

## Product datasheet for **RC210510**

### **RAB21 (NM\_014999) Human Tagged ORF Clone**

#### Product data:

Product Type: Expression Plasmids  
 Product Name: RAB21 (NM\_014999) Human Tagged ORF Clone  
 Tag: Myc-DDK  
 Symbol: RAB21  
 Mammalian Cell Selection: Neomycin  
 Vector: pCMV6-Entry (PS100001)  
 E. coli Selection: Kanamycin (25 ug/mL)  
 ORF Nucleotide Sequence: >RC210510 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCTGCGGCCGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCCGAGCCTACTCGTTCAAGTGGTGC  
 TGCTGGGGGAAGGCTGCGTGGGAAGACGTCGCTGGTGCCTACTGCGAGAACAAGTTAAACGACAA  
 GCACATCACCCTCTGCAGGCATCATTCTTAACAAAGAAGTTAAATATTGGTGGGAAAAGAGTAAACCTT  
 GCCATATGGGATACGGCAGGTCAAGAGAGATCCATGCATTGGTCCAATTTACTACAGAGATTTCAATG  
 GAGCGATTTTAGTTTATGACATAACAGATGAAGATTCTTTTCAGAAGGTAAGAACTGGGTCAAAGAATT  
 ACGGAAAATGTTGGGAAATGAAATCTGTTTATGTATAGTTGGTAATAAATAGACTTGGAAAAGGAGAGA  
 CATGTTTCCATTCAAGAAGCAGAGTCGTATGCAGAATCTGTGGGAGCAAAACATTATCATACTTCAGCCA  
 AACAGAACAAAGGAATTGAGGAACCTTTCTTGACCTTTGTAAGGATGATAGAAACAGCACAAGTGG  
 TGAGAGAGCAAAAGGCAATGGCTCTAGTCAGCCGGGAAGTCAAGGCGAGGTGTACAGATTATTGATGAT  
 GAACCTCAAGCCAGACCAGTGGTGGAGGTGCTGTTCTTCTGGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC210510 protein sequence  
 Red=Cloning site Green=Tags(s)

MAAAGGGGGAAAAGRAYSFKVVLLGEGCVGKTSVLRYCENKFNDKHITTLQASFLTKKLNIGGKRVNL  
 AIWDTAGQERFHALGPIYYRDSNGAILVYDITDEDSFQVKVNWVKELRKMLGNEICLCIVGNKIDLEKER  
 HVSIQEAESYAESVGAHYHTSAKQNKIEELFLDLCKRMIETAQVDERAKGNSSQPGTARRGVQIIDD  
 EPQAQTSGGCCSSG

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**



Chromatograms: [https://cdn.origene.com/chromatograms/mk6002\\_g10.zip](https://cdn.origene.com/chromatograms/mk6002_g10.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_014999

ORF Size: 675 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

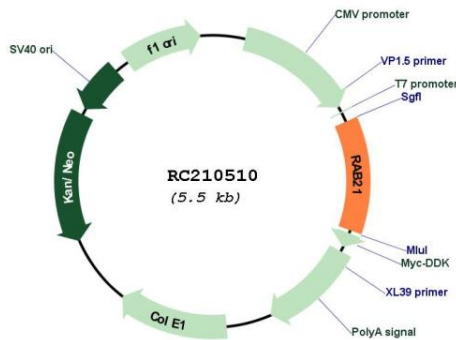
RefSeq: [NM\\_014999.4](#)

RefSeq Size: 2627 bp

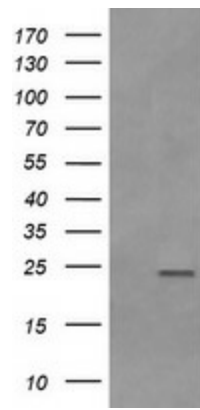
**RefSeq ORF:** 678 bp  
**Locus ID:** 23011  
**UniProt ID:** [Q9UL25](#)  
**Cytogenetics:** 12q21.1  
**Domains:** ras, RAN, RAS, RHO, RAB  
**Protein Families:** Druggable Genome  
**MW:** 24.3 kDa

**Gene Summary:** This gene belongs to the Rab family of monomeric GTPases, which are involved in the control of cellular membrane traffic. The encoded protein plays a role in the targeted trafficking of integrins via its association with integrin alpha tails. As a consequence, the encoded protein is involved in the regulation of cell adhesion and migration. Expression of this gene is associated with a poor prognosis for glioma patients. This gene is downregulated by the tumor suppressor miR-200b, and miRNA-200b is itself downregulated in glioma tissues. [provided by RefSeq, Nov 2015]

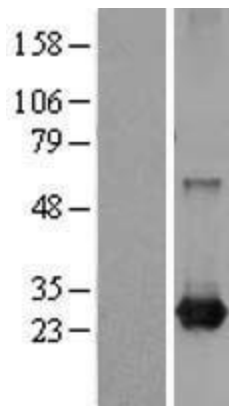
**Product images:**



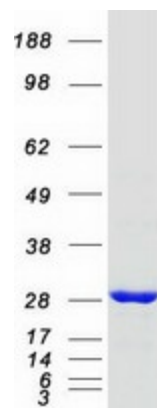
Circular map for RC210510



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY RAB21 (Cat# RC210510, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-RAB21 (Cat# [TA505747]). Positive lysates [LY402398] (100ug) and [LC402398] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY402398]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210510 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RAB21 protein (Cat# [TP310510]). The protein was produced from HEK293T cells transfected with RAB21 cDNA clone (Cat# RC210510) using MegaTran 2.0 (Cat# [TT210002]).