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Product datasheet for SC302192

FANCD2 (NM_001018115) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FANCD2 (NM_001018115) Human Untagged Clone
Tag:	Tag Free
Symbol:	FANCD2
Synonyms:	FA-D2; FA4; FACD; FAD; FAD2; FANCD
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF sequence for NM_001018115 edited
ATGGTTTCCAAAAGAAGACTGTCAAAATCTGAGGATAAAGAGAGCCTGACAGAAGATGCC
TCCAAAACCAGGAAGCAACCACTTTCCAAAAAGACAAAGAAATCTCATATTGCTAATGAA
GTTGAAGAAAATGACAGCATCTTTGTAAAGCTTCTTAAGATATCAGGAATTATTCTTAAA
ACGGGAGAGAGTCAGAATCAACTAGCTGTGGATCAAATAGCTTTCCAAAAGAAGCTCTTT
CAGACCCTGAGGAGACACCCTTCCTATCCCAAAATAATAGAAGAATTTGTTAGTGGCCTG
GAGTCTTACATTGAGGATGAAGACAGTTTCAGGAACTGCCTTTTGTCTTGTGAGCGTCTG
CAGGATGAGGAAGCCAGTATGGGTGCATCTTATTCTAAGAGTCTCATCAAACTGCTTCTG
GGGATTGACATACTGCAGCCTGCCATTATCAAAACCTTATTTGAGAAGTTGCCAGAATAT
TTTTTTGAAAACAAGAACAGTGATGAAATCAACATACCTCGACTCATTGTCAGTCAACTA
AAATGGCTTGACAGAGTTGTGGATGGCAAGGACCTCACCACCAAGATCATGCAGCTGATC
AGTATTGCTCCAGAGAACCTGCAGCATGACATCATCACCAGCCTACCTGAGATCCTAGGG
GATTCCCAGCACGCTGATGTGGGGAAAGAACTCAGTGACCTACTGATAGAGAATACTTCA
CTCACTGTCCCAATCCTGGATGTCCTTTCAAGCCTCCGACTTGACCCAAACTTCCTATTG
AAGGTTCGCCAGTTGGTGATGGATAAGTTGTCGTCTATTAGATTGGAGGATTTACCTGTG
ATAATAAAGTTCATTCTTCATTCCGTAACAGCCATGGATACACTTGAGGTAATTTCTGAG
CTTCGGGAGAAGTTGGATCTGCAGCATTGTGTTTTGCCATCACGGTTACAGGCTTCCCAA
GTAAAGTTGAAAAGTAAAGGACGAGCAAGTTCCTCAGGAAATCAAGAAAGCAGCGGTCAG
AGCTGTATTATTCTCCTCTTTGATGTAATAAAGTCAGCTATTAGATATGAGAAAACCATT
TCAGAAGCCTGGATTAAGGCAATTGAAAACACTGCCTCAGTATCTGAACACAAGGTGTTT
GACCTGGTGATGCTTTTCATCATCTATAGCACCAATACTCAGACAAAGAAGTACATTGAC
AGGGTGCTAAGAAATAAGATTCGATCAGGCTGCATTCAAGAACAGCTGCTCCAGAGTACA
TTCTCTGTTCATTACTTAGTTCTTAAGGATATGTGTTCATCCATTCTGTCGCTGGCTCAG
AGTTTGCTTCACTCTCTAGACCAGAGTATAATTTCATTTGGCAGTCTCCTATACAAATAT
GCATTTAAGTTTTTTGACACGTACTGCCAGCAGGAAGTGGTTGGTGCCTTAGTGACCCAT
ATCTGCAGTGGGAATGAAGCTGAAGTTGATACTGCCTTAGATGTCCTTCTAGAGTTGGTA
GTGTTAAACCCATCTGCTATGATGATGAATGCTGTCTTTGTAAAGGGCATTTTAGATTAT

