

## Product datasheet for **RG230453**

### **FREM1 (NM\_001177704) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	FREM1 (NM_001177704) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	FREM1
Synonyms:	BNAR; C9orf143; C9orf145; C9orf154; MOTA; TILRR; TRIGNO2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>RG230453 representing NM\_001177704  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGGTGACACAAGAATCCATGCTGAAGGCTGCCTTGCCCTCTTTACCAGATTCATCATCAGCAATGGAC  
TGGGACCGAGCACGGGGTGTGGAGATCACACTGGAGACTGTGGACAGAGCCCTGCCTGTGGTAACCAG  
GAACAAGGGGTTGAGACTGGCCCAAGGGCCGTGGGCCTGCTTTCCCTGACCTCCTTCAGCTGACCGAC  
CCTGATACACCTGCGGAGAACCTCACCTTCTTGGTTCAGCTCCCCAGCATGGCCAGCTCTACCTGT  
GGGGGACAGGGCTACTTCAACACAATTTCAACCAGCAGGATGTGGACAGCAAGAATGTGGCCTATCGGCA  
CTCAGGAGGGGACTCCCAGACTGACTGCTTTACTTTTCATGGCCACAGATGGGACAAACCAAGGCTTTATT  
GTGAATGGGAGAGTGTGGGAAGAACCTGTTTTATTCACCATTGAGTACCAATTTGGACAAAACAGCTC  
CTCGTATCACACTCTTGCAATCCCTTCTCAAGTGGGGCTCCTGAAAAATGGCTGCTACGGGATTTACAT  
CACTTCCCGCGTGTGAAGGCATCAGACCTGACTGAGGACGATCAGATCATCTTTAAAATTCTACAA  
GGCCAAAACATGGACATCTGGAGAACAACAACAGGTGAATTTATCCATGAGAAAATTTAGCCAAAAGG  
ACTTAAACAGTAAGACTATTCTTACATATAAACCCTCTTTGGAAGTAAATTCAGATACCGTGGAAAT  
TCAAATCATGGACCCACAGGGAACCTCGGCCACTCCTCAAATTTTGGAACTGAAGTGGTCTCATATTGAA  
TGGTCACAGACCGAATATGAAGTCTGTGAGAATGTGGGTTTGTGCCCTTGGAAATATCAGAAGGGGAT  
ATTCATGGACTCGGCCCTTTGTGGGTATAAAGGTCAACCAAGTGTGAGTGCAGTTGGAAAAGATTTAC  
CGTATTCCATCTAACTGATTCAGTTTGAACCAAGTGTCAACTAAGATGTGGAATATAGCAATTACC  
TATGACGGATTAGAGGAAGATGATGAGGCTTTGAAGTAATTCTGAACTCCCTGTGAATGCAGTTCTTG  
GCACAAAAGACAAAAGCTGCAGTAAAAATTTGGACTCAAAGGAGGACAATGCCATCCTTCATATTCCTC  
CAACCAAAGCAAGCACAGCACATGGGAGAAGGGCATTGGCATCTGCTGCCCCAGGGTCTTCTCATCC  
ACCACTTCTGGTTCCTTTCATCTGGAAAGAAGCCTTCCATCTTCATGCAGCTAGCAGTTCATCAGGG  
GAGACACCCTGCGGGGCTTTGATTCTACAGATCTTCTCAAAGGAAGCTTAGGACCCGTGGGAATGGCAA  
AACAGTTCGTCCATCCTCTGTTTATAGAAATGGAACAGACATCATCTATAATTATCATGGGATAGTTTCC  
TTGAACTGGAGGATGACAGTTTCCCACTCACAAAAGGAAGGCCAAAGTATCCATCATTAGTCAGCCAC  
AAAAGACAATCAAAGTGGCAGAAGTGCCTCAAGCAGATAAGGTGGAATCCACAAGTACTCACACTTCCC  
CAGACAGGACCAGTTGCCCTCATTTCAAAGAAGTGCCTGGAATTAAGGGACTCTTCCATTTTGAA  
GAAGGCATCCAGAAGCTGTATCAGTCAATGGGATCGCCTGGAAAGCCTGGAGTCCCAAACCAAGGATG  
TGAAGACAAATCCTGTCCAGCCGGGTGGCACCAGCACTCAGGCTACTGTACATCTTGATCACAGAGCA  
GAAAGGCACCTGGAATGCGGCTGCCAAGCTTGCAAGGAAACAATACCTGGGCAACCTTGTAACTGTATTC  
TCCAGGCAGCACATGCGGTGGCTCTGGGACATTGGTGGGAGAAAGTCTTTTGGATAGGTTTGAACGACC  
AAGTGCATGCTGGCCACTGGGAGTGGATCGGTGGTGAACCTGTTGCCCTCACCAATGGGAGAAGAGGGCC  
CTCTCAACGCTCCAAGCTTGAAAGAGCTGTGTTTTGTTCAAAGACAAGGGAATGGCAAACAAAAGAC  
TGTAGGAGAGCCAAACCTCATAATTATGTGTGTTCCAGAAAATC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG230453 representing NM\_001177704  
 Red=Cloning site Green=Tags(s)

