

Product Name: KD-Validated DNA PKcs Recombinant Rabbit Monoclonal Antibody
Catalog #: KVAb01783

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 469.1kDa

Antigen Information

Gene Name	PRKDC PRKDC; Protein Kinase, DNA-Activated, Catalytic Subunit; DNPK1; P460; DNA-Dependent Protein Kinase Catalytic Subunit; DNA-PKcs; DNA-PKC; DNAPK; XRCC7; HYRC1; P350; HYRC;
Alternative Names	Protein Kinase, DNA-Activated, Catalytic Polypeptide; DNA-PK Catalytic Subunit; EC 2.7.11.1; DNAPKc; Hyper-Radiosensitivity Of Murine Scid Mutation, Complementing 1; DNA-PKCS; DNAPKC; IMD26
Gene ID	5591.0
SwissProt ID	P78527
Immunogen	A synthesized peptide derived from human DNA-PKcs

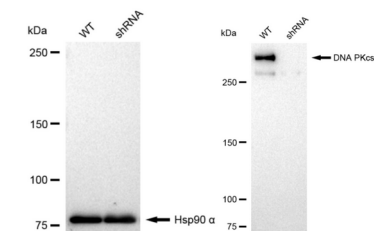
Background

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]

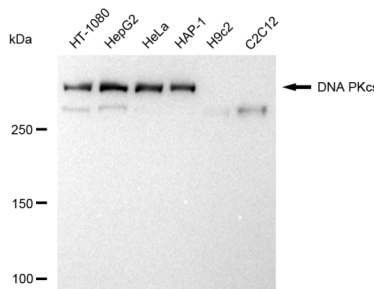
Research Area

Epigenetics and Nuclear Signaling, Neuroscience

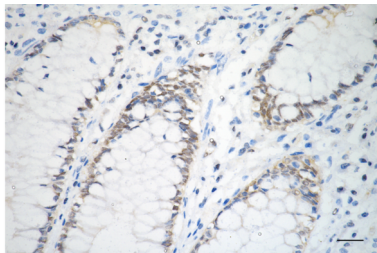
Image Data



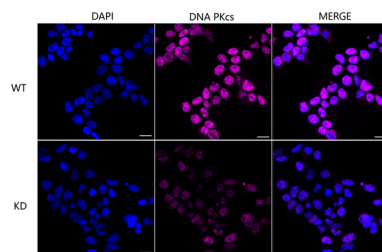
Western blotting analysis using DNA PKcs antibody (KVA01783). DNA PKcs expression in wild type (WT) and PRKDC shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with DNA PKcs antibody (KVA01783, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively. PRKDC, DNA-dependent protein kinase catalytic subunit.



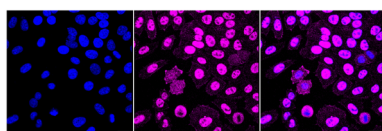
Western blotting analysis using DNA PKcs antibody (KVA01783). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with DNA PKcs antibody (KVA01783, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



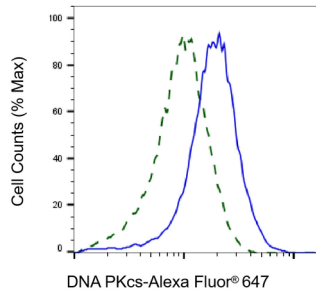
Immunohistochemistry was performed on paraffin-embedded human sigmoid colon carcinoma using DNA PKcs antibody (KVA01783, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



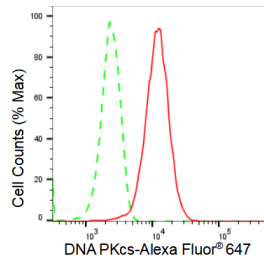
Immunocytochemical staining of HeLa cells using DNA PKcs antibody (KVA01783, 1:1,000). Top panel: wild-type (WT); Bottom panel: DNA PKcs shRNA knockdown (KD). Nuclei were stained blue with DAPI; DNA PKcs was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm.



Immunocytochemical staining of HepG2 cells with DNA PKcs antibody (KVA01783, 1:1,000). Nuclei were stained blue with DAPI; DNA PKcs was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.



Validation of DNA PKcs knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with DNA PKcs antibody (KVA01783, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of DNA PKcs expression in HepG2 cells using DNA PKcs antibody (KVA01783, 1:2,000). Green, isotype control; red, DNA PKcs.