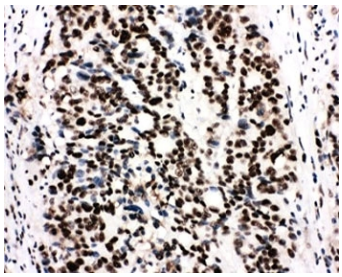
Ku80 Antibody / XRCC5 (R30724)

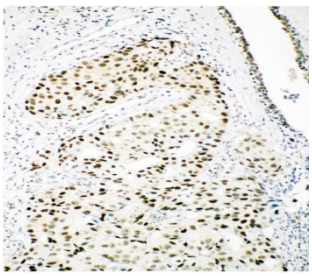
Catalog No.	Formulation	Size
R30724	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

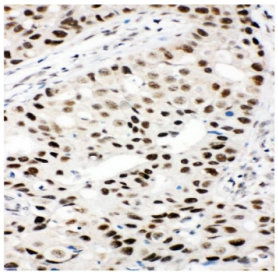
Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide/thimerosal
UniProt	P13010
Localization	Nuclear
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 0.5-1ug/ml Immunocytochemistry : 0.5-1ug/ml Immunofluorescence (FFPE) : 2-4ug/ml Flow Cytometry : 1-3ug/million cells
Limitations	This Ku80 antibody is available for research use only.



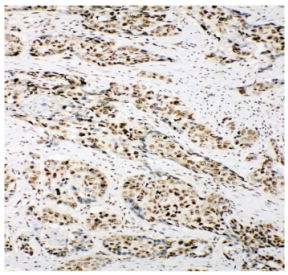
IHC-P: Ku80 antibody testing of human breast cancer tissue. HIER: boil tissue sections in pH6, 10mM citrate buffer, for 20 min and allow to cool before testing.



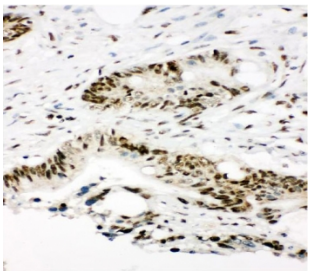
IHC staining of FFPE human breast cancer with Ku80 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



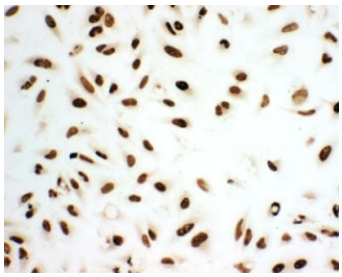
IHC staining of FFPE human breast cancer with Ku80 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE human lung cancer with Ku80 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.

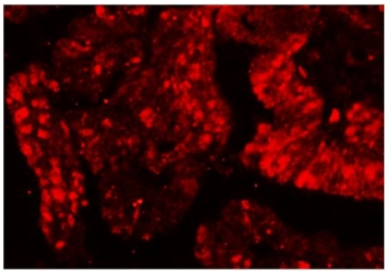


IHC staining of FFPE human intestinal cancer with Ku80 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.

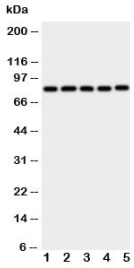


ICC testing of Ku80 antibody and HeLa cells.

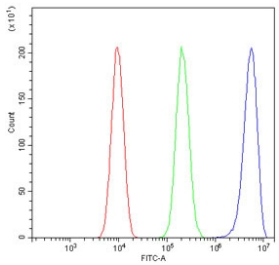
Immunofluorescent staining of FFPE human A549 cells with Ku80 antibody. HIER: steam section in pH6 citrate buffer for 20 min.



Immunofluorescent staining of FFPE human intestinal cancer tissue with Ku80 antibody. HIER: steam section in pH6 citrate buffer for 20 min.



Western blot testing of Ku80 antibody and human lysate 1: Jurkat; 2: CEM; 3: Raji; 4: COLO320; 5: HT1080 cell lysate. Expected molecular weight: 80~86 kDa.



Flow cytometry testing of human SiHa cells with Ku80 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= Ku80 antibody.

Description

XRCC5 (X-ray Repair, Complementing Defective, In Chinese Hamster, 5), also known as Ku80 or Ku86, is a protein that in humans, is encoded by the XRCC5 gene. The XRCC5 gene encodes the 80-kD subunit of the Ku autoantigen, a heterodimer which contributes to genomic integrity through its ability to bind DNA double-strand breaks and facilitate repair by the nonhomologous end joining(NHEJ) pathway. Human colon cancer cells heterozygous for Ku80 are haploinsufficient with an increase in polyploid cells, a reduction in cell proliferation, elevated p53 levels, and a slight hypersensitivity to ionizing radiation. Functional inactivation of the second Ku80 allele results in cells with a drastically reduced doubling time. The locus is essential in human somatic tissue culture cells by experiments demonstration. A rare microsatellite polymorphism in the protein is associated with cancer in patients of varying radiosensitivity.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the Ku80 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An amino acid sequence from the C-terminus of human Ku80 (KFSEEQRFNNFLKAL) was used as the immunogen for this Ku80 antibody.

Storage

After reconstitution, the Ku80 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.