

## Product datasheet for **RG201776**

### **RAB7 (RAB7A) (NM\_004637) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** RAB7 (RAB7A) (NM\_004637) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** RAB7  
**Synonyms:** CMT2B; PRO2706; RAB7  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG201776 representing NM\_004637  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGACCTCTAGGAAGAAAGTGTGCTGAAGTTATCATCCTGGGAGATTCTGGAGTCGGGAAGACATCAC  
 TCATGAACCAAGTATGTGAATAAGAAATTCAGCAATCAGTACAAAGCCACAATAGGAGCTGACTTTCTGAC  
 CAAGGAGGTGATGGTGGATGACAGGCTAGTCACAATGCAGATATGGGACACAGCAGGACAGGAACGGTTC  
 CAGTCTCTCGGTGTGGCCTTCTACAGAGGTGCAGACTGCTGCGTTCTGGTATTTGATGTGACTGCCCCCA  
 ACACATTCAAAACCTAGATAGCTGGAGAGATGAGTTTCTCATCCAGGCCAGTCCCGAGATCCTGAAAA  
 CTCCCATTTGTTGTTGGGAAACAAGATTGACCTCGAAAACAGACAAGTGGCCACAAAGCGGGCACAG  
 GCCTGGTGCTACAGCAAAAACAACATTCCTACTTTGAGACCAAGTGCACAGGAGGCCATCAACGTGGAGC  
 AGGCGTTCCAGACGATTGCACGGAATGCACTTAAGCAGGAAACGGAGGTGGAGCTGTACAACGAATTTCC  
 TGAACCTATCAAAGTGGACAAGAATGACCGGCCAAGGCTCGGCAGAAAAGCTGCAGTTGC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:** >RG201776 representing NM\_004637  
 Red=Cloning site Green=Tags(s)

MTSRKKVLLKVIILGDSGVGKTSLMNQYVNNKFSNQYKATIGADFLTKEVMVDDRLVTMQIWDTAGQERF  
 QSLGVAFYRGADCCVLVFDVTAPNTFKTLDSWRDEFLIQASPRDPENFPFVVLGNKIDLENRQVATKRAQ  
 AWCYSKNNIPYFETSAKEAINVEQAFQTIARNALKQETEVELYNEFPEPIKLDKNDRAKASAESCSC

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** Sgfl-MluI



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**Cloning Scheme:**


**ACCN:** NM\_004637

**ORF Size:** 621 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\\_004637.6](#)

**RefSeq Size:** 2240 bp

**RefSeq ORF:** 624 bp

**Locus ID:** 7879

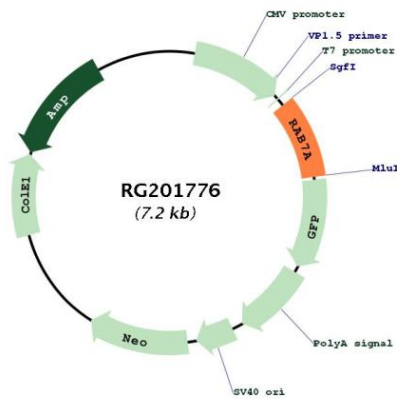
**UniProt ID:** [P51149](#)

**Cytogenetics:** 3q21.3

**Protein Families:** Druggable Genome

**Gene Summary:** RAB family members are small, RAS-related GTP-binding proteins that are important regulators of vesicular transport. Each RAB protein targets multiple proteins that act in exocytic / endocytic pathways. This gene encodes a RAB family member that regulates vesicle traffic in the late endosomes and also from late endosomes to lysosomes. This encoded protein is also involved in the cellular vacuolation of the VacA cytotoxin of *Helicobacter pylori*. Mutations at highly conserved amino acid residues in this gene have caused some forms of Charcot-Marie-Tooth (CMT) type 2 neuropathies. [provided by RefSeq, Jul 2008]

**Product images:**



Circular map for RG201776