

DNA-PKcs Recombinant antibody

Catalog Number: 85370-2-RR

Basic Information

Catalog Number:

85370-2-RR

Concentration:

1000 µg/ml

Source:

Rabbit

Isotype:

IgG

GenBank Accession Number:

NM_006904

GeneID (NCBI):

5591

UNIPROT ID:

P78527

Full Name:

protein kinase, DNA-activated,
catalytic polypeptide

Calculated MW:

469 kDa

Observed MW:

350-460 kDa

Purification Method:

Protein A purification

CloneNo.:

242676E6

Recommended Dilutions:

WB: 1:5000-1:50000

IHC: 1:500-1:2000

IF/ICC: 1:250-1:1000

FC (Intra): 0.25 µg per 10⁶ cells in a
100 µl suspension

Applications

Tested Applications:

WB, IHC, IF/ICC, FC (Intra), ELISA

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*

Positive Controls:

WB : HeLa cells, HT-29 cells

IHC : human colon cancer tissue,

IF/ICC : HeLa cells, MCF-7 cells, HepG2 cells

FC (Intra) : HepG2 cells,

Background Information

PRKDC, also named as HYRC, HYRC1, DNPK1 and p460, belongs to the PI3/PI4-kinase family. PRKDC is a serine/threonine-protein kinase that acts as a molecular sensor for DNA damage. Involved in DNA nonhomologous end joining (NHEJ), PRKDC is required for double-strand break (DSB) repair and V(D)J recombination. PRKDC must be bound to DNA to express its catalytic properties. It promotes processing of hairpin DNA structures in V(D)J recombination by activation of the hairpin endonuclease artemis (DCLRE1C). It is required to protect and align broken ends of DNA. PRKDC may also act as a scaffold protein to aid the localization of DNA repair proteins to the site of damage. It is found at the ends of chromosomes, suggesting a further role in the maintenance of telomeric stability and the prevention of chromosomal end fusion. It also involved in modulation of transcription. It recognizes the substrate consensus sequence [ST]-Q. PRKDC phosphorylates 'Ser-139' of histone variant H2AX/H2AFX, thereby regulating DNA damage response mechanism.

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:

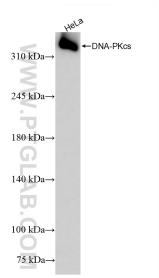
T: 4006900926

E: Proteintech-CN@ptglab.com

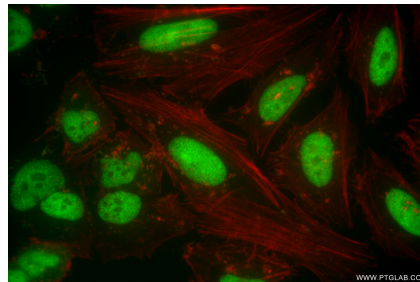
W: ptgcn.com

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

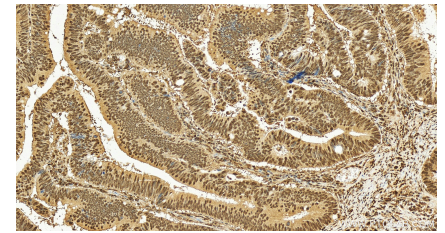
Selected Validation Data



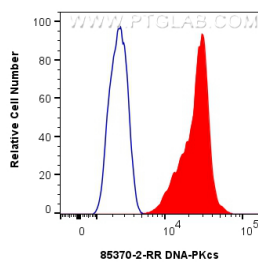
HeLa cells were subjected to SDS PAGE followed by western blot with 85370-2-RR (DNA-PKcs antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using DNA-PKcs antibody (85370-2-RR, Clone: 242676E6) at dilution of 1:500 and Coralite® 488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red).



Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 85370-2-RR (DNA-PKcs antibody) at dilution of 1:1000 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



1x10⁶ HepG2 cells were intracellularly stained with 0.25 ug DNA-PKcs Recombinant antibody (85370-2-RR, Clone:242676E6) and Coralite® 488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2) (red), or 0.25 ug Rabbit IgG Isotype Control RecAb (98136-1-RR, Clone: 240953C9) (blue). Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).