

Product datasheet for **RC223535**

FANCD2 (NM_001018115) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FANCD2 (NM_001018115) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	FANCD2
Synonyms:	FA-D2; FA4; FACD; FAD; FAD2; FANCD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC223535 representing NM_001018115 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

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ACTGCCTTAGATGTCCTCTAGAGTTGGTAGTGTAAACCCATCTGCTATGATGATGAATGCTGTCTTTG
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Protein Sequence: >RC223535 representing NM_001018115
 Red=Cloning site Green=Tags(s)

MVSKRRLSKSEDKESLTEDASKTRKQPLSKKTKKSHIANEVEENDSIFVKLLKISGIILKTGESQNQLAV
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 IITSLPEILGDSQHADVKGKELSDLLIENTSLTVPILDVLSLRLDPNFKLKVQRQLVMDKLSIRLEDLPV
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 PLLFSQDFAKDGGPVTSQESGQKLVSPCLAPYFRLRLCVERQHNGNLEEIDGLLDCPIFLTDLEPGEK
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 GNFDVETLDTIPHTVTAISAKIRKKGKIERKQKTDGSKTSSSDTLSEEKNECDPTPSHRQQLNKEFTGK
 EETKSLLLHNSHAFFRELDIEVFSILHCLVTKFILDTEMHTEATEVVQLGPPELLFLEEDLSQKLESM
 TPPIARRVPFLKNKGSRNIGFSLHQQRSAQEI VHCVFQLLTPMCNHLNIHNYFQCLAAENHGVVDGPGV
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 FHQSIPSFQCALYLIRLLMVILEKSTASAQNEKIASLARQFLCRVWVPSGDKEKSNISNDQLHALLCIYL
 EHTESILKAIIEIAGVGPPELINSPKDASSSTFPPTL TRHTFVVFVRVMAAELEKTVKKIEPMTAADSQOI
 HEEKLLYWNMAVRDFSILINLIKVFDSDHPVLHVCLKYGRLFVEAF LKQCMPLLDF SFRKHREDVLSLLET
 FQLDTRLLHHL CGHSKIHQDTRLTQHVP LLKKTLELLVCRVKAMLTNNCREAFWLGNLKNRDLQGEIEIK
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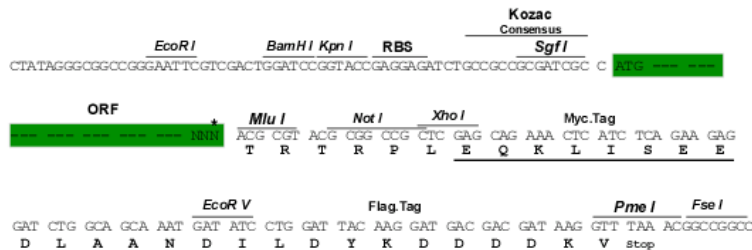
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001018115

ORF Size: 4353 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 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_001018115.3](#)

RefSeq Size: 5134 bp

RefSeq ORF: 4356 bp

Locus ID: 2177

UniProt ID: [Q9BXW9](#)

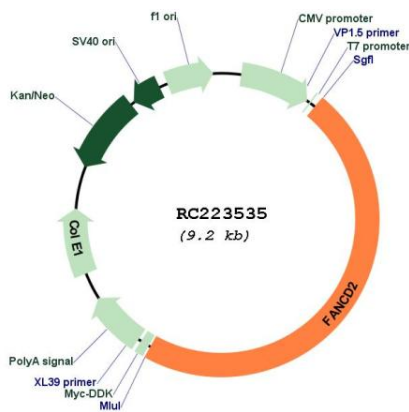
Cytogenetics: 3p25.3

Protein Families: Druggable Genome

MW: 163.9 kDa

Gene Summary:

The Fanconi anemia complementation group (FANC) currently includes FANCA, FANCB, FANCC, FANCD1 (also called BRCA2), FANCD2, FANCE, FANCF, FANCG, FANCI, FANCI (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 monoubiquitinated 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]

Product images:


Circular map for RC223535