For Research Use Only

XRCC5/Ku80 Monoclonal antibody, PBS Only

Catalog Number:66546-1-PBS

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Basic Information

Catalog Number:
66546-1-PBS

Size:
100ug , Concentration: 1mg/ml by Nanodrop;

Source:
Mouse

Isotype:
IgG1

Immunogen Catalog Number:
AG9512

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:
Protein G purification

CloneNo.:
2G5E7

Applications

Tested Applications:
WB, IHC, IF/ICC, IP, Indirect ELISA

Species Specificity:
human, mouse, rat

Background Information

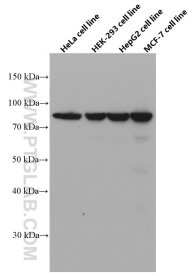
There are at least two pathways for eukaryotes to repair DNA double-strand breaks: homologous recombination and nonhomologous end joining(NHEJ). The core NHEJ machinery includes XRCC4, DNA ligase IV and the DNA-dependent protein kinase complex, which consists of the DNA end-binding XRCC5/XRCC6 heterodimer and the catalytic subunit PRKDC. The heterdimer of XRCC5/XRCC6 enhanced teh 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 publised papers indicated that the MW of XRCC5 is 86kDa, while more papers suggested that XRCC5 is a 80kDa protein, as it was firstly introducted in publication. Thus, Ku80 and Ku86 are the same protein.

Storage

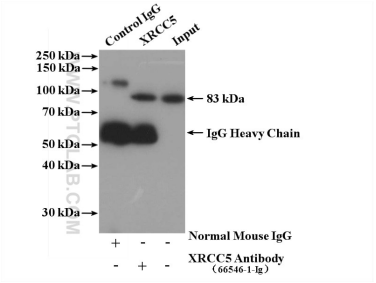
Storage:
Store at -80°C.
Storage Buffer:
PBS only

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

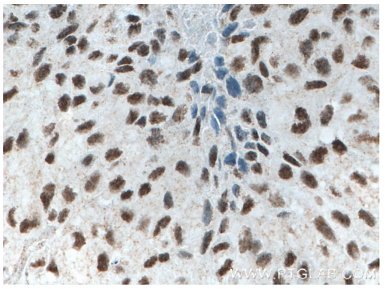
Selected Validation Data



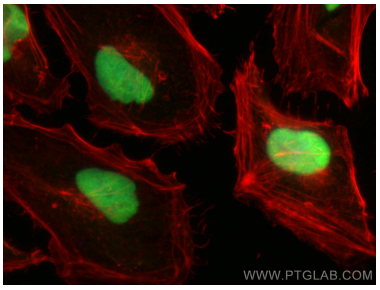
Various lysates were subjected to SDS PAGE followed by western blot with 66546-1-Ig (XRCC5 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 66546-1-PBS in a different storage buffer formulation.



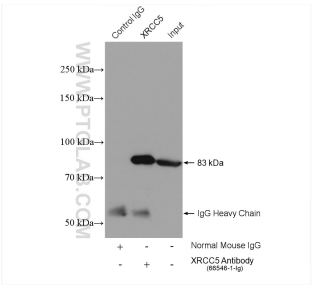
IP result of anti-XRCC5/Ku80 (IP:66546-1-Ig, 5ug; Detection:66546-1-Ig 1:20000) with HeLa cells lysate 3200 ug. This data was developed using the same antibody clone with 66546-1-PBS in a different storage buffer formulation.



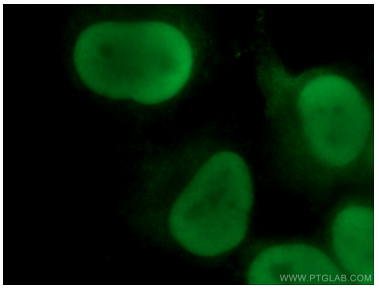
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 66546-1-Ig (XRCC5 antibody) at dilution of 1:1000 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66546-1-PBS in a different storage buffer formulation.



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using XRCC5 antibody (66546-1-Ig, Clone: 2G5E7) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) (SA00013-1), CL594-phalloidin (red). This data was developed using the same antibody clone with 66546-1-PBS in a different storage buffer formulation.



IP result of anti-XRCC5/Ku80 (IP:66546-1-Ig, 5ug; Detection:66546-1-Ig 1:40000) with HeLa cells lysate 640 ug. This data was developed using the same antibody clone with 66546-1-PBS in a different storage buffer formulation.



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using 66546-1-Ig (XRCC5 antibody) at dilution of 1:100 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Mouse IgG(H+L). This data was developed using the same antibody clone with 66546-1-PBS in a different storage buffer formulation.