

## Product datasheet for **RG202230**

### **MCFD2 (NM\_139279) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** MCFD2 (NM\_139279) 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:** >RG202230 representing NM\_139279  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGACCATGAGATCCCTGCTCAGAACCCCTTCTGTGTGGCCTGCTCTGGGCCTTTTGTGCCCCAGGCG  
CCAGGGCTGAGGAGCCTGCAGCCAGCTTCTCCAACCCGGCAGCATGGGCCTGGATAAGAACACAGTGCA  
CGACCAAGAGCATATCATGGAGCATCTAGAAGGTGTCATCAACAAACCAGAGGCGGAGATGTCGCCACAA  
GAATTGCAGCTCCATTACTTCAAATGCATGATTATGATGGCAATAATTTGCTTGATGGCTTAGAACTCT  
CCACAGCCATCACTCATGTCCATAAGGAGGAAGGGAGTGAACAGGCACCACTAATGAGTGAAGATGAACT  
GATTAACATAATAGATGGTGTTTGAGAGATGATGACAAGAACAATGATGGATACATTGACTATGCTGAA  
TTTGCAAAATCACTGCAG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG202230 representing NM\_139279  
Red=Cloning site Green=Tags(s)

MTMRSLLRTPFLCGLLWAFCAPGARAEPEAASFQPGSMGLDKNTVHDQEHIMEHLEGVINKPEAEMSPQ  
ELQLHYFKMHDYDGNLLDGLLELSTAIHVHKEEGSEQAPLMSEDELINIIDGVLRDDKNDNGYIDYAE  
FAKSLQ

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** Sgfl-MluI



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**Cloning Scheme:**


**ACCN:** NM\_139279

**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:**

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\\_139279.6](#)

**RefSeq Size:** 4144 bp

**RefSeq ORF:** 441 bp

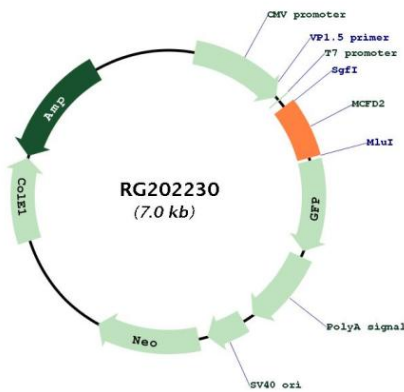
**Locus ID:** 90411

**UniProt ID:** [Q8NI22](#)

**Cytogenetics:** 2p21

**Gene Summary:** 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]

**Product images:**



Circular map for RG202230