MVTQESMLKAALPLFTRFIISNGLRTEHGVFEITLETVDRALPVVTRNKGLRLAQGAVGLLSPDLLQLTD  
 PDTPAENLTFLLVQLPQHGQLYLWGTGLLQHNFTQQDVSKNVAYRHSGGDSQTDCTFFMATDGTNQGFI  
 VNGRVWEPEVLFITIQVDQLDKTAPRITLLHSPSQVGLLKNGCYGIYITSRVLKASDPDTEDDQIIFKILQ  
 GPKHGHLENTTTFGEIHEKFSQKDLNSKTILYIINPSLEVNSDTVEFQIMDPTGNSATPQILELKWSHIE  
 WSQTEYEVCENVGLLPLEIIRRGYSMDSAFVGIKVNQVSAAVGKDFTVIPSKLIQFDPGMSTKMWNIAIT  
 YDGLEEDDEVFEVILNSPVNAVLTGKTKAAVKILD SKGGQCHPSYSSNQSKHSTWEKGIWHLLPPGSSSS  
 TTSGSFHLERRPLPSSMQLAVIRGDTLRGFDSTDL SQRKLRTRGNGKTVRPSSVYRNGTDIIYNYHGI VS  
 LKLEDDSFPTHKRKAKVSIISQPQKTIKVAELPQADKVESTTDSHFPRQDQLPSFPKNCTLELKG LHFHE  
 EGIQKLYQCNGIAWKAWSPTKDVEDKSCPAGWHQHSGYCHILITEQKGTWNAQAACREQYLG NLVTVF  
 SRQHMRWLDIGGRKSFWIGLNDQVHAGHWEWIGGEPVAF TNGRRGPSQRSKLGKSCVLVQRQGWQTKD  
 CRRRAKPHNYVCSRKL

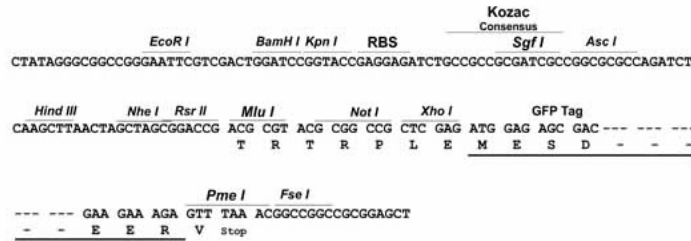
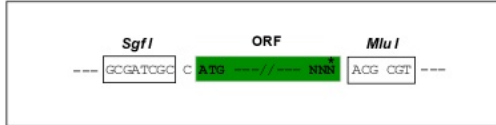
TRTRPLE - GFP Tag - V

**Restriction Sites:**

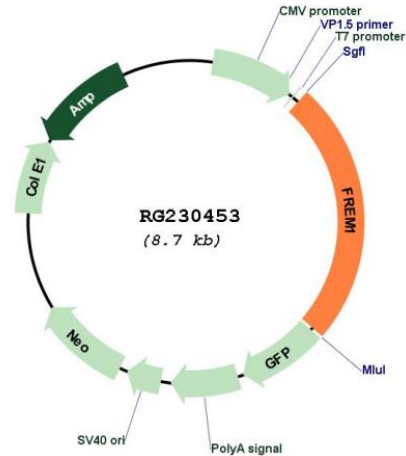
SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



## Plasmid Map:



ACCN: NM\_001177704

ORF Size: 2145 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\\_001177704.3](#)

RefSeq Size: 4967 bp

RefSeq ORF: 2148 bp

**Locus ID:** 158326

**UniProt ID:** [Q5H8C1](#)

**Cytogenetics:** 9p22.3

**Protein Families:** Protease, Transmembrane

**Gene Summary:** This gene encodes a basement membrane protein that may play a role in craniofacial and renal development. Mutations in this gene have been associated with bifid nose with or without anorectal and renal anomalies. Alternatively spliced transcript variants encoding different isoforms have been described. PubMed ID 19940113 describes one such variant that initiates transcription within a distinct, internal exon; the resulting shorter isoform (named Toll-like/interleukin-1 receptor regulator, TILRR) is suggested to be a co-receptor of the interleukin 1 receptor family and may regulate receptor function and Toll-like receptor/interleukin 1 receptor signal transduction, contributing to the control of inflammatory response activation. [provided by RefSeq, Apr 2011]