

## Product datasheet for MC224693

### Fmn2 (NM\_019445) Mouse Untagged Clone

#### Product data:

Product Type: Expression Plasmids  
 Product Name: Fmn2 (NM\_019445) Mouse Untagged Clone  
 Tag: Tag Free  
 Symbol: Fmn2  
 Synonyms: AU024104  
 Vector: pCMV6-Entry (PS100001)  
 E. coli Selection: Kanamycin (25 ug/mL)  
 Cell Selection: Neomycin  
 Fully Sequenced ORF: >MC224693 representing NM\_019445  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGGGGAACCAGGATGGGAAGCTGAAGAGAAGCGCAGGTGATGCCTCCCACGAAGCGCGGAGCCGAGG  
 ATGCCCGGGGCCAGGGATGCGGAAATCACAAGAAGGGCAGCGGGAGCAAAAAGGCGCTTGGCAAGCA  
 CGGCAAGGGGGGAGGGGGCAGCGGGGAGACCAGCAAGAAGAAGAGCAAGTCCGATTCTAGAGCCTCGGTG  
 TTTTCAAACCTGCGGATCAGAAAGAACCTGACCAAGGGGAAAGGTGCCTGCGACTCGCGAGAGGATGTGC  
 TGGACTCACAGGCCCTGCCGATTGGGGAGCTGGACAGCGCTCACTCTATAGTCACCAAGACCCCGGACCT  
 CAGCCTCTCCGCTGAGGAGACAGGCCTATCGGATACCGAGTGTGCTGACCCTTTCGAGGTGATCCATCCC  
 GGTGCTTCTAGGCCTGCTGAGGCTGGGGTAGGGATCCAGGCGACCGCGGAGGATTTGAAACTGCGGCTG  
 GAGCGCAAGATGGACAAAGGACCAGTTCGTTCAGACACGGACATCTACAGTTCCTCCGCTACGGA  
 GCAGGAGGATTTGCTCTCAGACATCCAGCAGGCAATTCGTCTGCAACAGCAGCAGCAGCAGAAGCTGCTG  
 CTCCAGGACTCCGAGGAGCCTGCAGCGCCCCCACTGCCATCTCCCTCAGCCTGGGGCTTTCTGGGCC  
 TGGACCAGTTCCTGCTGGGACCTAGAAGCGAGGCTGAAAAGGACACAGTACAGGCACTACCGGTGAGACC  
 TGACTTGCTGAGACCACCAAGTCTCTGGTGCCTGAGCATCCTCCGTCTCCGGAAGCCACTTGACCTCC  
 GAGACACCAGTTATGCGACCGCCCCCTCCGAGTCACAGACTCTCTCATCACAGCCTTCACCTTTC  
 CGGAGGCTGGGCCAGGGAGGGAGCCGCGGAGTCCCCTGGCTGGAAGTGGGGACACAGATGAGGAGTG  
 CGAGGAGGATGCTTTGAGGATGCCCCCGCGCTCTCCAGGGAGGAATGGGTCCAGAGGTGGAAGAA  
 GCCTCACAGAGGCTGGAGAAAGAGCCGGAGGAGGGCATGCGAGAATCCATTACCTCCGAGTCGTTTCTT  
 TGCTGGAAGCCCTGCGCCAGCCACGCTGCTCAAACCTTACCACTCATACCCCTGCTACATCAA  
 GACCACCACTCGGAGCTCAGCTCTCCTAATCACTCCCGTCCCAGTCCCCAACAGAGTCTTAGGATC  
 AAAAGCGGCGGACCCCTCCGTGAGCCGAGCTCCAGAACCCTTGGCTCTGCTGCAGCCCCGGCAA  
 AAAAGCACCGTTGGAGGTTGGCTCACGGGCGCCTCAGCCGCTCAGCCGACTGGACCGAGGAGCTGGG  
 CGTCCGTACGCCAGGGCAGGAGGCTCCGTGCACCTGCTGGGGCGCGGGCTACTGCGGATGACAGTGGT  
 GGCGGTCCTGTAAGTGGCCGCAAGGCACCTGGGGCTCCAGCGACAGCTGATGGCTTTCAGAAGCTGT



