

For Research Use Only

XRCC5/Ku80 Polyclonal antibody



Catalog Number: 16389-1-AP

Featured Product

15 Publications

Basic Information

Catalog Number:

16389-1-AP

Size:

150ul, Concentration: 700 µg/ml by Nanodrop and 333 µg/ml by Bradford method using BSA as the standard;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG9454

GenBank Accession Number:

BC019027

GeneID (NCBI):

7520

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 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB 1:500-1:2000
IP 0.5-4.0 ug for IP and 1:500-1:2000 for WB
IHC 1:20-1:200
IF 1:20-1:200

Applications

Tested Applications:

IF, IHC, IP, WB, ELISA

Cited Applications:

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
L Hu	27593939	Oncogene	IF
King Ren	29168129	Hum Cell	WB
You Wang	28638454	J Cancer	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

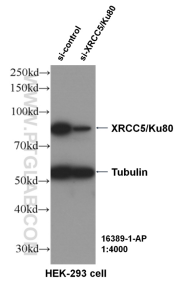
For technical support and original validation data for this product please contact:

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

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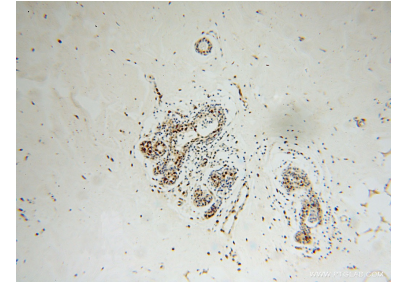
Selected Validation Data



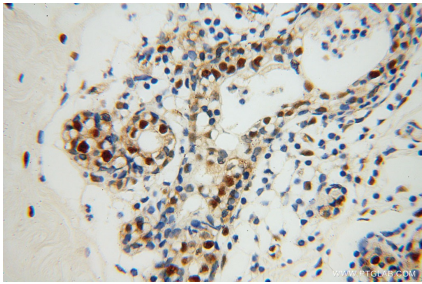
WB result of Ku80 antibody (16389-1-AP, 1:4000) with si-Control and si-Ku80 transfected HEK-293 cells.



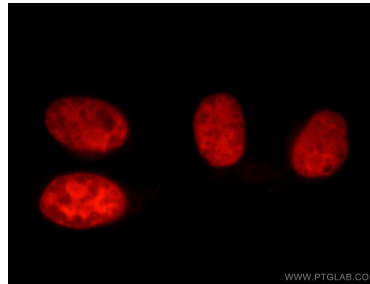
HepG2 cells were subjected to SDS PAGE followed by western blot with 16389-1-AP (XRCC5/Ku80 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



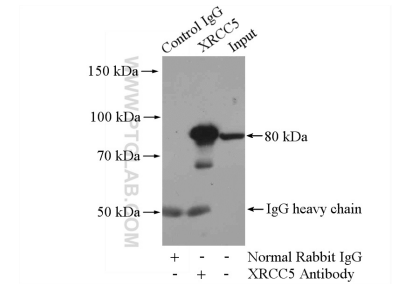
Immunohistochemical analysis of paraffin-embedded human colon cancer using 16389-1-AP (XRCC5/Ku80 antibody) at dilution of 1:100 (under 10x lens).



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.