

Product datasheet for RC240137

FANCA (NM_001286167) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FANCA (NM_001286167) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	FANCA
Synonyms:	FA; FA-H; FA1; FAA; FACA; FAH; FANCH
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC240137 representing NM_001286167 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCCGACTCGTGGTCCCGAACTCCGCCTCGGGCCAGGACCCAGGGGGCCGCGGAGGGCCTGGGCCG
AGCTGCTGGCGGAAGGGTCAAGAGGGAAAAATAATCCTGAAAGGGCACAGAAATTAAGGAATCAGC
TGTGCGCCTCCTGCGAAGCCATCAGGACCTGAATGCCCTTTTGGCTTGGAGTGAAGGTCCACTGTGTAAA
AAATTGTCTCTCAGCAAAGTGATTGACTGTGACAGTTCTGAGGCCTATGCTAATCATTCTAGTTCATTTA
TAGGCTCTGCTTTGCAGGATCAAGCCTCAAGGCTGGGGTTCCCGTGGGTATTCTCTCAGCCGGGATGGT
TGCTCTAGCGTGGGACAGATCTGCACGGCTCCAGCGGAGACCAGTCACCCTGTGCTGCTGACTGTGGAG
CAGAGAAAGAAGCTGTCTCCCTGTTAGAGTTTGTCTCAGTATTTATTGGCACACAGTATGTTCTCCCGTC
TTTCTTCTGTCAAGAATTATGGAAAATACAGAGTTCTTTGTGCTTGAAGCGGTGTGGCATCTTCACGT
ACAAGGCATTGTGAGCCTGCAAGAGCTGCTGAAAGCCATCCCGACATGCATGCTGTGGGATCGTGGCTC
TTCAGGAATCTGTGCTGCCTTTGTGAACAGATGGAAGCATCCTGCCAGCATGCTGACGTCGCCAGGGCCA
TGCTTTCTGATTTTGTCAAATGTTTGTGGGGATTTAGAAAACACTCAGATCTGAGAAGAAGTCT
GGAGCCTGAAAAATGCCGAGGTCACGGTTGATGTACTGCAGAGAATGCTGATTTTGCACCTTGACGCT
TTGGCTGCTGGAGTACAGGAGGAGTCTCCACTCACAAGATCGTGAGGTGCTGGTTCGGAGTGTTCAAGT
GACACACGCTTGGCAGTGAATTTCCACAGATCCTCTGAAGAGGTTCTTCAGTCATACCCTGACTCAGAT
ACTCACTCACAGCCCTGTGCTGAAAGCATCTGATGCTGTTGAGATGCAGAGAGAGTGGAGCTTTCGCGCG
ACACACCCCTGTCTCACCTCACTGTACCGCAGGCTCTTTGTGATGCTGAGTGCAGAGGAGTTGGTTGGCC
ATTTGCAAGAAGTCTGGAAACGCAGGAGGTTCACTGGCAGAGAGTCTCTCTTTGTGCTGCCCTGGT
TGCTGCTTTCCAGAAGCGCAGCAGCTGCTTGAAGACTGGTGGCGCTTTGATGGCCAGGCATTCGAG
AGCTGCCAGCTGGACAGCATGGTCACTGCTTCTGGTGTGCGCCAGGCAGCACTGGAGGGCCCTCTG
CGTTCTGTCTATGCAACTGGTTCAAGGCCTCCTTTGGGAGCACACGAGGCTACCATGGCTGCAGCAA
GAAGGCCCTGGTCTTCTGTTTACGTTCTGTGCAAACTCGTGCCTTTTGTGCTCCCGGTACCTGCAG
GTGCACATTCTCCACCCACCCTGGTTCGGGCAAGTACCCTCCCTCTCACAGACTACATCTCATTGG



[View online »](#)

