

Basic Information

Product Name	Anti-DNA-PKcs/PRKDC Antibody
Gene Name	PRKDC
Source	Rabbit
Clonality	Polyclonal
Isotype	IgG
Species Reactivity	human
Tested Application	WB
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human DNA PKcs.
Concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	469 kDa
Dilution Ratios	Western blot (WB):1:500-2000

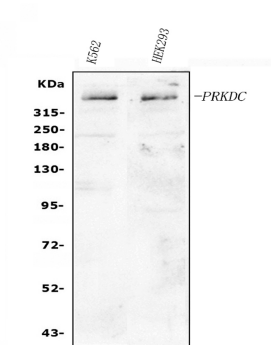
Storage

12 months from date of receipt, -20°C as supplied.

Background Information

PRKDC(Protein Kinase DNA-Activated Catalytic Subunit), also called DNAPK, HYRC1, p350 or DNP1, is an enzyme that in humans is encoded by the PRKDC gene. DNA-PKcs belongs to the phosphatidylinositol 3-kinase-related kinase protein family. Satoh et al.(1997) mapped the MCM4 gene to 8q11.2 by FISH. Based on the close proximity of the PRKDC and MCM4 genes, it was assumed that the PRKDC gene also maps to this location. Anderson and Lees-Miller(1992) noted that DNA-PK had been shown in vitro to phosphorylate several transcription factors, suggesting that it functions in cell homeostasis by modulating transcription. Daniel et al.(1999) demonstrated that the PRKDC protein participates in retroviral DNA integration, which is catalyzed by the viral protein integrase.

Selected Validation Data



Western blot analysis of anti-DNA-PKcs/PRKDC antibody (BA2908-2). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human K562 whole cell lysates,

Lane 2: human HEK293 whole cell lysates .

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-DNA-PKcs/PRKDC antigen affinity purified polyclonal antibody (BA2908-2) and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for DNA-PKcs/PRKDC at approximately 460 kDa. The expected band size for DNA-PKcs/PRKDC is at 469 kDa.