

## Product datasheet for **MG210546**

### **Cmtr2 (NM\_146215) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Cmtr2 (NM_146215) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cmtr2
Synonyms:	AU022703; C730036L12Rik; Ftsjd1; MTr2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>MG210546 representing NM\_146215  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGAGCAAGCGCAGAAAGCTTCCGGCTCGGCAGCCAGCTTGCTTGGAGACCTTCAGCCCAGACGTCCTCA  
ATGACGTGTCTGAGCTCTTTGCCAAGAGCTTTTCTACCGTAAGCCACTCGATAATGAGTGGCAGTTACC  
AGCTCCACGGAGAGCTTCTCCTGTGGGCACCTCGAGTTCAGGGCTCTTCTAGACTTGAAGAAGCTCCCTG  
AACGAAGTGAAGAAGCTCCTGAGCGATAAAGAGCTGGACGAGTGGCACAGGCACACGGCCTTACCAACA  
AGGCAGGCAAAATCATCTCTCATGTCAAAAAGGCCGTGAACACGGAACTCTGCACTCAGGCCTGGTGCAA  
ATTCCAGGAGATCCTGTGCAGTTTCCCCCTCATTCCGCAGGAAGCTTTTCAGAGTGAAGACTGAATTCT  
CTGCACCTGTGTGAAGCTCCGGGCGCTTCATCGCTAGCCTCAACCATTACTTAAATCTCACCGGTTCC  
CCTGTGAATGGAGCTGGGTGGCGAACAGCCTGAATCCATACCACGAGGCAACGACAATCTTAGGATGAT  
TACGGATGACCGGCTGATGGCAAATACCTTGCACTGCTGGTACTTCGGCCAGATAATACCGGTGATATC  
ATGACCTGAAATATCTGACCGGCTTCAAGACTTCTCAGCGGATGTCTCCATTCACTTGGTACCGG  
CTGATGGCAGCTTCGATTGCCAAGGAAACCCAGGTGAACAGGAAGCCTTAGTGTCTGCTTTTGCATTACTG  
CGAAGCTGTCACTGCTCTGATCACTCTTGGAGACGGCGGCTCTTTTGTCTAAAGATGTTACGTTGTTT  
GAACACTGTTCTGTGAACCTCATGTACCTGCTAAATTGTTCTTTTACCAAGTTCATGTTTTCAAACCTG  
CGACTAGCAAGGCAGGAAACTCAGAAGTCTATGTGGTGTGTCTTCGCTATAAGGGAAGAGAGGCCGTTCA  
GCCTCTGCTATCTAGGATGGTGTGAACCTCGGCACTGAGATGACCAGGAAGGCGCTCTTTCCTCATCAT  
GTGATCCCCAAATCCTTCTTGGAGCAGCAGGAAGAGTGTGTACGTTCTTTCATAGATACCAGTTAGAGA  
CTATATCTGAGAACATTCGCTCTTTTGGAGCATGGGAACGGGGGAGCAAGAGAGACTCAATAATCTAAG  
GGATTGCGCTGTACAATATTTTATGCAAAAATTTCAACTGAAGCCTCTTTCAGAAATCACTGGCTCGTT  
AAAAAGTCCAATATTGGTTGTAGTATGAACACGAAATGTTTTGGACAGAGAAACAAGTATTTTAAACCT  
ATAATGAACGGAAGATGATGAAACCTTTTATGGAAGGATAAAGTAGCCAAAGGATACTTCAATAGTTG  
GGCAGAGGAACACACCGTCTATCATCCCGGGCAGAAATCCCTCCTTGAAGGGACTGCTTCCAGTCTTGAG  
TACCAGTCGTGGCAAGTCTTAGAAGGAAAGAACTGCCGAAGGTAAGTGTTCCTTTCTGTGATGGTG  
AAATTTTAAAGACTCTCAATGAAGCCATCGAGAAGTCTTAGGAGAAGCTTTGAGCGTGGATGCCAAGGT  
CAGTTCCAAGCAGCAATACCGCTGTTGTCCGCTTTTTCAGAAGAGTCAGTATTATCCGAGTTGTTGAGG  
CTTACCAAGTGCCTTCCGACGAAACAGGTTGCCGAACCCAGCGGCCAGTCAAGTGCCTGCTGGTGGGCT  
CACCGGCCGTCTGTGATCTCCAGATGCCCGCGCCACTGGAAATCCAGCTTGTGGAGTCCGTGGAGCTCAC  
AGCCTTACAGTGTTCCTGCTTACGATGGTGACCCAGCCTACCAGCATTGTTCTTGGACTGCCTGCTG  
CACTCACTGAGGCGGCTTACAGGGGAGATGTGATGGTCTTGCCATCCTTTCTTGTTCACGAGGTTTA  
TGGCTGGCCTGACCTTCTCCTCCACGGCTGTTTTAGATTTATCACGTTCTTGTCCCAGTCCCTGGA  
GCCCTCAGGACCTGTCCGCTTGTGTGCATTGGTTATCAGAACCTTCCAGATGCAGTTTTCCAGTTT  
CTACAGAATGTTTCATGACCTCTTGGCAAGCTGCTGCACCCAGTGCCTCAGGAGATTTTACAGTTCC  
TACCAATGGAGGCGCTCCTTCAAGGGACGCTGCTTACTTTTGTGGGATTTGAACGCTGCCATTGCTAA  
AAGGCATCTGCATTTGATTATTCAAGGAGAGCGAGACCAAGCCATCGGCAGCCTTGAGTTA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >MG210546 representing NM\_146215  
 Red=Cloning site Green=Tags(s)

