

## DNA-PKCS (phospho Ser2612) Polyclonal Antibody

Catalog No: YP0986

**Reactivity:** Human; Rat; Mouse;

**Applications:** IHC;IF;ELISA

Target: DNA-PKCS

**Fields:** >>Non-homologous end-joining;>>Cell cycle

Gene Name: PRKDC

**Protein Name:** DNA-dependent protein kinase catalytic subunit

Human Gene Id: 5591

**Human Swiss Prot** 

P78527

No:

Mouse Swiss Prot P97313

No:

**Immunogen:** The antiserum was produced against synthesized peptide derived from human

DNA-PK around the phosphorylation site of Ser2612. AA range:2578-2627

Specificity: Phospho-DNA-PKCS (S2612) Polyclonal Antibody detects endogenous levels of

DNA-PKCS protein only when phosphorylated at S2612.

**Formulation:** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source: Polyclonal, Rabbit, IgG

**Dilution :** IHC 1:100 - 1:300. ELISA: 1:5000.. IF 1:50-200

**Purification:** The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

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Molecularweight: 469kD

**Cell Pathway:** Non-homologous end-joining;Cell\_Cycle\_G1S;Cell\_Cycle\_G2M\_DNA;

**Background:** This gene encodes the catalytic subunit of the DNA-dependent protein kinase

(DNA-PK). It functions with the Ku70/Ku80 heterodimer protein in DNA double strand break repair and recombination. The protein encoded is a member of the

PI3/PI4-kinase family.[provided by RefSeq, Jul 2010],

**Function:** catalytic activity:ATP + a protein = ADP + a phosphoprotein.,enzyme

regulation:Inhibited by wortmannin. Activity of the enzyme seems to be attenuated by autophosphorylation.,function: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

Subcellular Location:

Nucleus . Nucleus, nucleolus .

**Expression :** Brain, Cervix carcinoma, Epithelium, Fetal lung, Placen

**Sort :** 5195

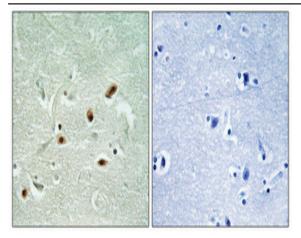
No4: 1

**Host:** Rabbit

Modifications: Phospho

## **Products Images**

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Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100(4° overnight). High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negetive contrl (right) obtaned from antibody was pre-absorbed by immunogen peptide.