

For Research Use Only

# XRCC5/Ku80 Polyclonal antibody

Catalog Number: 16389-1-AP

Featured Product

29 Publications



## Basic Information

**Catalog Number:**

16389-1-AP

**Size:**

800 µg/ml

**Source:**

Rabbit

**Isotype:**

IgG

**Immunogen Catalog Number:**

AG9454

**GenBank Accession Number:**

BC019027

**GeneID (NCBI):**

7520

**UNIPROT ID:**

P13010

**Full Name:**

X-ray repair complementing defective repair in Chinese hamster cells 5 (double-strand-break rejoining)

**Calculated MW:**

732 aa, 83 kDa

**Observed MW:**

80-83 kDa

**Purification Method:**

Antigen affinity purification

**Recommended Dilutions:**

WB 1:500-1:2000

IP 0.5-4.0 µg for 1.0-3.0 mg of total protein lysate

IHC 1:20-1:200

IF 1:20-1:200

## Applications

**Tested Applications:**

IF/ICC, IHC, IP, WB, ELISA

**Cited Applications:**

ChIP, CoIP, IF, IHC, IP, WB

**Species Specificity:**

human, mouse

**Cited Species:**

human, mouse, pig

**Positive Controls:**

**WB:** HepG2 cells, K-562 cells, HEK-293 cells, A431 cells, human liver tissue, HeLa cells

**IP:** HEK-293 cells,

**IHC:** human colon cancer tissue, human lung cancer tissue

**IF:** HepG2 cells,

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

## Background Information

There are at least two pathways for eukaryotes to repair DNA double-strand breaks: homologous recombination and nonhomologous end joining (NHEJ). The core NHEJ machinery includes XRCC4, DNA Ligase IV and the DNA-dependent protein kinase complex, which consists of the DNA end-binding XRCC5/XRCC6 heterodimer and the catalytic subunit PRKDC. The heterodimer of XRCC5/XRCC6 enhanced the affinity of the catalytic subunit PRKDC to DNA by 100-fold. Once the XRCC5/6 dimer association with NAA15, it can bind to the osteocalcin promoter and activate osteocalcin expression. The XRCC5/6 dimer acts as a negative regulator of transcription when together with APEX1. Some published papers indicated that the MW of XRCC5 is 86kDa, while more papers suggested that XRCC5 is a 80kDa protein, as it was firstly introduced in publication. Thus, Ku80 and Ku86 are the same protein.

## Notable Publications

Author	Pubmed ID	Journal	Application
Xin Wen	36249018	Front Oncol	WB
Yingying Shi	34489398	Cell Death Dis	WB
L Hu	27593939	Oncogene	IF

## Storage

**Storage:**

Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

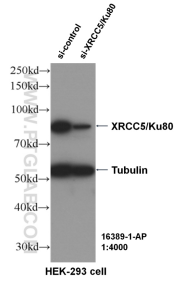
T: 4006900926

E: Proteintech-CN@ptglab.com

W: ptgcn.com

**This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.**

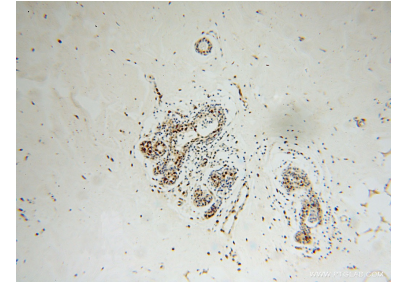
## Selected Validation Data



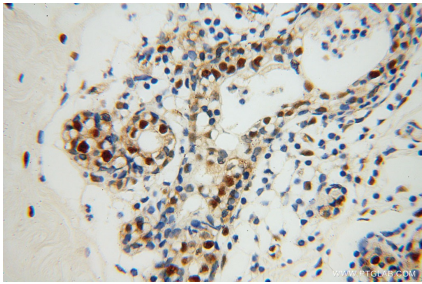
WB result of Ku80 antibody (16389-1-AP, 1:4000) with si-Control and si-Ku80 transfected HEK-293 cells.



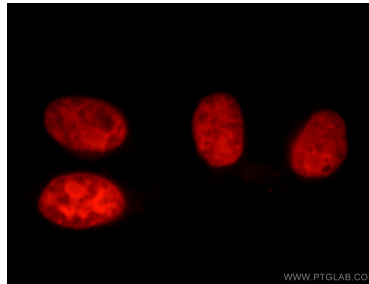
HepG2 cells were subjected to SDS PAGE followed by western blot with 16389-1-AP (XRCC5/Ku80 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



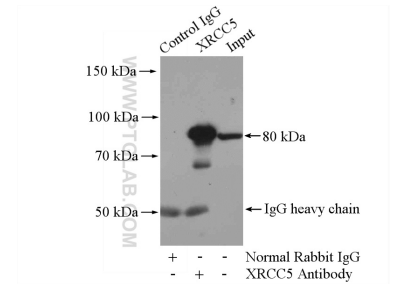
Immunohistochemical analysis of paraffin-embedded human colon cancer using 16389-1-AP (XRCC5/Ku80 antibody) at dilution of 1:100 (under 10x lens).



Immunohistochemical analysis of paraffin-embedded human colon cancer using 16389-1-AP (XRCC5/Ku80 antibody) at dilution of 1:100 (under 40x lens).



Immunofluorescent analysis of HepG2 cells, using XRCC5 antibody 16389-1-AP at 1:50 dilution and Rhodamine-labeled goat anti-rabbit IgG (red).



IP result of anti-XRCC5/Ku80 (IP:16389-1-AP, 4ug; Detection:16389-1-AP 1:1000) with HEK-293 cells lysate 1200ug.