Datasheet for ABIN685417

# anti-PRKDC antibody (AA 151-300)

2 Images

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## Overview

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|---|---|
| Quantity: | 100 µL |
| Target: | PRKDC |
| Binding Specificity: | AA 151-300 |
| Reactivity: | Human, Rat |
| Host: | Rabbit |
| Clonality: | Polyclonal |
| Conjugate: | This PRKDC antibody is un-conjugated |
| Application: | ELISA, Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)) |

## Product Details

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|---|---|
| Immunogen: | KLH conjugated synthetic peptide derived from human DNA PKcs |
| Isotype: | IgG |
| Cross-Reactivity: | Human, Rat |
| Predicted Reactivity: | Mouse,Dog,Cow,Horse,Chicken,Rabbit |
| Purification: | Purified by Protein A. |

## Target Details

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|---|---|
| Target: | PRKDC |
| Alternative Name: | DNAPK/PRKDC (PRKDC Products) |
| Background: | Synonyms: HYRC, p350, DNAPK, DNPK1, HYRC1, IMD26, XRCC7, DNA-PKcs, DNA-dependent |

 

## Target Details

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|---|---|
| | protein kinase catalytic subunit, DNA-PK catalytic subunit, p460, PRKDC<br>Background: Serine/threonine-protein kinase that acts as a molecular sensor for DNA damage. Involved in DNA non-homologous end joining (NHEJ) required for double-strand break (DSB) repair and V(D)J recombination. Must be bound to DNA to express its catalytic properties. Promotes processing of hairpin DNA structures in V(D)J recombination by activation of the hairpin endonuclease artemis (DCLRE1C). The assembly of the DNA-PK complex at DNA ends is also required for the NHEJ ligation step. Required to protect and align broken ends of DNA. May also act as a scaffold protein to aid the localization of DNA repair proteins to the site of damage. Found at the ends of chromosomes, suggesting a further role in the maintenance of telomeric stability and the prevention of chromosomal end fusion. Also involved in modulation of transcription. Recognizes the substrate consensus sequence [ST]-Q. Phosphorylates 'Ser-139' of histone variant H2AX/H2AFX, thereby regulating DNA damage response mechanism. Phosphorylates DCLRE1C, c-Abl/ABL1, histone H1, HSPCA, c-jun/JUN, p53/TP53, PARP1, POU2F1, DHX9, SRF, XRCC1, XRCC1, XRCC4, XRCC5, XRCC6, WRN, MYC and RFA2. Can phosphorylate C1D not only in the presence of linear DNA but also in the presence of supercoiled DNA. Ability to phosphorylate p53/TP53 in the presence of supercoiled DNA is dependent on C1D. Contributes to the determination of the circadian period length by antagonizing phosphorylation of CRY1 'Ser-588' and increasing CRY1 protein stability, most likely through an indirect machanism. Interacts with CRY1 and CRY2, negatively regulates CRY1 phosphorylation. |
| Gene ID: | 5591 |
| UniProt: | P78527 |
| Pathways: | DNA Damage Repair, Production of Molecular Mediator of Immune Response |

## Application Details

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|---|---|
| Application Notes: | WB 1:300-5000<br>ELISA 1:500-1000<br>IHC-P 1:200-400 |
| Restrictions: | For Research Use only |

## Handling

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|---|---|
| Format: | Liquid |
| Concentration: | 1 µg/µL |

## Handling

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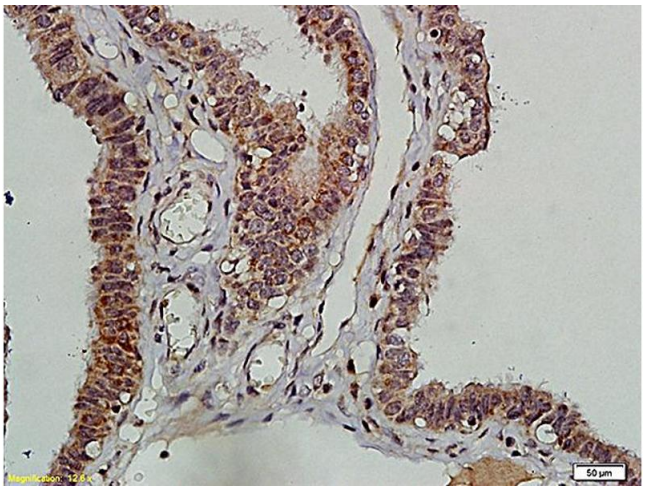
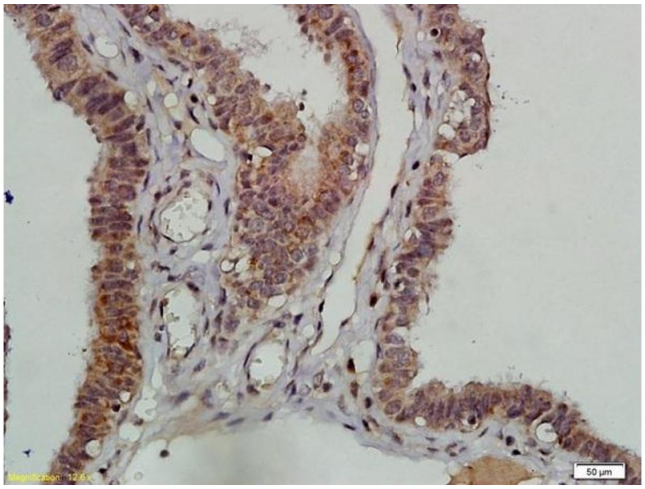
|---|---|
| Buffer: | 0.01M TBS( pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol. |
| Preservative: | ProClin |
| Precaution of Use: | This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only. |
| Storage: | 4 °C,-20 °C |
| Storage Comment: | Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles. |
| Expiry Date: | 12 months |

## Images




**Immunohistochemistry**

**Image 1.** Formalin-fixed and paraffin embedded human ovarian tissue labeled with Anti-DNAPK PRKDC Polyclonal Antibody, unconjugated (ABIN685417) followed by incubation with conjugated secondary antibody and DAB staining




**Immunohistochemistry**

**Image 2.** Formalin-fixed and paraffin embedded human ovarian tissue labeled with Anti-DNAPK/PRKDC Polyclonal Antibody, Unconjugated (ABIN685417) followed by conjugation to the secondary antibody and DAB staining