

For Research Use Only

# XRCC5/Ku80 Polyclonal antibody

Catalog Number: 16389-1-AP

Featured Product

19 Publications



## Basic Information

<b>Catalog Number:</b> 16389-1-AP	<b>GenBank Accession Number:</b> BC019027	<b>Purification Method:</b> Antigen affinity purification
<b>Size:</b> 150ul, Concentration: 700 µg/ml by Nanodrop and 333 µg/ml by Bradford method using BSA as the standard;	<b>GeneID (NCBI):</b> 7520	<b>Recommended Dilutions:</b> WB 1:500-1:2000 IP 0.5-4.0 ug for IP and 1:500-1:2000
<b>Source:</b> Rabbit	<b>Full Name:</b> X-ray repair complementing defective repair in Chinese hamster cells 5 (double-strand-break rejoining)	<b>for WB</b> IHC 1:20-1:200 IF 1:20-1:200
<b>Isotype:</b> IgG	<b>Calculated MW:</b> 732 aa, 83 kDa	
<b>Immunogen Catalog Number:</b> AG9454	<b>Observed MW:</b> 80 kDa	

## Applications

### Tested Applications:

IF, IHC, IP, WB, ELISA

### Cited Applications:

ChIP, CoIP, IF, IHC, IP, WB

### Species Specificity:

human, mouse

### Cited Species:

human, mouse, pig

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

### 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,

## 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
Yingying Shi	34489398	Cell Death Dis	WB
L Hu	27593939	Oncogene	IF
Xing Ren	29168129	Hum Cell	WB

## 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

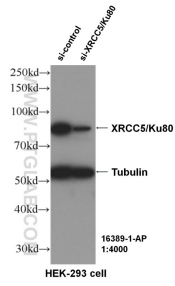
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

E: proteintech@ptglab.com  
W: ptglab.com

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

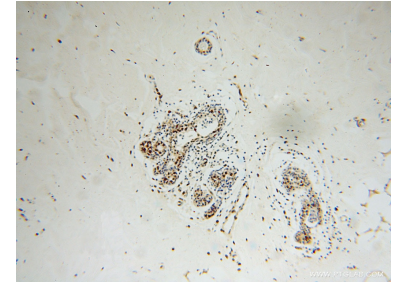
## Selected Validation Data



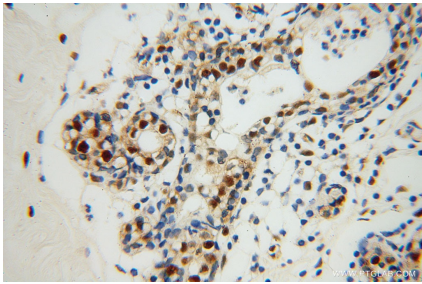
WB result of Ku80 antibody (16389-1-AP, 1:4000) with si-Control and si-Ku80 transfected HEK-293 cells.



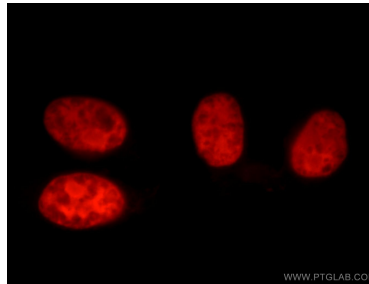
HepG2 cells were subjected to SDS PAGE followed by western blot with 16389-1-AP (XRCC5/Ku80 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



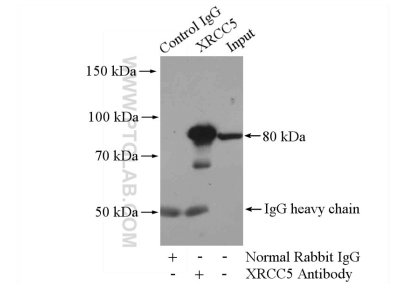
Immunohistochemical analysis of paraffin-embedded human colon cancer using 16389-1-AP (XRCC5/Ku80 antibody) at dilution of 1:100 (under 10x lens).



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.