

**DNA-PKCS (phospho Ser2612) Polyclonal Antibody**

<b>Catalog No :</b>	YP0986
<b>Reactivity :</b>	Human;Rat;Mouse;
<b>Applications :</b>	IHC;IF;ELISA
<b>Target :</b>	DNA-PKCS
<b>Fields :</b>	>>Non-homologous end-joining;>>Cell cycle
<b>Gene Name :</b>	PRKDC
<b>Protein Name :</b>	DNA-dependent protein kinase catalytic subunit
<b>Human Gene Id :</b>	5591
<b>Human Swiss Prot No :</b>	P78527
<b>Mouse Swiss Prot No :</b>	P97313
<b>Immunogen :</b>	The antiserum was produced against synthesized peptide derived from human DNA-PK around the phosphorylation site of Ser2612. AA range:2578-2627
<b>Specificity :</b>	Phospho-DNA-PKCS (S2612) Polyclonal Antibody detects endogenous levels of DNA-PKCS protein only when phosphorylated at S2612.
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source :</b>	Polyclonal, Rabbit,IgG
<b>Dilution :</b>	IHC 1:100 - 1:300. ELISA: 1:5000.. IF 1:50-200
<b>Purification :</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Concentration :</b>	1 mg/ml
<b>Storage Stability :</b>	-15 °C to -25 °C/1 year(Do not lower than -25 °C)

**Molecularweight :** 469kD

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

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**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],

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**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

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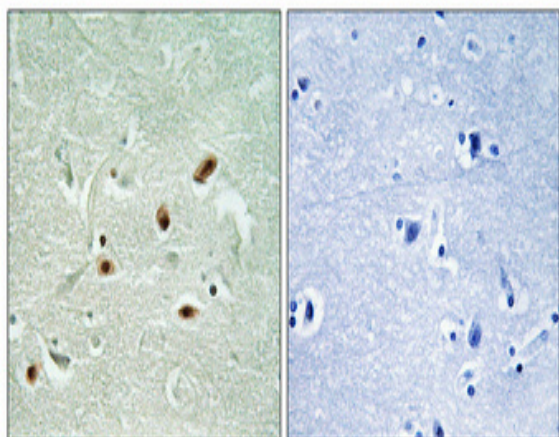
**Subcellular Location :** Nucleus . Nucleus, nucleolus .

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

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## Products Images



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. Negative contrl (right) obtained from antibody was pre-absorbed by immunogen peptide.