

Product datasheet for MR223996

Xrcc2 (NM_020570) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Xrcc2 (NM_020570) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Xrcc2
Synonyms:	4921524O04Rik; 8030409M04Rik; RAD51; RecA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR223996 representing NM_020570 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGTGTAGCGACTTTCGCAGAGCGGAATCCGGGACAGAGCTCCTTGCCCGACTTGAAGGCAGAAGCTCGT
TGAAAGAAGTGAACCCAACTGTTTGCTGATGAAGATTCACCAAGTGCACGGTGATATTTTGAATTTCA
TGGTCCAGAAGGAACGGGAAAACAGAAATGCTTTATCATTTAACAGCCCGATGTATACTCCAAAATCA
GAGGGTGGACTGCAAATAGAAGTCTTATTTATTGATACAGATTACCACTTTGACATGCTACGGCTCGTGA
CAGTTCTTGAACACAGACTCTCGCAAAGCTCCGAGGAAGCCATGAAGCTGTGCCTAGCCAGTTGTTCCCT
GGCGTACTGCAGCAGCAGCATGCAGTTACTGCTCAGCTGCACTCCCTGGAAGCCCTGCTCTGCAGTCGC
CCCTCTCTCTGCCTTCTCATTGTGGACAGCCTGTCTGCTTTTTACTGGATAGACCGAGTCACTGGAGGAG
AGAGTGTGGCCCTGCAGGAGTCAACGCTGCAGAAGTGTCTCAGCTCCTAGAGCGGCTTGTCACTGAGTA
CCGCTTGCTGCTTTTTGCGACAACGCAGAGTCTAATGCAGAAAGGCTCAGACTCTGCAGACGGGCCCTTCT
TCCTCCAAGCACCCATGCGATGGAGACATGGGCTACAGAGCCTATCTCTGCAAGGCTGGCAGAGGGTGC
TGAAGCACAGGGTCATCTTCTCCAGGGACAGCAGGCCAAGAGCAGCCGGTCTCATTAGTTTCACGTCA
TTTAAAAAGTAACAGTTTAAAAAACACAGTTTATGGTCAGAGAAAGTGGGGTGGAGTTTGT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR223996 representing NM_020570
 Red=Cloning site Green=Tags(s)

MCSDFRRAESGTELLARLEGRSSLKELEPNLFADEDSPVHGDIFEFHGPEGTGKTEMLYHLTARCILPKS
 EGGLEIEVLFIDTDYHFDMLRLVTVLEHRLSQSSEEAMKLCARLFLAYCSSMQLLLTLSLEALLCSR
 PSLCLLIVDSLSSFYWIDRVSGGESVALQESTLQKCSQLLERLVTEYRLLLFATTQSLMQKGSADSADGSPS
 SSKHPCDGDMGYRAYLCKAWQRVVKHRVIFSRDDEAKSSRFSLVSRHLKSNLSLKKHSFMVRESGVEFC

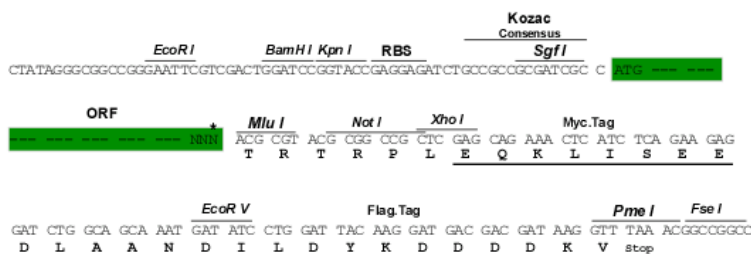
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9059_c07.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_020570

ORF Size: 834 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_020570.2](#), [NP_065595.2](#)

RefSeq Size: 3230 bp

RefSeq ORF: 837 bp

Locus ID: 57434

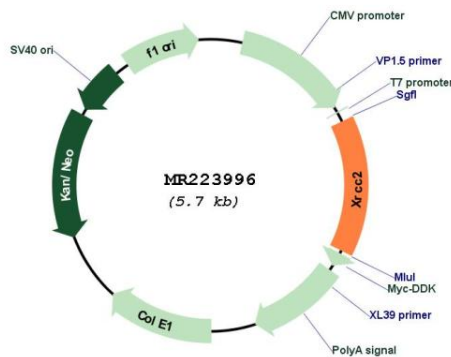
UniProt ID: [Q9CX47](#)

Cytogenetics: 5 B1

MW: 31.4 kDa

Gene Summary: Involved in the homologous recombination repair (HRR) pathway of double-stranded DNA, thought to repair chromosomal fragmentation, translocations and deletions. Part of the Rad21 paralog protein complex BCDX2 which acts in the BRCA1-BRCA2-dependent HR pathway. Upon DNA damage, BCDX2 acts downstream of BRCA2 recruitment and upstream of RAD51 recruitment. BCDX2 binds predominantly to the intersection of the four duplex arms of the Holliday junction and to junction of replication forks. The BCDX2 complex was originally reported to bind single-stranded DNA, single-stranded gaps in duplex DNA and specifically to nicks in duplex DNA (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR223996