

## Product datasheet for RC216656

### RUFY4 (NM\_198483) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	RUFY4 (NM_198483) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RUFY4
Synonyms:	ZFYVE31
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC216656 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTTCTCAGAGTCACGCTGCTCCAGTTCACCCAAACCCAGGGAAGGAGACCCAGAAAAACAAAGATG  
CCCCAAAGAAGATCCCAGCCGATATGGAGGGCCTGAAAATGTCCAGATTGAGGACTCACACACCAAGTCA  
AGCCATCTGTCTGCAAGATGCACCCAGTGGACAGCAGCTGGCAGGGCTTCCCAGGTCCCAGCAACAAAGG  
CATCTTCTTTCTTTTGGAAAAGAAGGGGAAAGTTCCAGGAAACATAGGTACCCAGAGCATGTGGG  
AGCCAGAAGGGAAGGAGCTTCAGCTAGACCAGGAGGAAAGAGCCCATGGATTGAGATCTTCTGGGGAA  
CTCAACACCCAGCACCCAGGGACAGGGGAAGGGGCTATGGGCACTCAGAAGGAGGTGATAGGGATGGAG  
GCTGAGGTCACAGGGTTCTGCTGGTTGCAGAGGGTCAGAGAACAACAGAGGGGACTCACAAAAAGGAAG  
CAGAGTGGAGTCACGTCCAGAGGCTGCTGATGCCAGCCAGAGGGGCTGTAGAGGGAGCAGTATCAGG  
GAGCAGGCAGGGGTCGGGGGCTCTAGCATCCTGGGGAGCCCTGGGTCCTTCAGGGACACGCAACAAAG  
GAAGACTCTACCGTGGAGAATCCACAAGTGAAACAGAAGTGACCCTTGTGGCCAGAAGGGAGGAGCAAG  
CCGAGGTGTCCTGCAGGACGAGATCAAGAGCCTCAGACTTGGGCTCCGGAAGGCTGAGGAGCAGGCCCA  
GCGCCAGGAGCAGCTGCTGAGGGAGCAGGAGGGGAGCTGCAGGCACTTCGGGAGCAGCTCAGCAGGTGT  
CAGGAAGAGAGAGCCGAGCTGCAGGCACAGCTGGAGCAGAAGCAACAGGAGGCTGAGAGGAGGGATGCCA  
TGTACCAGGAGGAGCTTGGAGGGCAGCGGACTTGGTCCAGGCCATGAAGAGGCGGGTGTGGAACTGAT  
CCAAGAGAAGGACCGCTGTGGCAGAGGCTCCAGCATCTCTTCCATGGCTCCCAGTGTGTGTGGCC  
TGTAGCAAGATCTTTGGCCGATTTCTCGGCGGTATCCATGCAGGCTCTGTGGAGGCTGCTCTGCCATG  
CTTGCTCCATGGATTACAAGAAGAGAGACCGCTGCTGCCACCCTGCGCCAGGGAAGAGAAGCCAGGT  
CACC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



**Protein Sequence:** >RC216656 protein sequence  
Red=Cloning site Green=Tags(s)

MFSESRCSSTQTQGRPRKNKDAPKKIPAAAYGGPENQIEDSHTSQAIQLQDAPSGQQLAGLPRSQQQR  
 HLPFFLEKKGESSRKHRYQSMWEPEGKELQLDQEERAPWIEIFLGNSTPSTQGQKGMGTQKEVIGME  
 AEVTGVLLVAEGQRTTEGTHKKEAEWVSHVQRLMLPSRGAVEGAVSGSRQGGSSILGEPWVLQGHATK  
 EDSTVENPQVQTEVTLVARREEQAEVSLQDEIKSLRLGLRKAEEQAQRQEQLLREQEGELQALREQLSRC  
 QEERAELQAQLEQKQQAERRDAMYQEELGGQRDLVQAMKRRVLELIQEKDRLWQRLQHLSSMAPECCVA  
 CSKIFGRFSRRYPCRLCGLLCHACSM DYKRRDRCCPPCAQGREAQVT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6706\\_a03.zip](https://cdn.origene.com/chromatograms/mk6706_a03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_198483

**ORF Size:** 1194 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\\_198483.2](#)

**RefSeq Size:** 2777 bp

**RefSeq ORF:** 1716 bp

**Locus ID:** 285180

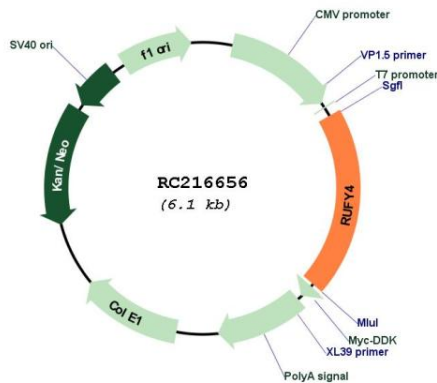
**UniProt ID:** [Q6ZNE9](#)

**Cytogenetics:** 2q35

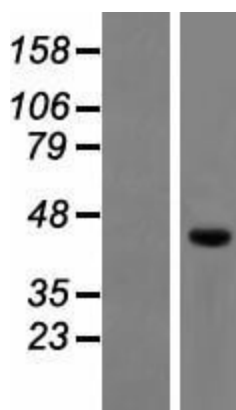
**MW:** 44.9 kDa

**Gene Summary:** Positively regulates macroautophagy in primary dendritic cells. Increases autophagic flux, probably by stimulating both autophagosome formation and facilitating tethering with lysosomes. Binds to phosphatidylinositol 3-phosphate (PtdIns3P) through its FYVE-type zinc finger.[UniProtKB/Swiss-Prot Function]

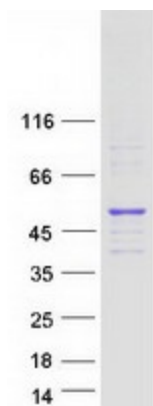
**Product images:**



Circular map for RC216656



Western blot validation of overexpression lysate (Cat# [LY404917]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216656 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RUFY4 protein (Cat# [TP316656]). The protein was produced from HEK293T cells transfected with RUFY4 cDNA clone (Cat# RC216656) using MegaTran 2.0 (Cat# [TT210002]).