

## Product datasheet for **RG214791**

### **XRCC3 (NM\_001100119) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** XRCC3 (NM\_001100119) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** XRCC3  
**Synonyms:** CMM6  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG214791 representing NM\_001100119  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGATTGGATCTACTGGACCTGAATCCAGAATTATTGCTGCAATTAAGAAAGCCAACTGAAATCGG  
TAAAGGAGGTTTTACACTTTTCTGGACCAGACTGAAGAGACTGACCAACCTCTCCAGCCCCGAGGTCTG  
GCACTTGCTGAGAACGGCTCCTTACACTTGGGGGAAGCAGCATCCTTACAGCACTGCAGCTGCACCAG  
CAGAAGGAGCGGTTCCCAAGCAGCACCAGCGCCTGAGCCTGGGCTGCCCGGTGCTGGACGCGTCTGCC  
GCGGTGGCTGCCCTGGACGGCATCACTGAGCTGGCCGGACGCAGCTCGGCAGGAAGACCCAGCTGGC  
GCTGCAGCTCTGCCTGGCTGTGCAGTTCGCGCGGACGACGAGGCGCTGGAGGCTGGAGCCGTCTACATC  
TGCACGGAAGACGCTTCCCGCACAAGCGCTGCAGCAGCTCATGGCCAGCAGCCGCGGTGCGCACTG  
ACGTTCCAGGAGAGCTGCTTCAGAAGCTCCGATTTGGCAGCCAGATCTTCATCGAGCACGTGGCCGATG  
GGACACCTTGTGGAGTGTGAATAAGAAGGTCCCCGTACTGCTGTCTCGGGCATGGCTCGCCTGGTG  
GTCATCGACTCGGTGGCAGCCCCATTCCGCTGTGAATTTGACAGCCAGGCTCCGCCCCAGGGCCAGGC  
ATCTGCAGTCCCTGGGGCCACGCTGCGTGAGCTGAGCAGTGCCTTCCAGAGCCCTGTGCTGTGCATCAA  
CCAGGTGACAGAGGCCATGGAGGAGCAGGGCCAGCACACGGGCCGCTGGGTTCTGGGACGAACGTGTT  
TCCCCAGCCCTTGGCATAACCTGGGCTAACAGCTCCTGGTGAGACTGCTGGCTGACCCGGCTCCGCGAG  
AAGAGGCTGCCCTCGGCTGCCAGCCCGACCCTGCGGGTGTCTCTGCCCCACCTGCCCCCTCCTCCTC  
CTGTTCTACACGATCAGTGCCGAAGGGTGCAGGGACACCTGGGACCCAGTCCAC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA



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**Protein Sequence:** >RG214791 representing NM\_001100119  
Red=Cloning site Green=Tags(s)

MDLDDLNPRIAAIKKAKLKSVEVLHFGPDLKRLTNLSSPEVHLLRTASLHLRGSSILTALQLHQ  
 QKERFPTQHQRLSLGCPVLDALLRGGLPLDGITELAGRSSAGKTQLALQLCLAVQFPRQHGGLEAGAVYI  
 CTEDAFPHKRLQQLMAQQPRLRTDVPGELLQKLRFGSQIFIEHVADVDTLLECVNKKVPVLLSRGMARLV  
 VIDSVAAPFRCEFDSDQASAPRARHLQSLGATLRELSSAFQSPVLCINQVTEAMEEQGAHGPLGFWDERV  
 SPALGITWANQLLVRLADRLREEEAALGCPARTLRVLSAPHLPPSSCSYTI SAEGVRGTPGTQSH

TRTRPLE - GFP Tag - V

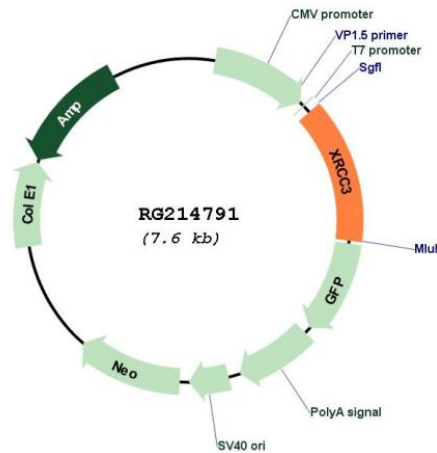
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**



**ACCN:** NM\_001100119

**ORF Size:** 1038 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001100119.2</a>
<b>RefSeq Size:</b>	2657 bp
<b>RefSeq ORF:</b>	1041 bp
<b>Locus ID:</b>	7517
<b>UniProt ID:</b>	<a href="#">O43542</a>
<b>Cytogenetics:</b>	14q32.33
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Homologous recombination
<b>Gene Summary:</b>	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 functionally complements Chinese hamster irs1SF, a repair-deficient mutant that exhibits hypersensitivity to a number of different DNA-damaging agents and is chromosomally unstable. A rare microsatellite polymorphism in this gene is associated with cancer in patients of varying radiosensitivity. Alternatively spliced transcript variants encoding the same protein have been identified. [provided by RefSeq, Jul 2008]