

Product datasheet for **MG224387**

Rtn4rl2 (NM_199223) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Rtn4rl2 (NM_199223) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Rtn4rl2
Synonyms: Ngr2; Ngrh1; Ngrl3
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG224387 representing NM_199223
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCTGCCGGGCTCCGGCGCCTGCTGCAAGGTCTGCCTCAGCCTGCCTACTGCTGACACTCCTGGCCC
 TTCCTCCGTGACCCCCAGCTGTCCTATGCTCTGCACCTGCTACTCCTCCCCGCCACCGTGAGCTGCCA
 GGCAACAACCTTCTCCTCAGTGCCGCTGCTTCCACCCAGTACACAGAGACTCTTCTGCAGAACAAC
 CTCATCCGCTCACTGCGCCAGGCACCTTTGGGCCAACCTGCTCACCTGTGGCTTTCTCCAACAACC
 TCTCCACCATCCACCCTGGCACCTTCCGCCACCTGCAGGCCCTAGAAGAAGTGGACCTCGGTGACAACCG
 GCACCTGCGCTCCCTGGAGCCCCGACACCTTCCAGGGTCTGGAGAGGCTGCAGTCACTACACCTGTATCGT
 TGCCAGCTCAGCAGCCTGCCTGGCAACATTTCCGAGGCTTGGTCAGCCTACAGTACCTCTACCTCCAGG
 AGAACAGCCTGCTCCATCTACAGGATGACTTGTTCGCGGACCTGGCCAACCTGAGCCACCTCTTCTCCA
 CGGGAACCGCCTGCGGCTGCTCACGGAGCACGTGTTCCGCGGCTTGGGCAGCCTGGACCGGCTGTTGCTG
 CACGGGAACCGGCTGCAGGGCGTGCACCGCGCGGCTTCCACGGCCTCAGCCGCCTACCATCCTTACC
 TGTTCAACAACAGCCTGGCCTCGCTGCCGGGAGAGGCGCTGGCCGACCTGCCGGCCTCGAGTTCCTGCG
 GCTCAACGCCAACCCCTGGGCGTGCAGCTGCCCGCCTCGGCCGCTCTGGGCTTGGTCCAGCGCGCGCGG
 GTGTCCAGCTCCGACGTGACCTGCGCCACCCCGCCGAGCGCCAGGGCCGGGACCTGCCGCGCTGCCGCG
 ACTCCGATTTCCAAGCGTGCCCGCGCCACGCCACGCGCGGCGAGCCGCGCCCGCGCAACAGCTC
 TTCCAACCACCTGTACGGCGTGGCCGAGGCTGGCGCTCCCCCGCAGACCCGTCACGCTTACCGAGAT
 CTGCCCGCGAGGACTCGCGGGGGCGCCAGGGCGGGGACGCGCCACCGAGGACGACTACTGGGGGGCT
 ACGGCGCGGAGGATCAGCGGGGCGAGCAGACGTGTCCCGGGCGCGTCCAGGCGCCGCGAGACTCGCG
 TGGCCCCGCGCTCTCGGCCGGGCTGCGCACCCCTGCTCTGCCTCTTGGCCCTGGGCTCCATCACCTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG224387 representing NM_199223
Red=Cloning site Green=Tags(s)

MLPGLRRLQLQGPASACLLLTLLALPSVTPSCPMLCTCYSSPPTVSCQANNFSSVPLSLPPSTQRLFLQNN
 LIRSLRPGTFGNLLTLWLFNNLSTIHPGTFRHLQALEELDLGDNRHLSLEPDTFQGLERLQSLHLYR
 CQLSSLPGNIFRGLVSLQYLVLQENSLHLQDDLFADLANLSHLFLHGNRLRLLTEHVFRGLGSLDRLLL
 HGNRLQGVHRAAFHGLSRLTILYLFNNSLASLPGALADLPALEFLRLNANPWACDCRARPLWAWFQRAR
 VSSSDVTCATPPERQGRDLRALRDSDFQACPPPTPTRPGSRARGNSSNHLYGVAEAGAPPADPSTLYRD
 LPAEDSRGRQGGDAPTEDDYWGGYGGEDQRGEQTCPGAACQAPADSRGPALSAGLRTPLLCLLPLALHHL

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_199223

ORF Size: 1260 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_199223.1](#), [NP_954693.1](#)

RefSeq Size: 1263 bp

RefSeq ORF: 1263 bp

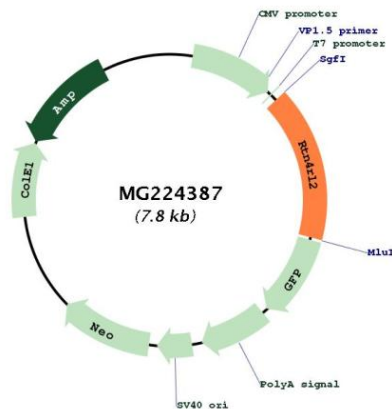
Locus ID: 269295

UniProt ID: [Q7M6Z0](#)

Cytogenetics: 2 D

Gene Summary: Cell surface receptor that plays a functionally redundant role in the inhibition of neurite outgrowth mediated by MAG (By similarity). Plays a functionally redundant role in postnatal brain development (PubMed:27339102). Contributes to normal axon migration across the brain midline and normal formation of the corpus callosum (PubMed:27339102). Does not seem to play a significant role in regulating axon regeneration in the adult central nervous system (PubMed:22406547). Protects motoneurons against apoptosis; protection against apoptosis is probably mediated by MAG (PubMed:26335717). 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]

Product images:



Circular map for MG224387