

## Product datasheet for **MC225128**

### Fancm (NM\_178912) Mouse Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Fancm (NM\_178912) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Fancm  
**Synonyms:** AI427100; C730036B14Rik; D12Ertd364e  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >MC225128 representing NM\_178912  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGAGCGGACGGCAGAGAACGCTCTTCCAGACGTGGGGCCGAGCCTCGTGCGGGCTCCGGAGACTCGG  
 GATGCGGCCAGCCGCGCTCGCCCGGATGGCGGAGGCGCTGCCGGAGGAGACGACGAGGTGCTGCTGGT  
 GCGGGCTACGAGGCTGAGCGGCAGCTGGATCCCGGGATGGCGGCTTCTGCGCGCTGCGGGAGCCCTG  
 TGGATCTACCCACCAATTGCCCGTGCGGACTACCAGCTGGACATCTCCCGGAGCGCGCTGTTCTGCA  
 ACACCCTGGTGTGCCTGCCACCGGGCTGGGAAGACCTTCATTGCCCGCTGGTTCATGTATAATTTCTA  
 CCGCTGTTCCCTTCTGGCAAGGTGGTTTTTCATGGCACCCACGAAGCCCTGGTAACACAGCAGATGGAA  
 GCCTGTTCCACGTGATGGGTATCCACAGTCTCACATGGCTGAAATGACAGGTTCAACTCAAGCTGTTA  
 ACAGGAAGGAGATATGGTCCAGCAGGAGGGTCTTTTCTGACACCGCAGGTCATGGTAAATGACCTTAC  
 TAGAGGGGCTGTTCCGCCACCCACGTAAGTGTCTTGTGGTGGATGAAGCTCATAAGGCACTTGGGAAC  
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 CCACGCCAGGTAGTGATCAAGGCTGTGCAACAGGTGATCACTAACCTACTAATTGGGAAGATAGAGCT  
 TCGTTTCGGAAGAGTCTCCCGATATTTGCCTTACTCTCATGAAAGAAGAGTTGAGAAGCTGTTGTCCCC  
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 TCAATTTAGGAAAAACCCATCCCAAAATATTGTGGGAATTCAGCAAGGCATAATTGAAGGGGAGTTTGC  
 CTCTGCATTAGTTTATATCATGGTTATGAGTACTGCAGCAAATGGGAATGCGGTCATTGTATTTCTTTT  
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TGAGACAGTTCGAGACGGTGGCTATAACACACTGGTTTTCCACCTGTGTTGGAGAAGAAGGTTTGGATAT  
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 CACACCGTGTCTAAGTCACACGCGAGCTCCAAGACAGGAGCACACATGCTCAAGACACTAGACTTACC  
 AAGGAGAAAGCAGGTGGACAGGGCTTCAAAATGGCATTGAACCCAAGACTGGGCCATCTAGGATTTTCTG  
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 ATCAAACAAATGAACAAGAAACAAAACACTACACACGGCCAAGAAAGAAATGTCTAGAATTAATACCCG  
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 CTTTCTGATCCATCGTGGAAATCAGTCAATCCAGGCAGAGACTACAGGTGCAACCCAGTATAACAGATGCCG  
 TGCTAGAACCTTGAACGTGAAGGCTCAGAGCCATAATAAAATCAAACTGCTTACCACCATGTACTGG

TGTTGAATCAAGGAAAGAATATGGGAACCATCCAGTTCAGTTGAAGGCTGACAGTCAGGAGCACAGTGAC  
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 AAGAAGGAAACAGGGCTTGCAATTCTGTAGACAGTCGTGAAATCACTACCGGTTTGAAGTAATCTCTTC  
 GCTAAGAACAGTTCATGGGTTACAAGTAGAGATTTGTCCTCTTAATGGCTGTGACTACATCGTAAGCAGC  
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 ATGGCTAACAGCTCCCCTGAAGAAATCTCCACATGTGCGCAAGTAAATCATCAAAAGGCTGAAGAGATCT  
 AATAATATATTCATATATTTGACATGCAAATGTTACCAAATGATCTTAACCAGGAAAGACAAAAACC  
 TGATACATGCTTAACACTGGAGTCGCTATGAAAGAACTCTCA**TAA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** Sgfl-Mlul
- ACCN:** NM\_178912
- Insert Size:** 6066 bp
- OTI Disclaimer:** 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).
- 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\\_178912.3](#), [NP\\_849243.2](#)
- RefSeq Size:** 7775 bp
- RefSeq ORF:** 6066 bp
- Locus ID:** 104806
- UniProt ID:** [Q8BGE5](#)
- Cytogenetics:** 12 27.21 cM

**Gene Summary:**

DNA-dependent ATPase component of the Fanconi anemia (FA) core complex. Required for the normal activation of the FA pathway, leading to monoubiquitination of the FANCI-FANCD2 complex in response to DNA damage, cellular resistance to DNA cross-linking drugs, and prevention of chromosomal breakage. In complex with CENPS and CENPX, binds double-stranded DNA (dsDNA), fork-structured DNA (fsDNA) and Holliday junction substrates. Its ATP-dependent DNA branch migration activity can process branched DNA structures such as a movable replication fork. This activity is strongly stimulated in the presence of CENPS and CENPX. In complex with FAAP24, efficiently binds to single-strand DNA (ssDNA), splayed-arm DNA, and 3'-flap substrates. In vitro, on its own, strongly binds ssDNA oligomers and weakly fsDNA, but does not bind to dsDNA.[UniProtKB/Swiss-Prot Function]