGGCTCTAGCTCTGCTGTC
 CCCTGCGCGACCCCCGAGCTGCGGCAAGGCCAGGATCTGAAGTCTGAGGGTGGAGGACTTCCGGAAC
 GCACAGGACCAAGTGTCTCCTCACCAGATCAAGTCTCACACGCTTACCACCTCTGACAGGGCTGCCGCAA
 GGAGCACCATCCGTCCTTGGGGCTCCAGGGACAAGGCCACCCACATGGCCATCCGCTGGCTCCAGG
 TCAGGTTACAAGAAGGCAGGCAAGAAGTGCACAGCCACAGGAACCGGAACCAAGTCTCTAAGGTGAGCT
 CTGGGAAAGAGCTTACCGAAGTGCAGGACTATGCCCCGACTATCAGCACAAGTTGAGCTTTGACATCAT
 GCCCACCGCACGACCCAAGAGGAAGGGCAAGTGTGCTCGCAGGACCCCATCCGTGCCCCAGTGGGGTG
 CAGCAGGCATCCTCAGGCACGGCCCTTGGGGCCCCACTCCTGGCCTGGATACTGGGGCTGGCAGTCACT
 TCCGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG207106 representing NM_177708
 Red=Cloning site Green=Tags(s)

MLRKGCCVELLLLLLAGELPLGGGCPDRDCVYPAPMTVSCQAHNFAAIPGIPEDSERIFLQNNRITFLQ
 QGHFSPAMVTLWIYSNNITFIAPNTFEGFVHLEELDLGDNRLRLAPETFQGLVKLHALYLYKCGLSAL
 PAGIFGGLHSLQYLQDNHIEYLQDDIFVDLVNLSHLFLHGNKLWSLQGIIFRGLVNLDRLLLHENQLQ
 WVHHKAFHDLHRLTTLFLFNNSLTELQGDCLAPLVALEFLRLNGNAWDGCRARSLWEWLRFRGSSAV
 PCATPELRQGDLLKLRVEDFRNCTGPVSPHQIKSHTLTTSDRAARKEHHP SHGASRDKGHPHPPGSR
 SGYKAGKNCTSHRNRNQISKVSSGKELTELQDYAPDYQHKFSFDIMPTARPKRKGKCARRTPIRAPSGV
 QQASSGTALGAPLLAWILGLAVTLR

TRTRPLE - GFP Tag - V

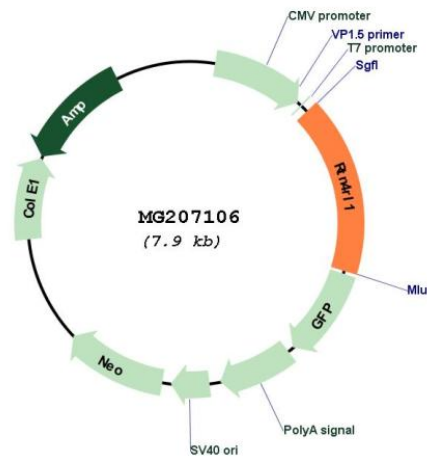
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_177708

ORF Size: 1335 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:	<ol style="list-style-type: none">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:	<u>NM_177708.5</u>
RefSeq Size:	3309 bp
RefSeq ORF:	1338 bp
Locus ID:	237847
UniProt ID:	<u>Q8K0S5</u>
Cytogenetics:	11 B5
Gene Summary:	Cell surface receptor that plays a functionally redundant role in postnatal brain development and in regulating axon regeneration in the adult central nervous system (PubMed:22406547, PubMed:27339102). Contributes to normal axon migration across the brain midline and normal formation of the corpus callosum (PubMed:27339102). Protects motoneurons against apoptosis; protection against apoptosis is probably mediated by MAG (PubMed:26335717). Plays a role in inhibiting neurite outgrowth and axon regeneration via its binding to neuronal chondroitin sulfate proteoglycans (PubMed:22406547). Binds heparin (PubMed:22406547). Like other family members, plays a role in restricting the number dendritic spines and the number of synapses that are formed during brain development (PubMed:22325200). Signaling mediates activation of Rho and downstream reorganization of the actin cytoskeleton (PubMed:22325200).[UniProtKB/Swiss-Prot Function]