



E91419

## PRKDC Polyclonal Antibody

**Catalog Number:** E91419

**Amount:** 100ul

**Background:** 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.

**Species:** Rabbit

**Isotype:** IgG

**Storage/Stability:** Store at -20oC or -80oC. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

**Synonyms:** DNA-PKcs; DNAPK; DNPK1; HYRC; HYRC1; XRCC7; p350

**Immunogen:** A synthetic peptide of human PRKDC

**Purification:** Affinity purification

**Reactivity:** H M

**Applications:** WB

**Molecular Weight:** 469kDa

**Swiss-Prot No. :** P78527

**Gene ID:** 0

**For Research Use Only**

