PRKDC Polyclonal Antibody

Catalog No. E-AB-31220

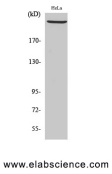
Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description

Reactivity	Human,Mouse
Immunogen	Synthesized peptide derived from the C-terminal region of human DNA-PKCS
Host	Rabbit
Isotype	IgG
Purification	Affinity purification
Conjugation	Unconjugated
Buffer	PBS with 0.02% sodium azide, 0.5% protective protein and 50% glycerol, pH7.4

Applications	Recommended Dilution
WB	1:500-1:2000
IHC	1:100-1:300
IF	1:200-1:1000

Data



Western Blot analysis of Hela cells using PRKDC Polyclonal Antibody at dilution of 1:2000.
Observed Mw:450kDa
Calculated Mw:469kDa

Preparation & Storage

Storage	Store at -20℃. Avoid freeze / thaw cycles.

Background

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

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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.

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