

Product datasheet for **RC222699**

FMRP (FMR1) (NM_002024) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | FMRP (FMR1) (NM_002024) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | FMRP |
| Synonyms: | FMRP; FRAXA; POF; POF1; POFX |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |



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ORF Nucleotide
Sequence:

>RC222699 representing NM_002024
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGAGGAGCTGGTGGTGAAGTGC GGCTCCAATGGCGCTTTCTACAAGGCATTTGTAAGGATGTTCC
ATGAAGATTCAATAACAGTTGCATTTGAAAACAACCTGGCAGCCTGATAGGCAGATTCCATTTTCATGATGT
CAGATTCACCTCCTGTAGGTTATAATAAAGATATAAATGAAAGTGATGAAGTTGAGGTGATTCCAGA
GCAAAATGAAAAGAGCCTTGCTGTTGGTGGTTAGCTAAAGTGAGGATGATAAAGGGTGAGTTTTATGTGA
TAGAATATGCAGCATGTGATGCAACTTACAATGAAATTGTCACAATTGAACGTCTAAGATCTGTTAATCC
CAACAACTGCCACAAAAGATACTTTCCATAAGATCAAGCTGGATGTGCCAGAAGACTTACGGCAAAATG
TGTGCCAAAGAGCGGCACATAAGGATTTAAAAAGGCAGTTGGTGCCTTTTCTGTAACCTATGATCCAG
AAAATTATCAGCTTGTCATTTTGTCCATCAATGAAGTCACTCAAAGCGAGCACATATGCTGATTGACAT
GCACTTTTCGGAGTCTGCGCACTAAGTTGTCTCTGATAATGAGAAATGAAGAAGCTAGTAAGCAGCTGGAG
AGTTCAAGGCAGCTTGCCTCGAGATTTTCATGAACAGTTTATCGTAAGAGAAGATCTGATGGGTCTAGCTA
TTGGTACTCATGGTGCTAATATTCAGCAAGCTAGAAAAGTACCTGGGGTCACTGCTATTGATCTAGATGA
AGATACCTGCACATTTTCATTTTATGGAGAGGATCAGGATGCAGTGAAAAAGCTAGAAGCTTTCTCGAA
TTTGCTGAAGATGTAATACAAGTTCCAAGGAACCTAGTAGGCAAAGTAATAGGAAAAATGGAAAGCTGA
TTCAGGAGATTGTGGACAAGTCAAGGAGTTGTGAGGGTGAAGATTGAGGCTGAAAAATGAGAAAAATGTTCC
ACAAGAAGAGGAAATTATGCCACCAATTCCTTCTTCCAATAATTCAAGGGTTGGACCTAATGCCCA
GAAGAAAAAACATTTAGATATAAAGGAAAACAGCACCCATTTTCTCAACCTAACAGTACAAAAGTCC
AGAGGGTGTAGTGGCTTCATCAGTTGTAGCAGGGGAATCCAGAAACCTGAACCTCAAGGCTTGGCAGGG
TATGGTACCATTTGTTTTGTGGGAACAAAGGACAGCATCGCTAATGCCACTGTTCTTTGGATTATCAC
CTGAACATTTAAAGGAAGTAGACCAGTTGCGTTTGGAGAGATTACAAATTGATGAGCAGTTGCGACAGA
TTGGAGCTAGTTCTAGACCACCACCAAAATCGTACAGATAAGGAAAAAGCTATGTGACTGATGATGGTCA
AGGAATGGGTCGAGGTAGTAGACCTTACAGAAATAGGGGGCACGGCAGACGCGGTCTGGATATACTTCA
GGAACATAATTCTGAAGCATCAAATGCTTCTGAAACAGAATCTGACCACAGAGACGAACTCAGTGATTGGT
CATTAGCTCCAACAGAGGAAGAGAGGGAGAGCTTCTGCGCAGAGGAGACGGACGGCGGTGGAGGGGG
AGGAAGAGGACAAGGAGGAAGAGGACGTGGAGGAGGCTTCAAAGGAAACGACGATCACTCCCGAACAGAT
AATCGTCCACGTAATCCAAGAGAGGCTAAAGGAAGAACAACAGATGGATCCCTTCAGATCAGAGTTGACT
GCAATAATGAAAGGAGTGTCCACACTAAAACATTACAGAATACCTCCAGTGAAGGTAGTCGGCTGCGCAC
GGGTAAGATCGTAACCGAAGAAAGAGAAGCCAGACAGCGTGGATGGTCAAGCAACCACTCGTGAATGGA
GTACCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_002024.6](#)

RefSeq Size: 4362 bp

RefSeq ORF: 1899 bp

Locus ID: 2332

UniProt ID: [Q06787](#)

Cytogenetics: Xq27.3

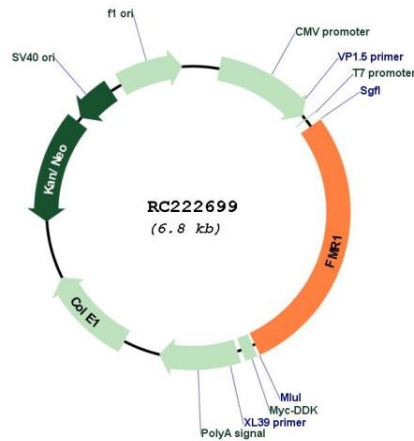
Domains: KH

Protein Families: Druggable Genome

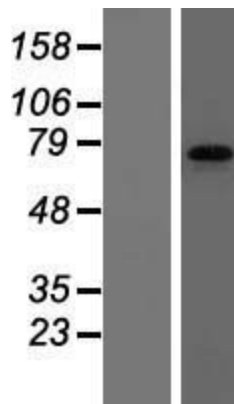
MW: 71 kDa

Gene Summary:

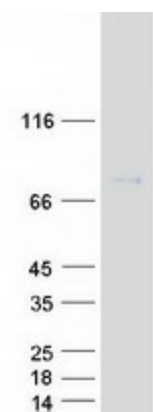
The protein encoded by this gene binds RNA and is associated with polysomes. The encoded protein may be involved in mRNA trafficking from the nucleus to the cytoplasm. A trinucleotide repeat (CGG) in the 5' UTR is normally found at 6-53 copies, but an expansion to 55-230 repeats is the cause of fragile 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 RC222699



Western blot validation of overexpression lysate (Cat# [LY419580]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222699 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified FMR1 protein (Cat# [TP322699]). The protein was produced from HEK293T cells transfected with FMR1 cDNA clone (Cat# RC222699) using MegaTran 2.0 (Cat# [TT210002]).