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CTGGATAACATATCCCCTCAGCAAATACGAAAACTCTTCTATGTTCTCAGCACACTGGCA
TTTAGCAAACAGAATGAAGCCAGCAGCCACATCCAGGATGACATGCACTTGGTGATAAGA
AAGCAGCTCTCTAGCACCGTATTCAAGTACAAGCTCATTGGGATTATTGGTGCTGTGACC
ATGGCTGGCATCATGGCGGCAGACAGAAGTGAATCACCTAGTTTGACCCAAGAGAGAGCC
AACCTGAGCGATGAGCAGTGCACACAGGTGACCTCCTTGTTGCAGTTGGTTCATTCCTGC
AGTGAGCAGTCTCCTCAGGCCTCTGCACTTTACTATGATGAATTTGCCAACCTGATCCAA
CATGAAAAGCTGGATCCAAAAGCCCTGGAATGGGTTGGGCATACCATCTGTAATGATTTC
CAGGATGCCTTCGTAGTGGACTCCTGTGTTGTTCCGGAAGGTGACTTTCCATTTCCTGTG
AAAGCACTGTACGGACTGGAAGAATACGACACTCAGGATGGGATTGCCATAAACCTCCTG
CCGCTGCTGTTTTCTCAGGACTTTGCAAAAGATGGGGGTCCGGTGACCTCACAGGAATCA
GGCCAAAAATTGGTGTCTCCGCTGTGCCTGGCTCCGTATTTCCGGTTACTGAGACTTTGT
GTGGAGAGACAGCATAACGGAAACTTGGAGGAGATTGATGGTCTACTAGATTGTCCTATA
TTCCTAACTGACCTGGAGCCTGGAGAGAAGTTGGAGTCCATGTCTGCTAAAGAGCGTTCA
TTCATGTGTTCTCTCATATTTCTTACTCTCAACTGGTTCCGAGAGATTGTAAATGCCTTC
TGCCAGGAAACATCACCTGAGATGAAGGGGAAGGTGCTCACTCGGTTAAAGCACATTGTA
GAATTGCAAATAATCCTGGAAAAGTACTTGGCAGTCACCCCAGACTATGTCCCTCCTCTT
GGAAACTTTGATGTGGAAACTTTAGATATAACACCTCATACTGTTACTGCTATTTCAGCA
AAAATCAGAAAGAAAGGAAAAATAGAAAGGAAACAAAAAACAGATGGCAGCAAGACATCC
TCCTCTGACACACTTTCAGAAGAGAAAAATTCAGAATGTGACCCTACGCCATCTCATAGA
GGCCAGCTAAACAAGGAGTTCACAGGGAAGGAAGAAAAGACATCATTGTTACTACATAAT
TCCCATGCTTTTTTCCGAGAGCTGGACATTGAGGTCTTCTCTATTCTACATTGTGGACTT
GTGACGAAGTTCATCTTAGATACTGAAATGCACACTGAAGCTACAGAAGTTGTGCAACTT
GGGCCCCCTGAGCTGCTTTTCTTGCTGGAAGATCTCTCCCAGAAGCTGGAGAGTATGCTG
ACACCTCCTATTGCCAGGAGAGTCCCCTTTCTCAAGAACAAAGGAAGCCGGAATATTGGA
TTCTCACATCTCCAACAGAGATCTGCCCAAGAAATTGTTCATTGTGTTTTTCAACTGCTG
ACCCCAATGTGTAACCACCTGGAGAACATTCACAACTATTTTCAGTGTTTAGCTGCTGAG
AATCACGGTGTAGTTGATGGACCAGGAGTGAAAGTTCAGGAGTACCACATAATGTCTTCC
TGCTATCAGAGGCTGCTGCAGATTTTTCATGGGCTTTTTGCTTGGAGTGGATTTTCTCAA
CCTGAAAATCAGAATTTACTGTATTCAGCCCTCCATGTCCTTAGTAGCCGACTGAAACAG
GGAGAACACAGCCAGCCTTTGGAGGAACTACTCAGCCAGAGCGTCCATTACTTGCAGAAT
TTCCATCAAAGCATTCCCAGTTTCCAGTGTGCTCTTTATCTCATCAGACTTTTGATGGTT
ATTTTGGAGAAATCAACAGCTTCTGCTCAGAACAAAGAAAAAATTGCTTCCCTTGCCAGA
CAATTCCTCTGTCGGGTGTGGCCAAGTGGGGATAAAGAGAAGAGCAACATCTCTAATGAC
CAGCTCCATGCTCTGCTCTGTATCTACCTGGAGCACACAGAGAGCATTCTGAAGGCCATA
GAGGAGATTGCTGGTGTTGGTGTCCCAGAACTGATCAACTCTCCTAAAGATGCATCTTCC
TCCACATTCCCTACACTGACCAGGCATACTTTTGTTGTTTTCTTCCGTGTGATGATGGCT
GAACTAGAGAAGACGGTGAAAAAAATTGAGCCTGGCACAGCAGCAGACTCGCAGCAGATT
CATGAAGAGAAACTCCTCTACTGGAACATGGCTGTTCGAGACTTCAGTATCCTCATCAAC
TTGATAAAGGTATTTGATAGTCATCCTGTTCTGCATGTATGTTTGAAGTATGGGCGTCTC
TTTGTGGAAGCATTTCTGAAGCAATGTATGCCGCTCCTAGACTTCAGTTTTAGAAAACAC
CGGGAAGATGTTCTGAGCTTACTGGAAACCTTCCAGTTGGACACAAGGCTGCTTCATCAC
CTGTGTGGGCATTCCAAGATTCACCAGGACACGAGACTCACCCAACATGTGCCTCTGCTC
AAAAAGACCCTGGAACTTTTAGTTTGCAGAGTCAAAGCTATGCTCACTCTCAACAATTGT
AGAGAGGCTTTCTGGCTGGGCAATCTAAAAAACCGGGACTTGCAGGGTGAAGAGATTAAG
TCCCAAAATTCCCAGGAGAGCACAGCAGATGAGAGTGAGGATGACATGTCATCCCAGGCC
TCCAAGAGCAAAGCCACTGAGGATGGTGAAGAAGACGAAGTAAGTGCTGGAGAAAAGGAG
CAAGATAGTGATGAGAGTTATGATGACTCTGATTAG

