

## Product datasheet for **RC229860**

### Manic Fringe (MFNG) (NM\_001166343) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Manic Fringe (MFNG) (NM_001166343) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Manic Fringe
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC229860 representing NM_001166343 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCAGTGCCGGCTCCCGCGGGCCTGGCTGGAGCCCTCCTCACCTCCTGTGCATGGGGCTCCTGTGTC  
TGCGGTACCACTGAACCTGTCCCGCAGCGGGTACAAGGGACCCCGAGCTGAGCCAGCCGAACCCGGG  
GCCCCCTAAGCTACAGCTACACGATGTCTTCATTGCAGTGAAGACGACCCGGGCTTCCACCGCTTGCGC  
CTGGAGCTGTGCTTGACACGTGGGTTCCAGGACCAGGAACAGGTGACAAGTCCACCTTGTGGTCA  
CCAATGCTCCGCGGAACACAGCCACCCAGCTCTGTCTGCAAGATGGCTGCTGAGTTCGACACCTTCTT  
GGCCAGTGGGCTTAGGTGGTCTGCCATGTGGACGATGACAACTATGTGAACCCAAGGGCGCTGCTGCAG  
CTTCTGAGAGCCTTCCCGCTGGCCCGCAGCTCTATGTGGGAAGGCCAGCCTGAACCGGCCATCCATG  
CCTCAGAGCCACAGCCCCACAACCGCACAGGCTGGTACAGTTCTGGTTTGCCACTGGGGGTGCTGGCTT  
CTGCATCAATCGCAAACCTGGCTTTGAAGATGGCTCCGTGGGCCAGTGGCTCCCGTTTCATGGACACATCT  
GCTCTCATCCGGCTGCCTGATGACTGCACCATGGGCTATATCATTGAGTGCAAGCTGGGCGGCCCTGC  
AGCCAGCCCCCTTTTCACTCCACCTGGAGACCCTGCAGCTGCTGAGGACTGCACAGCTCCAGAAC  
GGTCACCCTCAGTACGGTGTCTTTGAGGGAACTCAACGTATTAAGCTACAGGGCCCTTCTCCCCG  
GAGGAGACCCCTCCAGATTTGCTCCCTCCATTGTCTGCTATCCAGATACACCTGGTGTCCCAGC  
TGGGTGCCGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC229860 representing NM\_001166343  
Red=Cloning site Green=Tags(s)

MQCRLPRGLAGALLTLLCMGLLCLRYHLNLSQQRVQGTPELSQPNPGPPKLQLHDVFIQVKTTRAFHRLR  
 LELLLDWTWVSRTREQVTRSHLVVTNCSAEHSHPALSCKMAAEFDTFASGLRWFCVDDDDNYVNPALLQ  
 LLRAFPLARDVYVGRPSLNRPIHASEPQPHNRTRLVQFWFATGGAGFCINRKLALKMAPWASGSRFMDTS  
 ALIRLPDDCTMGYIIECKLGGRLQPSPLFHSHLETLQLLRTAQLPEQVTLQSYGVFEGKLVNVIKLGQPFSP  
 EEDPSRFRSLHCLLYPDPWPQQLGAR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8051\\_h06.zip](https://cdn.origene.com/chromatograms/mk8051_h06.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001166343

**ORF Size:** 921 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\\_001166343.1](#), [NP\\_001159815.1](#)

**RefSeq ORF:** 924 bp

**Locus ID:** 4242

**UniProt ID:** [O00587](#)

**Cytogenetics:** 22q13.1

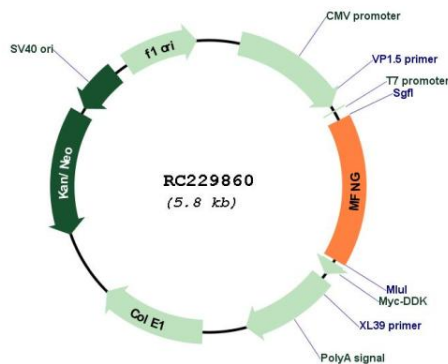
**Protein Families:** Druggable Genome

**Protein Pathways:** Notch signaling pathway

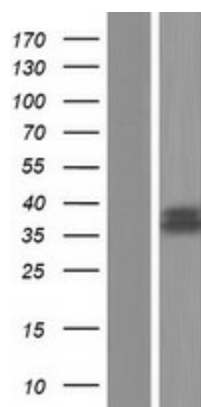
**MW:** 35.1 kDa

**Gene Summary:** This gene is a member of the glycosyltransferase 31 gene family. Members of this gene family, which also includes the LFNG (GeneID: 3955) and RFNG (GeneID: 5986) genes, encode evolutionarily conserved glycosyltransferases that act in the Notch signaling pathway to define boundaries during embryonic development. While their genomic structure is distinct from other glycosyltransferases, these proteins have a fucose-specific beta-1,3-N-acetylglucosaminyltransferase activity that leads to elongation of O-linked fucose residues on Notch, which alters Notch signaling. The protein encoded by this gene may control Notch signaling in claudin-low breast cancer. [provided by RefSeq, May 2018]

### Product images:



Circular map for RC229860



Western blot validation of overexpression lysate (Cat# [LY432860]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC229860 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).