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Product datasheet for AP06088PU-M

DNA PKcs (PRKDC) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IF, IHC, WB
Recommended Dilution:	**Western blot**: 1/500-1/1000. **Immunohistochemistry on Paraffin sections**: 1/50-1/200. **Immunoflurorescence**: 1/50-1/200.
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of DNA-PKcs protein (region surrounding Arg4090).
Formulation:	Phosphate buffered saline (PBS), pH 7.2. State: Aff - Purified State: Liquid purified Ig fraction Preservative: 0.05% Sodium azide
Concentration:	1.0 mg/ml
Purification:	Affinity chromatography using epitope-specific immunogen (> 95% pure by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~450 kDa
Gene Name:	protein kinase, DNA-activated, catalytic polypeptide
Database Link:	Entrez Gene 19090 MouseEntrez Gene 5591 Human P78527

View online »

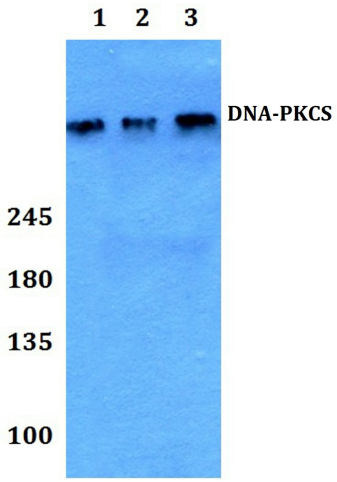
Background: The phosphatidylinositol kinase (PIK) family members fall into two distinct subgroups. The first subgroup contains proteins such as the PI 3- and PI 4- kinases and the second group comprises the PIK-related kinases. The PIKrelated kinases include Atm, DNA-PKCS and FRAP. These proteins have in common a region of homology at their carboxy termini that is not present in the PI 3- and PI 4-kinases. The Atm gene is mutated in the autosomal recessive disorder ataxia telangiectasia (AT) that is characterized by cerebellar degeneration (ataxia) and the appearance of dilated blood vessels (telangiectases) in the conjunctivae of the eyes. AT cells are hypersensitive to ionizing radiation, impaired in mediating the inhibition of DNA synthesis and they display delays in p53 induction. DNA-PK is a heterotrimeric DNA binding enzyme that is composed of a large subunit, DNA-PKCS, and two smaller subunits collectively known as Ku. The loss of DNA-PK leads to defects in DSB repair and V(D)J recombination. FRAP can autophosphorylate on serine and bind to Rapamycin/FKBP. FRAP is also an upstream regulator of S6 kinase and has been implicated in the regulation of p27 and p21 expression.

Synonyms: DNPK1, p460, HYRC, HYRC1

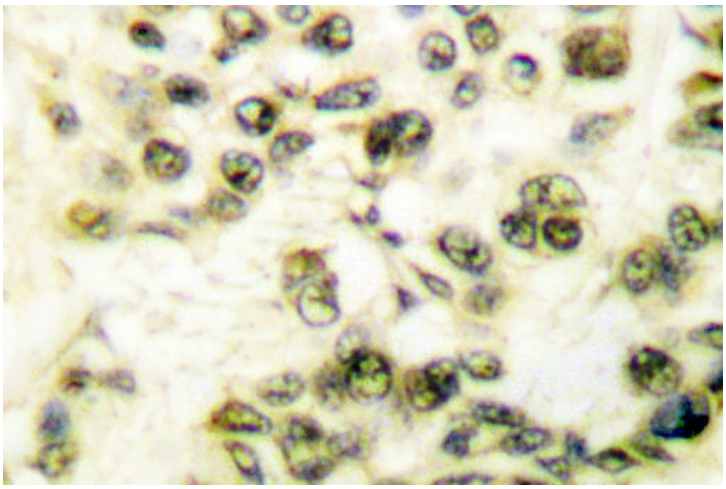
Protein Families: Druggable Genome, Protein Kinase

Protein Pathways: Cell cycle, Non-homologous end-joining

Product images:



Western blot (WB) analysis of DNA-PKCS antibody (Cat.-No.: [AP06088PU-N]) at 1/500 dilutionLane 1: Hela whole cell lysateLane 2: NIH-3T3 whole cell lysateLane 3: H9C2 whole cell lysat



Immunohistochemical analysis in paraffin-embedded human breast carcinoma tissue using DNA-PKcs antibody (Cat.-No. [AP06088PU-N]).