

Product datasheet for **RC202125**

TCIRG1 (NM_006019) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TCIRG1 (NM_006019) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TCIRG1
Synonyms:	a3; Atp6i; ATP6N1C; ATP6V0A3; OC-116kDa; OC116; OPTB1; Stv1; TIRC7; Vph1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC202125 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGGCTCCATGTTCCGGAGCGAGGAGGTGGCCCTGGTCCAGCTCTTTCTGCCACACGGCTGCCTACA
 CCTGCGTGAGTCGGCTGGGCGAGCTGGGCTCGTGGAGTTCAGAGACCTCAACGCCTCGGTGAGCGCCTT
 CCAGAGACGCTTTGTGGTTGATGTTCCGGCCTGTGAGGAGCTGGAGAAGACCTTACACTTCTGCAGGAG
 GAGGTGCGGCGGGCTGGGCTGGTCTGCCCCCGCAAAGGGGAGGCTGCCGGCACCCCAACCCGGGACC
 TGCTGCGCATCCAGGAGGAGACGGAGCGCTGGCCAGGAGCTGCGGGATGTGCGGGGAACACAGCAGGC
 CCTGCGGGCCAGCTGCACCAGCTGCAGCTCCACGCCCGCTGCTACGCCAGGGCATGAACCTCAGCTG
 GCAGCCGCCACACAGATGGGGCCTCAGAGAGGACGCCCTGCTCCAGGCCCCGGGGGGCCGACCAGG
 ACCTGAGGGTCAACTTTGTGGCAGGTCCGTGGAGCCCCACAAGGCCCTGCCCTAGAGCGCCTGCTCTG
 GAGGGCTGCCGCGGCTTCTCATTGCCAGTTCAGGGAGCTGGAGCAGCCGCTGGAGCACCCCGTGACG
 GCGAGCCAGCCAGTGGATGACCTTCTCATCTCTACTGGGGTGGAGCAGATCGACAGAAAGATCCGCA
 AGATCACGGACTGCTTCCACTGCCACGTCTTCCGTTTCTGCAGCAGGAGGAGGCCCGCCTCGGGCCCT
 GCAGCAGCTGCAACAGCAGAGCCAGGAGCTGCAGGAGTCTCGGGGAGACAGAGCGTTCTGAGCCAG
 GTGCTAGGCCGGGTGCTGCAGCTGCTGCCGCCAGGGCAGGTGCAGGTCCACAAGTGAAGGCCGTGTAAC
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 AGACCTGCCCGCCTGCAGGAGGCCCTGCGGGACAGCTCGATGGAGGAGGAGTGAAGTCCGTGGCTCAC
 CGCATCCCCTGCCGGGACATGCCCCACACTCATCCGACCAACCGCTTACGGCCAGCTTCCAGGGCA
 TCGTGGATGCCACGGCTGGCCGCTACCAGGAGTCAACCCCGCTCCCTACACCATCACCTTCCC
 CTTCCTGTTTGCTGTGATGTTCCGGGATGTGGCCACGGCTGCTCATGTTCTCTTCGCCCTGGCCATG
 GTCCTTGCAGGAAACCGACCGGCTGTGAAGGCCGCGCAGAACGAGATCTGGCAGACTTCTTTCAGGGCC
 GCTACCTGCTCTGCTTATGGGCTGTTCTCCATCTACACCGGCTTCTTACAACGAGTCTTCAAGTGC
 CGCCACCAGCATTTCCCTCGGGCTGGAGTGTGGCCGCATGGCCAACCAAGTCTGGCTGGAGTGTGCA
 TTCTGGCCAGCACAGATGCTTACCCTGGATCCCAACGTACCGGTGCTTCTTGGGACCCTACCCCT
 TTGGCATCGATCCTATTGGAGCCTGGTGCCAACCACTTGAGCTTCTCAACTCCTTCAAGATGAAGAT
 GTCCGTCATCCTGGGCGTGTGCACATGGCCTTTGGGGTGGTCTCGGAGTCTTCAACCAGTGCACCTT
 GGCCAGAGGCACCGGCTGCTGCTGGAGACGCTGCCGGAGCTCACCTTCTGCTGGGACTCTTCGGTTACC
 TCGTGTTCCTAGTCATCTACAAGTGGCTGTGTCTGGGCTGCCAGGGCCGCTCGGCCCCAGCATCCT
 CATCCACTTCATCAACATGTTCTCTTCTCCACAGCCCCAGCAACAGGCTGCTTACCCCGGCAGGAG
 GTGGTCCAGGCCACGCTGGTGGTCTGGCCTTGGCCATGGTGCCATCCTGCTGCTTGGCACACCCCTGC
 ACCTGTGTCACCGCCACCGCCGCGCCTGCGGAGGAGGCCGCTGACCGACAGGAGGAAAACAAGGCCGG
 GTTGTGGACCTGCCTGACGCATCTGTGAATGGCTGGAGTCCGATGAGGAAAAGGCAGGGGGCCTGGAT
 GATGAAGAGGAGGCCGAGCTCGTCCCCTCCGAGGTGCTCATGCACCAGGCCATCCACACCATCGATTCT
 GCCTGGGTGCGTCTCCAACACCGCCTCCTACCTGCGCCTGTGGGCCCTGAGCCTGGCCACGCCAGCT
 GTCCGAGGTTCTGTGGCCATGGTGTGATGCGCATAGGCCTGGCCCTGGGCCGGGAGGTGGGCGTGGCGCT
 GTGGTGTGGTCCCCTCTTGGCCCTTTGCCGCTTTGCCGTGATGACCGTGGCTATCCTGCTGGTGTGAGGGAC
 TCTCAGCCTTCTGCACGCCCTGCGGCTGCACTGGGTGGAATTCAGAACAAGTTCTACTCAGGCACGGG
 CTACAAGCTGAGTCCCTTCACTTCCGCTGCCACAGATGAC

ACGGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC202125 protein sequence
Red=Cloning site Green=Tags(s)

MGSMFRSEEVALVQLFLPTAAAYTCVSRLGELGLVEFRDLNASVSASFQRRFVVDVRRCEELEKTFITFLQE
EVRRAGLVLPKGRLPAPPPRDLLRIQEETERLAQELRDVRGNQALRAQLHQLQLHAAVLRQGHEPQL
AAAHTDGASERTPLLQAPGGPHQDLRVNFVAGAVEPHKAPALERLLWRACRGFLIASFRELEQPLEHPVT
GEPATWMTFLISYWGEQIGQKIRKITDCFHCHVFPFLQQEEARLGALQQLQQSQELQEVLGETERFLSQ
VLGRVLQLLPPGQVQVHKMKAVYLALNQC SVSTTHKCLIAEAWCSVRDLPALQEALRDSSMEEGVSAVAH
RIPCRDMPPTLIRTNRFTASFQGI VDAYGVGRYQEVNPAPYTIITFPFLFAVMFGDVGHLLMFLFALAM
VLAENRPAVKAAQNEIWQTFFRGRYLLLLMGLFSIYTGFIYNECFSRATSI FPSGWSVAAMANQSGWSDA
FLAQTMLTLDPNVTGVFLGPYPFGIDPIWSLAANHL SFLNSFKMKMSVILGVVHMAFGVVLGVFNHVHF
GQRHRLLELPELTFLLGLFGYLVFLVIYKWCVWAARAASAPSIL IHFINMFLFSHSPSNRLLYPRQE
VVQATLVVLALAMVPIILLGTPLHLLHRHRRRLRRR PADRQEENKAGLLDLPDASVNGWSSDEEKAGGLD
DEEEAELVPSEVLMHQAIHTIEFCLGCVSNTASYLRWLWALSLAHAQLSEVLWAMVMRIGLGLGREVGVA
VVLVPIFAAFVMTVAILLVMEGLSAFLHALRLHWVEFQNKFYSGTGYKLSPTFAATDD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6229_d03.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:


ACCN: NM_006019

ORF Size: 2490 bp

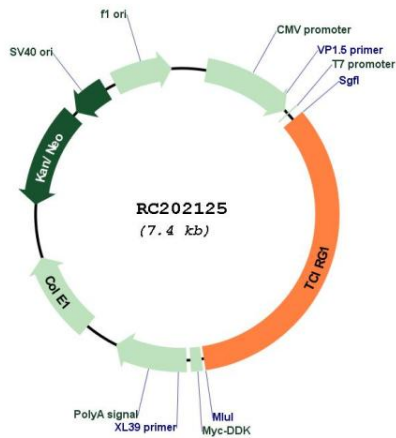
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

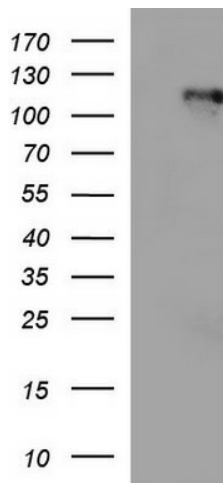
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_006019.3
RefSeq Size:	2727 bp
RefSeq ORF:	2493 bp
Locus ID:	10312
UniProt ID:	Q13488
Cytogenetics:	11q13.2
Domains:	V_ATPase_sub_a
Protein Families:	Transmembrane
Protein Pathways:	Epithelial cell signaling in Helicobacter pylori infection, Lysosome, Metabolic pathways, Oxidative phosphorylation, Vibrio cholerae infection
MW:	93 kDa
Gene Summary:	<p>This gene encodes a subunit of a large protein complex known as a vacuolar H⁺-ATPase (V-ATPase). The protein complex acts as a pump to move protons across the membrane. This movement of protons helps regulate the pH of cells and their surrounding environment. V-ATPase dependent organelle acidification is necessary for such intracellular processes as protein sorting, zymogen activation, and receptor-mediated endocytosis. V-ATPase is comprised of a cytosolic V1 domain and a transmembrane V0 domain. Alternative splicing results in multiple transcript variants. Mutations in this gene are associated with infantile malignant osteopetrosis. [provided by RefSeq, May 2017]</p>

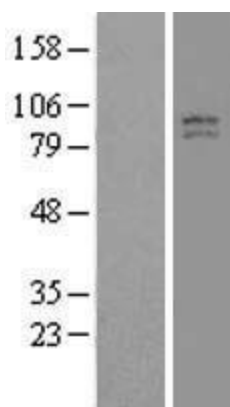
Product images:



Circular map for RC202125



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY TCIRG1 (Cat# RC202125, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-TCIRG (Cat# [TA590586]). Positive lysates [LY416888] (100ug) and [LC416888] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY416888]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202125 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).