

Product datasheet for **SC117240**

RAB7 (RAB7A) (NM_004637) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RAB7 (RAB7A) (NM_004637) Human Untagged Clone
Tag:	Tag Free
Symbol:	RAB7
Synonyms:	CMT2B; PRO2706; RAB7
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC117240 sequence for NM_004637 edited (data generated by NextGen Sequencing)

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ATGACCTCTAGGAAGAAAGTGGTCTGAAGTTATCATCCTGGGAGATTCTGGAGTCGGG
AAGACATCACTCATGAACCAAGTATGTGAATAAGAAATTCAGCAATCAGTACAAAGCCACA
ATAGGAGCTGACTTTCTGACCAAGGAGGTGATGGTGGATGACAGGCTAGTCACAATGCAG
ATATGGGACACAGCAGGACAGGAACGGTCCAGTCTCTCGGTGTGGCCTTCTACAGAGGT
GCAGACTGCTGCGTTCTGGTATTTGATGTGACTGCCCCAACACATTCAAAACCCTAGAT
AGCTGGAGAGATGAGTTTCTCATCCAGGCCAGTCCCCGAGATCCTGAAAACCTCCCATTT
GTTGTGTTGGGAAACAAGATTGACCTCGAAAACAGACAAGTGGCCACAAAGCGGGCAGAG
GCCTGGTGTACAGCAAAAACAACATTCCTACTTTGAGACCAGTGCCAAGGAGGCCATC
AACGTGGAGCAGGCGTTCCAGACGATTGCACGGAATGCACTTAAGCAGGAAACGGAGGTG
GAGCTGTACAACGAATTCCTGAACCTATCAAACCTGGACAAGAATGACCGGGCCAAGGCC
TCGGCAGAAAGCTGCAGTTGCTGA
```

Clone variation with respect to NM_004637.5



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5' Read Nucleotide Sequence:

```
>OriGene 5' read for NM_004637 unedited
TGTATTTTGTAAACGACTCACTATAGGGCGGCCGCAATTCGGCACGAGGCCTCGTGCC
GAATTCGGCACGAGGATAAAGCCTGAGGCGGGCAGCGGCGGAGTTGGCGGCTTGAGAG
GCTCGGGAGAGTTCCTGGAACCAAGAACTTGGACCTTCTCGCTTCTGTCTCCGTTTGTAGT
CTCCTCCTCGGCGGGAGCCCTCGCGACGCGCCCGCCGAGCCCCAGCGCAGCGGCCG
CGTTTGAAGGATGACCTCTAGGAAGAAAGTGTGCTGAAGTTATCATCCTGGGAGATTC
TGGAGTCGGGAAGACATCACTCATGAACCAAGTGTGAATAAGAAATTCAGCAATCAGTA
CAAAGCCACAATAGGAGCTGACTTTCTGACCAAGGAGGTGATGGTGGATGACAGGCTAGT
CACAATGCAGATATGGGACACAGCAGGACAGGAACGGTTCAGTCTCTCGGTGTGGCCTT
CTACAGAGGTGCAGACTGCTGCGTTCTGGTATTTGATGTGACTGCCCAACACATTCAA
AACCTAGATAGCTGGAGAGATGAGTTTCTCATCCAGGCCAGTCCCCGAGATCCTGAAAA
CTTCCATTTTGTGTGTGTTGGAAACAAGATCGACCTCGAAACCAGACAGTGGCCACAA
AAGCGGCACAGGCCTGTTGCTACAGCAAAAACACATTCCCTACTTTGAGACCAGTGCCA
CAGAAGCCATCCACGTGGAGCAGGCGTTCAGACGATTGCACGGAATGCACCTTAGCATG
AAACGGAGGTGGAGCTGTACACCGAATTCCTGACCTATCAACTGGACAAGAATGCCCGG
GCCAAGGCTCNGCANAAAGCTGCACTTGCTGAGGGGCCTTGAGAGTTGACCCAGATCCTT
TCAAACCAGGACCACGTAAGCGCTCAACCAATTCCTT
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3' Read Nucleotide Sequence:

```
>OriGene 3' read for NM_004637 unedited
TGACCGCGGCCGCAATCTAGGATCGAGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTTTAAACAAGGGTCTTGGTCAATTTTATTGGCATTGGG
TTCATTTTTTTACAAAAAACTCACCCACCCCTAAAATGTAACCTTTGGAAAAAGGA
AAAGTGCTCCGTTAAACAAGCTACAATGCAGGGGCGAAATCTCTAGGAAGGGAGCAAAA
CTGCCAGGGTCCAACCAAGAAAGAGGTTAATTAATAATGGGCAATATTGGGAAATGG
GTGGGGAAAAANAGAAAAAGCTCCGCTAACCTAAGAAACCACAACCTGAAAGGAGCGCCT
TCTAGAACAAAGGTAATACTACTAGGACAGATCTGTTAAGGTTTTCTTTCACTCTTGTA
NAAAATGCTGATCTAACGGGAGTTTTGAGTGTGGGGCAGGGGGGAAAAAAGAAAGAAA
TGAGAATTTAATTTTTGAAATACGGGATTTATCCATCGACATACCACTGTATATGCAAT
CACGTTTTTGAAAATTANACACGGAAGGGACCTGACGTTTTCCCTGAAAAATGAAAAGC
TTTTTGCTCTTAGTCTTTGATAAAGGCGACATAATCTTGGGTTACTGACAGAATACTGCC
GCTACCGGGATTTCCAATCTGAGTACACCTTGAATCCAACAGGGTTAACCTCCCCTTAA
GGGCTGTTTTCAGGACTAAAACCTTATCAAGAATTTTTACCTAATTAACATTTTATTGGG
GCTTTTTTGATGCTCCTAAAACTTTTCTAAAACTTCCTTATAAAGGGTCTGAAAAAGA
CTTGTTTTTAAAGTACACCCTTACGATGATCTCAAATCNCCTGAAAAATGGGGTAACCTT
ATGGGCTGGGCCACACTCCAGGGTCCCTTAGGGGGGGGAAGGGGGGANACACCNGAC
TTAAAATCCGTTTA
```

Restriction Sites:

NotI-NotI

ACCN:

NM_004637

Insert Size:

2100 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

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_004637.5](#), [NP_004628.4](#)

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]