

Product datasheet for **RG208935**

TC10 (RHOQ) (NM_012249) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: TC10 (RHOQ) (NM_012249) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: TC10
Synonyms: ARHQ; HEL-S-42; RASL7A; TC10; TC10A
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG208935 representing NM_012249
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCTACGGGCGCGCTGATGCTCAAGTGCCTGGTGGTGGCGACGGGGCGGTGGGCAAGACGT
 GCCTACTCATGAGCTATGCCAACGACGCCTTCCCGGAGGAGTACGTGCCACCGTCTTCGACCACTACGC
 AGTCAGCGTCACCGTGGGGGCAAGCAGTACCTCCTAGGACTCTATGACACGGCCGGACAGGAAGACTAT
 GACCGTCTGAGGCCTTTATCTTACCAATGACCGATGTCTTCTTATATGCTTCTCGGTGGTAAATCCAG
 CCTCATTTCAAAATGTGAAAGAGGAGTGGGTACCGAACTTAAGGAATACGCACCAAATGTACCCTTTTT
 ATTAATAGGAACTCAGATTGATCTCCGAGATGACCCAAAACCTTAGCAAGACTGAATGATGAAAGAA
 AAACCTATATGTGTGGAACAAGGACAGAACTAGCAAAAGAGATAGGAGCATGCTGCTATGTGGAATGTT
 CAGCTTTAACCCAGAAGGATTGAAGACTGTTTTTATGAGGCTATCATAGCCATTTAACTCCAAGAA
 ACACACTGTAAAAAAGAATAGGATCAAGATGTATAAACTGTTGTTAATTACG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

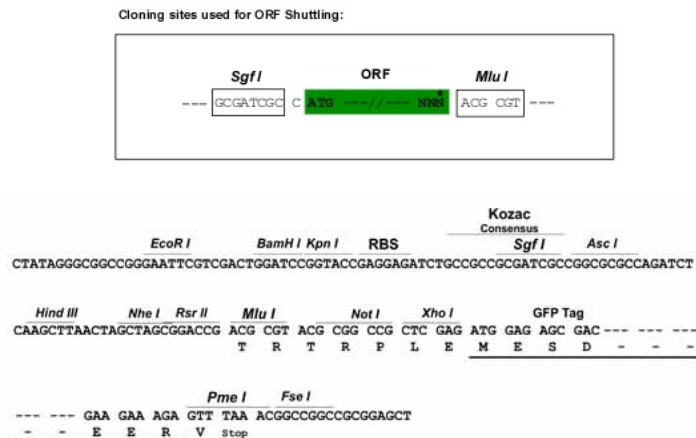
Protein Sequence: >RG208935 representing NM_012249
 Red=Cloning site Green=Tags(s)

MAHGPGALMLKCVVVDGAVGKTCLLMSYANDAFPEEYVPTVFDHYAVSVTVGGKQYLLGLYDTAGQEDY
 DRLRPLSYPMTDVFILICFSVNPASFQNVKEEWVPELKEYAPNVPFLFIGTQIDLRDDPKTLARLNDMKE
 KPICVEQQQLAKEIGACCYVECSALTQKGLKTVFDEAIIAILTPKKHTVKKRIGSRCINCLIT

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI



Cloning Scheme:


ACCN: NM_012249

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_012249.4](#)

RefSeq Size: 2127 bp

RefSeq ORF: 618 bp

Locus ID: 23433

UniProt ID: [P17081](#)

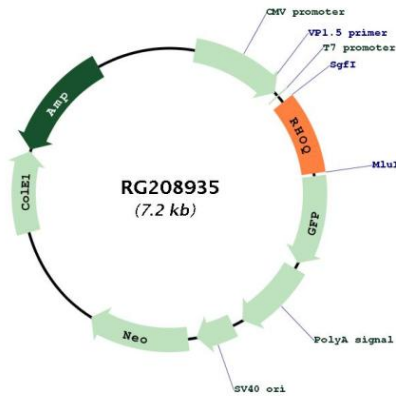
Cytogenetics: 2p21

Domains: ras, RAS, RHO, RAB

Protein Pathways: Insulin signaling pathway

Gene Summary: This gene encodes a member of the Rho family of small GTPases, which cycle between inactive GDP-bound and active GTP-bound states and function as molecular switches in signal transduction cascades. Rho proteins promote reorganization of the actin cytoskeleton and regulate cell shape, attachment, and motility. The encoded protein is an important signalling protein for sarcomere assembly and has been shown to play a significant role in the exocytosis of the solute carrier family 2, facilitated glucose transporter member 4 and other proteins, possibly acting as the signal that turns on the membrane fusion machinery. Three related pseudogene have been identified on chromosomes 2 and 14. [provided by RefSeq, Aug 2011]

Product images:



Circular map for RG208935