

Product datasheet for **RC208330**

XRCC2 (NM_005431) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	XRCC2 (NM_005431) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	XRCC2
Synonyms:	FANCU; POF17; SPGF50
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC208330 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTGTAGTGCCTTCCATAGGGCTGAGTCTGGACCGAGCTCCTTGCCCGACTTGAAGGTAGAAGTTCCT
TGAAAGAAATAGAACCAATCTGTTTGCTGATGAAGATTCACCTGTGCATGGTGATATTCTTGAATTTCA
TGGCCAGAAAGAACAGGAAAAACAGAAATGCTTTATCACCTAACAGCACGATGTATACTCCCAAATCA
GAAGGTGGCCTGGAAGTAGAAGTCTTATTTATTGATACAGATTACCACTTTGATATGCTCCGGCTAGTTA
CAATTCTTGAGCACAGACTATCCCAAAGCTCTGAAGAAATAATCAAATACTGCCTGGGAAGATTTTTTTT
GGTGTACTGCAGTAGTAGCACCCACTTACTTCTTACACTTTACTCACTAGAAAGTATGTTTTGTAGTCAC
CCATCTCTCTGCCTTTTGATTTGGATAGCCTGTGAGCTTTTACTGGATAGACCGGCTCAATGGAGGAG
AAAGTGTGAACCTACAGGAGTCTACTCTGAGGAAATGTTCTCAGTGCTTAGAGAAGCTTGTAAATGACTA
TCGCCTGGTTCTTTTGAACGACACAACTATAATGCAGAAAGCCTCGAGCTCATCAGAAGAACCTTCT
CATGCCTCTCGACGACTGTGTGATGTGGACATAGACTACAGACCTTATCTCTGTAAGGCATGGCAGCAAC
TGGTGAAGCACAGGATGTTTTCTCAAACAAGATGATTCTCAAAGCAGCAACCAATTTTCATTAGTTTC
ACGTTGTTTAAAAAGTAACAGTTTAAAAAACATTTTTTATTATTGGAGAAAGTGGGGTTGAATTTTGT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC208330 protein sequence
Red=Cloning site Green=Tags(s)

MCSAFHRAESGTELLARLEGRSSLKEIEPNLFADESPVHGDILEFHGPEGTGKTEMLYHLTARCILPKS
 EGGLEVEVLFIDTDYHFDMLRLVTILEHRLSQSSEEIIKYCLGRFFLVYCSSSTHLLLTLYSLESMFCSH
 PSLCLLILDLSAFYWIDRVNGGESVNLQESTLRKCSQCLEKLVNDYRLVLFATTQTIMQKASSSSEEPS
 HASRRLCDVDIDYRPYLCKAWQQLVKHRMFFSKQDDSQSSNQFSLVSRCLKSNSLKKHFFIIGESGVEFC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6552_a06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_005431

ORF Size: 840 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_005431.2](#)

RefSeq Size: 3094 bp

RefSeq ORF: 843 bp

Locus ID: 7516

UniProt ID: [O43543](#)

Cytogenetics: 7q36.1

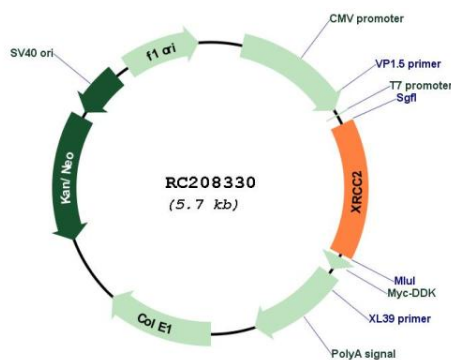
Protein Families: Druggable Genome

Protein Pathways: Homologous recombination

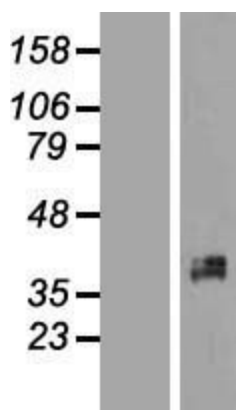
MW: 32 kDa

Gene Summary: This gene encodes a member of the RecA/Rad51-related protein family that participates in homologous recombination to maintain chromosome stability and repair DNA damage. This gene is involved in the repair of DNA double-strand breaks by homologous recombination and it functionally complements Chinese hamster irs1, a repair-deficient mutant that exhibits hypersensitivity to a number of different DNA-damaging agents. [provided by RefSeq, Jul 2008]

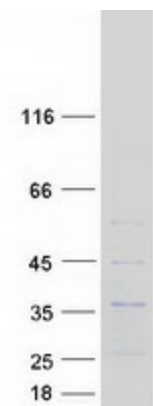
Product images:



Circular map for RC208330



Western blot validation of overexpression lysate (Cat# [LY417301]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208330 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified XRCC2 protein (Cat# [TP308330]). The protein was produced from HEK293T cells transfected with XRCC2 cDNA clone (Cat# RC208330) using MegaTran 2.0 (Cat# [TT210002]).