

## Product datasheet for **MG220225**

### Rtl1 (NM\_184109) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Rtl1 (NM_184109) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Rtl1
Synonyms:	6430411K18Rik; Mar; Mart1; Mor1; Peg11
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG220225 representing NM_184109 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGATAGAACCCTCTGAAGACTCATTTGAGACGATGATGGAGCTTAAGAATCCATCATCAAACAAATGG  
AGTCTCCGAGGGCTCATCCAACACCGTTGAAGAGACACCAGGCAGCAGTGGAGCCAGGCGGGGCCCA  
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CAGGTTGAGGCCAGGTTGAGGCCAGGCGGGCTCAGATAGTGGCCAGCCAGGAAGAAAAGGAGCCAC  
CCAGTGGCCCCCTCAAGGAAATGCAAGAGCTGCCACTAATCTACTCCAAGAAGTGGAGGAGCCATCCAG  
TGGCCCCACCAGGAAATGCAAGAGCTGCCACTGATCTACTCCAAGAAGTGGAGGAGCCATCCAGTGGC  
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ACCAGGAAATGCAAGAGCTACCCACTGATCTACTCCGGGAAGTGGAGGAGCCATCCAGTGGCCCCCTACCA  
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CGATCTACCCCAAGACATGGAGGAATCAAGTATGATGGTTCGAACCAGGAGTCGAGTATGGTTCAAAC  
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CGGGTGAAATTCGTCATCCGCCACTGACTGACCTAGCCTTGAATGGGCCAACGACCTCGTAGAGCAGA  
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CGTGCAAGAGGACCTGTTTGGGACAGGAAAGCGGTACCTTCAGACCACGAAATCTTTTGGACCCAGAG  
GTCCTAGATTTCTCAACAACCGGCTACTCTACACCTGGGCACCGATGGCCGCTTACTCTGCTTAGCA

GAGATCAGGTGGCCAGGCCCTCACACGATTCCTGGCCATGGCCTCCAGAATGGCGCTGCCTTCCCAGC  
CAGGGAACAGGCAAGGCTAGAAGAGCTATCAGACTCAGATGATGAACTTGAC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>MG220225 representing NM\_184109  
Red=Cloning site Green=Tags(s)

MIEPSSEDSFETMELKNPSSKQMESSESSNTVEETPGSSGAQAGAQAQAEQAETQVEAQAEQA  
QVEAQVEAQAGSDSGPAQEEKEPPSGPLKEMQELPTNLLQEVEEPSSGPHQEMQELPTDLLQEVEEPSSG  
PHQEMQELPTDLLREVEEPSSGPHYQEMQELPTDLLREVEEPSSGPHYQEMQELPTDLLREVEEPSSGPHYQ  
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HEL SNGSNHESSFGSNPESSDVSNLESSGGSNQESSDGSQKESYDSNPELSDNSNQELSDNSNQESSDS  
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MGNVISLFLRMQDLKEQQRVAERLMMQAINEGRLPSLRPFSGDRRDYHEFVVLQMTMQLYPSMLYNDEL  
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EFRGLIPTLQWVDEVLQAHLCQGLNEEIRHYLFRIPQPNLNDLIVLVLQLEEKLAERRALLRPPESRP  
RSVAWMDAPAPEKWRVSSWLPNFHPDIDRDHLFLLLLVRVDPYHSVAVRALVDSGAEGNYMDFRFAQEH  
YVELYEKYPYQIIQGVGDIPIGNEPVWLCTEPLVCVHQKHIEYIEFDILPSPNFSIVLGMKWLRTHAPEV  
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LSESESELQQAGSDQSGVVFYESGARETLEPVSARMQEKARQQEKAREQEEYWILYDMLTDRQDYTMV  
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LKDILGLFVICHGREVLVYSMSQEEHSQHVRQVLVRFYHNIYCSLTKTQFHRQTAEILGFNISPKGVKL  
NKNLMNLIVGCPVPGSRRLQSVIDLVPYRHFVENFAVIAAPLVRQLLSSEPYWGEQEALESKRA  
FRKSPVLVHPKQNPFFYLETITGSFLSASLVQTDDETGKKSTCAFYSRPLSTMEVEYPRVEMRILPIRA  
AFMVWCRYLENTEEPIMILLNTEDLASLNNDRLLTVLLPGHWVFFFSHFNFGVMPAEGDTQALFRRCWN  
QRGFRARFLRPLLLMSIRANLRYFDRSSETEDKEDDEEEEEDEEEEEDEEEEEDEEEEEDEEEEEDE  
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LNFFRGLLYWKSLLGVAAVLVMLRARQPLSPVPAPNLEVARPQHRHTLRLILDSTLIASSGMATAIAQLL  
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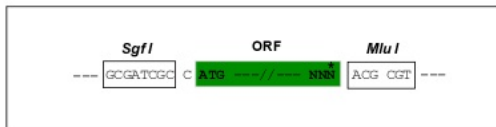
TRTRPLE – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:

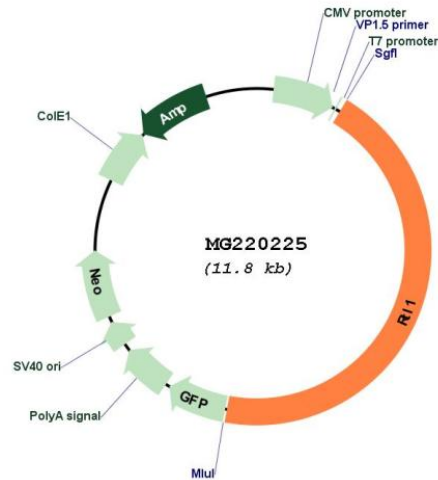
Cloning sites used for ORF Shutting:



*EcoR I*      *BamH I* *Kpn I*      RBS      *Kozac Consensus* *Sgf I*      *Asc I*  
 CTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGSAGATCTGCCGCCGATCGCCGGCGCCAGATCT

*Hind III*      *Nhe I* *Rsr II*      *Mlu I*      *Not I*      *Xho I*      GFP Tag  
 CAAGCTTAAGTACTAGCTAGCGGACCG      ACG CGT      ACG CGG      CGG CTC GAG      ATG GAG AGC GAC --- --- ---  
   T R T R P L E      M E S D - - -

*Pme I*      *Fse I*  
 --- --- GAA GAA AGA GTT TAA ACGGCCGGCCGCGGAGCT  
 - - E E R V Stop

**Plasmid Map:**


**ACCN:** NM\_184109

**ORF Size:** 5232 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\\_184109.2](#)

**RefSeq Size:** 5235 bp

**RefSeq ORF:** 5235 bp

**Locus ID:** 353326

**UniProt ID:** [Q7M732](#)

**Cytogenetics:** 12 F1

**Gene Summary:** Plays an essential role in capillaries endothelial cells for the maintenance of feto-maternal interface and for development of the placenta.[UniProtKB/Swiss-Prot Function]