

## Product datasheet for MR201892

### Rnf41 (BC019415) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Rnf41 (BC019415) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Rnf41
Synonyms:	4933415P08Rik, FLRF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR201892 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGCCCAAAGATGAAGTGAACCAACCACAATTGCATTAAGCACCTGCGCTCCGTGGTCCAGCAGCAGCAGT  
CGCGCATCGCAGAGCTGGAGAAGACCAGGGCTGAACACAAGCACCAGCTGGCAGAGCAGAAGCGAGACAT  
TCAGCTGCTGAAGGCGTATATGCGAGCCATCCGAGTGTCAACCCCAACCTTCAGAACCTGGAGGAGACA  
ATCGAATACAACGAGATCCTCGAGTGGGTGAATCCCTGCAGCCGCAAGGGTGACCCGCTGGGGGGCA  
TGATCTCCACTCCTGATGCTGTGCTCCAGGCTGTCATCAAGCGCTCCCTCGTGGAAAGTGGCTGCCCGGC  
CTCCATCGTCAACGAGCTGATTGAAAATGCCCATGAACGCAATTGGCCCCAGGGTCTGGCCACACTAGAG  
ACAAGACAGATGAACCGCGCTACTATGAGAACTACGTGGCCAAGCGCATCCCTGGCAAGCAGGCTGTAG  
TGGTGATGGCCTGTGAGAACCAGCACATGGGGGACGACATGGTGCAGGAGCCAGGGCTCGTCATGATATT  
TGCGCATGGTGTGGAGGAGATA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:	>MR201892 protein sequence Red=Cloning site Green=Tags(s)
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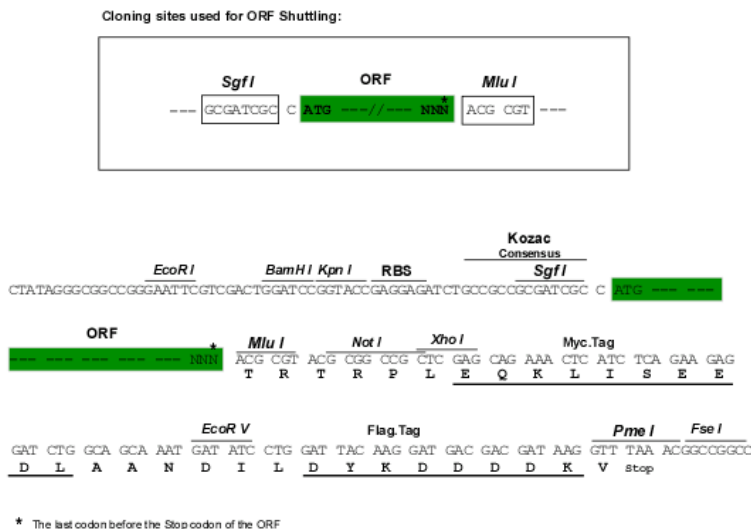
MPKDELPNHNKIKHLRSVVQQQSRIAELEKTRAHKKQLAEQKRDIQLLKAYMRAIRSVNPNLQNLEET  
IEYNEILEWVNSLQPARVTRWGMISTPDAVLQAVIKRSLVESGCPASIVNELIENAHERSWPQGLATLE  
TRQMNRYYENYAKRIPGKQAVVVMACENQHMGDMDVQEPGLVMIFAHGVVEI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV


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Restriction Sites: Sgfl-MluI

### Cloning Scheme:



ACCN: BC019415

ORF Size: 582 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [BC019415](#), [AAH19415](#)

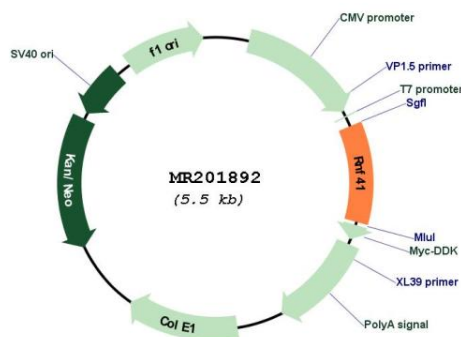
RefSeq Size: 1739 bp

RefSeq ORF: 584 bp

**Locus ID:** 67588  
**Cytogenetics:** 10 76.55 cM  
**MW:** 22.3 kDa

**Gene Summary:** Acts as E3 ubiquitin-protein ligase and regulates the degradation of target proteins. Polyubiquitinates MYD88 (By similarity). Negatively regulates MYD88-dependent production of proinflammatory cytokines. Can promote TRIF-dependent production of type I interferon and inhibits infection with vesicular stomatitis virus. Promotes also activation of TBK1 and IRF3 (PubMed:19483718). Involved in the ubiquitination of erythropoietin (EPO) and interleukin-3 (IL-3) receptors. Thus, through maintaining basal levels of cytokine receptors, RNF41 is involved in the control of hematopoietic progenitor cell differentiation into myeloerythroid lineages (PubMed:18495327). Contributes to the maintenance of steady-state ERBB3 levels by mediating its growth factor-independent degradation. Involved in the degradation of the inhibitor of apoptosis BIRC6 and thus is an important regulator of cell death by promoting apoptosis. Acts also as a PRKN modifier that accelerates its degradation, resulting in a reduction of PRKN activity, influencing the balance of intracellular redox state. The RNF41-PRKN pathway regulates autophagosome-lysosome fusion during late mitophagy. Mitophagy is a selective form of autophagy necessary for mitochondrial quality control (PubMed:24949970).[UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for MR201892