

Product datasheet for **SC321015**

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:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_021141.2
 GACCAAAGCGCCTGAGGACCGGCAACATGGTGCCGTCGGGGAATAAGGCAGCTGTTGTGC
 TGTGTATGGACGTGGGCTTTACCATGAGTAACTCCATTCTGGTATAGAATCCCCATTTG
 AACAAAGCAAAGAAGGTGATAACCATGTTTGTACAGCGACAGGTGTTTGTGAGAACAAGG
 ATGAGATTGCTTTAGTCTGTTTGGTACAGATGGCACTGACAATCCCCTTTCTGGTGGGG
 ATCAGTATCAGAACATCACAGTGCACAGACATCTGATGCTACCAGATTTTGATTTGCTGG
 AGGACATTTGAAAGCAAAATCCAACAGGTTCTCAACAGGCTGACTTCCTGGATGCACTAA
 TCGTGAGCATGGATGTGATCCAACATGAAACAATAGGAAAGAAGTTTGAGAAGAGGCATA
 TTGAAATATTTCACTGACCTCAGCAGCCGATTTCAGCAAAAGTCAGCTGGATATTATAATTC
 ATAGCTTGAAGAAATGTGACATCTCCCTGCAATTTCTTCTGCCTTTCTCACTTGGCAAGG
 AAGATGGAAGTGGGGACAGAGGAGATGGCCCTTTTCGCTTAGGTGGCCATGGGCTTCTCT
 TTCCACTAAAAGGAATTACCGAACAGCAAAAAGAAGGTCTTGAGATAGTAAAATGGTGA
 TGATATCTTTAGAAGGTGAAGATGGGTTGGATGAAATTTATTCATTCAGTGAGAGTCTGA
 GAAAAGTGTGCTCTTCAAGAAAATTGAGAGGCATTCCATTCAGTGGCCCTGCCGACTGA
 CCATTGGCTCCAATTTGTCTATAAGGATTGCAGCCTATAAATCGATTCTACAGGAGAGAG
 TAAAAAGACTTGGACAGTTGTGGATGCAAAAACCTAAAAAAGAAGATATACAAAAAG
 AAACAGTTTATTGCTTAAATGATGATGATGAAACTGAAGTTTTAAAAGAGGATATTATTC
 AAGGGTCCGCTATGGAAGTGATATAGTTCCTTTCTTAAAGTGGATGAGGAACAATGA
 AATATAAATCGGAGGGGAAGTGCTTCTCTGTTTTGGGATTTTGTAAATCTTCTCAGGTTC
 AGAGAAGATTTCTCATGGGAAATCAAGTTCTAAAGGTCTTTCAGCAAGAGATGATGAGG
 CAGCTGCAGTTGCACTTTCTCCCTGATTCATGCTTTGGATGACTTAGACATGGTGGCCA
 TAGTTCGATATGCTTATGACAAAAGAGCTAATCCTCAAGTCCGCGTGGCTTTTCTCATA
 TCAAGCATAACTATGAGTGTTTAGTGATGTGCAGCTGCCTTTTCATGGAAGACTTGGCGG
 AATACATGTTTTTTCATCCTTGAAAAACAGTAAGAAATATGCTCCACCGAGGCACAGTTGA
 ATGCTGTTGATGCTTTGATTGACTCCATGAGCTTGGCAAAGAAAGATGAGAAGACAGACA
 CCCTTGAAGACTTGTTCACACCACAAAATCCCAATCTCGATTTTCAGAGATTATTTTC
 AGTGTCTGCTGCACAGAGCTTTACATCCCCGGGAGCCTTACCCCAATTCAGCAGCATA
 TTTGGAATATGCTGAATCCTCCCGCTGAGGTGACAACGAAAAGTCAGATTCCTCTCTCTA
 AAATAAAGACCCTTTTCTCTGATTGAAGCCAAGAAAAAGGATCAAGTGACTGCTCAGG
 AAATTTTCCAAGACAACCATGAAGATGGACCTACAGCTAAAAAATTAAGACTGAGCAAG
 GGGGAGCCCACTTCAGCGTCTCCAGTCTGGCTGAAGGCAGTGTCACCTCTGTTGGAAGTG
 TGAATCCTGCTGAAAACCTCCGTGTTCTAGTGAACAGAGAAGGCCAGCTTTGAGGAAG
 CGAGTAACCAGCTCATAAATCACATCGAACAGTTTTTGGATACTAATGAAACACCGTATT
 TTATGAAGAGCATAGACTGCATCCGAGCCTTCCGGGAAGAAGCCATTAAGTTTTCAGAAG
 AGCAGCGCTTTAACTTCTGAAAGCCCTTCAAGAGAAAGTGGAAATTAACAATTA
 ATCATTCTGGGAAATGTTGTCCAGGATGGAATTAATCTGATCACCAAAGAGGAAGCCT
 CTGGAAGTTCTGTACAGCTGAGGAAGCCAAAAGTTTCTGGCCCCAAAGACAAACCAA
 TATAGGTCGTGGATGTATGGGGAATCTAAGAGAGCTGCCATCACTGTGATGCTGGGAGTT
 CTAACAAAACAAGTTGGATGCGGCCATTCAAGGGGAGCCAAAATCTCAAGAAATCCCAG
 CAGGTTACCTGGAGGCGGATCATCTAATCTCTGTGGAATGAATACACACATATATATTA
 CAAGGGATAATTTAGACCCCATACAAGTTTATAAAGAGTCATTGCAAAAAAAAAAAAAA
 AAAAAAAAAAAAAA

Restriction Sites: Please inquire

ACCN: NM_021141

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).

OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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:	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]