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PRKDC Polyclonal Antibody

Cat #: G-AB-05876

Host: Rabbit **Reactivity:** Human, Mouse

Isotype: IgG **Clonality:** Polyclonal

Overview:
Serine/threonine-protein kinase that acts as a molecular sensor for DNA damage. Involved in DNA nonhomologous 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,

Gene ID:

Accession #:

Immunogen: Synthesized peptide derived from the C-terminal region of human DNA-PKCS

Conjugation: Unconjugated

Swissprot: P78527

Calculated Molecular Weight: 469 kDa

Observed Molecular Weight: 450 kDa

Concentration: 1 mg/mL

Buffer: PBS with 0.02% sodium azide, 0.5% BSA and 50% glycerol, pH7.4

Purification Method: Affinity purification

Application: WB,IHC-p,IF,ELISA

Dilution: WB 1:500-1:2000, IHC 1:100-1:300, IF 1:200-1:1000, ELISA 1:20000

Storage: Store at -20°C. Avoid freeze / thaw cycles.