

## Product datasheet for **SC110897**

### **FMRP (FMR1) (NM\_002024) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	FMRP (FMR1) (NM_002024) Human Untagged Clone
Tag:	Tag Free
Symbol:	FMRP
Synonyms:	FMRP; FRAXA; POF; POF1; POFX
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >NCBI ORF sequence for NM\_002024, the custom clone sequence may differ by one or more nucleotides

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ATGGAGGAGCTGGTGGTGAAGTGC GGGCTCCAATGGCGCTTCTACAAGGCATTTGTA AAGGATGTT
ATGAAGATTCAATAACAGTTGCATTTGAAAACAACCTGGCAGCCTGATAGGCAGATTCCATTT
CATGATGTCAGATTTCCACCTCCTGTAGGTTATAATAAAGATATAAATGAAAGTGATGAAGTT
GAGGTGATTCCAGAGCAAAATGAAAAAGAGCCTTGCTGTTGGTGGTTAGCTAAAGTGAGGAT
GATAAAGGTTGAGTTTTATGTGATAGAATATGCAGCATGTGATGCAACTTACAATGAAATTG
TCACAATTGAACGTCTAAGATCTGTTAATCCCAACAACTGCCACAAAAGATACTTTCCATA
AAGATCAAGCTGGATGTGCCAGAAGACTACGGCAAATGTGTGCCAAAGAGGCGGCACATAAG
GATTTTAAAAAGGCAGTTGGTGCCTTTCTGTAACCTATGATCCAGAAAATTATCAGCTTGT
CATTTTGTCCATCAATGAAGTCACCTCAAAGCGAGCACATATGCTGATTGACATGCACTTT
CGGAGTCTGCGCACTAAGTTGTCTCTGATAATGAGAAATGAAGAAGCTAGTAAGCAGCTGG
AGTTCAAGGCAGCTTGCCTCGAGATTTCAAGACGTTTATCGTAAGAGAAGATCTGATGGTCT
AGCTATTGGTACTCATGGTGTAAATTCAGCAAGCTAGAAAAGTACCTGGGGTCACTGCTATT
GATCTAGATGAGATACCTGCACATTTTCAATTTATGGAGAGGATCAGGATGCAGTGAAAAAG
CTAGAAGCTTTCTCGAATTTGCTGAAGATGTAATACAAGTTCCAAGGAACCTAGTAGGCAA
AGTAATAGGAAAAATGGAAAGCTGATTCAGGAGATTGTGGACAAGTCAGGAGTTGTGAGGG
TGAGGATTGAGGCTGAAAAAGAGAAAAATGTTCCACAAGAAGAGGAAATATGCCACAAAAT
TCCTTCCCTTCCAATAATTCAAGGGTTGGACCTAATGCCCGAAGAAAAAACATTTAGATA
AAAGGAAAAACAGCACCCATTTTCTCAACCTAACAGTACAAAAGTCCAGAGGGTGTAGTGG
CTTCATCAGTTGTAGCAGGGGAATCCAGAAAACCTGAACTCAAGGCTTGGCAGGGTATGGT
ACCATTTGTTTTGTGGGAACAAGGACAGCATCGTAAATGCCACTGTTCTTTGGATTATCAC
CTGAACATTTTAAAGGAAGTAGACCAGTTGCGTTTGGAGAGATTACAAAATTGATGAGCAGT
TGCCAGAGATTGGAGCTAGTTCTAGACCACCACAAAATCGTACAGATAAGGAAAAAAGCT
ATGTGATGATGGTCAAGGAATGGGTCGAGGTAGTAGACCTTACAGAAATAGGGGGCACG
GCAGACGCGGTCTGGATATACTTCAAGAACTAATTCTGAAGCATCAAATGCTTCTGAAAC
AGAATCTGACCACAGAGACGAACTCAGTGATTGGTCATTAGCTCCAACAGAGGAAGAGAG
GGGAGCTTCTCGCAGAGGAGACGGACGGCGGCGTGGAGGGGGAGGAAGAGGACAAGGAG
GAGGACGTGGAGGAGCTTCAAAGGAAACGACGATCACTCCCGAACAGATAATCGTCCACG
TAATCCAAGAGAGGCTAAAGGAAGAACAACAGATGGATCCCTTCAGATCAGAGTTGACT
GCAATAATGAAAGGAGTGTCCACACTAAAACATTACAGAATACCTCCAGTGAAGGTAGT
CGGCTGCGCACGGGTAAAGATCGTAACCGAAGAAGAGAACCCAGACAGCGTGGATGGTCA
GCAACCACTCGTGAATGGATACCTAA
    
