

Product datasheet for **MG220802**

Fancd2 (NM_001033244) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Fancd2 (NM_001033244) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Fancd2
Synonyms:	241015007Rik; AU015151; BB137857; FA-D2; FA4; FACD; FAD; FANCD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG220802 representing NM_001033244 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGATTTCCAAAAGACGTCGGCTAGATTCTGAGGATAAAGAAAACCTGACAGAAGATGCCTCCAAAACCA
TGCCCCTTTCCAAGCTGGCAAAGAAGTCTCACAAATTCATGAAGTTGAAGAAAATGGCAGTGTCTTTGT
AAAGCTTCTTAAGGCTTCAGGACTCACTCTAAAACCTGGAGAGAACAAAATCAGCTAGGTGTGGATCAG
GTAATCTTCCAAGGAAGCTCTTTCAGGCCTTGAGGAAGCATCCTGCTTATCCCAAAGTAATAGAAGAGT
TTGTTAATGGCCTGGAGTCTACACTGAGGACAGTGAGAGTCTCAGGAAGTGCCTGCTGTCTTGTGAGCG
CCTGCAGGATGAGGAAGCCAGCATGGGCACATTTACTCCAAGAGTCTGATCAAGCTACTTCTGGGGATT
GACATTTTACAGCCTGCCATTATCAAAAATGTTATTTGAAAAAGTGCCTCAGTTTCTTTTGAAGTGAGA
ACAGAGATGGAATCAACATGGCCAGACTCATTATCAATCAACTAAAATGGCTGGATAGAATTGTGGATGG
CAAGGACCTCACGGCCAGATGATGCAGTTGATCAGTGTGTCTCCCGTGAAGTACAGCATGACTTCATC
ACGAGCCTTCTGAAATCCTAGGGGATCCAGCATGCTAATGTGGGAAAGAGCTTGGCGAGCTGCTGG
TGCAGAATACTCCCTGACTGTTCCAATTTGGATGTCTTTCCAGTCTCCGACTTGACCCCAACTTCT
GTCCAAGATCCGCCAGTTGGTGATGGCAAGCTGTCATCTGTCCGTCTAGAGGATTTCCCTGTGATTGTA
AAGTTCCTTCTTCAATCTGTAACAGACACCCTCCCTTGAGGTCATTGCCGAGCTTCGGGAGAAGTGA
ACGTCCAGCAGTTTATTTGCCGTACGAATTCAGGCTTCCCAAAGCAAATTTGAAAAGTAAAGGACTAGC
AAGCTCTTCAGGAAATCAAGAGAACAGTGATAAAGACTGTATTGTTCTTGTCTTTGATGTAATAAAGTCA
GCCATTAGATATGAGAAAACATTTTCAGAGGCTGGTTTAAAGCAATTGAACGCATTGAGTCCGCGGCTG
AACATAAGGCTTTGGACGTGGTCATGCTGCTCATCATCTACAGCACCAGCACGCAGACCAAGAAGGGCGT
GGAGAAGCTGCTGAGAAACAAGATTCAGTCAGACTGCATTCAAGAACAGCTGCTTGACAGTGCCTTCTCT
ACACATTACCTGGTTCTTAAGGATATTTGCCATCTATTCTTTTGGCTGGCTCAGACTTTGTTTCACTCTC
AAGACCAGAGGATCATTTTGTGGCAGTCTTCTGTACAATATGCTTTTAAAGTTTTTGATACTTACTG
CCAGCAGGAAGTGGTGGTGCCTAGTCACCCATGTCTGCAGTGGGACTGAGGCTGAAGTCGACTGCA



[View online »](#)

