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# Product datasheet for RG207157

## TCIRG1 (NM_006053) Human Tagged ORF Clone

### Product data:

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|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | TCIRG1 (NM_006053) Human Tagged ORF Clone |
| **Tag:** | TurboGFP |
| **Symbol:** | TCIRG1 |
| **Synonyms:** | a3; Atp6i; ATP6N1C; ATP6V0A3; OC-116kDa; OC116; OPTB1; Stv1; TIRC7; Vph1 |
| **Mammalian Cell Selection:** | Neomycin |
| **Vector:** | pCMV6-AC-GFP (PS100010) |
| **E. coli Selection:** | Ampicillin (100 ug/mL) |



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**ORF Nucleotide Sequence:**

>RG207157 representing NM_006053
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGCTCCATGTTCCGGAGCGAGGAGGTGGCCCTGGTCCAGCTCTTTCTGCCCACAGCGGCTGCCTACA
CCTGCGTGAGTCGGCTGGGCGAGCTGGGCCTCGTGGAGTTCAGAGACCTCAACGCCTCGGTGAGCGCCTT
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CCTGCGGGCCCAGCTGCACCAGCTGCAGCTCCACGCCGCCGTGCTACGCCAGGGCCATGAACCTCAGCTG
GCAGCCGCCCACACAGATGGGGCCTCAGAGAGGACGCCCCTGCTCCAGGCCCCCGGGGGGCCGCACCAGG
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GTGCTAGGCCGGGTGCTGCAGCTGCTGCCGCCAGGGCAGGTGCAGGTCCACAAGATGAAGGCCGTGTACC
TGGCCCTGAACCAGTGCAGCGTGAGCACCACGCACAAGTGCCTCATTGCCGAGGCCTGGTGCTCTGTGCG
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CGCATCCCCTGCCGGGACATGCCCCCCACACTCATCCGCACCAACCGCTTCACGGCCAGCTTCCAGGGCA
TCGTGGATGCCTACGGCGTGGGCCGCTACCAGGAGGTCAACCCCGCTCCCTACACCATCATCACCTTCCC
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CGCCACCAGCATCTTCCCCTCGGGCTGGAGTGTGGCCGCCATGGCCAACCAGTCTGGCTGGAGTGATGCA
TTCCTGGCCCAGCACACGATGCTTACCCTGGATCCCAACGTCACCGGTGTCTTCCTGGGACCCTACCCCT
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TCTCAGCCTTCCTGCACGCCCTGCGGCTGCACTGGGTGGAATTCCAGAACAAGTTCTACTCAGGCACGGG
CTACAAGCTGAGTCCCTTCACCTTCGCTGCCACAGATGAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

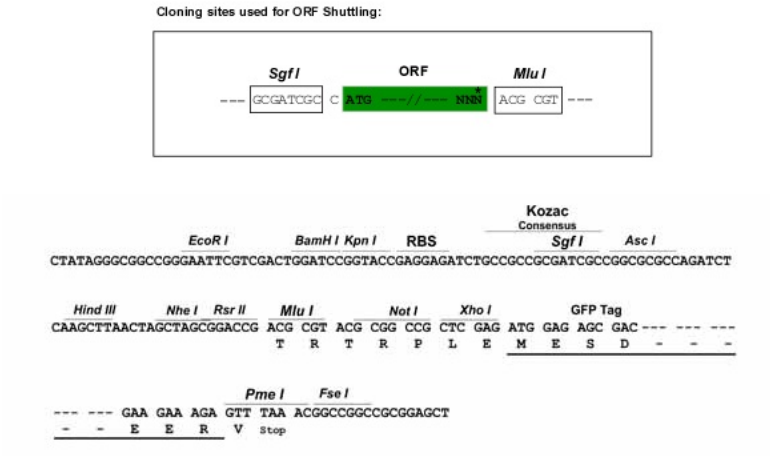
>RG207157 representing NM_006053
Red=Cloning site Green=Tags(s)

MGSMFRSEEVALVQLFLPTAAAYTCVSRLGELGLVEFRDLNASVSAFQRRFVVDVRRCEELEKTFTFLQE
EVRRAGLVLPPPKGRLPAPPPRDLLRIQEETERLAQELRDVRGNQQALRAQLHQLQLHAAVLRQGHEPQL
AAAHTDGASERTPLLQAPGGPHQDLRVNFVAGAVEPHKAPALERLLWRACRGFLIASFRELEQPLEHPVT
GEPATWMTFLISYWGEQIGQKIRKITDCFHCHVFPFLQQEEARLGALQQLQQQSQELQEVLGETERFLSQ
VLGRVLQLLPPGQVQVHKMKAVYLALNQCSVSTTHKCLIAEAWCSVRDLPALQEALRDSSMEEGVSAVAH
RIPCRDMPPTLIRTNRFTASFQGIVDAYGVGRYQEVNPAPYTIITFPFLFAVMFGDVGHGLLMFLFALAM
VLAENRPAVKAAQNEIWQTFFRGRYLLLLMGLFSIYTGFIYNECFSRATSIFPSGWSVAAMANQSGWSDA
FLAQHTMLTLDPNVTGVFLGPYPFGIDPIWSLAANHLSFLNSFKMKMSVILGVVHMAFGVVLGVFNHVHF
GQRHRLLLETLPELTFLLGLFGYLVFLVIYKWLCVWAARAASAPSILIHFINMFLFSHSPSNRLLYPRQE
VVQATLVVLALAMVPILLLGTPLHLLHRHRRRLRRRPADRQEENKAGLLDLPDASVNGWSSDEEKAGGLD
DEEEAELVPSEVLMHQAIHTIEFCLGCVSNTASYLRLWALSLAHAQLSEVLWAMVMRIGLGLGREVGVAA
VVLVPIFAAFAVMTVAILLVMEGLSAFLHALRLHWVEFQNKFYSGTGYKLSPFTFAATDD

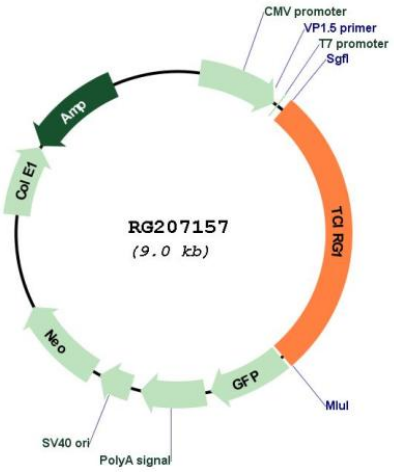
TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

Cloning Scheme:



Plasmid Map:

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|---|---|
| **ACCN:** | NM_006053 |
| **ORF Size:** | 1842 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.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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_006053.2, NP_006044.1 |
| **RefSeq Size:** | 2480 bp |
| **RefSeq ORF:** | 1845 bp |
| **Locus ID:** | 10312 |
| **UniProt ID:** | Q13488 |

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|---|---|
| **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 |
| **Gene Summary:** | 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] |