

## Product datasheet for MR202075

### Rab13 (NM\_026677) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Rab13 (NM_026677) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Rab13
Synonyms:	0610007N03Rik; B230212B15Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR202075 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGCATCGCC

ATGGCCAAAGCCTACGACCACCTCTTCAAGTTGCTGCTCATCGGGGACTCGGGGTGGCAAGACTTGTC  
 TGATCATTCGCTTTCAGAGGACAACCTCAACAGCACTTACATCTCTACCATCGGAATTGATTTCAAGAT  
 CCGAACCGTGGACATAGAGGGGAAGAGGATCAAAGTCAAGTGTGGGACACGGCTGGCCAAGAACGATTC  
 AAGACAATAACTACCGCCTATTACCGTGGAGCCATGGGCATTATCCTCGTATATGACATCACAGATGAGA  
 AATCCTTCGAGAATATTCAGAACTGGATGAAAAGCATCAAAGAGAATGCCTCTGCGGGAGTGGAGCGCCT  
 CCTGCTGGGAAACAAGTGTGACATGGAGGCCAAGCGGCAGGTGCAGAGAGAGCAGGCGGAGAAGTTGGCT  
 CGAGAGCACAGAATCCGATTTTTTGGAGCGAGTGCCAAATCCAGTGTGAATGTGGATGAGGCTTTAGTT  
 CCCTGGCCCGTGACATCTTGCTCAAGACAGGAGGCCGGAGATCGGGAACCAACAGTAAGCCCTCAAGCAC  
 TGGCCTGAAAACATCTGACAAGAAGAACAAGTGCTTGTTAGGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:	>MR202075 protein sequence Red=Cloning site Green=Tags(s)
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MAKAYDHLFKLLIGDSGVGKTCIIIRFAEDNFNSTYISTIGIDFKIRTVDIEGKRIKLQVWDTAGQERF  
 KTITTAYYRGAMGIILVYDITDEKSFENIQNMKSIKENASAGVERLLLGNKCDMEAKRQVQREQAEKLA  
 REHRIRFFETSAKSSVNVDEAFSSLARDILLKTGGRRSGTNSKPSSTGLKTSDDKKKNCLLG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV


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Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_026677

ORF Size: 606 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\\_026677.4](#)

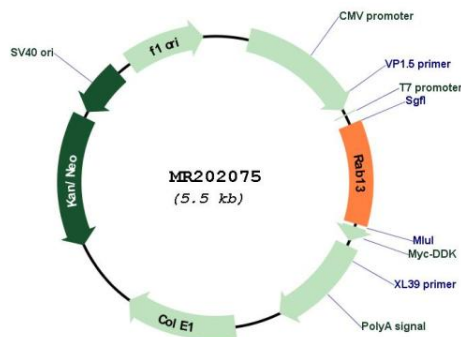
RefSeq Size: 1548 bp

RefSeq ORF: 609 bp

**Locus ID:** 68328  
**UniProt ID:** [Q9DD03](#)  
**Cytogenetics:** 3 39.21 cM  
**MW:** 22.8 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 sets of downstream effectors directly responsible for vesicle formation, movement, tethering and fusion. That Rab is involved in endocytic recycling and regulates the transport to the plasma membrane of transmembrane proteins like the tight junction protein OCLN/occludin. Thereby, it regulates the assembly and the activity of tight junctions. Moreover, it may also regulate tight junction assembly by activating the PKA signaling pathway and by reorganizing the actin cytoskeleton through the activation of the downstream effectors PRKACA and MICALL2 respectively. Through its role in tight junction assembly, may play a role in the establishment of Sertoli cell barrier. Plays also a role in angiogenesis through regulation of endothelial cells chemotaxis. Also involved in neurite outgrowth. Has also been proposed to play a role in post-Golgi membrane trafficking from the TGN to the recycling endosome. Finally, it has been involved in insulin-induced transport to the plasma membrane of the glucose transporter GLUT4 and therefore may play a role in glucose homeostasis.[UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for MR202075