CTGGATGTCCTCCTGGAGCTGATTGTGCTAAACGCCTCTGCTATGAGGCTCAATGCTGCTTTTGTAAAGG
GCATCTTAGATTATTTGGAAAATATGTCCCCTCAGCAAATACGAAAAATCTTCTGTATTCTCAGCACTCT
TGCAATTTAGCCAACAGCCCGGAACCAGCAACCATATCCAGGACGACATGCACCTGGTGATCCGGAAGCAG
CTCTCTAGCACTGTGTTCAAGTACAAGCTCATTGGGATCATTGGTGCAGTCACCATGGCCGGCATCATGG
CGGAAGACAGAAGTGTACCATCTAACTCATCCCAGAGGAGCGCCAATGTGAGCAGTGAGCAGCGCACACA
GGTGACTCTTTTGTACAACCTAGTTTCTTGTCACTGAGCACTCTCCTTGGGCCCTTCTCTGTATTAT
GATGAATTTGCCAACCTGATCCAAGAAAGGAAGTTGGCTCCAAAAACCTTGGAGTGGGTTGGGCAGACCA
TCTTCAATGATTTCCAAGATGCCTTTGTGGTAGACTTCTGTGCTGCTCCAGAGGGTGACTTCCATTTC
TGTGAAAGCGCTCTATGGACTGGAAGAGTACAGCACTCAAGACGGCATTGTCATCAACCTCCTGCCGCTG
TTCTATCAGGAATGTGCAAAAGATGCCAGTCGAGCGACATCACAAGAATCGAGCCAGAGATCAATGTCTT
CTTTGTGCTGGCTTCCCATTTCCGGCTGCTGAGACTTTGCGTGGCAAGACAACATGATGGAACCTTGG
TGAGATCGATGGTCTCTTAGATTGTCCCCTGTTCTCCCTGACCTGGAACCTGGAGAGAACTGGAGTCC
ATGTCTGCTAAAGACCGTTCCGTTATGTGTTGCTCACATTCTAACTTTCAACTGGTCCGAGAGGTTG
TGAATGCCTTCTGCCAACAAACATCTCCTGAGATGAAGGGCAAGGTTCTTAGTCGGCTAAAGGACCTTGT
AGAACTTCAGGGAATCCTAGAGAAGTACTTGGCAGTCATCCAGACTATGTTCCGCCCTTTCGCAAGCGTT
GACTTGGACACTTTAGATATGATGCCTAGGAGCAGTTCTGCTGTTGCAGCAAAAAACAGAAAACAAGGAA
AGACGGGGGAAAGAAAACAAAAGCTGATAGCAACAAAGCATCCTGTTCCGACACTTCTAACAGAAGA
CACTTCAGAGTGTGACATGGCGCATCTGGGAGAAGCCACGTAGACAAGGAGTCCACAGGGAAGGAAGGA
AAGACGTTTGTGCTCACTGCAGAATTACCGCGCTTTTTTCCGAGAGCTGGACATTGAGGTCTTCTCTATTC
TACATTCTGGACTTGTGACCAAGTTCATCTTAGACACTGAAATGCACACTGAAGCTACAGAGGTCGTACA
GCTGGGCCTGCTGAGCTGCTCTTCTGCTGGAAGATCTTCCAGAAGCTAGAGAATATGCTGACTGCT
