

Product datasheet for **MR207571**

Rtn4r (NM_022982) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rtn4r (NM_022982) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Rtn4r
Synonyms:	NgR; NgR1; NOGOR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR207571 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAAGAGGGCGTCTCCGGAGGAAGCAGGCTGCTGGCATGGGTGTTATGGCTACAGGCCTGGAGGGTAG
 CAACACCATGCCCTGGTCTTGTGTGTCTACAATGAGCCCAAGGTAACAACAAGCTGCCCCAGCAGGG
 TCTGCAGGCTGTGCCACTGGCATCCCAGCCTCTAGCCAGCGAATCTTCCTGCATGGCAACCGAATCTCT
 CACGTGCCAGCTGCGAGCTTCCAGTCATGCCGAAATCTCACTATCCTGTGGCTGCACTCTAATGCGCTGG
 CTCGGATCGATGCTGCTGCCTTCACTGGTCTGACCCTCCTGGAGCAACTAGATCTTAGTGATAATGCACA
 GCTTCATGTCGTGGACCTACCACGTTCCACGGCCTGGGCCACCTGCACACACTGCACCTAGACCGATGT
 GGCCTGCGGGAGCTGGTCCCAGCCTATCCGTGGACTAGCAGCTCTGCAGTACCTCTACCTACAAGACA
 ACAATCTGCAGGCACTCCCTGACAACACCTTTCGAGACCTGGCAACCTCACGCATCTTTCTGCATGG
 CAACCGTATCCCAGTGTGCCTGAGCACGCTTTCGTGGCTGCACAGTCTTGACCGCCTCTCTTGAC
 CAGAACCATGTGGCTCGTGTGCACCCACATGCCTTCCGGGACCTTGCCCGCCTCATGACCTCTACCTGT
 TTGCCAACAACTCTCCATGCTGCCTGCAGAGGTCTAATGCCCTGAGGTCTCTGCAGTACCTGCGACT
 CAATGACAACCCCTGGTGTGTGACTGCCGGGCACGTCCACTCTGGGCTGGCTGCAAGAAGTTCCGAGGT
 TCCTCATCAGAGGTGCCCTGCAACCTGCCCAACGCTGGCAGACCGTGATCTTAAGCGCCTCGTGCCA
 GTGACCTAGAGGGCTGTGCTGTGGCTTCAAGACCTTCCGTCCCATCCAGACCAGTCAGTCACTGATGA
 GGAGCTGCTGAGCCTCCCAAGTGTGCCAGCCAGATGCTGCAGACAAAGCCTCAGTACTGGAACCCGGG
 AGGCCAGCTTCTGCCGAAACGCCCTCAAGGGACGTGTGCCTCCCGGTGACACTCCACCAGGCAATGGCT
 CAGGCCCTCGGCACATCAATGACTCTCCATTTGGAACCTTGCACAGCTCTGCAGAGCCCCACTGATGC
 CCTGCGGCTGGGGTTCGAGCCACCAGGACTTCCACCCTGGTCCCGCAGGAGGCCAGGTTGTTC
 CGGAAGAATCGCACCCGACCCACTGCCGTCTGGGCCAGGCGGGAAGTGGGGCCAGTGGAACAGGGGACG
 CAGAGGGTTCAGGGGCTCTGCCTGCTCTGGCCTGCAGCCTTGCTCCTCTGGGCTGCACTGGTACTTTG
 GACAGTGCTTGGGCCCTGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR207571 protein sequence
 Red=Cloning site Green=Tags(s)

MKRASSGGSRLAWVLWLQAWRVATPCPGACVCYNEPKVTTSCPQQGLQAVPTGIPASSQRIFLHGNRIS
 HVPAASFQSCRNLITLWLHSNLARIDAAFTGLTLLLEQLDLSDNAQLHVVDPTTFHGLGHLHTLHLDRC
 GLRELGPGLFRGLAALQYLQDNNLQALPDNTFRDLGNLTHLFLHGNRIPSVPEHAFRGLHSLDRLLH
 QNHVARVHPHAFRDLGRLMTLYLFANNLSMLPAEVLMPRLSLQYLRLNDNPWVDCRARPLWAWLQKFRG
 SSSEVPCNLPQRLADRDLKRLAASDLEGCAVASGPFPRPIQTSQLTDEELLSLPKCCQPDAAADKASVLEPG
 RPASAGNALKGRVPPGDTPPNGSGPRHINDSPFGTLPSAEPPLTALRPGGSEPPGLPTTGPRRRPGCS
 RKNRTRSHCRLLGQAGSGSGTGADEGSGALPALACSLAPLGLALVLWTVLGPC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

ACCN: NM_022982

ORF Size: 1422 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_022982.3](#)
RefSeq Size: 1890 bp

RefSeq ORF: 1422 bp

Locus ID: 65079

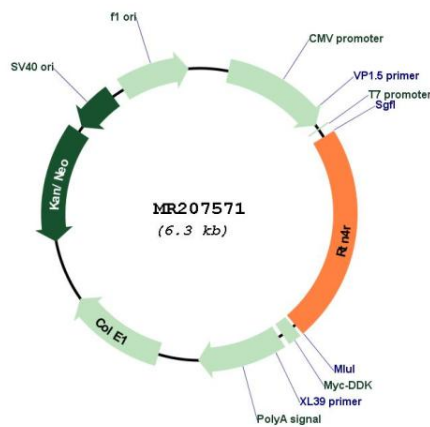
UniProt ID: [Q99PI8](#)

Cytogenetics: 16 A3

MW: 51 kDa

Gene Summary: Receptor for RTN4, OMG and MAG (PubMed:11201742, PubMed:12089450, PubMed:15504325, PubMed:18411262, PubMed:22923615). Functions as receptor for the sialylated gangliosides GT1b and GM1 (PubMed:18411262). Besides, functions as receptor for chondroitin sulfate proteoglycans (PubMed:22406547). Can also bind heparin (PubMed:22406547). Intracellular signaling cascades are triggered via the coreceptor NGFR (By similarity). Signaling mediates activation of Rho and downstream reorganization of the actin cytoskeleton (PubMed:22325200). Mediates axonal growth inhibition (By similarity). Mediates axonal growth inhibition and plays a role in regulating axon regeneration and neuronal plasticity in the adult central nervous system (PubMed:11201742, PubMed:12089450, PubMed:15504325, PubMed:22923615). Plays a role in postnatal brain development (PubMed:27339102). Required for 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 via interaction with MAG (PubMed:26335717). Acts in conjunction with RTN4 and LINGO1 in regulating neuronal precursor cell motility during cortical development (PubMed:20093372). 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). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR207571