

## Product datasheet for MC224490

### Fancd2 (NM\_001033244) Mouse Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Fancd2 (NM\_001033244) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Fancd2  
**Synonyms:** 241015007Rik; AU015151; BB137857; FA-D2; FA4; FACD; FAD; FANCD  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >MC224490 representing NM\_001033244  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGATTTCCAAAAGACGTCGGCTAGATTCTGAGGATAAAGAAAACCTGACAGAAGATGCCTCCAAAACCA  
 TGCCCTTTCCAAGCTGGCAAAGAAGTCTCACAATTCATGAAGTTGAAGAAAAATGGCAGTGTCTTTGT  
 AAAGCTTCTTAAGGCTTCAGGACTCACTCTAAAACCTGGAGAGAACAAAATCAGCTAGGTGGATCAG  
 GTAATCTTCCAAAGGAAGCTCTTTCAGGCTTGAGGAAGCATCCTGCTTATCCAAAAGTAATAGAAGAGT  
 TTGTTAATGGCCTGGAGTCTTACACTGAGGACAGTGAGAGTCTCAGGAAGTGCCTGCTGTCTTGTGAGCG  
 CCTGCAGGATGAGGAAGCCAGCATGGGCACATTTTACTCCAAGAGTCTGATCAAGCTACTTCTGGGGATT  
 GACATTTTACAGCCTGCCATTATCAAAAATGTTATTTGAAAAAGTGCCTCAGTTTCTTTTTGAAAAGTGAGA  
 ACAGAGATGGAATCAACATGGCCAGACTCATTATCAATCAACTAAAATGGCTGGATAGAATTGTGGATGG  
 CAAGGACCTCACGGCCAGATGATGCAGTTGATCAGTGTGTCTCCCGTGAACCTACAGCATGACTTCATC  
 ACGAGCCTTCTGAAATCCTAGGGGATCCCAGCATGCTAATGTGGGAAAGAGCTTGGCGAGCTGCTGG  
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 ACGTCCAGCAGTTTATTTGCCGTACGAATTCAGGCTTCCCAAAGCAAATGAAAAGTAAAGGACTAGC  
 AAGCTCTTCAAGAAATCAAGAGAACAGTGATAAAGACTGTATTGTTCTTGTCTTTGATGTAATAAAGTCA  
 GCCATTAGATATGAGAAAACATTTTCAAGGCTGTTTAAAGGCAATGAACGCATTGAGTCCGCGGCTG  
 AACATAAGGCTTTGGACGTGGTCATGCTGCTCATCTACAGCACCAGCAGCAGACCAAGAAGGGCGT  
 GGAGAAGCTGCTGAGAAACAAGATTCAGTCAGACTGCATTCAAGAACAGCTGCTTGACAGTGCCTTCTCT  
 ACACATTACCTGGTTCTTAAGGATATTTGCCATCTATTCTTTTGGCTGGCTCAGACTTTGTTTCACTCTC  
 AAGACCAGAGGATCATTTTGTGGCAGTCTTCTGTACAATATGCTTTTAAAGTTTTTGTACTTACTG  
 CCAGCAGGAAGTGGTGGTGCCTAGTACCCATGCTGTCAGTGGGACTGAGGCTGAAGTCGACACTGCA  
 CTGGATGCTCTCTGGAGCTGATTGTGCTAAACGCCTCTGCTATGAGGCTCAATGCTGCTTTTGTAAAG