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TCACAGGGAGAACACTGCTGGAGAAGCTGTTTAGCCAGCAGGAGAACGGGCTCCAGAGGAAGCAGAAAA  
 ATTTTGTCCCGGATCATCGCCATGGGTCTTCTACTTCTTTTTCAGTGACTGCTTCAGGGAACCGTGTAA  
 CAGAACGCTGGGTCCAGTTCAGTCCATTTGATCAAGATCAGCTTTACACCTGGGCTGCGGTTAGTCAAC  
 CCACACATTGATGGATTACAGCGAAGGGCAGTTTCCAGGAGAGAACCATCTATGTGGCCATCATCCAA  
 GCTTCTGAGGAAGAGCCAGTCCCAAGGACGTTGATACAGAACCTAAATCCTCTATTTTGGAAAGCCCG  
 AAAAAATGCTCAAATGGTGTCCAGCAGGAAGTTTTCGATGTGAAGTCTGAAGGACAGGCAACTGTAAATC  
 AGCAACTGGAACAGACCATCGAGGATCTACGCACAAAAATAGCTGAGCTAGAGAAGCAATATCCAGCCCT  
 GGACTTGGAGGGACCCAGAGGCCCTCTCAGGACTTGAGAATGGATTGACAGCCTCTGCAGAGTCACTA  
 GATGCTCTTGATTGCATGGGAAGGTTGCACAGCCTCCAAGGACTCTTGAGGCAAAATCAATACAGACTT  
 CCCCACAGAAGAAGGTAGAATCCTGACATTGCCACCTCCAAAGGCACCACCAGAGGGTCTTCTGGGGT  
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 GAGATTTCTGATTGTCTCCAAGGAGAATATCAGTACAGCTGGATGCCAACAGATACAGAGTGCAT  
 CACAACACCACCCTCTCTCTCTGTTGCTGATAGTCAAGGACAGCCCTCCCAACCTTCTCTGCA  
 TACTGAGTCAAGAACAGCCATGAACATTTCTGTTTCTCTCTCTTGGAAACAATGTAAATGCCACCC  
 GCACCACCTCTGCCTGTACAGAGTCTCCAGTTTCATGCCTGGCCTGGGATGGCAATTCACCCACCTC  
 CCTGTCTCTGACATAACAGTGCCTGCTGCCCCAGTCTACAGCCCCAGCCCTACAATTTAGCAATCT  
 ACAGGGACCAGAAATGCTGCCAGCCCTCCCAACCTCTCTCTTCTGGGCTAGGAGTACCCCTCTCT  
 CCCCCTGCCCTCTCTCCCTGGAATGGGAATACCTCCCCACCTCTCTCCCTGGAATGGGAATACCTC  
 CCCCACCTCTCTCCCTGGAATGGGAATATCTCCCTACCTCTCTCTCCCTGGAATGGGAATACCTCTC  
 CCTCTCTACCTGGAGTGGGATACCCCTCTCTCTCTCTCTCTGGAGTGGGATACCCCTCTCTCTCT  
 CCTCTTCTGGAGTGGGAATACCCCTCTCTCTCTCTCTCTGGAGTGGGATACCTCTCTCTCTCTCT  
 TACCTGGAGTGGGAATACCCCTCTCTCTCTCTCTCTGGAGTGGGATACCCCTCTCTCTCTCTCT  
 TGGAGTGGGAATACCCCAACCCCTCCACTTCCAGGAGTGGGAATACCCCTCTCTCTCTCTCTCT  
 TCAGGCATACCCCTCTCTCTGCTCTACCTGGAGTTGCTATTCTCCACCACTCTCTACCAAGTATGG  
 GGGTTCACCTCCCGCCCACTCCCTCTGGGACAGCATCCCCCAACCCCACTGTTGCCTGGCTCAGG  
 TCCTCCACACTCTCACAGTTGGGAGTAGCACTTTACCAGCAGCACCTCAAGGGTGTGGATTTCTTTT  
 CCTCCATTGCCACTGGCTTGTGGATTAGGGATGAATCAGGACAGAGTGGCTAGGAAGCAGCTGATCG  
 AGCCTTGGCCGCAATGAAGCCTCTCTATTGGACAAGAATCACTCCATAGTAAAAGAGACTCCAGCCC  
 TTCGTTATTTGGGAAAAGATTGAAGAGCCATCCATAGACTGTCATGAATTTGAAGAATATTTTCTAAA  
 ACTGCAGTAAAGGAGAGAAAAGAACTATTTCTGACACAATTTCAAAGACAAAGGCCAAACAAGTTGTCA  
 AGTTGCTTAGCAACAAAAGGTACAAGCAGTAGGAATTTAATGTCTAGTCTGCATTTAGATATGAAAGA  
 CATACAACATGCTGTTGTGAACCTGGACAACCTGTGGTGGACCTGGAGACCTTCAAGCTCTATGAG  
 AATAGAGCACAGTCAAGTGAACCTGGAAAAAATGAAAAGCACAGTTCGATCTTCAAAGACAAAGGAAAACG  
 CCAAGTCTCTCGACAAACCTGAACAGTTCTGTATGAGCTGTGCGTAATCCCAACTTCTCCGAGCGGGT  
 CTTCTGTATCCTGTTTCAAGTCCACATTTTCAAGAGCATTTGCTCAATTCGTGCGAAGTTAGAATTGCTA  
 CAAAACTGTGTGAGACCTTAAAAATGGACCAGGGTTCATGCAAGTCTGGGTTTAGTTCTAGCCTTTG  
 GAACTACATGAATGCTGGGAACAAGACCCGAGGACAGGCAGATGGCTTTGGACTAGACATTTTGCCCAA  
 GCTGAAGGATGTCAAAGCAGCGACAACAGCAGAAGCCTTTTGTATATATTGTTTCAATATCTTTCGA  
 AATTTTGTGAGGATGCTGGCAAAGAGCAGTGTGCTTCCCGCTGGCAGAACCCAGGAGCTTTTCCAGG  
 CCTCACAGATGAAGTTTGAAGACTTCCAGAAAGACCTCAGAAAACTAAAGAAAGACCTGAAAGCCTGTGA  
 GCGGAAGCCGGTAAAGTGTACCAGGTGCTCTGCGGAGCATATGCAGCCTTCAAGGAAAACATGGAG  
 CAGTTTATCAGTCAAGCTAAAATGACCAAGAGTCAAGGAGGCTGCCCTGACAGAGACTCATAAATGCT  
 TTTTGGAGACCACAGCCTACTACTTCAAGAAACAAAACCTCGGCGAGAAGGAGGTGTCCCAAAATGTTT  
 CTTCAAGTGTCTGGCATGAATTCAGCTCTGACTTTAAAGACGCTTGGAAAAAGAGAACAACCTGATTCTG  
 CAAGAGAGAGTCAAGAAGCCGAGGAGGTGTAGGCAGAAGAAAGGAAAATCACTCTATAAAGTAAAC  
 CGAGACATGACTCTGGGATTAAGCGAAGATAAGCATGAAAACGTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:**

