

Product datasheet for **SC112985**

Ku80 (XRCC5) (NM_021141) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ku80 (XRCC5) (NM_021141) Human Untagged Clone
Tag:	Tag Free
Symbol:	Ku80
Synonyms:	KARP-1; KARP1; KU80; Ku86; KUB2; NFIV
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC112985 sequence for NM_021141 edited (data generated by NextGen Sequencing)

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ATGGTGCGGTCGGGGAATAAGGCAGCTGTTGTGCTGTGTATGGACGTGGGCTTTACCATG
AGTAACTCCATTCCTGGTATAGAATCCCCATTTGAACAAGCAAAGAAGGTGATAACCATG
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ACAGATGGCACTGACAATCCCCTTTCTGGTGGGATCAGTATCAGAACATCACAGTGCAC
AGACATCTGATGCTACCAGATTTTGTATTGCTGGAGGACATTGAAAGCAAAATCCAACCA
GGTTCTCAACAGGCTGACTTCTGGATGCACTAATCGTGAGCATGGATGTGATTCAACAT
GAAACAATAGGAAAGAAGTTTGAGAAGAGGCATATTGAAATATTCACTGACCTCAGCAGC
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CAAAAAGAAGGTCTTGAGATAGTGAATGGTGTGATATCTTTAGAAGGTGAAGATGGG
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GCCTTCCGGGAAGAAGCCATTAAGTTTTTCAAGAGCAGCGCTTTAAACAATTCCTGAAA
GCCCTTCAAGAGAAAGTGGAAATTAACAATTAATCATTCTGGGAAATGTTGTCCAG
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GCCAAAAAGTTTCTGGCCCCAAAGACAACCAAGTGGAGACACAGCAGCTGTATTTGAA
GAAGGTGGTGTGACGATTTATTGGACATGATATAG

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Clone variation with respect to NM_021141.3

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_021141 unedited
 AGTTTGGATTTTGTNATCCGACTTCATATAGGGCGGCCGCGCAATTCGCACGAGGCCTCG
 TGCCGAATTCGGCACGAGGCCGGAAGCGAGTTGCGACACGGCAGGTTCCCGCCCGGAAGA
 AGCGACCAAAAGCGCTGAGGACCGGCAACATGGTGCGGTCGGGGAATAAGGCAGCTGTTG
 TGCTGTGTATGGACGTGGGCTTTACCATGAGTAACTCCATTCTGGTATAGAATCCCAT
 TTGAACAAGCAAAGAAGGTGATAACCATGTTTGTACAGCGACAGGTGTTTGTGAGAACA
 AGGATGAGATTGCTTTAGTCTGTTTGGTACAGATGGCACTGACAAATCCCCTTTCTGGTG
 GGGATCAGTATCAGAACATCACAGTGCACAGACATCTGATGCTACCAGATTTTGATTGTC
 TGGAGGACATTGAAAGCAAAATCCAACAGGTTCTCAACAGGCTGACTTCTGGATGCAC
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 CCTTCCACTAAAAGGAATTACCGAACAGCANANAGAAGGTCTTGAGATAGTAAAATGG
 TGATGATATCTTTAGAAGGTGAAGATGGGTTGGNATGAAAATTTATTCATTCAGTGAGAG
 TCTGANAAAAGTGCCTTTTCAGAAAATTTGAGAGCATTCCATTCACTGGCCCTGCCGA
 CTGACCATTGGCTCCATTTGTCT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_021141 unedited
 NTTTTAGCTTGNACGCGGCCGATCTANGATCGGTTTTTTTTTTTTTTTTTTTGGAGTCATTT
 ATGCCTTTAATGTTACATGTACAAAAGTGTATTAGTGACGACTTATGAGGGTGTGAA
 GACAGAGGTGACTGGGTACCAAGAAGTCTGTACACCAAAGAGGAACTGGAAGTCAAGGCA
 AGAATGAGGACAAGAAAAAAGAGAATAAGGGCTTTGTTATTTTCTTATTTAGTAAAGGA
 GACACCATCCACAAGATGAAAGCTGACTTAGGTAGAAATGGGAAAGACCGAAAAGTTAC
 CTAAGTGTTTTAAATAACGAACTTTCTCTTTGAGGCTTGCAAGTAGAGAACAGTGA
 AGTGATATAATTCTAACTACTGTAGTAAATTTCTCAGTTTTTGTAGTTTCTAAAGTTTAC
 TGATATGGCAGAGATTGGGCCAAAAGGTCTTTTCTCATGAGACCACCACCATAACTCAC
 TGCTTAAAAGGAGTATGAAGGAAAATTGTGCTCCCCTTCCCACCCCACTTAAAGAAAACC
 ACCTATATACAGAGGCAGAGTAATGTGGTAACTAGAAGGCCTCACTAAAAGAGAAGTG
 AGTCCGTCCTTACCCATGGTTTTCTAACCCAGCTGCTTGTGGGAGGAAGCAAATGCTGA
 CTGCTTGCTCAACACAAGTTGTGACAGCTGTTGGAGGATCAGGCAAAGGGAGACTCTGGA
 AAGGGTTAAGAAACTCATCAATAACCATGCCATGTTTCCATGAGACACTAATTACATCA
 CAAGGGCTGCCACTGTCAGTATATACTACGTCAAGAAAGGACTACTTTCCAGAACTTC
 AAAGCTTGTGATTTTCAAAGATCTGGTAGACCCCGAAAAAATATACCCACCCCGGA
 AATAACATGACTCTT

Restriction Sites:

NotI-NotI

ACCN:

NM_021141

Insert Size:

3460 bp

OTI Disclaimer:

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_021141.2 , NP_066964.1
RefSeq Size:	3310 bp
RefSeq ORF:	2199 bp
Locus ID:	7520
UniProt ID:	P13010
Cytogenetics:	2q35
Domains:	VWA, Ku_C, Ku_N, ku
Protein Families:	Druggable Genome, Stem cell - Pluripotency
Protein Pathways:	Non-homologous end-joining
Gene Summary:	<p>The protein encoded by this gene is the 80-kilodalton subunit of the Ku heterodimer protein which is also known as ATP-dependant DNA helicase II or DNA repair protein XRCC5. Ku is the DNA-binding component of the DNA-dependent protein kinase, and it functions together with the DNA ligase IV-XRCC4 complex in the repair of DNA double-strand break by non-homologous end joining and the completion of V(D)J recombination events. This gene functionally complements Chinese hamster xrs-6, a mutant defective in DNA double-strand break repair and in ability to undergo V(D)J recombination. A rare microsatellite polymorphism in this gene is associated with cancer in patients of varying radiosensitivity. [provided by RefSeq, Jul 2008]</p>