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GCATCTTAGATTATTTGAAAAATATGTCCCCTCAGCAAATACGAAAAATCTTCTGTATTCTCAGCACTCT  
 TGCATTTAGCCAACAGCCCGGAACCAGCAACCATATCCAGGACGACATGCACCTGGTGATCCGGAAGCAG  
 CTCTCTAGCACTGTGTTCAAGTACAAGCTCATTGGGATCATTGGTGACGTACCATTGGCCGGCATCATGG  
 CGGAAGACAGAAGTGTACCATCTAACTCATCCCAGAGGAGCGCCAATGTGAGCAGTGAGCAGCGCACACA  
 GGTGACTTCTTTGCTACAAGTATTCATTCTTGCAGTGCAGCTCTCCTTGGCCCTTCTCTGTATTAT  
 GATGAATTTGCCAACCTGATCCAAGAAAGGAAGTTGGCTCCAAAAACCTGGAGTGGGTTGGGCAGACCA  
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 TTCTATCAGGAATGTGCAAAAAGATGCCAGTCGAGCGACATCACAAGAATCGAGCCAGAGATCAATGTCTT  
 CTTTGTGCTGGCTTCCCATTTCCGGCTGCTGAGACTTTGCGTGGCAAGACAACATGATGAAAACCTGGA  
 TGAGATCGATGGTCTCTTAGATTGTCCCCTGTTCTCCCTGACCTGGAACCTGGAGAGAACTGGAGTCC  
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 GACTTGGACACTTTAGATATGATGCCTAGGAGCAGTTCTGCTGTTGCAGCAAAAAACAGAAACAAGGAA  
 AGACGGGGGAAAGAAAACAAAAGCTGATAGCAACAAAGCATCCTGTTCCGACACACTTCTAACAGAAGA  
 CACTTCAGAGTGTGACATGGCGCCATCTGGGAGAAGCCACGTAGACAAGGAGTCCACAGGGAAGGAAGGA  
 AAGACGTTTGTGCTCACTGCAGAATTACCGCGCTTTTTTCCGAGAGCTGGACATTGAGGTCTTCTCTATTC  
 TACATTCTGGACTTGTGACCAAGTTCATCTTAGACACTGAAATGCACACTGAAGCTACAGAGGTCGTACA  
 GCTGGGGCCTGCTGAGCTGCTCTTCTGCTGGAAGATCTTTCCAGAAGCTAGAGAATATGCTGACTGCT  
 CCTTTTGGCAAGAGAATCTGCTGCTTAAAGAATAAAGGAAGGCAGAATATTGGCTTCTCACATCTTCATC  
 AGAGATCTGTCCAGGACATTGTGCACTGTGTGGTTCAGCTGCTAACCCCGATGTGAACCATCTGGAGAA  
 CATTACAACCTTCTTTCAGTGTCTTAGGTGCTGAGCATCTCAGTGCAGATGACAAGGCGAGAGCGACAGT  
 CAGGAGCAGCACACCATGGCCTGCTGCTACCAGAAGCTGCTGCAGGTCTTGCACGCGCTCTTTGCGTGGA  
 AGGGATTTACTACCAATCAAAGCACCGCCTCCTGCACTCAGCCCTTGAGGTCTCTCGAACCGACTAAA  
 GCAGATGGAACAGGACCAGCCCTTGAGGAACTGGTCCAGCCAGAGCTTCAAGTACTTGCAGAACTCCAC  
 CATAGTGTTCAGTTCAGTGTGGTCTCTACCTTCTCAGACTTCTGATGGCCCTTCTGGAGAAGTCTG  
 CAGTACCTAACCAAGAAAAGAAAACCTTGCTCTCTGGCCAAACAGCTGCTTTGCCGAGCATGGCCTCA  
 TGGGGAAAAGAGAAGAACCCCACTTTTAAAGACCACCTGCATGATGTGCTTTACATCTACTTGGAGCAC  
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 AAGACGCCGCTCTCTACATTCCTACGTTGACCAGGCACACCTTTGTCATATTCTCCGTGTGATGAT  
 GGCTGAACTCGAGAAGACGGTGAAGGGTCTTCAAGCTGGCACAGCAGCAGATTCCGAGCAGGTTACAGAA  
 GAGAAGCTCCTCTATTGGAACATGGCTGTCCGAGATTTCAAGCATCCTTCTCAATCTGATGAAAGTATTTG  
 ACAGTTATCCTGTTCTGCATGTGTGTTAAAGTATGGCCGTCGCTTTGTGGAGGCATTTCTGAAGCAATG  
 TATGCCACTCCTCGACTTCAGCTTTAGAAAAGCATCGGGAAGATGTTCTGAGCTTGTGCAAAACCTTCAG  
 TTGAACACGAGGCTACTTCATCACCTTTGTGGACACTCCAAGATTCGCCAGGACACAAGACTCACCAAGC  
 ATGTGCCCTTACTCAAAAAGTCACTGGAAGTGTAGTTTGCAGAGTCAAAGCCATGCTTGTCCCTCAACAA  
 CTGTAGAGAGGCTTTCTGGTTGGTACTCTCAAAAACCGAGACTTACAGGGTGAAGAAATATTTCCAG  
 GATCCCTCTTCTCAGAGAGCAATGCAGAGGACAGTGAAGGATGGCGTGACATCTCAGTCTCCAGGAACA  
 GAGCAACAGAGGATGGGGAAGATGAAGCAAGTATGAACAGAAGGACCAGGACAGTATGAAAGTACGCA  
 CAGCTCCAGTTAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI  
 ACCN: NM\_001033244  
 Insert Size: 4353 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>NM_001033244.3</u> , <u>NP_001028416.2</u>
<b>RefSeq Size:</b>	4780 bp
<b>RefSeq ORF:</b>	4353 bp
<b>Locus ID:</b>	211651
<b>UniProt ID:</b>	<u>Q80V62</u>
<b>Cytogenetics:</b>	6 E3
<b>Gene Summary:</b>	Required for maintenance of chromosomal stability. Promotes accurate and efficient pairing of homologs during meiosis. Involved in the repair of DNA double-strand breaks, both by homologous recombination and single-strand annealing. May participate in S phase and G2 phase checkpoint activation upon DNA damage. Plays a role in preventing breakage and loss of missegregating chromatin at the end of cell division, particularly after replication stress (By similarity). Promotes BRCA2/FANCD1 loading onto damaged chromatin. May also be involved in B-cell immunoglobulin isotype switching.[UniProtKB/Swiss-Prot Function] Transcript Variant: This variant (1) encodes the longer isoform (1).