

Product datasheet for **RC208935**

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:	Myc-DDK
Symbol:	TC10
Synonyms:	ARHQ; HEL-S-42; RASL7A; TC10; TC10A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC208935 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGC**

ATGGCTCACGGGCCGCGCGCTGATGCTCAAGTGCCTGGTGGTCGGCGACGGGGCGGTGGCAAGACGT
 GCCTACTCATGAGCTATGCCAACGACGCCTTCCCGGAGGAGTACGTGCCACCGTCTTCGACCACTACGC
 AGTCAGCGTCACCGTGGGGGCAAGCAGTACCTCCTAGGACTCTATGACACGGCCGGACAGGAAGACTAT
 GACCGTCTGAGGCCTTTATCTTACCAATGACCGATGTCTTCTTATATGCTTCTCGGTGGTAAATCCAG
 CCTCATTTCAAAATGTGAAAGAGGAGTGGGTACCGGAACCTAAGGAATACGCACCAAATGTACCCTTTTT
 ATTAATAGGAACTCAGATTGATCTCCGAGATGACCCCAAACTTTAGCAAGACTGAATGATATGAAAGAA
 AAACCTATATGTGTGGAACAAGGACAGAACTAGCAAAAGAGATAGGAGCATGCTGCTATGTGGAATGTT
 CAGCTTTAACCAGAAGGGATTGAAGACTGTTTTTATGAGGCTATCATAGCCATTTAACTCCAAGAA
 ACACACTGTAAAAAAGAATAGGATCAAGATGTATAAACTGTTGTTAATTACG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:	>RC208935 protein sequence Red=Cloning site Green=Tags(s)
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MAHGPGALMLKCVVVGDAVGKTCLLMSYANDAFPEEYVPTVFDHYAVSVTVGGKQYLLGLYDTAGQEDY
 DRLRPLSYPMTDVFLICFSVNPASFQNVKEEWPELKEYAPNVPFLLIGTQIDLRDDPKTLARLNDMKE
 KPICVEQGQKLAKKEIGACCYVECSALTQKGLKTVFDEAIIAILTPKKHTVKKRIGSRCINCLIT

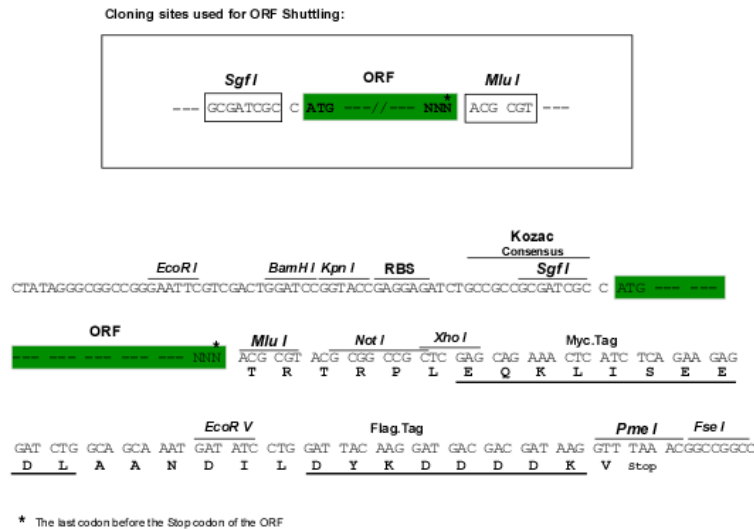
TRTRPLEQKLISEEDLAANDILDYKDDDDKV


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Chromatograms: https://cdn.origene.com/chromatograms/mk6546_d02.zip

Restriction Sites: SgfI-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.

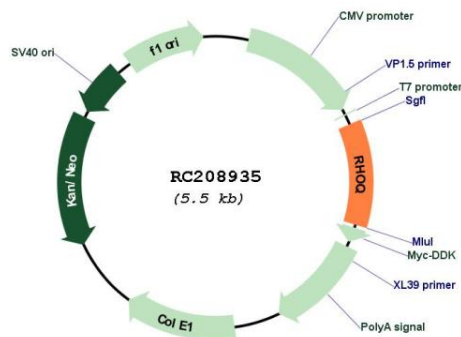
Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_012249.4](#)

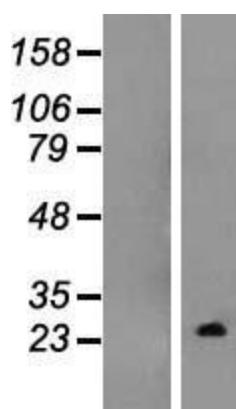
RefSeq Size: 4542 bp

RefSeq ORF:	618 bp
Locus ID:	23433
UniProt ID:	<u>P17081</u>
Cytogenetics:	2p21
Domains:	ras, RAS, RHO, RAB
Protein Pathways:	Insulin signaling pathway
MW:	22.7 kDa
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 RC208935



Western blot validation of overexpression lysate (Cat# [LY415876]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208935 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).