

## Product datasheet for **MG219776**

### Rgs20 (NM\_021374) Mouse Tagged ORF Clone

#### Product data:

Product Type: Expression Plasmids  
 Product Name: Rgs20 (NM\_021374) Mouse Tagged ORF Clone  
 Tag: TurboGFP  
 Symbol: Rgs20  
 Synonyms: 2900073E09Rik; Rgsz1  
 Mammalian Cell Selection: Neomycin  
 Vector: pCMV6-AC-GFP (PS100010)  
 E. coli Selection: Ampicillin (100 ug/mL)  
 ORF Nucleotide Sequence: >MG219776 representing NM\_021374  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGCGCACGGCCAACGGAGGCCCGAGGGCCAGAGCTTCCCCTTCGGCTAGCCCAGCGGACCTGGCCTGC  
 CTGAGGGATCTGAGCGGACGAAATGCGGATGCGGCAGATGTGCGGCGGAAGTGAGACCCAGGGCCCTGC  
 CCCAAGCCAGCAGGGTGGCCGGGCTCCAACGCCTGCTGCTTCTGTTGGTGTCTGCTGCACTGTTCT  
 TGCCTCACTGTCAGAAACCAAGAAGACCAGAGACCCAAAGAGCCTCCCATGAAATCAGAACAGACATTC  
 CAGCATGTGAAGAAAGCCCCACGCCTACTCTGGAAGAAGTCTGTGCCTGGGCCAGTCTTTTGATAACCT  
 GATGGTCACTCCAGCCGGAAGAAATGCATTCGGGAATTTCTTCGAACAGAATTCAGTGAAGAAAACATG  
 CTCTTCTGGATGGCCTGTGAAGAACTGAAAAGGGAAGCTAATAAAAGCACTATTGAGGAGAAAGCAAGGA  
 TAATCTATGAGGACTATATTTCTATTCTCTCTCTAAAGAGGTCAGCTTGGACTCCCAGTACGAGAGGT  
 TATCAACAGAAACATGGTGGATCCATCCCAGCACATATTCGATGACGCTCAACTGCAGATCTACACTCTA  
 ATGCACAGAGACTCCTATCCCCGCTTCATGAACTCCACAGTCTATAAGGATTTGCTTACGTCCTTAGCTG  
 AGAAAACAGTTGAAGCA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >MG219776 representing NM\_021374  
 Red=Cloning site Green=Tags(s)

MRTANGGPRARASPSASPADPGLPEGSERTEMRMRQMCGGSETQGPAPSQQGGRGSNACCFWCCCCTCS  
 CLTVRNQEDQRPQRASHEIRTDIPACEESPTPTLEEVCWAQSFNLMVTPAGRNAFREFLRTEFSEENM  
 LFWMAECEELKREANKSTIEEKARIYEDYISILSPKEVSLDSRVREVINRNMVDP SQHIFDDAQLQIYTL  
 MHRDSYPRFMNSTVYKDLLTSLAEKTVEA

TRTRPLE – GFP Tag – V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_021374

**ORF Size:** 717 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\\_021374.5](#), [NP\\_067349.2](#)

**RefSeq Size:** 1665 bp

**RefSeq ORF:** 720 bp

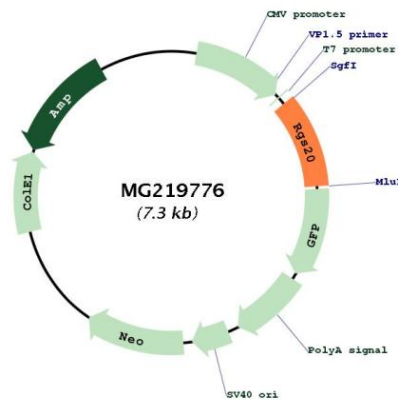
**Locus ID:** 58175

**UniProt ID:** [Q9QZB1](#)

**Cytogenetics:** 1 A1

**Gene Summary:** Inhibits signal transduction by increasing the GTPase activity of G protein alpha subunits thereby driving them into their inactive GDP-bound form. Binds selectively to G(z)-alpha and G(alpha)-i2 subunits, accelerates their GTPase activity and regulates their signaling activities. The G(z)-alpha activity is inhibited by the phosphorylation and palmitoylation of the G-protein. Negatively regulates mu-opioid receptor-mediated activation of the G-proteins. [UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MG219776