

## Product datasheet for **RG216415**

### RTN4RL1 (NM\_178568) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	RTN4RL1 (NM_178568) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RTN4RL1
Synonyms:	NgR3; NGRH2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG216415 representing NM_178568 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCTTCGCAAAGGGTGTGTGGAGTTGCTGCTGCTGTTGGTAGCTGCGGAGCTGCCCTGGGTGGT  
GCTGCCACGGGACTGTGTGTGCTACCCGGCGCCATGACGGTCAGTGCCAGGCGCACAACCTTTCAGC  
CATCCCGAGGGCATCCCGTGGACAGCGAGCGCTCTTCTGCAGAACAACCGCATCGGCTCCTCCAG  
CCCGGCCACTTCAGCCCCGCATGGTCACTGTGGATCTACTCGAACAACATCACATACATCCACCCCA  
GCACCTTCGAGGGCTTCGTGCACCTGGAGGAGCTGGACCTCGGCGACAACCGGCAGCTGCGGACGCTGGC  
ACCCGAGACCTTCAGGGCCTGGTGAAGCTTCAGCCCTCTACCTCTACAAGTGTGGGCTCAGCGCCTTG  
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TCCAGGACGACATCTTCGTGGACCTGGTCAACCTCAGCCACCTGTTTCTCCACGGCAACAAGCTGTGGAG  
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TGGGTCCACCACAAGGCATTCCACGACCTCCGACGGCTGACCACCTCTTCTCTTAACAACAGCCTCT  
CGGAGCTGCAGGGTGTGCTGCCTGGCCCCGCTGGGGCCCTGGAGTTCCTCCGCTCAATGGCAACCCCTG  
GGACTGTGTTGTTCGCGCGCGCTCCCTGTGGGAATGGCTGCAGAGGTTCCGGGGCTCCAGCTCCGCTGTC  
CCCTGTGTGCCCTGGGCTGCGGCACGGCCAGGACCTGAAGCTGCTGAGGGCCGAGGACTCCGGAACT  
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GGAACACCACTACCCCCAGGCCACCAGGAGCAAGGGCCACCCGACGGCCCCCGGCCGGCCACAGG  
AAGCCGGGAAGAAGTGCACCAACCCAGGAACCGCAATCAGATCTTAAGGCGGGCGCCGGAAACAGG  
CCCCGAGCTGCCAGACTATGCCCCAGACTACCAGCACAAGTTCAGTTTTGACATCATGCCTACGGCCCC  
GCCAAGAGGAAGGGCAAGTGTGCCCGCAGGACCCCCATCCGTGCCCCAGCGGGGTGCAGCAGGCTCC  
TCGGCCAGTTCCTGGGGCCTCCCTCCTGGCCTGGACTGGGGCTGGCGGTCACTCTCCGC

**ACCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA



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**Protein Sequence:** >RG216415 representing NM\_178568  
Red=Cloning site Green=Tags(s)

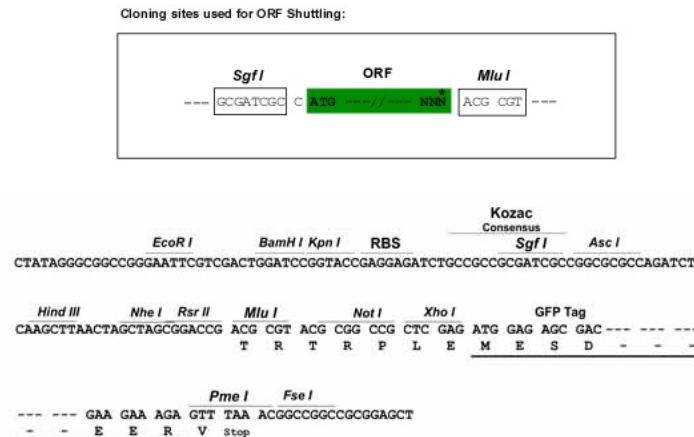
MLRKGCCVELLLLLVAAELPLGGGCPDVCYPAPMTVSCQAHNFAAIEGIPVDSERVFLQNNRIGLLQ  
 PGHFSPAMVTLWIYSNNITYIHPSTFEFVHLEELDLDGDNQRRLAPETFQGLVKLHALYLYKCGLSAL  
 PAGVFGGLHSLQYLQDNHIEYLQDDIFVDLVNLSHLFLHGNKLWSLPGTFRGLVNLDRLLLHENQLQ  
 WVHHKAFHDLRRLTTLFLFNNSLSELQGECLAPLGALEFLRLNGNPWDCGCRARSLWEWLQRFGRSSAV  
 PCVSPGLRHGQDLKLLRAEDFRNCTGPASPHQIKSHTLTTTDRRAARKEHHSHPGPTRSKGGPHGPRPGHR  
 KPGKNCNPNRRNQISKAGAGKQAPELPDYAPDYQHKFSFDIMPTARPKRKGKARRTPIRAPSGVQQAS  
 SASSLGASLLAWTLGLAVTLR

TRTRPLE - GFP Tag - V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_178568

**ORF Size:** 1323 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\\_178568.2](#), [NP\\_848663.1](#)

**RefSeq Size:** 3183 bp

**RefSeq ORF:** 1326 bp

**Locus ID:** 146760

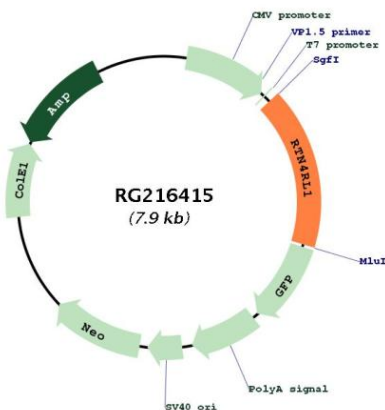
**UniProt ID:** [Q86UN2](#)

**Cytogenetics:** 17p13.3

**Protein Families:** Druggable Genome

**Gene Summary:** Cell surface receptor. Plays a functionally redundant role in postnatal brain development and in regulating axon regeneration in the adult central nervous system. Contributes to normal axon migration across the brain midline and normal formation of the corpus callosum. Protects motoneurons against apoptosis; protection against apoptosis is probably mediated by MAG. Plays a role in inhibiting neurite outgrowth and axon regeneration via its binding to neuronal chondroitin sulfate proteoglycans. Binds heparin (By similarity). 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 RG216415