



# DNA-PKCS (phospho Thr2647) Polyclonal Antibody

|                           |   |
|---------------------------|---|
| <b>Catalog No</b>         | BYab-00249  |
| <b>Isotype</b>            | IgG   |
| <b>Reactivity</b>         | Human;Rat;Mouse;  |
| <b>Applications</b>       | WB;IHC;IF;ELISA   |
| <b>Gene Name</b>          | PRKDC   |
| <b>Protein Name</b>       | DNA-dependent protein kinase catalytic subunit  |
| <b>Immunogen</b>          | The antiserum was produced against synthesized peptide derived from human DNA-PK around the phosphorylation site of Thr2647. AA range:2613-2662   |
| <b>Specificity</b>        | Phospho-DNA-PKCS (T2647) Polyclonal Antibody detects endogenous levels of DNA-PKCS protein only when phosphorylated at T2647.   |
| <b>Formulation</b>        | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.   |
| <b>Source</b>             | Polyclonal, Rabbit,IgG  |
| <b>Purification</b>       | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.   |
| <b>Dilution</b>           | WB 1:500-2000 ,Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications.   |
| <b>Concentration</b>      | 1 mg/ml   |
| <b>Purity</b>             | ≥90%  |
| <b>Storage Stability</b>  | -20°C/1 year  |
| <b>Synonyms</b>           | PRKDC; HYRC; HYRC1; DNA-dependent protein kinase catalytic subunit; DNA-PK catalytic subunit; DNA-PKcs; DNPk1; p460   |
| <b>Observed Band</b>      |   |
| <b>Cell Pathway</b>       | Nucleus . Nucleus, nucleolus .  |
| <b>Tissue Specificity</b> | Brain,Cervix carcinoma,Epithelium,Fetal lung,Placen   |
| <b>Function</b>           | 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 |

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of DNA repair proteins to the site of damage. Found at the ends of chromosomes, suggesting a further role in the maintenance of

**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],

**matters needing attention**

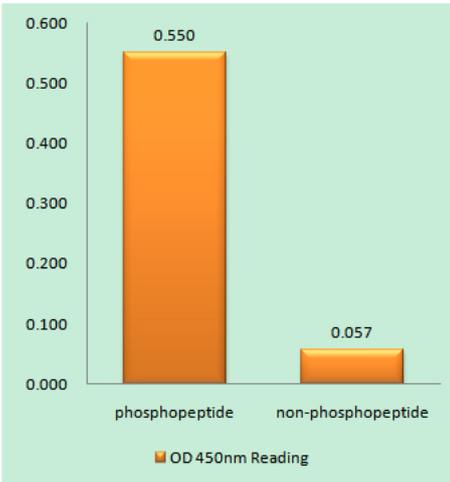
Avoid repeated freezing and thawing!

**Usage suggestions**

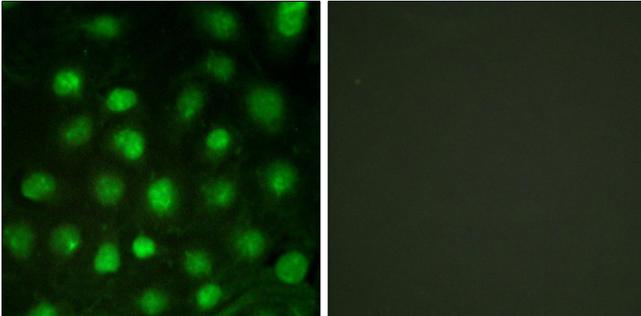
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



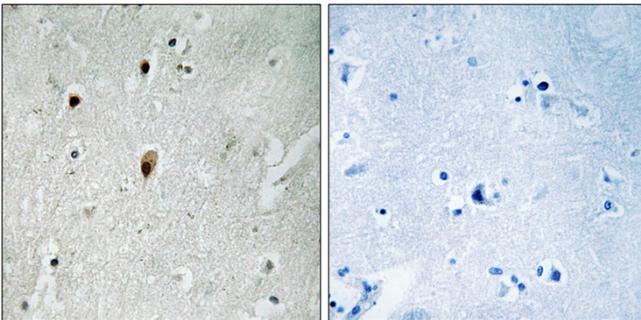
## Products Images



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using DNA-PK (Phospho-Thr2647) Antibody



Immunofluorescence analysis of HUVEC cells treated with serum 20% 30', using DNA-PK (Phospho-Thr2647) Antibody. The picture on the right is blocked with the phospho peptide.



Immunohistochemistry analysis of paraffin-embedded human brain, using DNA-PK (Phospho-Thr2647) Antibody. The picture on the right is blocked with the phospho peptide.