

Product datasheet for **RC402804**

XRCC1 (NM_006297) Human Mutant ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Mutant ORF Clones |
| Product Name: | XRCC1 (NM_006297) Human Mutant ORF Clone |
| Mutation Description: | R399Q |
| Affected Codon#: | 399 |
| Affected NT#: | 1196 |
| Nucleotide Mutation: | XRCC1 Mutant (R399Q), Myc-DDK-tagged ORF clone of Homo sapiens X-ray repair complementing defective repair in Chinese hamster cells 1 (XRCC1) as transfection-ready DNA |
| Effect: | Inresed lun nerisk, ssoiion wih |
| Symbol: | XRCC1 |
| Synonyms: | RCC; SCAR26 |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| Tag: | Myc-DDK |
| ACCN: | NM_006297 |
| ORF Size: | 1899 bp |
| Restriction Sites: | Sgfl-Mlul |



[View online »](#)

ORF Nucleotide
Sequence:

>RC402804 representing NM_006297
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCCGGATCGCC

ATGCCGGAGATCCGCTCCGCCATGTCGTGTCCTGCAGCAGCCAGGACTCGACTCACTGTGCAGAAAATC
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CGTATGCAGGCTCCACGGATGAGAACACGGACAGTGGGAACACCAGGAGCCTCCTGATCTGCCAGTCCC
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CCGCAAGCC

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGA TAAGGTTTAA

Protein Sequence: >RC402804 representing NM_006297
 Red=Cloning site Green=Tags(s)

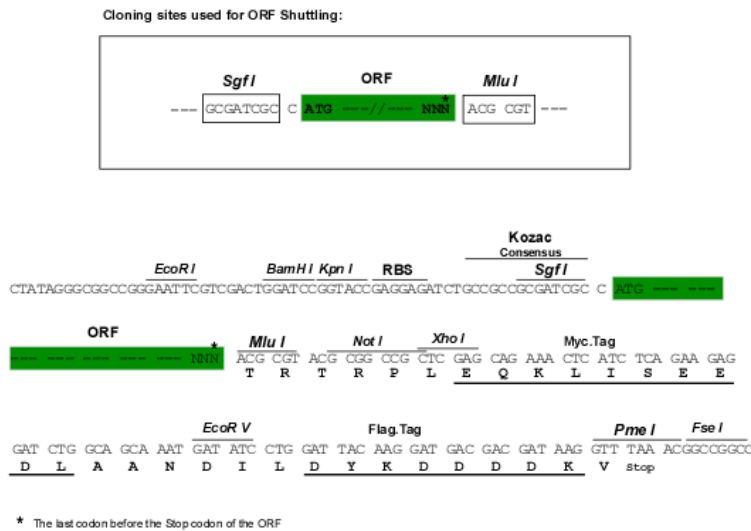
MPEIRLRHVVSCSSQDSTHCAENLLKADTYRKWRAAKAGEKTISSVVLQLEKEEQIHSVDIGNDGSFAFVEV
 LVGSSAGGAGEQDYEVLLVTSSFMSPSESRSGSNPNRVRMFGPDKLVRAAAEKRWDRVKIVCSQPYSKDS
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 YAAATLQASSAASSASPVSRRAIGSTSKPQESPKGKRKLDLNQEEKTPSKPPAQLSPSPVKRPKLPAPTR
 TPATAPVPARAQGAVTGKPRGEGTEPRRPRAGPEELGKILQGVVVVLSGFQNPFRSELKALELGAKYR
 PDWTRDSTHLICAFANTPKYSQVLGLGGRIVRKEWVLDCHRMRRRLPSQRYLMAGPGSSSEDEASHSGG
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 KLIRYVTAFNGELEDYMSDRVQFVITAQEWDPSEFEALMDNPSLAFVVRPRWIYSCNEKQKLLPHQLYGVV
 PQA

SGPTRTRRLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



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).

RefSeq: [NP_006288](#)

RefSeq Size: 1899 bp

RefSeq ORF: 1902 bp

Locus ID: 7515

Cytogenetics: 19q13.31

Domains: BRCT, XRCC1_N

Protein Families: Druggable Genome

Protein Pathways: Base excision repair

MW: 69.6 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]