

## Product datasheet for **RG204048**

### **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:	TurboGFP
Symbol:	Ku70
Synonyms:	CTC75; CTCBF; G22P1; KU70; ML8; TLAA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG204048 representing NM\_001469  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGTCAGGGTGGGAGTCATATTACAAAACCGAGGGCGATGAAGAAGCAGAGGAAGAACAAGAAGAGAACC  
 TTGAAGCAAGTGGAGACTATAAATATTCAGGAAGAGATAGTTTGTATTTTTTGGTTGATGCCTCCAAGGC  
 TATGTTTGAATCTCAGAGTGAAGATGAGTTGACACCTTTTGACATGAGCATCCAGTGTATCCAAAGTGTG  
 TACATCAGTAAGATCATAAGCAGTGATCGAGATCTCTGGCTGTGGTGTCTATGGTACCGAGAAAGACA  
 AAAATTCAGTGAATTTAAAAATATTTACGCTTACAGGAGCTGGATAATCCAGGTGCAAAACGAATTCT  
 AGAGCTTGACCAGTTAAAGGGCAGCAGGGACAAAACGTTTCCAAGACATGATGGGCCACGGATCTGAC  
 TACTCACTCAGTGAAGTGTGTGGTCTGTGCCAACCTCTTGTGATGTCCAATTAAGATGAGTCATA  
 AGAGGATCATGCTGTTCCCAATGAAGACAACCCCATGGCAATGACAGTGCCAAAGCCAGCCGGGCCAG  
 GACCAAAGCCGGTATCTCCGAGATACAGGCATCTTCTTGACTTGATGCACCTGAAGAAACCTGGGGC  
 TTTGACATATCCTTGTCTACAGAGATATCATCAGCATAGCAGAGGATGAGGACCTCAGGGTTCACCTTG  
 AGGAATCCAGCAAGCTAGAAGACCTGTTGCGGAAGGTTCCGCGCAAGGAGACCAGGAAGCGAGCACTCAG  
 CAGGTTAAAGCTGAAGCTCAACAAAGATATAGTGATCTCTGTGGGCATTTATAATCTGGTCCAGAAGGCT  
 CTCAAGCCTCCTCCAATAAAGCTCTATCGGAAACAAATGAACCAGTGAAAACCAAGACCCGGACCTTTA  
 ATACAAGTACAGGCGGTTTGTCTCTGCCTAGCGATACCAAGAGGTTCTCAGATCTATGGGAGTCGTGAGT  
 TATACTGGAGAAAAGGAAAACAGAAGAGCTAAAACGGTTTGTGATCCAGGTTTGTGCTCATGGGTTTC  
 AAGCCGTTGGTACTGCTGAAGAAAACACCATTACCTGAGGCCCTCCCTGTTCTGTGTACCCAGAGGAGTCG  
 TGGTATTGGGAGCTCAACCCTGTTCACTGCTCTGCTCATCAAGTGTCTGGAGAAGGAGGTTGCAGCATT  
 GTGCAGATACACACCCCGCAGGAACATCCCTCCTTATTTTGTGGCTTGGTGCCACAGGAAGAAGAGTTG  
 GATGACCAGAAAATTCAGGTGACTCCTCCAGGCTTCCAGCTGGTCTTTTTACCCTTGTGATGATAAAA  
 GGAAGATGCCCTTACTGAAAAATCATGGCAACTCCAGAGCAGGTGGGCAAGATGAAGGCTATCGTTGA  
 GAAGCTTCGCTTACATACAGAAGTACAGCTTTGAGAACCCCGTGTGCAGCAGCACTTCAGGAACCTG  
 GAGGCTTGGCCTTGATTTGATGGAGCCGAAACAGCAGTGGACCTGACATTGCCCAAGGTTGAAGCAA  
 TGAATAAAAGACTGGGCTCCTTGGTGGATGAGTTAAGGAGCTTGTTTACCCACCAGATTACAATCTGA  
 AGGAAAAGTTACCAAGAGAAAACAGGATAATGAAGGTTCTGGAAGCAAAAGGCCCAAGGTGGAGTATTCA  
 GAAGAGGAGCTGAAGACCACATCAGCAAGGTCGCTGGCAAGTTCACTGTGCCATGCTGAAAGAGG  
 CCTGCCGGCTTACGGGCTGAAGAGTGGGCTGAAGAAGCAGGAGCTGCTGGAAGCCCTACCAAGCACTT  
 CCAGGAC

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG204048 representing NM\_001469  
 Red=Cloning site Green=Tags(s)

MSGWESYKTEGDEEAEEEEQEENLEASGDYKYSGRDSLIFLVDASKAMFESQSEDELTPFDMSIQCIQSV  
 YISKIISDRDLLAVVFYGTEDKNSVFNKNIYVLQELDNPQAKRILELDQFKGQGGQKRFQDMMHGSD  
 YSLSEVLWVCANLFSVQFKMSHKRIMLFTNEDNPHGNDSAKASRARTKAGDLRDTGIFLDLMLKPPGG  
 FDISLFYRDIISIAEDEDLRVHFEESKLEDLLRKVRKETRKRALSRLKLNKDIVISVGIYNLVQKA  
 LKPPPIKLYRETNEPVKTRTRFNTSTGGLLLPSDTKRSQIYGSRQIILEKEETEELKRFDDPGLMLMGF  
 KPLVLLKHHYLRPSLFVYPEESLVIGSSTLFSALLIKCLEKEVAALCRYTPRRNIPPYFVALVPQEEEL  
 DDQKIQVTPPGFQLVFLPFADDRKMPFTEKIMATPEQVGMKAIVEKLRFTYRSDSFENPVLQQHFRNL  
 EALALDLMEPEQAVDLTLPKVEAMNKRGLSLVDFEKELVYPPDYNPEGKVTKRKHNEGSGSKRPKVEYS  
 EEELKTHISKGLGKFTVPMLEACRAYGLKSLKQELLEALTKHFQD

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**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:**

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:** 2156 bp

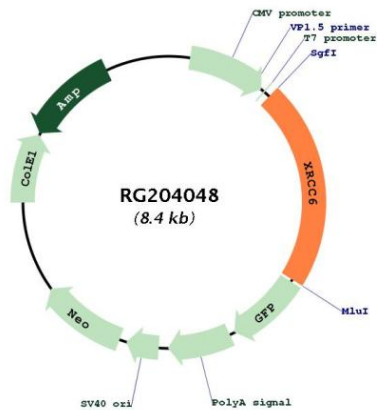
**RefSeq ORF:** 1830 bp

**Locus ID:** 2547

**UniProt ID:** [P12956](#)

<b>Cytogenetics:</b>	22q13.2
<b>Domains:</b>	SAP, Ku_C, Ku_N, ku
<b>Protein Families:</b>	Druggable Genome, Transcription Factors
<b>Protein Pathways:</b>	Non-homologous end-joining
<b>Gene Summary:</b>	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:**



Circular map for RG204048