

Product datasheet for **RG229586**

MCFD2 (NM_001171508) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: MCFD2 (NM_001171508) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: MCFD2
Synonyms: F5F8D; F5F8D2; LMAN1IP; SDNSF
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG229586 representing NM_001171508
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGACCATGAGATCCCTGCTCAGAACCCCTTCTGTGTGGCCTGCTCTGGGCCTTTTGTGCCCCAGGCG
 CCAGGGCTGAGGAGCCTGCAGCCAGCTTCTCCCAACCCGGCAGCATGGGCCTGGATAAGAACACAGTGCA
 CGACCAAGAGCATATCATGGAGCATCTAGAAGGTGTCATCAACAAACCAGAGGCGGAGATGTCGCCACAA
 GAATTGCAGCTCCACTTCAAATGCATGATTATGATGGCAATAATTTGCTTGATGGCTTAGAACTCT
 CCACAGCCATCACTCATGTCCATAAGGAGGAAGGGAGTGAACAGGCACCACTAATGAGTGAAGATGAACT
 GATTAACATAATAGATGGTGTTTGAGAGATGATGACAAGAACAATGATGGATACATTGACTATGCTGAA
 TTTGCAAAATCACTGCAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG229586 representing NM_001171508
 Red=Cloning site Green=Tags(s)

MTMRSLLRTPFLCGLLWAFCAPGARAEPAASFQPGSMGLDKNTVHDQEHIMEHLEGVINKPEAEMSPQ
 ELQLHYFKMHDYDGNLLDGLLELSTAIHVHKEEGSEQAPLMSEDELINIIDGVLRRDDKNNIDGYIDYAE
 FAKSLQ

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

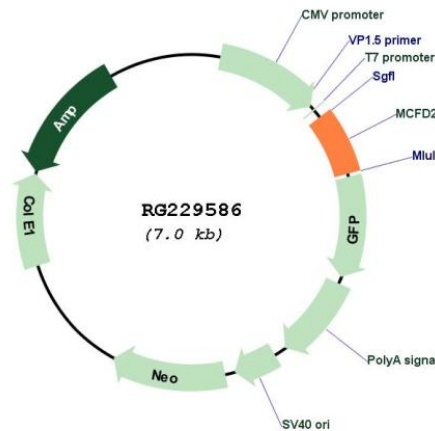


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Cloning Scheme:



Plasmid Map:



ACCN: NM_001171508

ORF Size: 438 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:	<ol style="list-style-type: none">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:	<u>NM_001171508.2, NP_001164979.1</u>
RefSeq Size:	4334 bp
RefSeq ORF:	441 bp
Locus ID:	90411
UniProt ID:	<u>Q8NI22</u>
Cytogenetics:	2p21
Gene Summary:	<p>This gene encodes a soluble luminal protein with two calmodulin-like EF-hand motifs at its C-terminus. This protein forms a complex with LMAN1 (lectin mannose binding protein 1; also known as ERGIC-53) that facilitates the transport of coagulation factors V (FV) and VIII (FVIII) from the endoplasmic reticulum to the Golgi apparatus via an endoplasmic reticulum Golgi intermediate compartment (ERGIC). Mutations in this gene cause combined deficiency of FV and FVIII (F5F8D); a rare autosomal recessive bleeding disorder characterized by mild to moderate bleeding and coordinate reduction in plasma FV and FVIII levels. This protein has also been shown to maintain stem cell potential in adult central nervous system and is a marker for testicular germ cell tumors. The 3' UTR of this gene contains a transposon-like human repeat element named 'THE 1'. A processed RNA pseudogene of this gene is on chromosome 6p22.1. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Apr 2016]</p>