

## Product datasheet for **MR228388**

### Rnf138 (NM\_001303011) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Rnf138 (NM\_001303011) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Rnf138  
**Synonyms:** 2410015A17Rik; 2810480D20Rik; STRIN; Trif; Trif-d  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >MR228388 representing NM\_001303011  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGTCCGAGGAAC**TTTCGGCGGCCACGTCCTACACGGAAGATGATTTCTACTGCCCTGTCTGT**CAGGAGG  
TGCTCAAGACGCCGGT**GCGGACCGGCCTGTCAGCACGTTTTCTGTAGAAAATGTTTCCTGACTGCAAT**  
GAGAGAAAGT**GGAATACATTGTCCCTATGTCGTGGAAGTGTGACTAGAAGAGAAAGAGCATGTCCGGAA**  
CGGGCCTTAGATCTT**GAAAATATCATGAGGAGTTTTCTGGTAGCTGCAGATGCTGTTCAAAAAGATTA**  
AATTCTATCGCATGAGACATCATT**ACAAATCTTGTGAAGAAGTATCAGGATGAATATGGTGTCTTCTGT**  
CATTCCAAACTTTAAGATTTCT**CAAGATTCAGTAAGGAGCAGTCTTCTGGGCATCCTACCTTAAGTGT**  
CCCTTATGTCAAGAGTCAAATTT**CACCAGACAACGTTTATTGGATCACTGTAATAGTAACCACCTATTT**  
AGATAGTTCCTGTGAATCTT**CAGCTAGATGAGGAAACCAATATCAA**ACTGCTGTGGAAGAGTCTTTCA  
AGTAAACATG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR228388 representing NM\_001303011  
Red=Cloning site Green=Tags(s)

MSEELSAATSYTEDDFYCPVCQEVLPVVRTAACQHVFCRKCFLTAMRESGIHCPLCRGSVTRRERACPE  
RALDLENIMRRFSGSCRCCSKIKFYRMRHHYKSCCKYQDEYGVSSVIPNFKISQDSVRSSSSGHPTFKC  
PLCQESNFTRQLLDHCNSNHLFQIVPVNLQLDEETQYQTAVEESFQVNM

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

**Restriction Sites:** SgfI-MluI

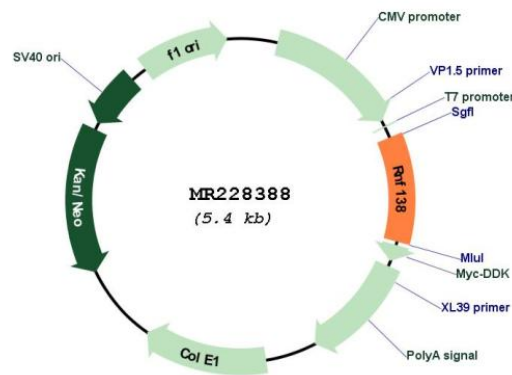


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Cloning Scheme:



Plasmid Map:



ACCN: NM\_001303011

ORF Size: 570 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:** [NM\\_001303011.1](#), [NP\\_001289940.1](#)

**RefSeq Size:** 2746 bp

**RefSeq ORF:** 573 bp

**Locus ID:** 56515

**UniProt ID:** [Q9CQE0](#)

**Cytogenetics:** 18 A2

**MW:** 22.5 kDa

**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]