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**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_002024 unedited

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AATTCGGCACGAGGCGGCGGCGGCGGCGGAGGCGGCGGCGGCGGCGGCGGCGGCGGCGG
GGCTGGGCCTCGAGCGCCCGCAGCCACCTCTCGGGGGCGGGCTCCCGGCCTAGCAGGG
CTGAAGAGAAGATGGAGGAGCTGGTGGTGAAGTGCGGGGCTCCAATGGCGCTTTCTACA
AGGCATTTGTA AAGGATGTTTCATGAAGATTCAATAACAGTTGCATTTGAAAACAACTGGC
AGCCTGATAGGCAGATTCATTTTCATGATGTCAGATTCCACCTCCTGTAGGTTATAATA
AAGATATAAATGAAAGTGATGAAGTTGAGGTGATTCCAGAGCAAATGAAAAAGACCTT
GCTGTTGGTGGTTAGCTAAAGTGAGGATGATAAAGGGTGAAGTTTATGTGATAGAATATG
CAGCATGTGATGCAACTTACAATGAAATTGTCACAATTGAACGTCTAAGATCTGTTAATC
CCAACAACTGCCACAAAAGATACTTTCCATAAAGATCAAGCTGGATGTGCCAGAAGACT
TACGGCAAATGTGTGCCAAAGAGGCGGCACATAAGGATTTTAAAAAGGCAGTTGGTGCCT
TTTCTGNTACTTATGATCCAGANAATTATCAGCTTGTCAATTTGTCCATCAATGAAGTCA
CCTCANAGCGAGCACATATGCTGATTGACATGCACTTTTTCGAGTCTGCGCACTAAAGTGT
CTCTGNATATGAGAAATGAAGAAGCTAGNTAGCAGCTGGAGAGTTGAGGCAGCTTGCCTC
GAGATTCATGAACAGTTATCGTAGAAAAGATCTGATGGTCTAGCTATGGTACTCATGTGC
TATATTCAGCAGCTAGAAAAGACTGGGGTCTGCTATGACTAGAGAAAATACTGCCATN
    
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<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_002024 unedited AGCTAAGGGATACAAACTCTTTGTTACTGCTTGCATACAAAATTATTGCACTATAACCAA ACAAATGTCAACATAAAATCCAATCTGTTGTCGTAATATGTACAGAGAAATTTGCCAA GAGCAGTTACATTACAAGGTCATTCTACCTTGGTTAATTATCTACAGTATTTTAAACCA AACAGCTTACAGATGATGTGTGCAAGGTACCAATTTCTGTTTTCAAACTATAACATTCC CAGAATAAATAACTAGAAATCAACATTAATGTTTGGCAATACTTTTTAAAGACTTTTTTA ATATTTGTGAAATCATGTGCAGTTTGTGCCATTTTATATGCTTGTGTTGTATGCAAGGAA AAGTAACTGTAAAATGAAAATTCAAAAGAAACAAACTCACAAAATACATCAGAGGCAGAAC TTCAGTTTTTACGGCTCTGTACAGATTCAGTGGTACCCCTACTAGGAGTTACTTTTTAAG AAAAATAAACATCTTAGAGTGAAGTCCTTCACATATTTTCTCAATAAATTTCACTT AAAAAAAAAAGACTCAAAAAACAAAACCAACCCCAACTTCAAAAAACAAAAGAAAA AAGAAAAAAAAGTTGTTATTTGTTAACCGATCTAGTCTTTTCCAATTCTGCTTAAACAT TAGACCATATATTTCAAAGTTTACAAAACATTTAACCTGCTTCCAATGTTTCTTAGACAA AGTACCTGTACTTTGCAGGATTATTATGCATACATGGAATGACCTTNCTATCTCTCCAA AATAAGCTTGAAATTAATATGAAAAATTTACAAAACCTGGGNGCAGACAAAATTA AAAAANAAGCTCTTAGTTAAAATTTGGTCATCANGCCACAGAGCAGCATATCCTACTAACT TTCGACCAGAAAGATNGTTCCTAGCTGAAAACATTTAC
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_002024
<b>Insert Size:</b>	3780 bp
<b>OTI Disclaimer:</b>	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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> 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. <a href="#">More info</a>
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_002024.3</a> , <a href="#">NP_002015.1</a>

RefSeq Size: 4362 bp

RefSeq ORF: 1899 bp

Locus ID: 2332

UniProt ID: [Q06787](#)

Cytogenetics: Xq27.3

Domains: KH

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]  
Transcript Variant: This variant (ISO1) represents the longest transcript and it encodes the longest protein (isoform ISO1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.