

Product datasheet for **MG202240**

Rnf138 (NM_019706) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Tag: TurboGFP
Symbol: Rnf138
Synonyms: 2410015A17Rik; 2810480D20Rik; STRIN; Trif; Trif-d
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)

ORF Nucleotide Sequence: >MG202240 representing NM_019706
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGTCGGAGGAACCTTCGGCGGCCACGTCCTACACGGAAGATGATTTCTACTGCCCTGTCTGTCAGGAGG
 TGCTCAAGACGCCGGTGCAGCCGCGCCCTGTCAGCACGTTTTCTGTAGAAAATGTTTCCTGACTGCAAT
 GAGAGAAAGTGAATACATTGTCCCCTATGTCGTGGAAGTGTGACTAGAAGAGAAAGAGCATGTCCGGAA
 CGGGCCTTAGATCTTAAAAATATCATGAGGAGGTTTTCTGGTAGCTGCAGATGCTGTTCAAAAAAGATTA
 AATTCTATCGCATGAGACATCATTACAAATCTTGAAGAAGTATCAGGATGAATATGGTGTTCCTCTGT
 CATTCCAAACTTTAAGATTTCTCAAGATTCAGTAAGGAGCAGTAATAGGAGTAAACATCTGCATCTGAT
 AACACAGAACTTATCAAGAGGATACAAGTTCTTCTGGGCATCCTACCTTTAAGTGTCCCTTATGTCAAG
 AGTCAAATTTACCAGACAACGTTTATTGGATCACTGTAATAGTAACCACCTATTTAGATAGTTCTCTGT
 GAATCTTCAGCTAGATGAGAAACCAATATCAAACCTGCTGTGGAAGAGTCTTTTCAAGTAAACATG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG202240 representing NM_019706
 Red=Cloning site Green=Tags(s)

MSEELSAATSATEDDFYCPVCQEVLPVVRTAACQHVFCRKCFLTAMRESGIHCPLCRGSVTRRERACPE
 RALDLENIMRRFSGSCRCCSKKIKFYRMRHHYKSCCKYQDEYGVSSVIPNFKISQDSVRSSNRSETASD
 NTETYQEDTSSSGHPTFKCPLCQESNFRQLLDHCNSNHLFQIVPVNLQLDEETQYQTAVEESFQVNM

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI



Cloning Scheme:


ACCN: NM_019706

ORF Size: 627 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: [NM_019706.3](#), [NP_062680.2](#)

RefSeq Size: 3002 bp

RefSeq ORF: 630 bp

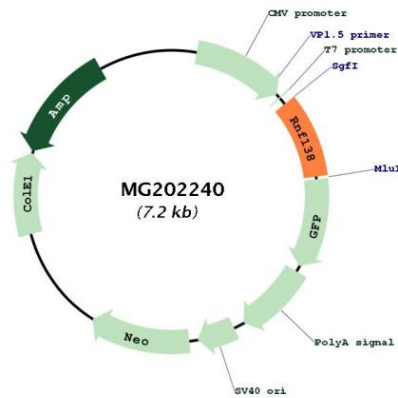
Locus ID: 56515

UniProt ID: [Q9CQE0](#)

Cytogenetics: 18 A2

Gene Summary: E3 ubiquitin-protein ligase involved in DNA damage response by promoting DNA resection and homologous recombination. Recruited to sites of double-strand breaks following DNA damage and specifically promotes double-strand break repair via homologous recombination. Two different, non-exclusive, mechanisms have been proposed. According to a report, regulates the choice of double-strand break repair by favoring homologous recombination over non-homologous end joining (NHEJ): acts by mediating ubiquitination of XRCC5/Ku80, leading to remove the Ku complex from DNA breaks, thereby promoting homologous recombination. According to another report, cooperates with UBE2Ds E2 ubiquitin ligases (UBE2D1, UBE2D2, UBE2D3 or UBE2D4) to promote homologous recombination by mediating ubiquitination of RBBP8/CtIP. Together with NLK, involved in the ubiquitination and degradation of TCF/LEF. Also exhibits auto-ubiquitination activity in combination with UBE2K. May act as a negative regulator in the Wnt/beta-catenin-mediated signaling pathway.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG202240