SgfI-MluI

**ACCN:**

NM\_019445

<b>Insert Size:</b>	4737 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<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>	<u><a href="#">NM_019445.2</a></u> , <u><a href="#">NP_062318.2</a></u>
<b>RefSeq Size:</b>	6461 bp
<b>RefSeq ORF:</b>	4737 bp
<b>Locus ID:</b>	54418
<b>UniProt ID:</b>	<u><a href="#">Q9JL04</a></u>
<b>Cytogenetics:</b>	1 81.04 cM
<b>Gene Summary:</b>	Actin-binding protein that is involved in actin cytoskeleton assembly and reorganization (PubMed:18848445, PubMed:21620703). Acts as an actin nucleation factor and promotes assembly of actin filaments together with SPIRE1 and SPIRE2 (PubMed:18848445, PubMed:21620703). Involved in intracellular vesicle transport along actin fibers, providing a novel link between actin cytoskeleton dynamics and intracellular transport (PubMed:21983562). Required for asymmetric spindle positioning, asymmetric oocyte division and polar body extrusion during female germ cell meiosis (PubMed:12447394, PubMed:18848445, PubMed:19062278, PubMed:21620703). Plays a role in responses to DNA damage, cellular stress and hypoxia by protecting CDKN1A against degradation, and thereby plays a role in stress-induced cell cycle arrest (By similarity). Also acts in the nucleus: together with SPIRE1 and SPIRE2, promotes assembly of nuclear actin filaments in response to DNA damage in order to facilitate movement of chromatin and repair factors after DNA damage (By similarity). Protects cells against apoptosis by protecting CDKN1A against degradation (By similarity).[UniProtKB/Swiss-Prot Function]