

DNA-PKCS (phospho Thr2638) Polyclonal Antibody

Catalog No: YP1174

Reactivity: Human; Mouse

Applications: 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 Gene Id: 19090

Mouse Swiss Prot

P97313

No:

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

DNA-PK around the phosphorylation site of Thr2638. AA range:2604-2653

Specificity: Phospho-DNA-PKCS (T2638) Polyclonal Antibody detects endogenous levels of

DNA-PKCS protein only when phosphorylated at T2638.

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

Source: Polyclonal, Rabbit, IgG

Dilution: IF 1:200 - 1:1000. ELISA: 1:10000. Not yet tested in other applications.

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

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

1/3



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

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

Tag: orthogonal

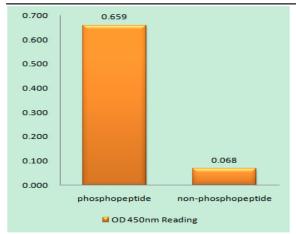
Sort : 5196

No4: 1

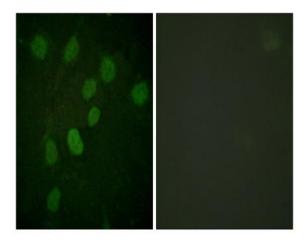
Host: Rabbit

Modifications: Phospho

Products Images



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using DNA-PK (Phospho-Thr2638) Antibody



Immunofluorescence analysis of HUVEC cells treated with serum 20% 30', using DNA-PK (Phospho-Thr2638) Antibody. The picture on the right is blocked with the phospho peptide.