

## Product datasheet for RC201776

### 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:** Myc-DDK  
**Symbol:** RAB7  
**Synonyms:** CMT2B; PRO2706; RAB7  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC201776 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGCATCGCC

ATGACCTCTAGGAAGAAAGTGTGCTGAAGTTATCATCCTGGGAGATTCTGGAGTCGGGAAGACATCAC  
 TCATGAACCAAGTATGTGAATAAGAAATTCAGCAATCAGTACAAAGCCACAATAGGAGCTGACTTTCTGAC  
 CAAGGAGGTGATGGTGGATGACAGGCTAGTCACAATGCAGATATGGGACACAGCAGGACAGGAACGGTTC  
 CAGTCTCTCGGTGTGGCCTTCTACAGAGGTGCAGACTGCTGCGTTCTGGTATTTGATGTGACTGCCCCCA  
 ACACATTCAAAACCTAGATAGCTGGAGAGATGAGTTTCTCATCCAGGCCAGTCCCGAGATCCTGAAAA  
 CTCCCATTTGTTGTGTTGGGAAACAAGATTGACCTCGAAAACAGACAAGTGGCCACAAAGCGGGCACAG  
 GCCTGGTGCTACAGCAAAAACAACATTCCTACTTTGAGACCAGTGCCAAGGAGGCCATCAACGTGGAGC  
 AGGCGTTCCAGACGATTGCACGGAATGCACTTAAGCAGGAAACGGAGGTGGAGCTGTACAACGAATTTCC  
 TGAACCTATCAAAGTGGACAAGAATGACCGGGCCAAGGCTCGGCAGAAAAGCTGCAGTTGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC201776 protein sequence  
 Red=Cloning site Green=Tags(s)

MTSRKKVLLKVIILGDSGVGKTSLMNQYVNNKFSNQYKATIGADFLTKEVMVDDRLVTMQIWDTAGQERF  
 QSLGVAFYRGADCCVLVFDVTAPNTFKTLDSWRDEFLIQASPRDPENFPFVVLGNKIDLENRQVATKRAQ  
 AWCYSKNNIPYFETSAKEAINVEQAFQTIARNALKQETLEVELYNEFPEPIKLDKNDRAKASAESCS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV



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Chromatograms: [https://cdn.origene.com/chromatograms/mk6267\\_a07.zip](https://cdn.origene.com/chromatograms/mk6267_a07.zip)

Restriction Sites: SgfI-MluI

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](#)

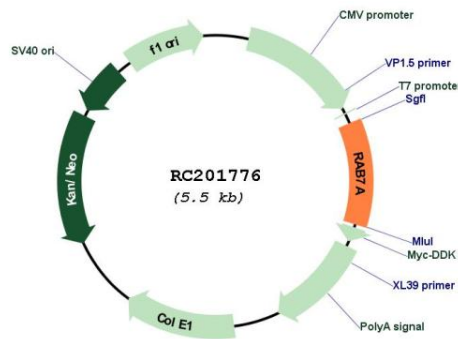
Cytogenetics: 3q21.3

Protein Families: Druggable Genome

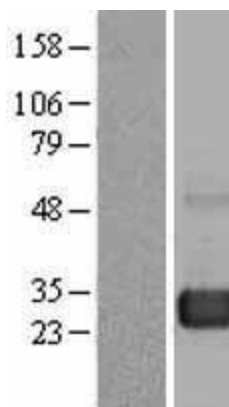
MW: 23.5 kDa

**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]

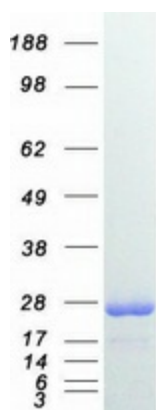
### Product images:



Circular map for RC201776



Western blot validation of overexpression lysate (Cat# [LY417854]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201776 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RAB7A protein (Cat# [TP301776]). The protein was produced from HEK293T cells transfected with RAB7A cDNA clone (Cat# RC201776) using MegaTran 2.0 (Cat# [TT210002]).