CCAAGACACGGCTGGCCGACCTCAAGGTTTCTATAGAAAACATGGGACTCTACGAGGATTTGTCATCAGC
TGGGGACATTACTGAGCCCCACAGCCAAGCTCTTCAGGATGTTGAAAAGGCCATCATGGTGTGGAGCAT
ACGGGGAACATCCCAGTACCCTCATGGAGGCCAGCATATTCAGGAGGCCTTACTACGTGTCCCCTTCC
TCCCCGCCTGCTCACACCTCGAGTGCTCCCAAAAGTCCCTGACTCCCCTGTGGCGTTTATAGAGTCTCT
GAAGAGAGCAGATAAAAATCCCCCATCTCTGTACTCCACTACTGCCAGGCCTGCTCTGCTGCTGAAGAG
AAGCCAGAAGATGCAGCCCTGGGAGTGAGGGCAGAACCAACTCTGCTGAGGAGCCCTGGGACAGCTCA
CAGCTGCACTGGGAGAGCTGAGAGCTCCATGACAGACCCAGCCAGCGTGATGTTATATCGGCACAGT
GGCAGTGATTTCTGAAAGACTGAGGGCTGCTGGGCCACAATGAGGATGACAGCAGCGTTGAGATATCA
AAGATTACAGTCAGCATCAACACGCCGAGACTGGAGCCACGGAACACATGGCTGTGGACCTCCTGCTGA
CGTCTTTCTGTCAGAACCTGATGGCTGCCTCCAGTGTCGCTCCCCGGAGAGGCAGGGTCCCTGGGCTGC
CCTCTTGTGAGGACCATGTGTGGAGCTGTGCTCCCTGCAGTGCTCACCCGGCTCTGCCAGCTGCTCCGT
CACCAGGGCCCGAGCCTGAGTGCCCCACATGTGCTGGGTTGGCTGCCCTGGCCGTGCACCTGGGTGAGT
CCAGGTCTGCGCTCCCAGAGGTGGATGTGGTCTCCTGCACCTGGTGTGGCTTCCCTGCTCCCTGCGCT
CTTTGACAGCCTCCTGACCTGTAGGACGAGGGATTCTTGTCTCTGCTGAAATTTGTACAGCAGCA
ATTTCTTACTCTCTGCAAGTTTTCTCCAGTCACGAGATACTTTGTGAGCTGCTTATCTCCAGGCC
TTATTA AAAAGTTT CAGTT CCTCAT GTTCAGAT GTTCTCAGAGGCCCGACAGCCTTTTCTGAGGAGGA
CGTAGCCAGCCTTCTGGAGACCTTGCACCTTCTTCTGCAGACTGGCAGAGAGCTGCCCTCTCTCTC
TGGACACACAGAACCTTCCGAGAGGTGTTGAAAGAGGAAGATGTTCACTTAACTTACCAAGACTGGTTAC
ACCTGGAGCTGGAATTAACCTGAAGCTGATGCTCTTTCAGATACTGAACGGCAGGACTTCCACCAGTG
GGGATCCATGAGCACTTCTCCCTGAGTCTCGGCTTACAGGGGCTGTGACGGAGACCTGCAGGCTGCG
TGTACCATTCTTGTCAACGCACTGATGGATTTCCACAAAGCTCAAGGAGTTATGACCACTCAGAAAATT
CTGATTTGGTCTTTGGTGGCCGACAGGAAATGAGGATATTATTTCCAGATTGCAGGAGATGGTAGCTGA
CCTGGAGCTGCAGCAAGACCTCATAGTGCCTCTCGGCCACACCCCTTCCAGGAGCACTTCTCTTTGAG
ATTTTCCGACAGCGGCTCCAGGCTCTGACAAGCGGGTGGAGCGTGGCTGCCAGCCTTCCAGAGACAGAGGG
AGCTGCTAATGTACAAACGGATCCTCCTCCGCTGCCTTCTGCTGCTGCTGCGGACGAGCTTCCAGGC
AGAACAGCCCATCACTGCCAGATGCGAGCAGTTCTTCCACTTGGTCAACTCTGAGATGAGAACTTCTGC
TCCCACGGAGGTGCCCTGACACAGGACATCACTGCCCACTTCTTCCAGGGCCTCCTGAACGCTGTCTGC
GGAGCAGAGACCCCTCCCTGATGGTCGACTTCACTGGCCAAGTGCCAGACGAAATGCCCTTAATTTT
GACCTCTGCTCTGGTGTGGTGGCCGAGCCTGGAGCCTGTGCTGCTGCTGCGGTGGAGGAGACTGCCAG
AGCCCGCTGCCCGGAACTGCAGAAGCTACAAGAAGCCGGCAGTTTCCAGCGATTTCTCTCCCTG
AGGCTGCCTCCCAGCACCAACCCGGACTGGCTCTCAGCTGCTGCACTGCACTTTGCGATTCAACAAGT
CAGGGAAGAAAACATCAGGAAGCAGCTAAAGAAGCTGGACTGCGAGAGAGAGGAGCTATTGGTTTTCTT
TTCTTCTCTCCTTGATGGCCTGCTGTGCTCACATCTGACCTCAATAGCACCACAGACCTGCCAAAGG
CTTTCCAGTTTTGTGAGCAATCCTCGAGTGTTTAGAGAAGAGGAAGATATCCTGGCTGGCACTCTTTCA
GTTGACAGAGAGTGACCTCAGGCTGGGGCGGCTCCTCCTCCGTGTGGCCCGGATCAGCACACCAGGCTG
CTGCCTTTCGCTTTTACAGTCTTCTCCTACTTCCATGAAGACGCGGCCATCAGGGAAGAGGCCCTTCC
TGCATGTTGCTGTGGACATGACTTGAAGCTGGTCCAGCTCTTCGTGGCTGGGATACAAGCACAGTTTC
ACCTCCAGCTGGCAGGAGCCTGGAGCTCAAGGGTCAGGCAGGGCAACCCCGTGAAGTATAACAAAAGC
TCGTCTTTTCTGCTGCAGTTAATACCTCGGTGCCGAAAAGAGCTTCTCACACGTGGCAGAGCTGCTG
GC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC240137 representing NM_001286167
 Red=Cloning site Green=Tags(s)

```

MDSWVPSASGQDPGRRRAWAELLAGRVKREKYNPERAQLKESAVRLLRSHQDLNALLLEVEGPLCK
KLSSLKVIDCDSSEAYANHSSSFIGSALQDQASRLGVPVIGLSAGMVASSVVGICTAPAETSHPVLLTVE
QRKKLSSLEFAQYLLAHSMFSRLSFCQELWKIQSSLLLEAVWHLHVQGIIVSLQELLESHPDHVAQSWL
FRNLCCLECEQMEASCQHADVARAMLSDFVQMFVLRGFKNSDLRRTVEPEKMPQVTVQVLRMLIFALDA
LAAGVQEESSTHKIVRCWFGVFSGHTLGSVISTDPLKRFSSHTLTQILTHSPVLKASDAVQMQREWSFAR
THPLLTSLYRRLFVMLSAAELVGHLEVELETQEVHWQRVLSFVSALVVCFPAAQQLLEDVVARLMAQAFE
SCQLDSMVTAFLLVVRQAALGEPFAFLSYADWFKASFGSTRGYHGCSKKALVFLFTLSELVPFESPRYLQ
VHILHPPLVPGKYRSLLDYISLAKTRLADLKVSIENMGLYEDLSSAGDITEPHSQALQDVEKAIMVFEH
TGNIPVTMEASIFRRPYVYVSHFLPALLTPRVLPKVPDSRVAFIESLKRADKIPPSLYSTYCQACSAEEE
KPEDAALGVRAEPNSAEPLGQLTAALGELRASMTDPSQRDVISAQVAVISERLRAVLGHNESSVEIS
KIQLSINTPRLEPREHMAVDLLLT SFCQNLMAASSVAPPERQGPWAALFVRTMCGRVLPAVLRCLCQLLR
HQGPSLSAPHVGLAALAVHLGESRSALPEVDVGPAPGAGLPVPALFDSLLTCRTRDLSFFCLKFCTAA
ISYSLCKFSSQSRDTLCSCLSPGLIKKFQFLMFRLLFSEARQPLSEEDVASLSWRPLHLPSADWQRAALS
WTHRTFREVLEEDVHLTYQDWLHLELEIQPEADALSDTERQDFHQWAIHEHFLPESSASGGCDGDLQAA
CTILVNALMDFHQSSRSYDHSNSDLVFGGRTGNEDIISRLQEMVADLELQDDLIVPLGHTPSQEHFLFE
IFRRRLQALTSQWSVAASLQRQRELLMYKRILLRPLSSVLCGSSVFAEQPITARCEQFFHLVNSEMRNFC
SHGGALTDITAHFFRGLLNACLRSDPSLMVDFILAKCQTKCPLILTSALVWVWVLEPVLVCRWRRHCQ
SPLPRELQKLQEQRFASDFLSPEAASPAPNDWLSAAALHFAIQVREENIRKQLKLCDCEREELLVFL
FFFSLMGLLSSHLTSNSTDLPKAFHVCAAIIECLEKRIISWLALFQLTESDLRLGRLLLRVAPDQHTRL
LPFAFYSLLSYFHEDAAIREEAFLHVAVDMYLLKLVQLFVAGDTSTVSPAPAGRSLELKGQAGQPRGTDNKS
SSFSAAVNTSVPEKELLTRGRAAG
  
