

## Product datasheet for MR218479

### Rab31 (NM\_133685) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Rab31 (NM\_133685) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Rab31  
**Synonyms:** 1700093E07Rik; AI415285; Rab22B  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR218479 representing NM\_133685  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGATGGCGATACGGGAGCTCAAAGTGTGTCTTCTCGGGACACGGGGTTGGAAATCCAGCATTGTGT  
GTCGTTTTGTCCAGGATCACTTTGACCACAACATCAGCCCCACTATTGGGCATCTTTCATGACCAAAAC  
CGTGCCTTGTGAAATGAACTTCACAAATTCCTCATCTGGGACACCGCTGGCCAGGAGCGGTTCCACTCC  
CTGGCTCTATGTACTACCGAGGATCTGCTGCAGCCGTCATCGTCTATGACATCACTAAGCAGGATTCAT  
TTCATACCTTGAAAAATGGGTCAAGGAGCTGAAGGAGCACGGCCAGAAAACATTGTGATGGCGATTGC  
TGGGAACAAGTGTGACCTCTGATATTAGGGAGGTGCCCTGAAGGACGCTAAGGAGTACGCTGAATCC  
ATAGGTGCCATCGTGGTGGAGACCAGCGGAAGAATGCCATTAACATCGAGGAGCTTTTCAAGGAATCA  
GCCGCCAGATCCCACCCTTGGGCCCTCAGGAAAATGAAAACAGCGCGGGATCAAGCTTGGGAATCAGAG  
CTTGCAAGCCAGCCGTCGGTGCTGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR218479 representing NM\_133685  
Red=Cloning site Green=Tags(s)

MMAIRELKVLLGDTGVGKSSIVCRFVQDHFHDHNSPTIGASFMTKTVPCGNELHKFLIWDTAGQERFHS  
LAPMYRGSAAAVIVYDITKQDSFHTLKKWVKELKEHGPENIVMAIAGNKCDLSDIREVPLKDAKEYAES  
IGAIVVETSAKNAINIEELFQGISRQIPPLGPQENGNSGGIKLGNQSLQASRRCC

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV



Chromatograms: [https://cdn.origene.com/chromatograms/mm9062\\_g08.zip](https://cdn.origene.com/chromatograms/mm9062_g08.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_133685

ORF Size: 585 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\\_133685.2](#), [NP\\_598446.2](#)

RefSeq Size: 3476 bp

RefSeq ORF: 588 bp

Locus ID: 106572

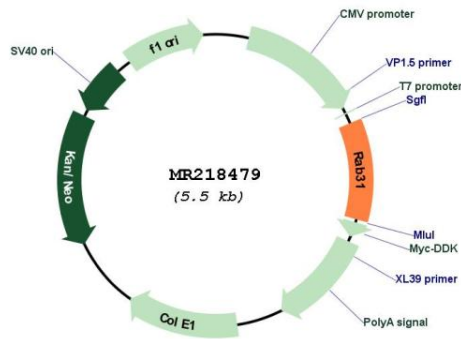
UniProt ID: [Q921E2](#)

Cytogenetics: 17 E1.1

MW: 21.5 kDa

**Gene Summary:** The small GTPases Rab are key regulators of intracellular membrane trafficking, from the formation of transport vesicles to their fusion with membranes. Rabs cycle between an inactive GDP-bound form and an active GTP-bound form that is able to recruit to membranes different set of downstream effectors directly responsible for vesicle formation, movement, tethering and fusion. Required for the integrity and for normal function of the Golgi apparatus and the trans-Golgi network. Plays a role in insulin-stimulated translocation of GLUT4 to the cell membrane. Plays a role in the maturation of phagosomes that engulf pathogens, such as *S.aureus* and *Mycobacterium* (By similarity). Plays a role in M6PR transport from the trans-Golgi network to endosomes. Plays a role in the internalization of EGFR from the cell membrane into endosomes.[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR218479