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Product datasheet for MG201892

Rnf41 (BC019415) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rnf41 (BC019415) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Rnf41
Synonyms:	4933415P08Rik, FLRF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>MG201892 representing BC019415
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCCAAAGATGAACTGCCAAACCACAATTGCATTAAGCACCTGCGCTCCGTGGTCCAGCAGCAGCAGT
CGCGCATCGCAGAGCTGGAGAAGACCAGGGCTGAACACAAGCACCAGCTGGCAGAGCAGAAGCGAGACAT
TCAGCTGCTGAAGGCGTATATGCGAGCCATCCGCAGTGTCAACCCCAACCTTCAGAACCTGGAGGAGACA
ATCGAATACAACGAGATCCTCGAGTGGGTGAACTCCCTGCAGCCGGCAAGGGTGACCCGCTGGGGGGGCA
TGATCTCCACTCCTGATGCTGTGCTCCAGGCTGTCATCAAGCGCTCCCTCGTGGAAAGTGGCTGCCCGGC
CTCCATCGTCAACGAGCTGATTGAAAATGCCCATGAACGCAGTTGGCCCCAGGGTCTGGCCACACTAGAG
ACAAGACAGATGAACCGGCGCTACTATGAGAACTACGTGGCCAAGCGCATCCCTGGCAAGCAGGCTGTAG
TGGTGATGGCCTGTGAGAACCAGCACATGGGGGACGACATGGTGCAGGAGCCAGGGCTCGTCATGATATT
TGCGCATGGTGTGGAGGAGATA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG201892 representing BC019415
Red=Cloning site Green=Tags(s)

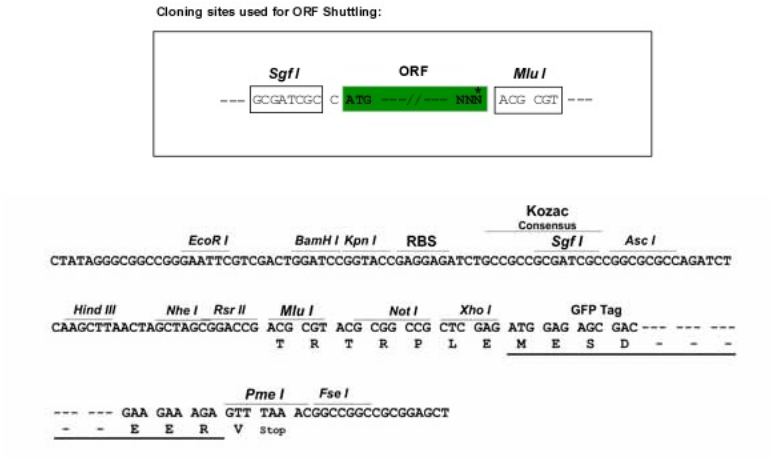
MPKDELPNHNCIKHLRSVVQQQQSRIAELEKTRAEHKHQLAEQKRDIQLLKAYMRAIRSVNPNLQNLEET
IEYNEILEWVNSLQPARVTRWGGMISTPDAVLQAVIKRSLVESGCPASIVNELIENAHERSWPQGLATLE
TRQMNRRYYENYVAKRIPGKQAVVVMACENQHMGDDMVQEPGLVMIFAHGVEEI

TRTRPLE - GFP Tag - V

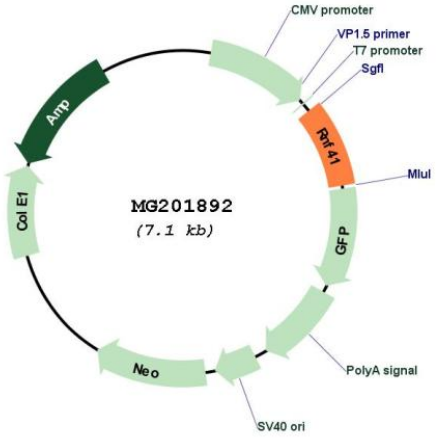
Restriction Sites: SgfI-MluI

View online »

Cloning Scheme:



Plasmid Map:



ACCN:	BC019415
ORF Size:	584 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

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]