```

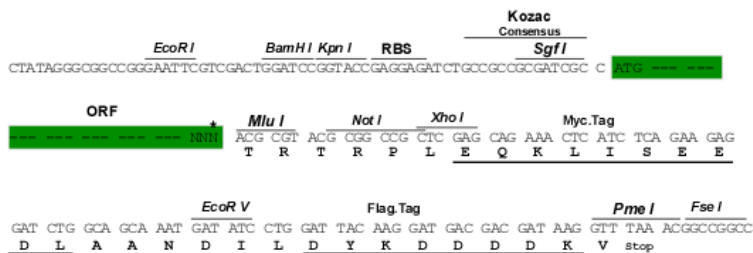
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

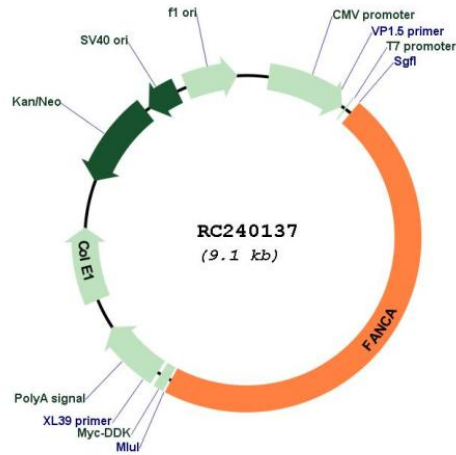
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN: NM_001286167

ORF Size: 4272 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_001286167.3](#)

RefSeq Size: 5464 bp

RefSeq ORF: 4275 bp

Locus ID: 2175

UniProt ID: [O15360](#)

Cytogenetics: 16q24.3

Protein Families: Druggable Genome

MW: 159.5 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 A. Alternative splicing results in multiple transcript variants encoding different isoforms. Mutations in this gene are the most common cause of Fanconi anemia. [provided by RefSeq, Jul 2008]