

Product datasheet for **RC204952**

XRCC1 (NM_006297) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	XRCC1 (NM_006297) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	XRCC1
Synonyms:	RCC; SCAR26
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>RC204952 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
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Protein Sequence: >RC204952 protein sequence
 Red=Cloning site Green=Tags(s)

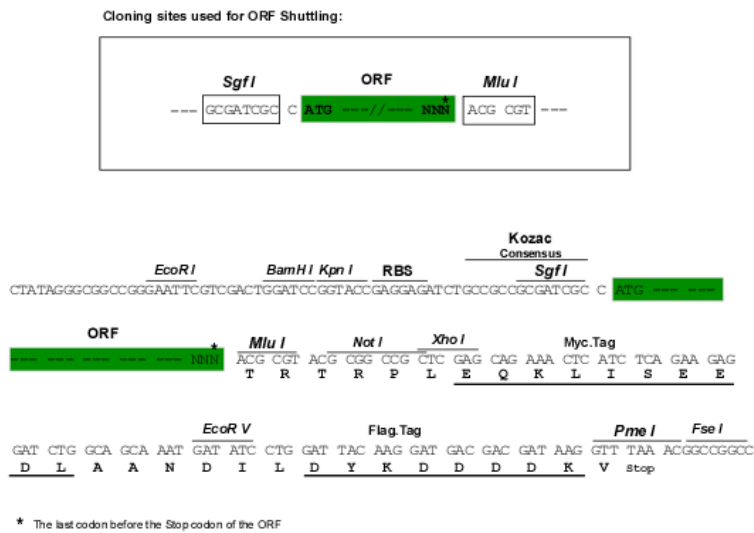
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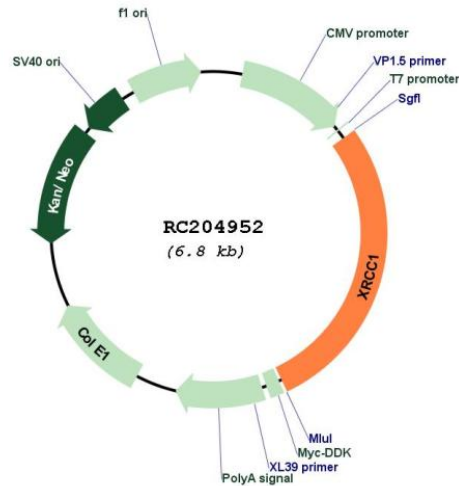
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Chromatograms: https://cdn.origene.com/chromatograms/mk6149_d05.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_006297

ORF Size: 1899 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_006297.3](#)

RefSeq Size: 2102 bp

RefSeq ORF: 1902 bp

Locus ID: 7515

UniProt ID: [P18887](#)

Cytogenetics: 19q13.31

Domains: BRCT, XRCC1_N

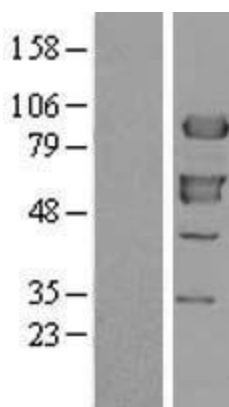
Protein Families: Druggable Genome

Protein Pathways: Base excision repair

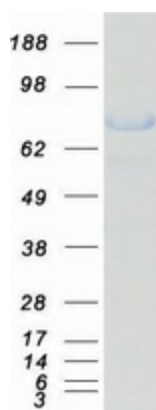
MW: 69.5 kDa

Gene Summary: The protein encoded by this gene is involved in the efficient repair of DNA single-strand breaks formed by exposure to ionizing radiation and alkylating agents. This protein interacts with DNA ligase III, polymerase beta and poly (ADP-ribose) polymerase to participate in the base excision repair pathway. It may play a role in DNA processing during meiosis and recombination in germ cells. A rare microsatellite polymorphism in this gene is associated with cancer in patients of varying radiosensitivity. [provided by RefSeq, Jul 2008]

Product images:



Western blot validation of overexpression lysate (Cat# [LY401897]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204952 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified XRCC1 protein (Cat# [TP304952]). The protein was produced from HEK293T cells transfected with XRCC1 cDNA clone (Cat# RC204952) using MegaTran 2.0 (Cat# [TT210002]).