CCTTTTCCAAGAGAATCTGCTGCTTAAAGAATAAAGGAAGGCAGAATATTGGCTTCTCACATCTTCATC
AGAGATCTGTCCAGGACATTGTGCACTGTGTGGTTCAGCTGCTAACCCGATGTGTAACCATCTGGAGAA
CATTACAACTTCTTTTCACTGCTTAGGTGCTGAGCATCTCAGTGCAAGTACAAGGCGAGAGCGACAGCT
CAGGAGCAGCACACCATGGCCTGCTGCTACCAGAAGCTGCTGCAGGTCTTGCACGCGCTCTTTGCGTGGA
AGGGATTTACTACCAATCAAAGCACCGCCTCCTGCACTCAGCCCTTGAGGTCTCTCGAACCGACTAAA
GCAGATGGAACAGGACCAGCCCTTGGAGGAACTGGTCAGCCAGAGCTTCACTTACTTGCAGAACTCCAC
CATAGTGTTCAGTTCAGTGTGGTCTCTACCTTCTCAGACTTCTGATGGCCCTTCTGGAGAAGTCTG
CAGTACCTAACCCAGAAGAAAAGAAAACCTTGCTCTTGGCCAAACAGCTGCTTGGCCGAGCATGGCCTCA
TGGGAAAAAGAGAAGAACCCACTTTTAAATGACCACCTGCATGATGTGCTTTACATCTACTTGGAGCAC
ACAGACAATGTTCTGAAGCCATAGAGGAGATCACTGGTGTGGTGTCCAGAACTGGTCAGTGTCCGA
AAGACGCCGCTCCTCTACATTCCTACGTTGACCAGGCACACCTTTGTCATATTCTCCGTGTGATGAT
GGCTGAACTCGAGAAGACGGTGAAGGGTCTTCAAGCTGGCACAGCAGCAGATTCCGAGCAGGTTACGGAA
GAGAAGCTCCTCTATTGGAACATGGCTGTCCGAGATTTCAAGTATCCTTCTCAATCTGATGAAAGTATTTG
ACAGTTATCCTGTTCTGCATGTGTGTTAAAGTATGGCCGTGCTTTGTGGAGGCATTTCTGAAGCAATG
TATGCCACTCCTCGACTTCACTTTAGAAAAGCATCGGGAAGATGTTCTGAGCTTGTGCAAAACCTTCA
TTGAACACGAGGCTACTTCACTCTTGTGGACTCCAAGATTCGCCAGGACACAAGACTCACAAGC
ATGTGCCCTTACTCAAAAAGTCACTGGAAGTGTAGTTTGCAGAGTCAAAGCCATGCTTGTCTCAACAA
CTGTAGAGAGGCTTTCTGGTTGGTACTCTCAAAAACCGAGACTTACAGGGTGAAGAAATATTTCCAG
GATCCCTTCTCAGAGAGCAATGCAGAGGACAGTGGAGTGGCGTGACATCTCACGTCTCCAGGAACA
GAGCAACAGAGGATGGGGAAGATGAAGCAAGTGTGAACAGAAGGACCAGGACAGTGATGAAAGTGACGA
CAGCTCCAGT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG220802 representing NM_001033244
 Red=Cloning site Green=Tags(s)

