

## Product datasheet for **RG207465**

### **RUFY1 (NM\_001040451) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	RUFY1 (NM_001040451) 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:**

>RG207465 representing NM\_001040451  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGATGGAGGAGCGTGCCAACTGATGCACATGATGAACTCAGCATCAAGGTGTTGCTCCAGTCGGCTC  
 TGAGCCTGGGCCGAGCCTGGATGCGGACCATGCCCCCTTGACAGCAGTTCTTTGTAGTGATGGAGCACTG  
 CCTCAAACATGGGCTGAAAGTTAAGAAGAGTTTTATTGGCCAAAATAAATCATTCTTTGGTCTTTGGAG  
 CTGGTGGAGAACTTTGTCCAGAAGCATCAGATATAGCGACTAGTGTAGAAAATCTCCAGAATTAAGA  
 CAGCTGTGGGAAGAGGCCGAGCGTGGCTTTATCTTGCACATGCAAAAGAACTGGCAGATTATCTGAA  
 AGTGCTTATAGACAATAAACATCTTTAAGCGAGTTCTATGAGCCTGAGGCTTTAATGATGGAGGAAGA  
 GGGATGGTGATTGTTGGTCTGCTGGTGGGACTCAATGTTCTCGATGCCAATCTCTGCTTGAAGGAGAAG  
 ACTTGGATTCTCAGTTGGAGTAATAGATTTTTCCCTCTACCTTAAGGATGTGCAGGATCTTGATGGTGG  
 CAAGGAGCATGAAAGAATTACTGATGTCCTTGATCAAAAAAATTATGTGGAAGAAGCTTAACCGGCACCTG  
 AGCTGCACAGTTGGGGATCTTCAAACCAAGATAGATGGCTTGGAAAAGACTAACTCAAAGCTTCAAGAAG  
 AGCTTTCAGCTGCAACAGACCGAATTTGCTCAGTCAAGAAAGAACAGCAGCAGTTAAGAGAACAAAATGA  
 ATTAATTCGAGAAAGAAGTGAAGAGAGTGTAGAGATAACAAAACAGGATACCAAAGTTGAGCTGGAGACT  
 TACAAGCAAACCTCGCAAGGTCTGGATGAAATGTACAGTGATGTGTGGAAGCAGCTAAAAGAGGAGAAGA  
 AAGTCCGGTTGGAAGTGGAAAAGAACTGGAGTTACAAATTGGAATGAAAACCGAAATGGAATTTGCAAT  
 GAAGTTACTGAAAAGGACACCCAGGAAAGCAGGACACACTAGTTGCCCTCCGCCAGCAGCTGGAAGAA  
 GTCAAAGCGATTAATTTACAGATGTTTCAAAAGCTCAGAATGCAGAGAGCAGTTTGCAGCAGAAGAATG  
 AAGCCATCACATCCTTTGAAGGAAAACCAACCAAGTTATGTCCAGCATGAAACAATGGAAGAAGGTT  
 GCAGCACTCGGAGCGGGCAGGAGCTGAGGAGCGGAGCCACAAGCTGCAGCAGGAGCTGGGCGGG  
 AGGATCGGCGCCCTGCAGCTGCAGCTCTCCAGCTGCACGAGCAATGCTCAAGCCTGGAGAAAGAATTGA  
 AATCAGAAAAGAGCAAAGACAGGCTCTTCAGCGCAATTACAGCACGAGAAAAGACACTTCTCTACT  
 CAGGATGGAGCTGCAACAAGTGAAGGACTGAAAAGGAGTTGCGGGAGCTTCAGGACGAGAAGGCAGAG  
 CTGCAGAAGATCTGCGAGGAGCAGGAACAAGCCCTCCAGGAAATGGGCCTGCACCTCAGCCAGTCCAAGC  
 TGAAGATGGAAGATATAAAAAGAGTGAACCAGGCACTGAAGGGCCACGCCTGGTGAAGATGACGAAGC  
 GACACACTGTAGGCAGTGTGAGAAGGAGTTCTCCATTTCCGGAGAAAGCACCCTGCCGGAAGTGTGGC  
 CACATCTTCTGCAACACCTGCTCCAGCAACGAGCTGGCCCTGCCCTCTACCCCAAGCCGGTGCAGGTG  
 GCGACAGCTGCCACACCCTGCTCTGCAGCGCTGCTCCTCCACGGCTCC

**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA**

**Protein Sequence:**

>RG207465 representing NM\_001040451  
 Red=Cloning site Green=Tags(s)

MMEERANLMHMMKLSIKVLLQSALSLGRSLDADHAPLQQFFVVMHCLKHGLKVKKSFVIGQNKSFVGFPLE  
 LVEKLCPEASDIATSVRNLPKLTAVGRRAWLALMQLKLDYLVKLVLDNKHLLSEFYEPALMMEEE  
 GMVIVGLLVGLNVLNLDANLCLKGEDLDSQVGVDFSLYLKDVQDLGQKEHERITDVLQKQNYVEELNRHL  
 SCTVGDLDQTKIDGLEKTNKSLQEELSAATDRICSLQEEQQQLREQNELIRERSEKSVETKQDTKVELET  
 YKQTRQGLDEMYSVWVKLKEEKVRLLEKELELQIGMKTEMIAMKLEKDTHEKQDTLVALRQQLLEE  
 VKAINLQMFHKAQNAESSLQKNEAITSFEGKTNQVMSSMKQMEERLQHSERARQGAEEERSHKLQELGG  
 RIGALQLQLSQLHEQCSSLEKELKSEKEQRQALQRELQHEKDTSSLLRMELQQVEGLKRELQDEKAE  
 LQKICEEQEQALQEMGLHLSQSKLMEDIKEVQALKGHAWLKDEATHCRQCEKEFSISRRKHHCRCNG  
 HIFCNTCSSNELALPSYKPKVVRVCDSCHTLLLQRCSSSTAS

**TRTRPLE - GFP Tag - V**

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_001040451

**ORF Size:** 1800 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\\_001040451.1](#), [NP\\_001035541.1](#)

**RefSeq Size:** 2628 bp

**RefSeq ORF:** 1803 bp

**Locus ID:** 80230

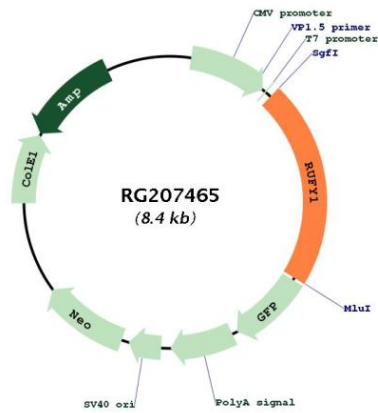
**UniProt ID:** [Q96T51](#)

**Cytogenetics:** 5q35.3

**Protein Pathways:** Endocytosis

**Gene Summary:** 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]

**Product images:**



Circular map for RG207465