

## **Product datasheet for MC206913**

## Rnf41 (BC019415) Mouse Untagged Clone

## **Product data:**

**Product Type:** Expression Plasmids

Product Name: Rnf41 (BC019415) Mouse Untagged Clone

Tag: Tag Free Symbol: Rnf41

Synonyms: 4933415P08Rik, FLRF

Mammalian Cell

Selection:

Neomycin

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)

Fully Sequenced ORF: >MC206913 representing BC019415.

Blue=ORF Red=Cloning site Green=Tag(s)

GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGCCCAAAGATGAACTGCCAAACCACATTGCATTAAGCACCTGCGCTCCGTGGTCCAGCAGCAGCAGCAGCAGCAGCAGCATCGCACAGAGCTGGAGAAGAACCAGGCTGAACAACAAACCACAGCTGGCAGAGCAGAAGCAGAACAATCAGCTGCTGAAGGCGTATATGCGAGCCATCCGCAGTGTCAACCCCAACCTTCAGAACCTGGAGGAGACAATCGAATACAACGAGATCCTCGAGTGGGTGAACTCCCTGCAGCCGGCAAGGGTGACCCGCTGGGGGGACATGATCCCACTCCTGATGCTGCTCCAGGCTGTCATCAAGCGCTCCCTCGTGGAAAGTGGCTGCCCGGCCTCCATCGTCAACGAGCTGATTGAAAATGCCCATGAACGCAGTTGGCCCAGGGTCTGGCCACACTAGAGACAAGACAGATGAACCGGCGCTACTATGAGAACTACGTGGCCAAGCGCATCCTGGCAAGCAGCGCTCCTCTGGCAAGCAGCCTCCTTGGCAAGCAGCGCTTCGTCAGGAGACCAGGGCTCGTC

ATGATATTTGCGCATGGTGTGGAGGAGATATAA

**ACGCGTACGCGGCCGCTC**GAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT

TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

Restriction Sites: Sgfl-Mlul
ACCN: BC019415
Insert Size: 585 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a

point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative

RNA splicing form or single nucleotide polymorphism (SNP).



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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

 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]