

Product datasheet for **AP21024PU-N**

DNA PKcs (PRKDC) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC
Recommended Dilution:	Immunohistochemistry on Paraffin Sections: 1/50-1/200.
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding to amino acids 2585-2630 of Human DNA-PK.
Specificity:	This detects endogenous levels of DNAPK protein. (region surrounding Gly2615)
Formulation:	PBS, pH~7.2 State: Aff - Purified State: Liquid purified Ig fraction (> 95% by SDS-PAGE) Preservative: 0.05% Sodium Azide
Concentration:	1.0 mg/ml
Purification:	Affinity Chromatography using epitope-specific immunogen
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 5591 Human P78527



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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 PIK-related 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. All of the members of the PIK-related kinases are also over 270 kDa. 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.

Synonyms:

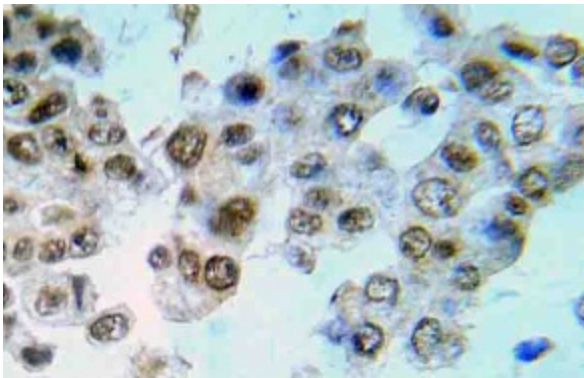
DNPK1, p460, HYRC, HYRC1

Protein Families:

Druggable Genome, Protein Kinase

Protein Pathways:

Cell cycle, Non-homologous end-joining

Product images:

Immunohistochemistry (IHC) analyzes of DNA-PK antibody in paraffin-embedded human breast carcinoma tissue.