

Product datasheet for **MG202153**

Rab1a (NM_008996) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Rab1a (NM_008996) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Rab1a
Synonyms: Gtbp; mKIAA3012; Rab-1; Rab1; Ypt1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG202153 representing NM_008996
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGTCCAGCATGAATCCCGAATATGATTATTTATTCAAGTTACTTCTGATTGGCGATTCTGGGGTTGGAA
 AGTCTGCCTTCTCCTTAGGTTTGCAGATGATACGTATACGAAAGCTACATCAGCACAATTGGTGTGGA
 TTTCAAGATACGAACTATAGAGTTAGATGGGAAAACAATCAAGCTACAGATATGGGACACAGCAGGCCAG
 GAAAGATTTGCAACAATCACTTCCAGTTATTACAGAGGAGCCCATGGCATCATAGTTGTGTATGATGTGA
 CAGATCAGGAGTCTTCAATAACGTTAAACAGTGGCTGCAGGAGATAGATCGCTACGCCAGTAAAAATGT
 CAACAAGTTGTTGGTAGGGAACAAATGTGACCTGACCACAAGAAAGTAGTAGACTACACAACAGCAAAG
 GAATTTGCAGATTCCTTGAATTCCATTTTTGGAAACAGTGCTAAGAACGCAACGAATGTAGAACAGT
 CTTTCATGACGATGGCAGCTGAGATTAAGCGAATGGGTCTGGAGCTACAGCTGGTGGTGCCGAGAA
 GTCCAATGTTAAATCCAGAGCACTCCAGTCAAGCAGTCAGGTGGAGGCTGCTGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG202153 representing NM_008996
 Red=Cloning site Green=Tags(s)

MSSMNPEYDYLKLLLIIGDSGVGKSCLLLRFADDTYTESYISTIGVDFKIRTIELDGKTIKLIQIWDTAGQ
 ERFRTITSSYYRGAHGIIVVYDVTQESFNQVQWLQEIIDRYASENVNKLKLVGNKCDLTTKKVVYDTAK
 EFADSLGIPFLETSKRNATNVEQSFMTMAAEIKKRMGPGATAGGAEKSNVKIQSTPQVQSGGGCC

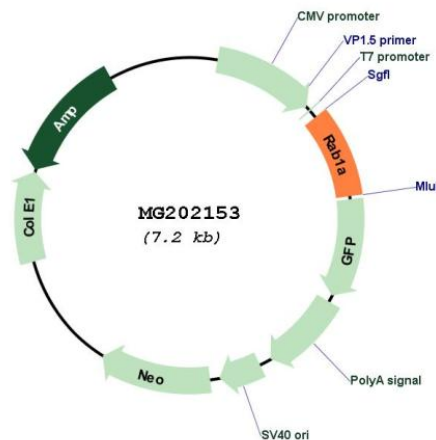
TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI



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Cloning Scheme:

Plasmid Map:


ACCN: NM_008996

ORF Size: 615 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_008996.4](#)

RefSeq Size: 2657 bp

RefSeq ORF: 618 bp

Locus ID: 19324

UniProt ID: [P62821](#)

Cytogenetics: 11 12.92 cM

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. RAB1A regulates vesicular protein transport from the endoplasmic reticulum (ER) to the Golgi compartment and on to the cell surface, and plays a role in IL-8 and growth hormone secretion. Regulates the level of CASR present at the cell membrane. Plays a role in cell adhesion and cell migration, via its role in protein trafficking. Plays a role in autophagosome assembly and cellular defense reactions against pathogenic bacteria (By similarity). Plays a role in microtubule-dependent protein transport by early endosomes and in anterograde melanosome transport.[UniProtKB/Swiss-Prot Function]