

# DNA-PKcs Polyclonal antibody, PBS Only

Catalog Number: 28534-1-PBS

## Basic Information

**Catalog Number:**

28534-1-PBS

**Concentration:**

1 mg/ml

**Source:**

Rabbit

**Isotype:**

IgG

**Immunogen Catalog Number:**

AG29100

**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:**

Antigen affinity purification

## Applications

**Tested Applications:**

WB, IHC, IF/ICC, Indirect ELISA

**Species Specificity:**

human, mouse

## 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. It phosphorylates DCLRE1C, c-Abl/ABL1, histone H1, HSPCA, c-jun/JUN, p53/TP53, PARP1, POU2F1, DHX9, SRF, XRCC1, XRCC1, XRCC4, XRCC5, XRCC6, WRN, c-myc/MYC and RFA2. The antibody recognizes the C-term of PRKDC.

## Storage

**Storage:**

Store at -80°C.

**The product is shipped with ice packs. Upon receipt, store it immediately at -80°C****Storage Buffer:**

PBS Only

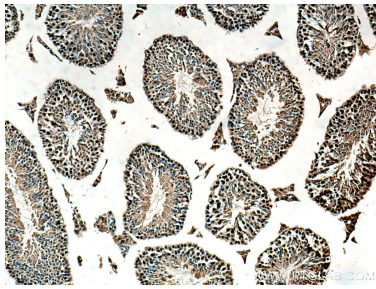
For technical support and original validation data for this product please contact:

T: 4006900926

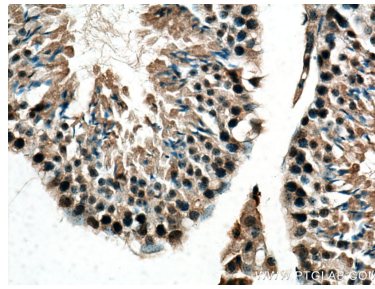
E: [Proteintech-CN@ptglab.com](mailto:Proteintech-CN@ptglab.com)W: [ptgcn.com](http://ptgcn.com)

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

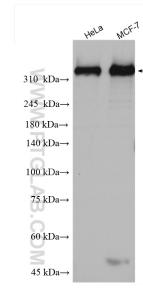
## Selected Validation Data



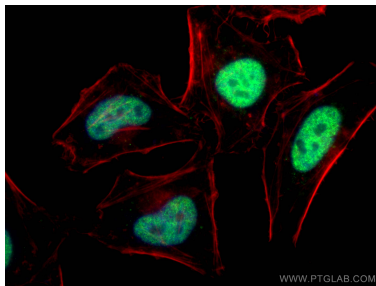
Immunohistochemical analysis of paraffin-embedded mouse testis tissue slide using 28534-1-AP (DNA-PKcs antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 28534-1-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffin-embedded mouse testis tissue slide using 28534-1-AP (DNA-PKcs antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 28534-1-PBS in a different storage buffer formulation.



Various lysates were subjected to SDS PAGE followed by western blot with 28534-1-AP (DNA-PKcs antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 28534-1-PBS in a different storage buffer formulation.



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using 28534-1-AP (DNA-PKcs antibody), at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L). This data was developed using the same antibody clone with 28534-1-PBS in a different storage buffer formulation.