



# DNA-PKCS Polyclonal Antibody

<b>Catalog No</b>	YP-Ab-00382
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human;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. AA range:4061-4110
<b>Specificity</b>	DNA-PKCS Polyclonal Antibody detects endogenous levels of DNA-PKCS protein.
<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>	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/20000. 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>	450kD
<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 of DNA repair proteins to the site of damage. Found at the ends of chromosomes, suggesting a further role in the maintenance of

**Background**

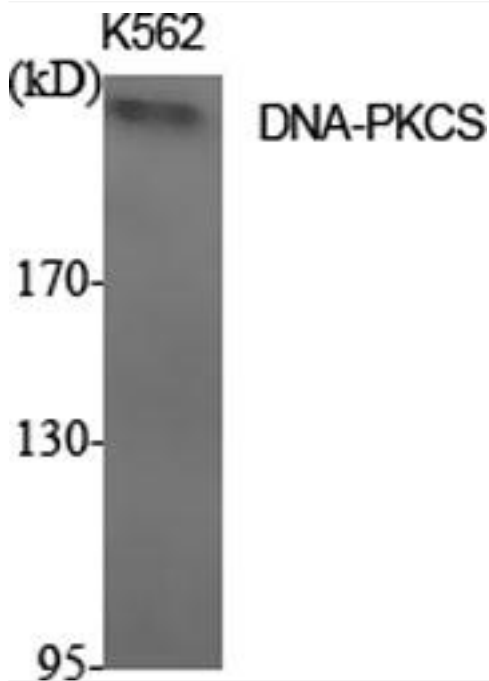
This gene encodes the catalytic subunit of the DNA-dependent protein kinase (DNA-PK). It functions with the Ku70/Ku80 heterodimer protein in DNA double strand break repair and recombination. The protein encoded is a member of the PI3/PI4-kinase family.[provided by RefSeq, Jul 2010],

**matters needing attention**

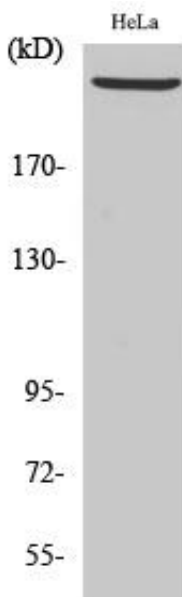
Avoid repeated freezing and thawing!

**Usage suggestions**

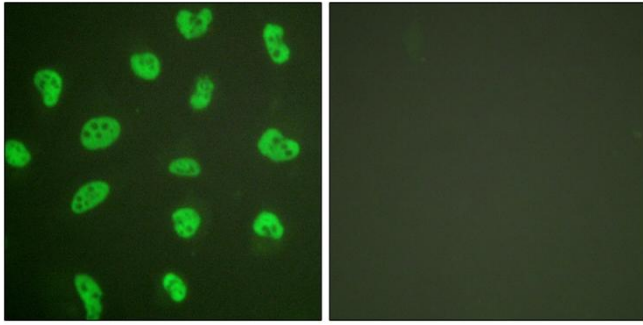
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

**Products Images**

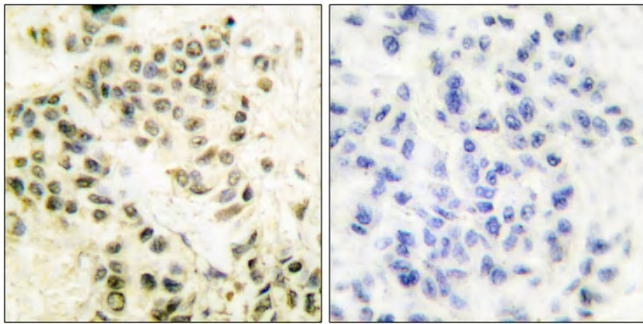
Western Blot analysis of various cells using DNA-PKCS Polyclonal Antibody diluted at 1:2000 cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003, Inventbiotech, MN, USA).



Western Blot analysis of HeLa cells using DNA-PKCS Polyclonal Antibody diluted at 1:2000 cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003, Inventbiotech, MN, USA).

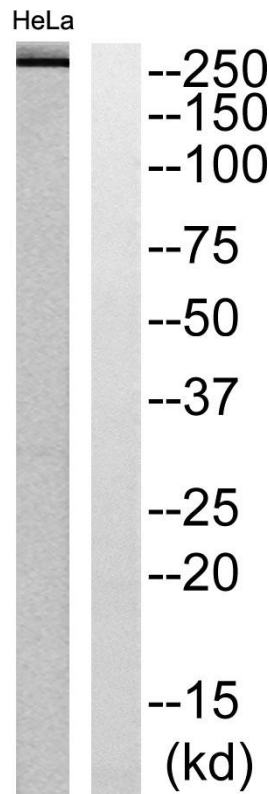


Immunofluorescence analysis of HeLa cells, using DNA-PK Antibody. The picture on the right is blocked with the synthesized peptide.



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue, using DNA-PK Antibody. The picture on the right is blocked with the synthesized peptide.

DNA-PK Antibody



Western blot analysis of lysates from HeLa cells, using DNA-PK Antibody. The lane on the right is blocked with the synthesized peptide.