

For Research Use Only

XRCC5/Ku80 Polyclonal antibody

Catalog Number: 16389-1-AP

Featured Product

38 Publications



Basic Information

Catalog Number:

16389-1-AP

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 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:600-1:2400

IF/ICC: 1:400-1:1600

Applications

Tested Applications:

WB, IHC, IF/ICC, IP, ELISA

Cited Applications:

WB, IHC, IF, IP, CoIP, ChIP, RIP

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/ICC: HeLa cells, 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, pH7.3

Aliquoting is unnecessary for -20°C storage

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

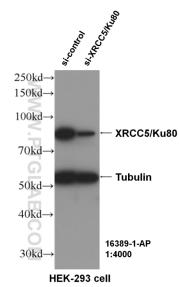
T: 4006900926

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.

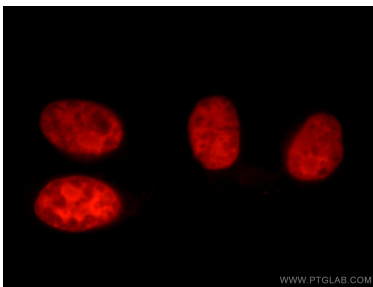
Selected Validation Data



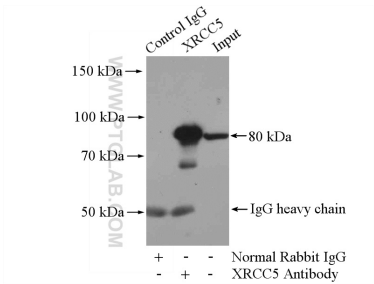
WB result of Ku80 antibody (16389-1-AP, 1:4000) with si-Control and si-Ku80 transfected HEK-293 cells.



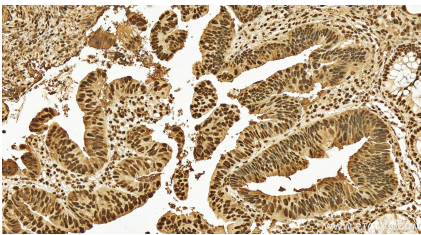
HepG2 cells were subjected to SDS PAGE followed by western blot with 16389-1-AP (XRCC5/Ku80 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



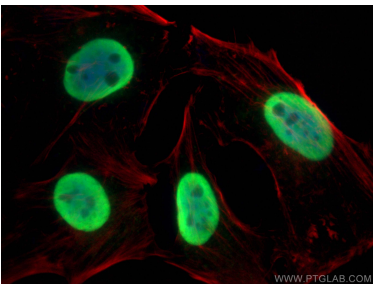
Immunofluorescent analysis of HepG2 cells, using XRCC5 antibody 16389-1-AP at 1:50 dilution and Rhodamine-labeled goat anti-rabbit IgG (red).



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



Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 16389-1-AP (XRCC5/Ku80 antibody) at dilution of 1:1200 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using XRCC5/Ku80 antibody (16389-1-AP) at dilution of 1:800 and Multi-rAb CoraLite® Plus 488-Goat Anti-Rabbit Recombinant Secondary Antibody (H+L) (RGAR002), CL594-phalloidin (red).