

Product datasheet for **RG217181**

RUFY1 (NM_025158) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RUFY1 (NM_025158) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RUFY1
Synonyms:	RABIP4; ZFYVE12
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide
Sequence:

>RG217181 representing NM_025158
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGGCCGACCGGGAAGGCGGCTGCGCTGCTGGGCGGGGGCGGAGCTGGAGCCGGAGCTGGAGCCGGGGC
CGGGGCCCGGGTCAGCGCTTGAGCCGGGAGAAGAGTTTGAGATCGTGGACCGAAGCCAGCTGCCCGGCC
AGGCGACCTGCGGAGCGCAACGAGGCGCGGGCGGCCGAGGGCTGGTTCGCGCCCCATCCTGACCCTGGCA
CGCAGGGCCACCGGAACCTGTCGGCGAGCTGCGGGAGCGCGCTGCGCGCGGCCGCGGGGCTGGCGGGC
GGGACAGCGGGGACGGCACGGCGCGCGCAGCTTCTAAGTGCCAGATGATGGAGGAGCGTGCCAACTGAT
GCACATGATGAACTCAGCATCAAGGTGTTGCTCCAGTCGGCTCTGAGCCTGGGCCGAGCCTGGATGCG
GACCATGCCCCCTTGACGAGTCTTTGTAGTGATGGAGCACTGCCTCAAACATGGGCTGAAAGTTAAGA
AGAGTTTTATTGGCCAAAATAAATCATTCTTTGGTCTTTGGAGCTGGTGGAGAACTTTGTCCAGAAGC
ATCAGATATAGCGACTAGTGTGAGAAATCTCCAGAATTAAGACAGCTGTGGGAAGAGGCCGAGCGTGG
CTTTATCTTGCACTCATGCAAAAAGAACTGGCAGATTATCTGAAAGTGCTTATAGACAATAAACATCTCT
TAAGCGAGTTCTATGAGCCTGAGGCTTTAATGATGGAGGAAGAAGGGATGGTGATTGTTGGTCTGCTGGT
GGGACTCAATGTTCTCGATGCCAATCTCTGCTTAAAAGGAGAAGACTTGGATTCTCAGGTTGGAGTAATA
GATTTTTCCCTCTACCTTAAGGATGTGCAGGATCTTGATGGTGGCAAGGAGCATGAAAGAATTACTGATG
TCCTTGATCAAAAAATTATGTGGAAGAACTTAACCGGCACTTGAGCTGCACAGTTGGGGATCTTCAAAC
CAAGATAGATGGCTTGGAAAAGACTAACTCAAAGCTTCAAGAAGAGCTTTCAGCTGCAACAGACCGAATT
TGCTCACTTCAAGAAGAACAGCAGCAGTTAAGAGAACAAAATGAATTAATTCGAGAAAAGAAGTAAAAA
GTGTAGAGATAACAAAACAGGATACCAAAGTTGAGCTGGAGACTTACAAGCAAACCTCGGCAAGTCTGGA
TGAAATGTACAGTGATGTGTGGAAGCAGCTAAAAGAGGAGAAGAAAGTCCGGTTGGAACCTGGAAAAGAA
CTGGAGTTACAAAATTGGAATGAAAACCGAAATGAAAATTGCAATGAAGTTACTGGAAAAGGACACCCACG
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ACAAGCCCTCCAGGAAATGGGCCTGCACCTCAGCCAGTCCAAGCTGAAGATGGAAGATATAAAAAGAGTG
AACCAGGCACTGAAGGGCCACGCTGGCTGAAAGATGACGAAGCGACACTGTAGGCAGTGTGAGAAGG
AGTTCTCCATTTCCGGAGAAAGCACTGCCGGAACCTGTGGCCACATCTTCTGCAACACCTGTCCAG
CAACGAGCTGGCCCTGCCTCCTACCCCAAGCCGGTGGAGTGTGCGACAGCTGCCACACCTGTCTCTG
CAGCGTGTCTCTCCACGGCTCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG217181 representing NM_025158
 Red=Cloning site Green=Tags(s)

MADREGGCAAGRGRELEPELEPGPGPSALEPGEEFEIVDRSQLPGPGDLRSATRPRAAEGWSAPILTLA
 RRATGNLSASCGSALRAAAGLGGDSGDGTARAASKCQMMEEERANLMHMMKLSIKVLLQSALSLGRSLDA
 DHAPLQOFFVVMHCLKHGLKVKKSF IGQNKSF FGP LELVEKLCPEASDIATSVRNLPKLTAVGRGRAW
 LYLALMQKKLADYLKVLIDNKHLLSEFYEPEALMMEEEGMVIVGLLVGLNVLDANLCLKGEDLDSQVGI
 DFLSLYLKDVQDL DGGKEHERITDVL DQKNYVEELNRHLSCTVGD LQTKIDGLEKTN SKLQEELSAATDRI
 CSLQEEQQQLREQNELIRERSEKSV EITKQDTKVELETYKQTRQGLDEMYSDVWKQLKEEKKVRLELEKE
 LELQIGMKTEMEIAMKLEKDTHEKQDTLVALRQQL EEVKAINLQMFHKAQNAESSLQQKNEAITSFEGK
 TNQVMSSMKQMEERLQHSERARQGAEERSHKLQQELGGRIGALQLQLSQLHEQCSLEKELKSEKEQRQA
 LQRELQHEKDTSSLLRMELQQVEGLKRELQDEKAELQKICEEQEQALQEMGLHL SQSKLKMDIKEY
 NQALKGHAWLKDDEATHCRQCEKFSISRKHHCRCNGHIFCNTCSSNELALPSYPKPVVRCDSCHTLLL
 QRCSSSTAS

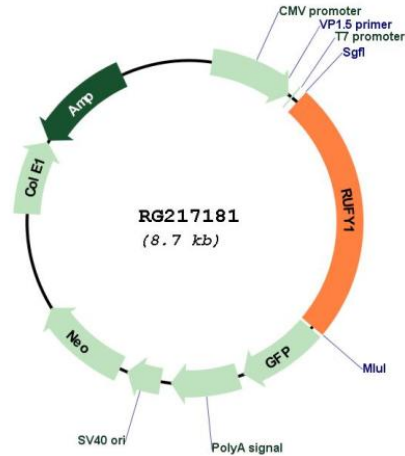
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:


ACCN: NM_025158

ORF Size: 2124 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_025158.5](#)

RefSeq Size: 2644 bp

RefSeq ORF: 2127 bp

Locus ID:	80230
UniProt ID:	Q96T51
Cytogenetics:	5q35.3
Domains:	FYVE, RUN
Protein Pathways:	Endocytosis
Gene Summary:	<p>This gene encodes a protein that contains a RUN domain and a FYVE-type zinc finger domain. The encoded protein binds to phosphatidylinositol-3-phosphate (PI3P) and plays a role in early endosomal trafficking, tethering and fusion through interactions with small GTPases including Rab4, Rab5 and Rab14. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Dec 2011]</p>