

## 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)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGCCAAAGATGAACTGCCAAACCACAATTGCATTAAGCACCTGCGCTCCGTGGTCCAGCAGCAGCAGT  
 CGCGCATCGCAGAGCTGGAGAAGACCAGGGCTGAACACAAGCACCAGCTGGCAGAGCAGAAGCGAGACAT  
 TCAGCTGTGAAGGCGTATATGCGAGCCATCCGCAGTGTCAACCCCAACCTTCAGAACCTGGAGGAGACA  
 ATCGAATAACAACGAGATCCTCGAGTGGTGAATCCCTGCAGCCGCAAGGGTGACCCGCTGGGGGGCA  
 TGATCTCCACTCCTGATGCTGTGCTCCAGGCTGTCAAGCGCTCCCTCGTGGAAAGTGGCTGCCCGGC  
 CTCCATCGTCAACGAGCTGATTGAAAATGCCCATGAACGCAAGTGGCCCCAGGGTCTGGCCACACTAGAG  
 ACAAGACAGATGAACCGGCGCTACTATGAGAACTACGTGGCCAAGCGCATCCCTGGCAAGCAGGCTGTAG  
 TGGTGATGGCCTGTGAGAACCAGCACATGGGGGACGACATGGTGCAGGAGCCAGGGCTCGTCATGATATT  
 TGGCATGGTGTGGAGGAGATA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

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

MPKDELPNHNCIKHLRSVVQQQSRIAELEKTRAHKKQLAEQKRDIQLLKAYMRAIRSVNPNLQNLLEET  
 IEYNEILEWVNSLQPARVTRWGGMISTPDAVLQAVIKRSLVESGCPASIVNELIENAHERSWPQGLATLE  
 TRQMNRRYYENYAKRIPGKQAVVVMACENQHMGDDMVQEPGLVMIFAHGVVEI

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**



Restriction Sites: SgfI-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.

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

RefSeq Size: 1739 bp

RefSeq ORF: 584 bp

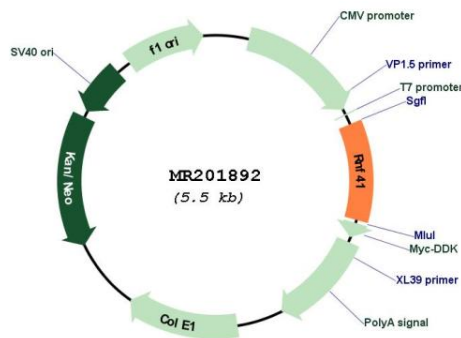
Locus ID: 67588

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