

## Product datasheet for **RG238893**

### **Ku70 (XRCC6) (NM\_001288978) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Ku70 (XRCC6) (NM_001288978) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	XRCC6
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:**

>RG238893 representing NM\_001288978.  
 Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGAAGAAGCAGAGGAAGAACAAGAAGAGAACCTTGAAGCAAGTGTGTATCCAAAGTGTGTACATCAGT
AAGATCATAAAGCAGTGTATCGAGATCTCTGGCTGTGGTGTCTATGGTACCGAGAAGACAAAAATTCAG
GTGAATTTTAAAAATATTTACGTCTTACAGGAGCTGGATAATCCAGGTGCAAAACGAATTCAGAGCTT
GACCAGTTTAAGGGGCAGCAGGGACAAAAACGTTTCCAAGACATGATGGGCCACGGATCTGACTACTCA
CTCAGTGAAGTGTGTGGGTCTGTGCCAACCTCTTAGTGATGTCCAATCAAGATGAGTCATAAGAGG
ATCATGCTGTTACCAATGAAGACAACCCCATGGCAATGACAGTGCCAAAGCCAGCCGGGCCAGGACC
AAAGCCGGTGATCTCCGAGATACAGGCATCTTCTTGACTTGATGCACCTGAAGAAACCTGGGGCTTT
GACATATCCTTGTCTACAGAGATATCATCAGCATAGCAGAGGATGAGGACCTCAGGGTTCACCTTGAG
GAATCCAGCAAGCTAGAAGACCTGTTGCGGAAGGTTCCGCGCAAGGAGACCAGGAAGCGAGCACTCAGC
AGGTTAAAGCTGAAGCTCAACAAAGATATAGTGATCTCTGTGGGCATTTATAATCTGGTCCAGAAGCT
CTCAAGCCTCCTCCAATAAAGCTCTATCGGAAACAAATGAACCAAGTGAACCAAGACCCGGACCTTT
AATACAAGTACAGGCGGTTTGTCTGCGCTAGCGATACCAAGAGGCTCAGATCTATGGGAGTCGTGAG
ATTATACTGGAGAAAGAGGAAACAGAAGAGCTAAAACGGTTTGTATGATCCAGGTTTGTGCTCATGGGT
TTCAAGCCGTTGGTACTGCTGAAGAAACACCATACCTGAGGCCCTCCCTGTTCTGTGATCCAGAGGAG
TCGCTGGTGATTGGGAGCTCAACCTGTTCAAGTGTCTGCTCATCAAGTGTCTGGAGAAGGAGGTTGCA
GCATTGTGCAGATACACACCCCGCAGGAACATCCCTCCTATTTTGTGGCTTTGGTGCCACAGGAAGAA
GAGTTGGATGACCAGAAAATTCAGGTGACTCCTCCAGGCTCCAGCTGGTCTTTTACCCTTTGCTGAT
GATAAAAAGGAAGATGCCCTTTACTGAAAAAATCATGGCAACTCCAGAGCAGGTGGGCAAGATGAAGGCT
ATCGTTGAGAAGCTTCGCTTACATACAGAAGTGACAGCTTTGAGAACCCTGCTGCAGCAGCACTTC
AGGAACCTGGAGGCTTGGCCTTGGATTTGATGGAGCCGGAACAAGCAGTGGACCTGACATTGCCAAG
GTTGAAGCAATGAATAAAAGACTGGGCTCCTTGGTGGATGAGTTTAAAGGAGCTTGTTTACCACAGAT
TACAATCTGAAGGAAAGTTACCAAGAGAAAACAGATAATGAAGGTTCTGGAAGCAAAAGGCCAAG
GTGGAGTATTAGAAGAGGAGCTGAAGACCCACATCAGCAAGGTCAGCTGGGCAAGTTCCTGTGCC
ATGCTGAAAGAGGCTGCCGGGCTTACGGGCTGAAGAGTGGGCTGAAGAAGCAGGAGCTGCTGGAAGCC
CTCACCAAGCACTTCCAGGAC
ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAAAC
```

**Protein Sequence:**

>Peptide sequence encoded by RG238893  
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MKKQRKNKKRTLKQVCIQSVYISKIISDDRLLAVVFGTEKDKNSVNFKNIVLQELDNPQAKRILEL
DQFKGQQGQKRFQDMMGHGSDYSLSEVLWVCANLFSVQFKMSHKRIMLFTNEDNPHGNSAKASRART
KAGDLRDTGIFLDLMLHLKPPGFDISLFYRDIIISIAEDELRVHFEESSKLEDLLRKVRKETRKRALS
RLKLLNKDIVISVGIYNLVQKALKPPPIKLYRETNEPVKTKTRTFNTSTGGLLLPSDTRKRSQIYGSRQ
IILEKEETEELKRFDDPGLMLMGFKPLVLLKHHYLRPSLFVYPEESLVIQSSTLFSALLIKCLEKEVA
ALCRYTPRRNIPPYFVALVPQEEELDDQKIQVTPPGFQLVFLPFADDKRKMFPTEKIMATPEQVGMKA
IVEKLRFTYRSDSFENPVLQQHFRNLEALALDLMEPEQAVDLTLPKVEAMNKRLGSLVDFKELVYPPD
YNPEGKVTKRKHDNEGSGSRPKVEYSEEELKTHISKGLTKFTVPLMKEACRAYGLKSLKQKELLEA
LTKHFQD
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSTYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPE
SVIFTDKIIRSNAIVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

**Restriction Sites:**

SgfI-MluI



<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>RefSeq:</b>	<a href="#">NM_001288978.1</a> , <a href="#">NP_001275907.1</a>
<b>RefSeq Size:</b>	2165 bp
<b>RefSeq ORF:</b>	1680 bp
<b>Locus ID:</b>	2547
<b>Cytogenetics:</b>	22q13.2
<b>Protein Families:</b>	Druggable Genome, Transcription Factors
<b>Protein Pathways:</b>	Non-homologous end-joining
<b>MW:</b>	64.7 kDa
<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]