

## Product datasheet for MR204755

### Xrcc4 (NM\_028012) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Xrcc4 (NM_028012) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Xrcc4
Synonyms:	2310057B22Rik; AW413319; AW545101
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR204755 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAAGGAAAGTAAGCAGAATCTACCTTCTGCTTCTGAACCAACGTACCTTATTTTCTGCAAGTGTCTT  
GGGAGAGAGCAATAGGATCCGGCTTTGTTATTACACTTACTGACGGCCATTCAGCCTGGACTGCAACAGT  
TTCTGAATTGGAGATTTCCAAGAAGCTGATGACATGGCTATGGAGAAAGGAAAATACATTGATGAGCTG  
AGAAAGGCACTGGTGCCAGGGTCAGGAGCAGCTGGTACATACAAGTTCCTTTTTCTAAGGAGTCTCAGC  
ATTTCTCCCTTGAGAAAGAACTGAAAGATGTTTCATTGACTGGTTCCTTCAACCTAGACAAAGTTTC  
AAACTCAGCTGAAGTCATAAGAGAACTATTTGTTACTGCCTGGACACCATTACAGAAAAGCAAGCCAAA  
AACGAGCACCTGCAGAAAAGAAAATGAAAGGCTCCTGAGAGACTGGAATGATGTTCAAGGCCGATTTGAGA  
AATGTGTGAGTGCCAAAGAAGCCTTGGAGGCTGATTTGTATCAAAGATTTATCTTGGTGCTGAATGAGAA  
GAAAACAAAGATCCGGAGCTTGATAAATTGCTAAATGAAGTCCAGCAGCTGGAGGAGAGTACCAAACCT  
GAAAGGGAAAATCCGTGTTCTGACAAAACCTGAGGAGCATGGGCTTTATGATGGAAGCACCGATGAAG  
AAAGTGGAGCCCCTGTGCAGGCTGCAGAACTCTCATAAGGATGATTCCATATTTCAAGTCCGGATGT  
CACTGACATTGCACCAAGTAGGAAGAGGAGACACCGAATGCAGAAGAATCTTGGACAGAACCTAAAATG  
GCTCCACAGGAGTTGCCGCTACAGGAGAAGGAAAGGCTTGCTTCACTACCCAGACCTTGAAGAGG  
AGAGCACCTCTGCTGAAAACATGTCTTTAGAAACCTGAGAAACAGCAGCCAGAAAGATCTCTTTGAT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR204755 protein sequence  
Red=Cloning site Green=Tags(s)

MERKVSRIYLASEPNVPYFLQVSWERAIGSGFVITLTDGHSAWTATVSELEISQEADDMAMEKGYIDEL  
 RKALVPGSGAAGTYKFLFSKESQHFSLKELKDVSRFLGDFNLDKVSNSAEVIRELICCYCLDITTEKQAK  
 NEHLQKENERLLRDWNDVQGRFEKCVSAKEALEADLYQRFILVLNEKTKIRSLHKLLEVVQQLLEESTKP  
 ERENPCSDKTPEEHGLYDGSTDEESGAPVQAAETLHKDDSISSPDVTDIAPSRKRRHRMQKNLGTPEKM  
 APQELPLQEKERLASSLPQTLKEESTSAENMSLETLRNSSPEDLFD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_028012

**ORF Size:** 981 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\\_028012.1](#), [NM\\_028012.2](#), [NM\\_028012.3](#), [NM\\_028012.4](#), [NP\\_082288.1](#)

**RefSeq Size:** 1557 bp

**RefSeq ORF:** 981 bp

**Locus ID:** 108138

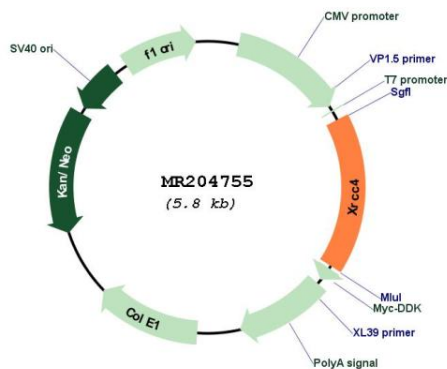
**UniProt ID:** [Q924T3](#)

**Cytogenetics:** 13 C3

**MW:** 37.1 kDa

**Gene Summary:** Involved in DNA nonhomologous end joining (NHEJ) required for double-strand break repair and V(D)J recombination. Binds to DNA and to DNA ligase IV (LIG4). The LIG4-XRCC4 complex is responsible for the NHEJ ligation step, and XRCC4 enhances the joining activity of LIG4. Binding of the LIG4-XRCC4 complex to DNA ends is dependent on the assembly of the DNA-dependent protein kinase complex DNA-PK to these DNA ends (By similarity). [UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR204755