MSKRRKLPARQPACLETFS PDV LNDVSELFAKSF SYRKPLDNEWQLPAPTESFSCGHLEFRALDLKNSL  
 NEVKNLLSDKKLDEWHRHTAFTNKAGKII SHVKKAVNTELC TQAWCKFQEILCSFPLIPQEAFQSGRLNS  
 LHLCEAPGAFIASLNHYLKSHRFPCEWSWVANS LNPHYEANDLNRMITDDRLMANTLHCWYFGPDNTGDI  
 MTLKYL TGLQDFLSGMSPIHLVTADGSFDCQGNPGEQEALVSSLHYCEAVTALITLGDGGSFVLKMFTLF  
 EHCSVNLMYLLNCSFDQVHVFKPATSKAGNSEVYVCLRYKGREAVQPLL SRMVLNFGTEMTRKALFPHH  
 VIPKSFLERHEECCTFFHRYQLETISENIRLFESMGTGEQERLNNLRDCAVQYFMQKFLKPLSRNHVLV  
 KKSNIIGCSMNTKWFQQRNKYFKTYNERKMMETLSWKDKVAKGYFNWAE EHTVYHPGQNSLLEGTASSLE  
 YQSQVLEGGKLPKVKCS PFC DGEILKTLNEAIEKSLGEALSDAKVSSKQYRCCPVFSEESVLSSELLR  
 LTKCLPDEQGAEPSPVKCLLVGSPAVCDLQMPAPLEIQLVESVELTAFSCSLLHDGDPAYQHLFLDCLL  
 HSLRRLHRGDMVLPILSCFTRFMAGLTFVLHGCFRIFITFSCPTSL EPLR TCAVLLCIGYQNL PDAVFQF  
 LQNVHDL LSKLLHPSAPRQILQFLPMEALLQGTLLDFLWDLNAAIAKRHLHLIIQGERDQAIGSLEL

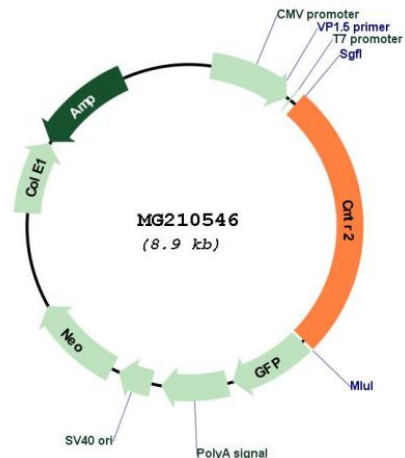
TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



**Plasmid Map:**


**ACCN:** NM\_146215

**ORF Size:** 2301 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\\_146215.1](#)

**RefSeq Size:** 3577 bp

**RefSeq ORF:** 2304 bp

**Locus ID:** 234728

UniProt ID: [Q8BWQ4](#)

Cytogenetics: 8 D3

**Gene Summary:** S-adenosyl-L-methionine-dependent methyltransferase that mediates mRNA cap2 2'-O-ribose methylation to the 5'-cap structure of mRNAs. Methylates the ribose of the second nucleotide of a m(7)GpppG-capped mRNA and small nuclear RNA (snRNA) (cap0) to produce m(7)GpppRmpNm (cap2). Recognizes a guanosine cap on RNA independently of its N(7) methylation status. Display cap2 methylation on both cap0 and cap1. Displays a preference for cap1 RNAs.[UniProtKB/Swiss-Prot Function]