

## Product datasheet for MR220154

### Rtn2 (NM\_001025364) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Rtn2 (NM\_001025364) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Rtn2  
**Synonyms:** MMS10-P; Ms10p; Nspl1; NSPLI  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR220154 representing NM\_001025364  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGGGAGTAAAGTGGCAGACCTGTTGTACTGGAAGGACACCAGGACGTCGGGAGCGGTCTTCACGGGCC  
 TCATGGCCTCTCCTCTGCCTCCTGCACTTTAGCATCGTGTCCGTGGCTGCGCACCTGGCCCTGTTGGG  
 TCTCTGCGCCACCATCTCTCAGGGTTTACC GCAAAGTGTGCAGGCCGTGCACCGGGCGACGGCACC  
 AACCCTTCCAGGCTACCTGGACATGGACCTGACCTGACTCGGGAGCAGACAGAACGTTTGTCCACG  
 AGATCGCCTCCCACGTGGTCTCCACAGCCACACAGCTACGGCATTCTTCTAGTGAAGACCTGGTGA  
 TTCTCTCAAGCTGGCTTCTCTTCTACATCTTGACCTTTGTGGGAGCCATCTTCAACGGCTTGACTCTT  
 GTCATCTAGGAGTGGTTGCTTTGTTTACCGTCCCCCTTCTGTACAGACAACATCAGGCCAGATTGACC  
 AGTATGTGGGGTTGGTGACCAATCAGTTGAGCCACATCAAAGCTAAGATCCGAGCTAAGATCCCGGGGAC  
 CGGAACCTTGCCCAACAGCATCAGTCTCCGGATCCAAAGCCAAAGCCGAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR220154 representing NM\_001025364  
 Red=Cloning site Green=Tags(s)

MGSKVADLLYWKDTRTSGAVFTGLMASLLCLLHFSIVSVAHLALLGLCATISLRVYRKVLQAVHRGDGT  
 NPFQAYLDMDLTLTREQTERLSQIASHVVSTATQLRHFFLVEDLVDSLKLALLFYILTFVGAIFNGLTL  
 VILGVVALFTVPLLYRQHQAQIDQYVGLVTNQLSHIKAKIRAKIPGTGLAPTASVSGSKAKAE

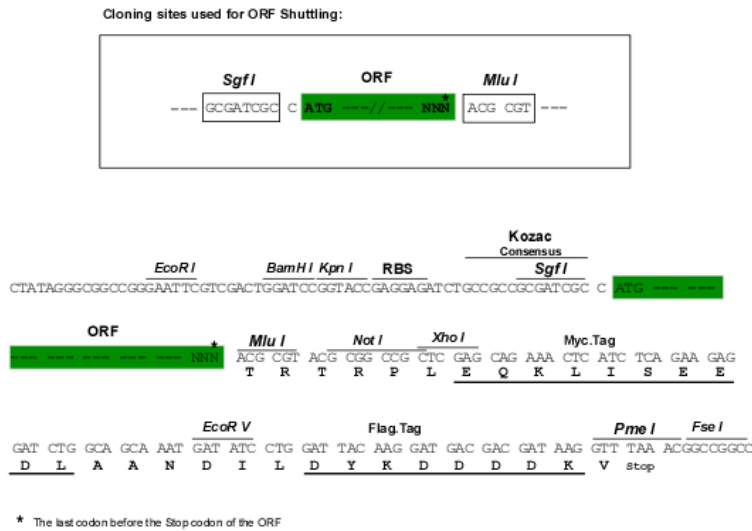
**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV



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**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001025364

**ORF Size:** 612 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\\_001025364.3](#), [NP\\_001020535.1](#)

**RefSeq Size:** 1080 bp

**RefSeq ORF:** 615 bp

**Locus ID:** 20167

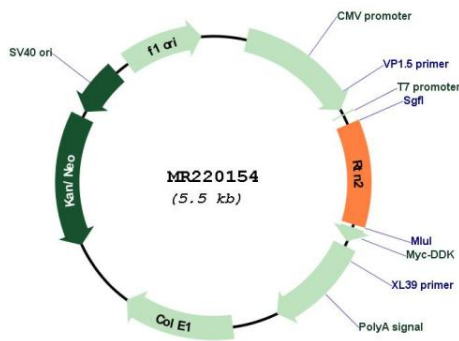
**UniProt ID:** [O70622](#)

**Cytogenetics:** 7 9.54 cM

**MW:** 22.7 kDa

**Gene Summary:** Inhibits amyloid precursor protein processing, probably by blocking BACE1 activity (By similarity). Enhances trafficking of the glutamate transporter SLC1A1/EAAC1 from the endoplasmic reticulum to the cell surface (By similarity). Plays a role in the translocation of SLC2A4/GLUT4 from intracellular membranes to the cell membrane which facilitates the uptake of glucose into the cell (PubMed:19720795).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR220154