

For Research Use Only

XRCC5/Ku80 Recombinant antibody

Catalog Number: 80325-6-RR



Basic Information

Catalog Number: 80325-6-RR	GenBank Accession Number: BC019027	Purification Method: Protein A purification
Size: 100ul , Concentration: 1000 ug/ml by Nanodrop;	GeneID (NCBI): 7520	CloneNo.: 240301G6
Source: Rabbit	UNIPROT ID: P13010	Recommended Dilutions: WB 1:1000-1:6000 IHC 1:200-1:800 IF/ICC 1:200-1:800
Isotype: IgG	Full Name: X-ray repair complementing defective repair in Chinese hamster cells 5 (double-strand-break rejoining)	
Immunogen Catalog Number: AG9454	Calculated MW: 732 aa, 83 kDa	
	Observed MW: 80 kDa	

Applications

Tested Applications: WB, IHC, IF/ICC, FC (Intra), ELISA	Positive Controls: WB : HeLa cells, HepG cells, HEK-293 cells, A549 cells, K-562 cells IHC : human colon cancer tissue, IF/ICC : HepG2 cells,
Species Specificity: human	
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.

Storage

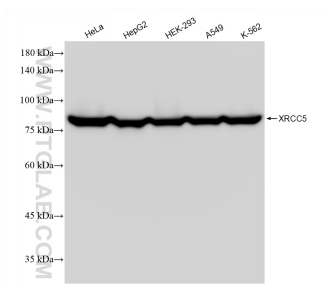
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

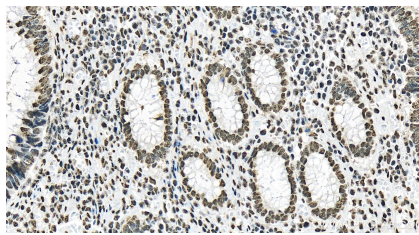
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
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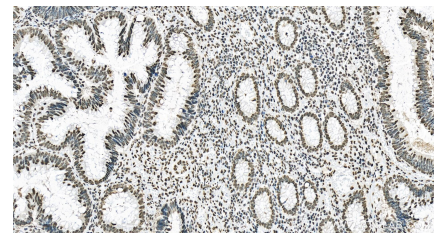
Selected Validation Data



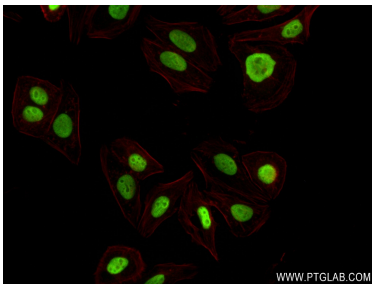
Various lysates were subjected to SDS PAGE followed by western blot with 80325-6-RR (XRCC5 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



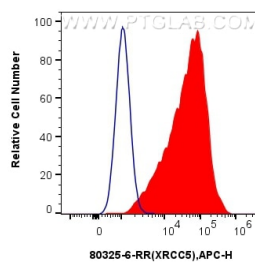
Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 80325-6-RR (XRCC5 antibody) at dilution of 1:400 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



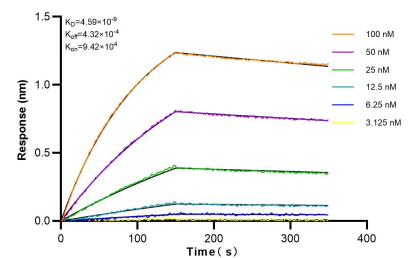
Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 80325-6-RR (XRCC5 antibody) at dilution of 1:400 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using XRCC5 antibody (80325-6-RR, Clone: 240301G6) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red).



1x10⁶ MCF-7 cells were intracellularly stained with 0.25 ug XRCC5 Recombinant antibody (80325-6-RR, Clone:240301G6) and APC-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)(red), or 0.25 ug Isotype Control (blue). Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).



Biolayer interferometry (BLI) kinetic assays of 80325-6-RR against Human XRCC5 were performed. The affinity constant is 4.59 nM.