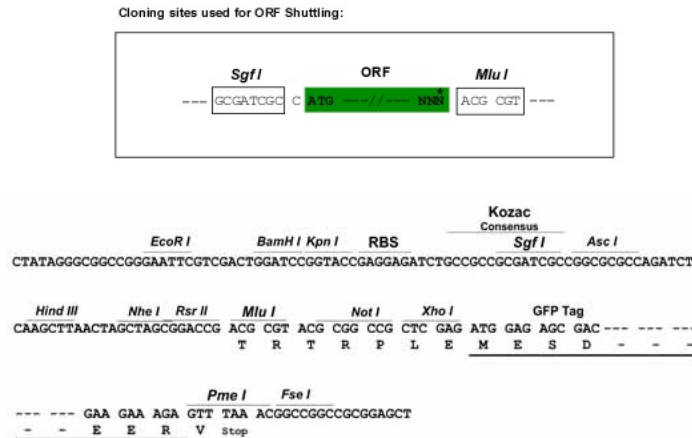
MISKRRRLDSEDKENLTEDASKTMPLSKLAKKSHNSHEVEENGSVFVKLLKASGLTKTGENQNQLGVDQ
 VIFQRKLFQALRKHPAYPKVIEEFVNGLESYTEDSESLRNCLLSCERLQDEEASMGTFYYSKSLIKLLGI
 DILQPAIIKMLFEKVPQFLFESENRDGINMARLIINQLKWLDRIVDGKDLTAQMMQLISVAPVNLQHDFI
 TSLPEILGDSQHANVGKELGELLVQNTSLTVPILDVDFSSLRLDPNFLSKIRQLVMGKLSVRLQEDFPVIV
 KFLLHSVTDTTSLVIAELRENLNQVQFILPSRIQASQSKLKSGLASSSGNQENSQDKDCIVLVFDVIKS
 AIRYEKTISEAWFKAIERIESAAEHKALDVVMLLIYSTSTQTKKGVKLLRNKIQSDCIQEQLLDSAFS
 THYLVLDICPSILLLAQTLFHSQDQRIILFGSLLYKYAFKFFDTCQEQEVVVALVTHVCSGTEAEVDTA
 LDVLELIVLNASAMRLNAAFVKGILDYLENMSPPQIRKIFCILSTLAFSQPGTNSHIQDDMHLVIRKQ
 LSSTVFKYKLGII GAVTMAGIMAEDRSVPSNSSQRSANVSSEQRTQVTSLLQLVHSCTEHSPWASSLYY
 DEFANLIQERKLAPKTLWVWGTIFNDFQDAFVDFCAAPEGDFPFVKALYGLYESTQDGIINLLPL
 FYQECADASRATSQESSQRSMSSCLASHFRLLRLCVARQHDGNLDEIDGLLDLDCPLFLPDLEPGEKLES
 MSAKDRSLMCSL TFLTFNWFREVNAFCQQTSPENKGGKVL SRLKDLVELQGILEKYLAVIDYVPPFASV
 DLDTLDMMPRSSSAVAANKNRNGKTGGKKQKADSNKASCSDTLT TEDTSECDMAPSGRSHVDKESTGKEG
 KTFVSLQNYRAFFRELDIEVFSILHSGLVTKFILDTEMHTEATEVVQLGPAELLFLEDLSQLKENMLTA
 PFAKRICCFKNKGRQNI GF SHLHQRSVQDIVHCVVQLLTPMCNHLENIHNFQCLGAEHL SADDKARATA
 QEQHTMACCYQKLLQVLHALFAWKGFTHQSKHRLLSALEVLSNRLKQMEQDQPLEELVSQSFYLNQNFH
 HVSVPFQCGLYLLRLLMALLEKSAVNPQKKEKLSLAKQLLCRAWPHGEKEKNPTFNDHLHDVLYIYLEH
 TDNVLKAIEEITGVGPELV SAPKDAASSTFPTLTRHTFVIFFRVMMAELEKTVKGLQAGTAADSQQVHE
 EKLLYWNMAVRDF SILLNLMKVFD SYPVLHVCLKYGRRFVEAFLKQCMPLLDF SFRKHREDVLSLLQTLQ
 LNTRLLHHL CGHSKIRQDTRLTKHVPLLKSLELLVCRVKAMLVLNNCREAFWGLTKNRDLQGEIISQ
 DPSSSESNAEDSEDGVTSHVSRNRATEDGEDEASDEKQDQSDSESDSSS

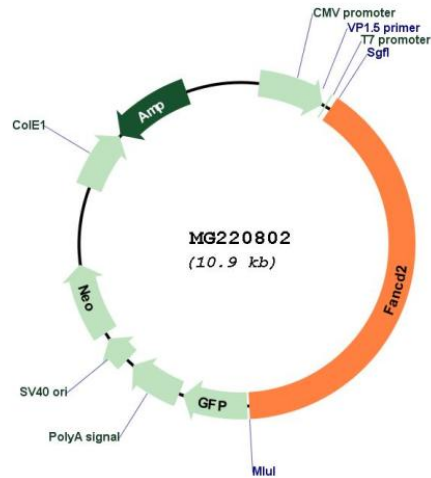
TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_001033244

ORF Size: 4350 bp

OTI Disclaimer: 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.

RefSeq: [NM_001033244.3](#), [NP_001028416.2](#)

RefSeq Size: 4780 bp

RefSeq ORF: 4353 bp

Locus ID: 211651

UniProt ID: [Q80V62](#)

Cytogenetics: 6 E3

Gene Summary: 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]