

Product datasheet for **RG203873**

Rab5 (RAB5A) (NM_004162) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rab5 (RAB5A) (NM_004162) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Rab5
Synonyms:	RAB5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG203873 representing NM_004162 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTAGTCGAGGCGCAACAAGACCCAACGGGCCAAATACTGGAATAAAAATATGCCAGTTCAACTAG
TACTTCTGGGAGAGTCCGCTGTTGGCAAATCAAGCCTAGTGCTTCGTTTTGTGAAAGGCCAATTTTCATGA
ATTTCAAGAGAGTACCATTGGGGCTGCTTTTCTAACCCAACTGTATGTCTTGATGACACTACAGTAAAG
TTTGAAATATGGGATACAGCTGGTCAAGAACGATACCATAGCCTAGCACCAATGTACTACAGAGGAGCAC
AAGCAGCCATAGTTGTATATGATATCACAAATGAGGAGTCCTTTGCAAGAGCAAAAAATTGGTTAAAGA
ACTTCAGAGGCAAGCAAGTCCTAACATTGTAATAGCTTTATCGGGAAACAAGGCCGACCTAGCAAATAAA
AGAGCAGTAGATTTCCAGGAAGCACAGTCCATGCAGATGACAATAGTTTATTATTTCATGGAGACATCCG
CTAAAACATCAATGAATGTAAATGAAATATTTCATGGCAATAGCTAAAAAATTGCCAAAGAATGAACCACA
AAATCCAGGAGCAAATTCGCCAGAGGAAGAGGAGTAGACCTTACCGAACCCACACAACCAACCAGGAAT
CAGTGTTGTAGTAAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG203873 representing NM_004162
 Red=Cloning site Green=Tags(s)

MASRGATRPNGPNTGNKICQFKLVLLGESAVGKSSLVLRVFKGQFHEFQESTIGAAFLTQTVCLDDTTVK
 FEIWDTAGQERYHSLAPMYRGAQAAIVVYDITNEESFARAKNWKELQRQASPNIVIALSGNKADLANK
 RAVDFQEAQSYADDNLLFMETSAKTSMNVNEIFMAIAKKLPKNEPQNPNGANSARGRGVDLLEPTQPTRN
 QCCSN

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_004162

ORF Size: 645 bp

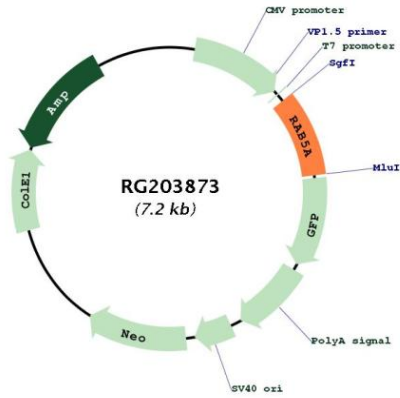
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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:	<ol style="list-style-type: none">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_004162.3 , NP_004153.2
RefSeq Size:	2352 bp
RefSeq ORF:	648 bp
Locus ID:	5868
UniProt ID:	P20339
Cytogenetics:	3p24.3
Domains:	ras, RAN, RAS, RHO, RAB
Protein Families:	Druggable Genome
Protein Pathways:	Amyotrophic lateral sclerosis (ALS), Endocytosis
Gene Summary:	<p>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. RAB5A is required for the fusion of plasma membranes and early endosomes (PubMed:10818110, PubMed:14617813, PubMed:16410077, PubMed:15378032). Contributes to the regulation of filopodia extension (PubMed:14978216). Required for the exosomal release of SDCBP, CD63, PDCD6IP and syndecan (PubMed:22660413). Regulates maturation of apoptotic cell-containing phagosomes, probably downstream of DYN2 and PIK3C3 (By similarity).[UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for RG203873