

Datasheet for ABIN968493
anti-XRCC5 antibody (AA 103-315)[4 Images](#)[3 Publications](#)[Go to Product page](#)

Overview

Quantity:	50 µg
Target:	XRCC5
Binding Specificity:	AA 103-315
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This XRCC5 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Human Ku80 aa. 103-315
Clone:	7-Ku80
Isotype:	IgG1
Characteristics:	<ol style="list-style-type: none">1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.2. Please refer to us for technical protocols.3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	XRCC5
Alternative Name:	Ku80 (XRCC5 Products)
Background:	<p>DNA-dependent protein kinase (DNA-PK) is a trimeric enzyme that contains a catalytic subunit of 350 kDa (DNA-PKcs) and a heterodimeric regulatory subunit of 70 kDa (Ku70) and 86 kDa (Ku80). DNA-PKcs is inactive alone and depends on the regulatory subunit for subcellular localization and kinase activity. The DNA-PKcs/Ku70/Ku80 complex is involved in V(D)J recombination and DNA double-stranded break repair. Ku70 and Ku80 are abundant nuclear DNA-binding proteins. Besides functioning in a complex with DNA-PKcs, Ku proteins may act in multiple cellular processes including transcriptional regulation, ATPase and helicase activity, alteration in chromatin structure, cell cycle regulation, and maintenance of telomere length. In rat fibroblasts, Ku80 overexpression leads to hypermethylation and silencing of metallothionein gene expression. Ku70^{-/-} and Ku80^{-/-} cells are less resistant to anticancer drug-induced apoptosis, suggesting a role for Ku proteins in the prevention of apoptotic signaling. Thus, Ku70 and Ku80 may have multiple roles during DNA transcription, repair, and maintenance depending on the protein interactions that are involved.</p>
Molecular Weight:	80 kDa
Pathways:	DNA Damage Repair

Application Details

Comment:	Related Products: ABIN968533, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20° C.

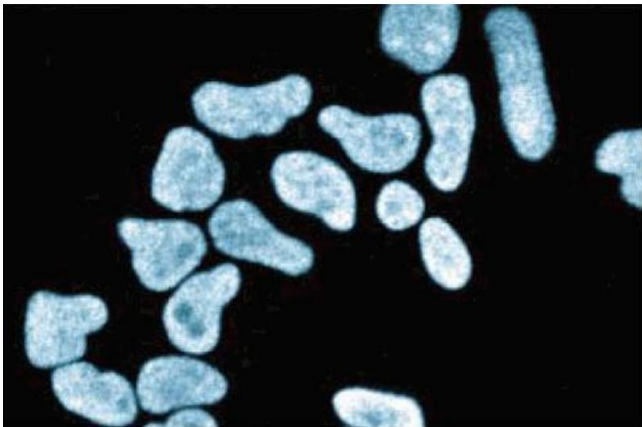
Publications

Product cited in: Kim, Kim, Han, Jeong, Chung, Kang, Li: "Ku autoantigen affects the susceptibility to anticancer drugs." in: **Cancer research**, Vol. 59, Issue 16, pp. 4012-7, (1999) ([PubMed](#)).

Majumder, Ghoshal, Li, Jacob: "Hypermethylation of metallothionein-I promoter and suppression of its induction in cell lines overexpressing the large subunit of Ku protein." in: **The Journal of biological chemistry**, Vol. 274, Issue 40, pp. 28584-9, (1999) ([PubMed](#)).

Smith, Jackson: "The DNA-dependent protein kinase." in: **Genes & development**, Vol. 13, Issue 8 , pp. 916-34, (1999) ([PubMed](#)).

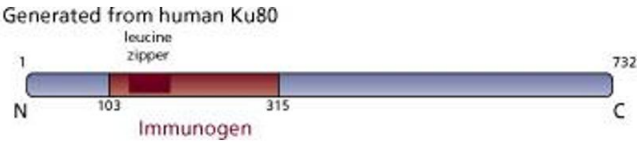
Images



Immunofluorescence

Image 1. Immunofluorescence staining of HeLa cells (Human cervical epitheloid carcinoma, ATCC CCL-2.2).

Image 2.





Western Blotting

Image 3. Western blot analysis of Ku80 on a A431 cell lysate (Human epithelial carcinoma, ATCC CRL-1555). Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of the mouse anti-human Ku80 antibody.

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN968493.