Restriction Sites: Please inquire

ACCN: NM_001018115

Insert Size: 6500 bp

OTI Disclaimer:	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 custsupport@origene.com 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. More info
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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_001018115.1, NP_001018125.1
RefSeq Size:	5134 bp
RefSeq ORF:	4356 bp
Locus ID:	2177
UniProt ID:	Q9BXW9
Cytogenetics:	3p25.3
Protein Families:	Druggable Genome

Gene Summary: The Fanconi anemia complementation group (FANC) currently includes FANCA, FANCB, FANCC, FANCD1 (also called BRCA2), FANCD2, FANCE, FANCF, FANCG, FANCI, FANCJ (also called BRIP1), FANCL, FANCM and FANCN (also called PALB2). The previously defined group FANCH is the same as FANCA. Fanconi anemia is a genetically heterogeneous recessive disorder characterized by cytogenetic instability, hypersensitivity to DNA crosslinking agents, increased chromosomal breakage, and defective DNA repair. The members of the Fanconi anemia complementation group do not share sequence similarity; they are related by their assembly into a common nuclear protein complex. This gene encodes the protein for complementation group D2. This protein is monoubiquinated in response to DNA damage, resulting in its localization to nuclear foci with other proteins (BRCA1 AND BRCA2) involved in homology-directed DNA repair. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Feb 2016]
Transcript Variant: This variant (2) uses an alternate splice site in the 3' coding region, compared to variant 1. It encodes isoform b which has a shorter and distinct C-terminus, compared to isoform a. Variants 2 and 3 encode the same isoform.