

## Product datasheet for **RG231287**

### **FMRP (FMR1) (NM\_001185081) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	FMRP (FMR1) (NM_001185081) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	FMRP
Synonyms:	FMRP; FRAXA; POF; POF1; POFX
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG231287 representing NM\_001185081  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGAGGAGCTGGTGGTGAAGTGC GGCTCCAATGGCGCTTTCTACAAGGCATTTGTAAGGATGTTCT  
 ATGAAGATTCAATAACAGTTGCATTTGAAAACAACCTGGCAGCCTGATAGGCAGATTCCATTTTCATGATGT  
 CAGATTCACCTCCTGTAGGTTATAATAAAGATATAAATGAAAGTGATGAAGTTGAGGTGATTCCAGA  
 GCAAAATGAAAAGAGCCTTGCTGTTGGTGGTTAGCTAAAGTGAGGATGATAAAGGTTGAGTTTATGTGA  
 TAGAATATGCAGCATGTGATGCAACTTACAATGAAATTGTCACAATTGAACGTCTAAGATCTGTTAATCC  
 CAACAACTGCCACAAAAGATACTTTCCATAAGATCAAGCTGGATGTGCCAGAAGACTTACGGCAAATG  
 TGTGCCAAAGAGGCGGCACATAAGGATTTAAAAAGGCAGTTGGTGCCTTTCTGTAACCTTATGATCCAG  
 AAAATTATCAGCTTGTCATTTTGTCCATCAATGAAGTCACTCAAAGCGAGCACATATGCTGATTGACAT  
 GCACTTTTCGGAGTCTGCGCACTAAGTTGTCTCTGATAATGAGAAATGAAGAAGCTAGTAAGCAGCTGGAG  
 AGTTCAAGGCAGCTTGCCTCGAGATTTTCATGAACAGTTTATCGTAAGAGAAGATCTGATGGTCTAGCTA  
 TTGGTACTCATGGTGCTAATATTCAGCAAGCTAGAAAAGTACCTGGGGTCACTGCTATTGATCTAGATGA  
 AGATACCTGCACATTTTCATTTTATGGAGAGGATCAGGATGCAGTGAAAAAGCTAGAAGCTTTCTCGAA  
 TTTGCTGAAGATGTAATACAAGTCCAAGGAACCTAGTAGGCAAAGTAATAGGAAAAATGGAAAGCTGA  
 TTCAGGAGATTGTGGACAAGTCAAGGAGTTGTGAGGGTGAAGATTGAGGCTGAAAAATGAGAAAAATGTTCC  
 ACAAGAAGAGGAAATATGCCACCAAATTCCTTCTTCCAATAATTCAAGGGTTGGACCTAATGCCCA  
 GAAGAAAAAACATTTAGATATAAAGGAAAACAGCACCCATTTTCTCAACCTAACAGTACAAAAGTCC  
 AGAGGGGTATGGTACCATTTGTTTTGTGGGACAAAGGACAGCATCGCTAATGCCACTGTTCTTTTGGAC  
 TTATCACCTGAACATTTTAAAGCTCCAACAGAGGAAGAGAGGGAGAGCTTCTGCGCAGAGGAGACGGAC  
 GCGCGCTGGAGGGGAGGAAGAGGACAAGGAGGAAGAGGACGTGGAGGAGGCTTCAAAGAAAACGACGA  
 TCACTCCCGAACAGATAATCGTCCACGTAATCCAAGAGAGGCTAAAGGAAGAACAACAGATGGATCCCTT  
 CAGATCAGAGTTGACTGCAATAATGAAAGGAGTGTCCACACTAAAACATTACAGAATACCTCCAGTGAAG  
 GTAGTCGGCTGCGCACGGGTAAGATCGTAACCAAGAAAGAGAAGCCAGACAGCGTGGATGGTCAGCA  
 ACCACTCG

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG231287 representing NM\_001185081  
 Red=Cloning site Green=Tags(s)

MEELVVEVRGNSGAFYKAFVKDVHEDSITVAFENWQPDRQIPFHDVRFPPPPVGVYNDINESDEVEVYSR  
 ANEKEPCCWLLAKVRMIKGEFYVIEYAACDATYNEIVTIERLRVSNPNKPATKDTFHKIKLDVPEDLRQM  
 CAKEAAHKDFKKAVGAFSVTYDPENYQLVILSINEVTSKRAHMLIDMHFRSLRKLKSLIMRNEEASKQLE  
 SSRQLASRFHEQFIVREDLMGLAIGTHGANIQARKVPGVTAIDLDEDTCTFHIYGEDQDAVKKARFLE  
 FAEDVIQVPRNLVGKVIKNGKLIQEIVDKSGVVRVRIEAEENEKVPQEEEIMPPNSLPSNNSRVGNAP  
 EEKHLDIKENSTHFSQPNSTKVQRGMVPFVFGTKDSIANATVLLDYHLNLYLKLQQRKRGRASCAEETD  
 GGVEGEEEDKEEEDVEEASKETTITPEQIIVHVIQERLKEEQQMDPFRSELTAIMKGVSTLKHYPVVK  
 VVGCARVKIVTRRKRSTAWMVSNHS

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_001185081

**ORF Size:** 1548 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\\_001185081.2](#)

**RefSeq Size:** 4077 bp

**RefSeq ORF:** 1551 bp

**Locus ID:** 2332

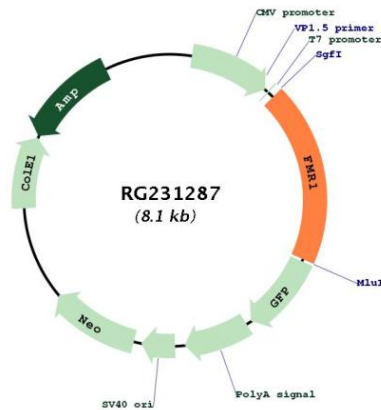
**UniProt ID:** [Q06787](#)

**Cytogenetics:** Xq27.3

**Protein Families:** Druggable Genome

**Gene Summary:** The protein encoded by this gene binds RNA and is associated with polysomes. The encoded protein may be involved in mRNA trafficking from the nucleus to the cytoplasm. A trinucleotide repeat (CGG) in the 5' UTR is normally found at 6-53 copies, but an expansion to 55-230 repeats is the cause of fragile X syndrome. Expansion of the trinucleotide repeat may also cause one form of premature ovarian failure (POF1). Multiple alternatively spliced transcript variants that encode different protein isoforms and which are located in different cellular locations have been described for this gene. [provided by RefSeq, May 2010]

**Product images:**



Circular map for RG231287