

## DNA-PKcs mouse mAb

<b>Catalog No :</b>	YM1312
<b>Reactivity :</b>	Human
<b>Applications :</b>	WB;IP;ICC;IHC
<b>Target :</b>	DNA-PKCS
<b>Fields :</b>	>>Non-homologous end-joining;>>Cell cycle
<b>Gene Name :</b>	prkdc
<b>Human Gene Id :</b>	5591
<b>Human Swiss Prot No :</b>	P78527
<b>Mouse Swiss Prot No :</b>	P97313
<b>Immunogen :</b>	Purified recombinant human DNA-PKcs protein fragments expressed in E.coli
<b>Specificity :</b>	This antibody detects endogenous levels of DNA-PKcs and does not cross-react with related proteins.
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source :</b>	Monoclonal, Mouse
<b>Dilution :</b>	wb 1:1000 icc 1:100
<b>Purification :</b>	The antibody was affinity-purified from mouse ascites 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)
<b>Observed Band :</b>	450kD

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

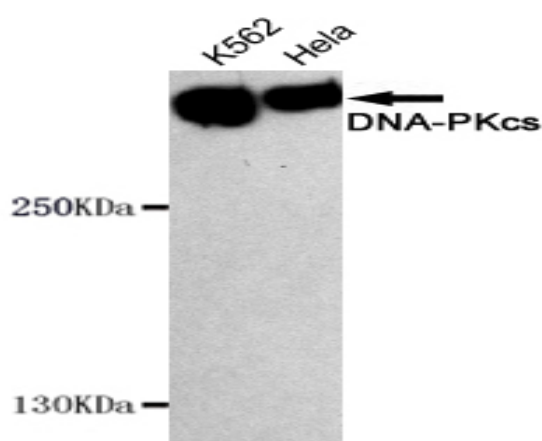
**Background :** This gene encodes the catalytic subunit of the DNA-dependent protein kinase (DNA-PK). It functions with the Ku70/Ku80 heterodimer protein in DNA double strand break repair and recombination. The protein encoded is a member of the PI3/PI4-kinase family.[provided by RefSeq, Jul 2010],

**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

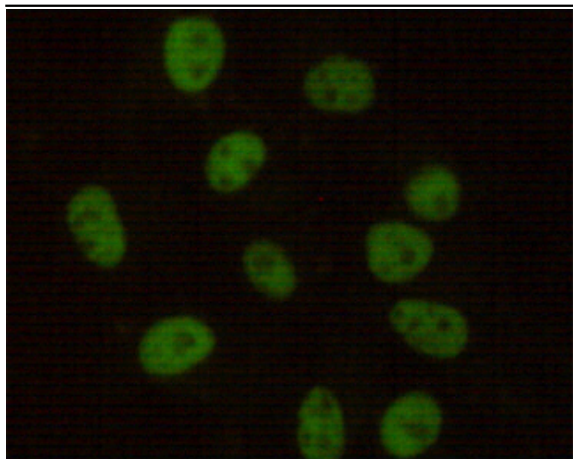
**Subcellular Location :** Nucleus . Nucleus, nucleolus .

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

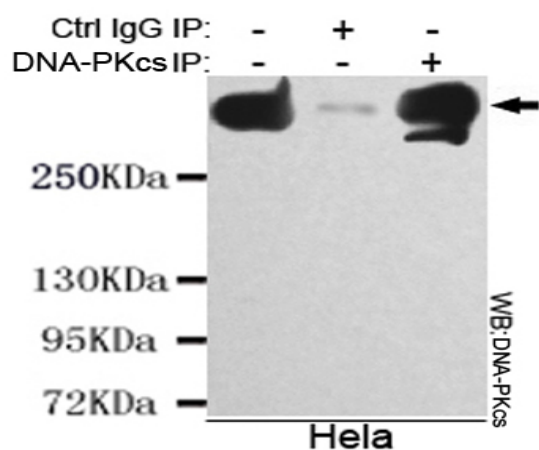
## Products Images



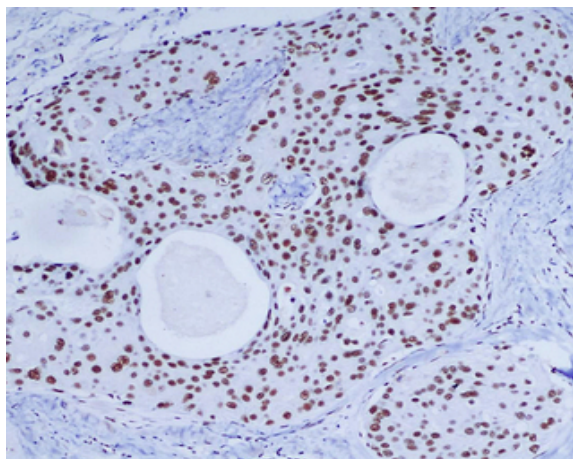
Western blot detection of DNA-PKcs in HeLa and K562 cell lysates using DNA-PKcs mouse mAb (1:1000 diluted).Predicted band size:450KDa,Observed band size:450KDa.



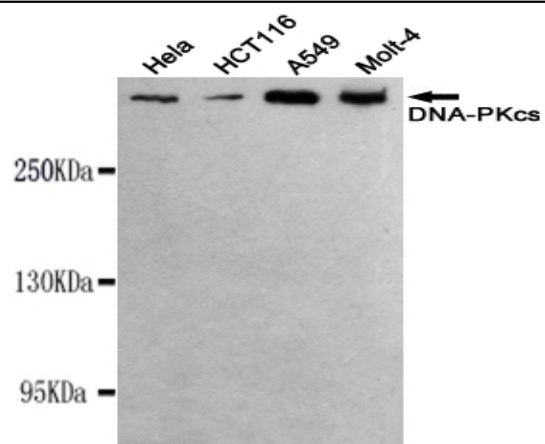
Immunocytochemistry stain of HeLa using DNA-PKcs mouse mAb (1:100).



Immunoprecipitation analysis of HeLa cell lysate using DNA-PKcs mouse mAb.



Immunohistochemical analysis of paraffin-embedded Breast cancer using DNA-PKcs mouse mAb (1/200 dilution).Antigen retrieval was performed by pressure cooking in citrate buffer (pH 6.0).



Western blot detection of DNA-PKcs in HeLa, Molt-4, A549 and HCT116 cell lysates using DNA-PKcs mouse mAb (1:1000 diluted). Predicted band size: 450KDa. Observed band size: 450KDa.