

## Product datasheet for **SC115459**

### TC10 (RHOQ) (NM\_012249) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TC10 (RHOQ) (NM_012249) Human Untagged Clone
Tag:	Tag Free
Symbol:	TC10
Synonyms:	ARHQ; HEL-S-42; RASL7A; TC10; TC10A
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene ORF sequence for NM\_012249 edited  
ATGGCTCACGGGCCCGCGCGCTGATGCTCAAGTGCCTGGTGGTCGGCGACGGGGCGGTG  
GGCAAGACGTGCCTACTCATGAGCTATGCCAACGACGCCTTCCCGGAGGAGTACGTGCC  
ACCGTCTTCGACCACTACGCAGTCAGCGTCACCGTGCGGGGCAAGCAGTACCTCCTAGGA  
CTCTATGACACGGCCGGACAGGAAGACTATGACCGTCTGAGGCCTTTATCTTACCCAATG  
ACCGATGCTTCTTATATGCTTCTCGGTGGTAAATCCAGCCTCATTTCAAAATGTGAAA  
GAGGAGTGGGTACCGAACTTAAGGAATACGCACCAAATGTACCCTTTTATTAATAGGA  
ACTCAGATTGATCTCCGAGATGACCCCAAACTTTAGCAAGACTGAATGATATGAAAGAA  
AAACCTATATGTGTGGAACAAGGACAGAACTAGCAAAAGAGATAGGAGCATGCTGCTAT  
GTGGAATGTTTACCGCTTTAACCCAGAAGGATTGAAGACTGTTTTTATGATGAGGCTATCATA  
GCCATTTAACTCCAAGAAACACACTGTAAAAAAGAATAGGATCAAGATGTATAAAC  
TGTTGTTAATTACGTGA



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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for NM_012249 unedited TTTCGCGATTTGAAACCGATTTACTATAGGCGGCCCGCGAATCGGCACGAGGCCGCGGGC GCGGCAGCGCCCCGGGCCCGCCGCCCTCCCCTCCTGCGAGGGGAGCCGCTGCATGGGG CCGGGGGGGGCGCCCTGCGGCGCGGAGCGGCGGACGGCGGGGACCCCCAGGCGGGC TGGGGCTGAGCCCGGGCCGGGGCGGGGCTCCGGGGGACCATGCCCGAGGCCGCGCCG GCAGCAGCATGGCTCACGGGCCCGGCGCTGATGCTCAAGTGCCTGGTGGTGGCGGACG GGGCGGTGGCAAGACGTGCCTACTCATGAGCTATGCCAACGACGCCTTCCCGGAGGAGT ACGTGCCACCGTCTTCGACCACTACGCAGTCAGCGTCACCGTGGGGGGCAAGCAGTACC TCTAGGACTCTATGACACGGCCGGACAGGAAGACTATGACCGTCTGAGGCCTTTATCTT ACCCAATGACCGATGTCTTCTTATATGCTTCTCGGTGGTAAATCCAGCCTCATTTCAAA ATGTGAAAGAGGAGTGGGTACCGGAACCTAAGGAATACGCACCAAATGTACCCTTTTAT TAATAGGAACTCAGATTGATCTCCGAGATGACCCAAAACCTTTAGCAAGACTGAATGATA TGAAAGAAAAACCTATATGTGTGGAACAAGGACAGANACTAGCAAAAGAGATAGGAGCAT GCTGCTATGTGGAATGTTGAGCTNTAACCCAGAAAGATTGAAGACTGTTTTTATGAGG CTATCATAGCCATTTAACTCCAAAAAACACACTGTAAAAAAAAGAATAGGGATCAGAT GTATAAAGTGTGGTTTATTACGTGAGAAACATCTTCAGTGCCCGAAGACTGGCCATTNCT CTCAGAAAGCANAGANATGCTACAGC
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_012249
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_012249.2</a> , <a href="#">NP_036381.2</a>
<b>RefSeq Size:</b>	2127 bp
<b>RefSeq ORF:</b>	618 bp
<b>Locus ID:</b>	23433
<b>UniProt ID:</b>	<a href="#">P17081</a>
<b>Cytogenetics:</b>	2p21
<b>Domains:</b>	ras, RAS, RHO, RAB
<b>Protein Pathways:</b>	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]