

Product datasheet for **RC204048**

Ku70 (XRCC6) (NM_001469) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ku70 (XRCC6) (NM_001469) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	XRCC6
Synonyms:	CTC75; CTCBF; G22P1; KU70; ML8; TLAA
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RC204048 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCAGGGTGGGAGTCATATTACAAAACCGAGGGCGATGAAGAAGCAGAGGAAGAACAAGAAGAGAACC
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 TATGTTTTGAATCTCAGAGTGAAGATGAGTTGACACCTTTTGACATGAGCATCCAGTGTATCCAAAGTGTG
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
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Protein Sequence:

>RC204048 protein sequence
 Red=Cloning site Green=Tags(s)

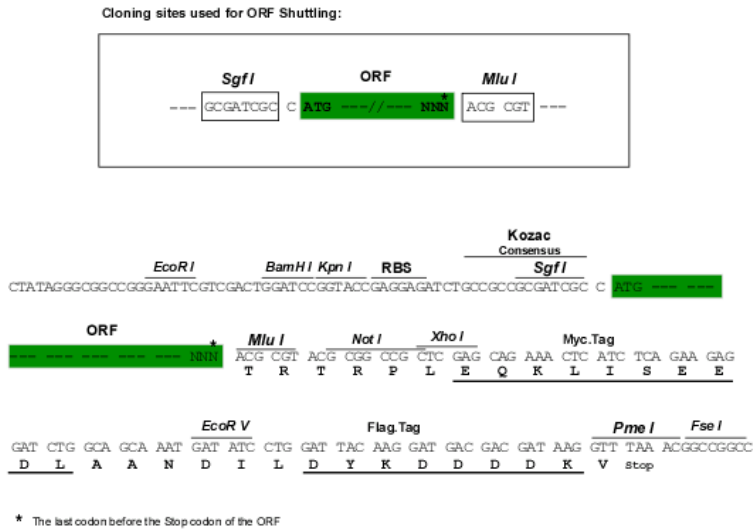
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 YSLSEVLWVCANLFSVQFKMSHKRIMLFTNEDNPHGNSAKASRARTKAGDLRDTGIFLDLMLHLKPKGG
 FDISLFYRDIISIAEDEDLRVHFEESSKLEDLLRKVRKETRKRALSRLKLNKDIVISVGIYNLVQKA
 LKPPPIKLYRETNEPVKTKTRTFNTSTGGLLPSDTKRSQIYGSRQIILEKEETEELKRFDDPGLMLMGF
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 DDQKIQTTPPGQLVFLPFADDRKMPFTEKIMATPEQVGMKAI VEKLRFTYRSDSFENPVLQHFRLN
 EALALDLMEPEQAVDLTPKVEAMNKRLGSLVDEFKELVYPPDYNPEGVTKRKHNEGSGSKRPKVEYS
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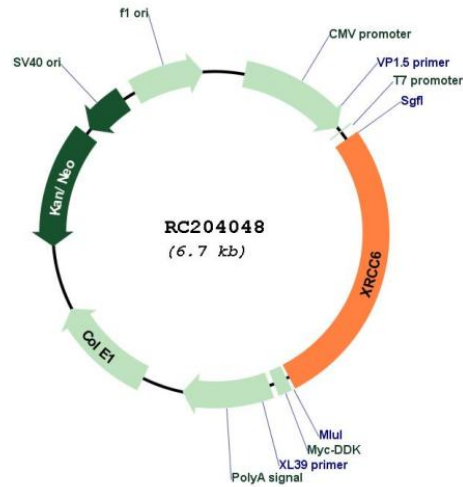
Chromatograms: https://cdn.origene.com/chromatograms/mk6154_h03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



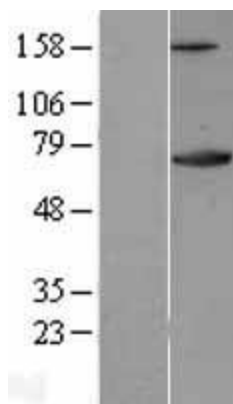
Plasmid Map:



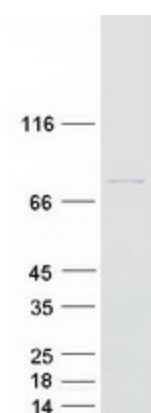
ACCN: NM_001469

ORF Size: 1827 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:	<ol style="list-style-type: none">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_001469.5
RefSeq Size:	2284 bp
RefSeq ORF:	1830 bp
Locus ID:	2547
UniProt ID:	P12956
Cytogenetics:	22q13.2
Domains:	SAP, Ku_C, Ku_N, ku
Protein Families:	Druggable Genome, Transcription Factors
Protein Pathways:	Non-homologous end-joining
MW:	69.8 kDa
Gene Summary:	The p70/p80 autoantigen is a nuclear complex consisting of two subunits with molecular masses of approximately 70 and 80 kDa. The complex functions as a single-stranded DNA-dependent ATP-dependent helicase. The complex may be involved in the repair of nonhomologous DNA ends such as that required for double-strand break repair, transposition, and V(D)J recombination. High levels of autoantibodies to p70 and p80 have been found in some patients with systemic lupus erythematosus. [provided by RefSeq, Jul 2008]

Product images:

Western blot validation of overexpression lysate (Cat# [LY400567]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204048 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified XRCC6 protein (Cat# [TP304048]). The protein was produced from HEK293T cells transfected with XRCC6 cDNA clone (Cat# RC204048) using MegaTran 2.0 (Cat# [TT210002]).