

Product datasheet for **RC202443**

FANCG (NM_004629) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FANCG (NM_004629) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	FANCG
Synonyms:	FAG; XRCC9
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC202443 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCGCCAGACCACCTCTGTGGCTCCAGCTGCCTGGACCTGTGGAGGAAAAGAATGACCGGCTCG
 TTCGACAGGCCAAGGTGGCTCAGAACTCCGGTCTGACTCTGAGGCGACAGCAGTTGGCTCAGGATGCACT
 GGAAGGGCTCAGAGGGCTCCTCCATAGTCTGCAAGGGCTCCCTGCAGCTGTTCTCTTCCCTTGGAG
 CTGACTGTCACTGCAACTTCATTATCCTGAGGGCAAGCTTGGCCAGGGTTTCACAGAGGATCAGGCC
 AGGATATCCAGCGGAGCCTAGAGAGAGTCTGGAGACACAGGAGCAGCAGGGGCCAGGTTGGAACAGGG
 GCTCAGGGAGCTGTGGACTCTGTCTTCTGCTTCTGCTTCTGCTTCTGCTTCTGCTTCTGCTTCTGCT
 CGCTGGTTGGCCTGCAGGCTGCCCTCTGGTTGAGTGTGACCGTCTTGGGGACCTGGCCTGTTACTAG
 AGACCTGAATGGCAGCCAGAGTGGAGCCTTAAGGATCTGCTGTTACTTCTGAAAACCTGGAGTCCCC
 AGCTGAGGAATTAGATGTCCATTGACCCTGCAGGATGCCAGGGATTGAAGGATGCTCCTCTGACAGCA
 TTTGCCTACCGCAAGGTCTCCAGGAGCTGATCACAGGGAACCCAGACAAGGCACTAAGCAGCCTTCATG
 AAGCGGCCTCAGGCCTGTGTCCACGGCCTGTGTTGGTCCAGGTGTACACAGCACTGGGGTCTGTACCCG
 TAAGATGGGAAATCCACAGAGAGCACTGTTGACTTGGTTGCAGCCCTGAAAGAGGGATCAGCCTGGGGT
 CCTCCACTTCTGGAGGCCTTAGGCTCTATCAGCAACTGGGGACACAACAGCAGAGCTGGAGAGTCTGG
 AGCTGCTAGTTGAGGCCTTGAATGTCCCATGCAGTTCCAAAGCCCCGAGTTTCTCATTGAGGTAGAATT
 ACTACTGCCACCCTGACCTAGCCTCACCCCTTATTGTGGCACTCAGAGCCAGACCAAGCACATACTA
 GCAAGCAGGTGCCTACAGACGGGGAGGGCAGGAGACGCTGCAGAGCATTACTTGGACCTGCTGGCCCTGT
 TGCTGGATAGCTCGGAGCAAGTTCTCCCAAGGGGCTCCCTCCAGGGCCCTGTATGCCTGAGGTGTT
 TTTGGAGGCAGCGGTAGCACTGATCCAGGCAAGGACAGGCAAGATGCCTTGAATCTATGTGAGGAGTTG
 CTCAGCCGCACATCATCTCTGCTACCAAGATGTCCCGGCTGTGGGAAGATGCCAGAAAAGAAACCAAGG
 AACTGCCATACTGCCACTCTGGGTCTCTGCCACCACCTGCTTCAGGGCCAGGCCTGGGTTCAACTGGG
 TGCCCAAAAAGTGGCAATTAGTGAATTTAGCAGGTGCCTCGAGCTGCTTCCGGGCCACACCTGAGGAA
 AAAGAACAAGGGGAGCTTTCAACTGTGAGCAGGGATGTAAGTCAGATGCGGCCTGCAGCAGCTTCGGG
 CAGCCGCCCTAATTAGTCGTGGACTGGAATGGGTAGCCAGCGCCAGGATACCAAAGCCTTACAGGACTT
 CCTCTCAGTGTGAGATGTGCCAGGTAATCGAGACCTTACTTTCACCTGCTTACAGCTCTGAAGAGG
 CTAGATCGGAGGATGAGGCCACTGCACCTGGTGGAGGCTGGAGGCCAAACTAAGGGGTACATGAAG
 ATGCTCTGTGGTCTCTCCCTGTACCTAGAAAGCTATTTGAGCTGGATCCGTCCTCTGATCGTACGC
 CTTCTTGAAGAATTTCCGACATCTCTGCCAAAGTCTTGTGACCTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC202443 protein sequence
 Red=Cloning site Green=Tags(s)

MSRQTTSVSSCLDLWREKNDRLVRQAKVAQNGLTLRRQQLAQDALEGLRGLLHSLQGLPAAVPVLPLE
 LTVTCNFIIILRASLAQGFTEQQAQDIQRSLERVLETQEQQGPRLEQGLRELWDSVLRASCLLPELLSALH
 RLVGLQAALWLSADRLGDLALLLETLNGSQSGASKDLLLLLKTWSPPAEELDAPLTLQDAQGLKDVLLTA
 FAYRQGLQELITGNPKALSSLHEAASGLCPRPVLVQVYTAGSCHRKMGNPQRALLYLVAALKEGSAWG
 PPLLEASRLYQQLGDTTAELESLELLVEALNVPCSSKAPQFLIEVELLLPPPDLASPLHCGTQSQTKHIL
 ASRCLQTGRAGDAAEHYLDLLALLLDSSEPRFSPPPSPGPCMPEVFLEAAVALIQAGRAQDALTLCEEL
 LSRTSSLLPKMSRLWEDARKGTKELPYCPWVSATHLLQGQAWVQLGAQKVAISEFSRCELELLFRATPEE
 KEQGAAFNCEQGCKSDAALQQLRAAALISRGLEWVWASGQDTKALQDFLLSVQMCPGNRDTYFHLLQTLKR
 LDRRDEATALWWRLEAQTGKSHEDALWSLPLYLESYLSWIRPSDRDAFLFEFRTSLPKSCDL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6154_c07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_004629

ORF Size: 1866 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_004629.2](#)

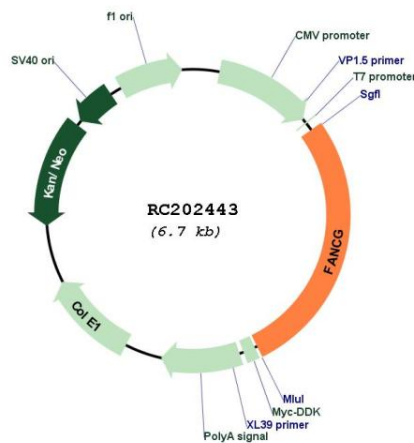
RefSeq Size: 2649 bp

RefSeq ORF: 1869 bp

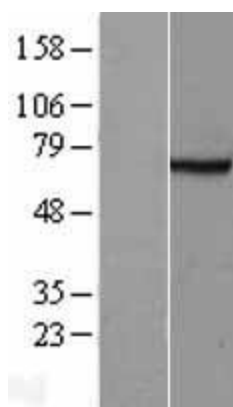
Locus ID: 2189
UniProt ID: [O15287](#)
Cytogenetics: 9p13.3
Domains: TPR
Protein Families: Druggable Genome
MW: 68.6 kDa

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 G. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC202443



Western blot validation of overexpression lysate (Cat# [LY401466]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202443 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).