

Mouse anti-Human DNA-PKcs Monoclonal Antibody | anti-PRKDC antibody

DNA-PKcs Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA290482	Mouse	Human	Immunohistochemistry, Immunoprecipitation, Immunocytochemistry, Western Blot

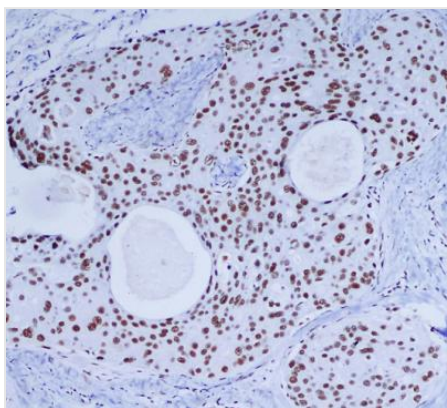
PRODUCT SYNONYMS

DNA-PKcs; Monoclonal Antibody; DNA-PKcs Antibody; Purified Mouse Monoclonal Antibody (Mab); DNA dependent protein kinase catalytic subunit; DNA PKcs; DNA-dependent protein kinase catalytic subunit; DNA-PK catalytic subunit; DNAPK; DNPK1; hyper radiosensitivity of murine scid mutation; complementing 1; HYRC; HYRC1; p350; p460; PRKDC; PRKDC_HUMAN; protein kinase; DNA activated; catalytic polypeptide; XRCC7.; anti-PRKDC antibody

PRODUCT SPECIFICATIONS

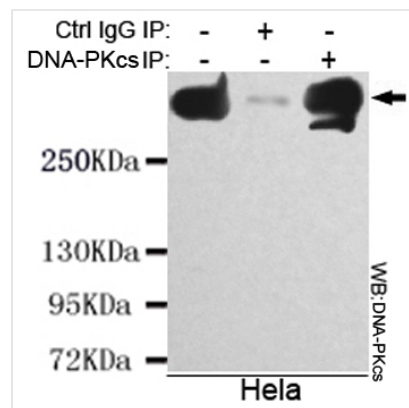
Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Form/Format	Purified mouse monoclonal antibody in PBS(pH 7.4)containing with 0.2% sodium azide,0.1%BSA & 50% glycerol.
Sequence Length	4097
Applicable Applications for anti-PRKDC antibody	IHC (Immunohistochemistry), IP (Immunoprecipitation), ICC (Immunocytochemistry), WB (Western Blot)
Antigen Source	Human
Antigen Type	Recombinant Protein
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.

IMAGES



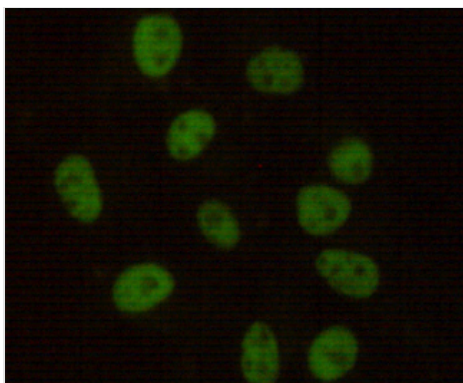
IHC (Immunohistochemistry)

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).



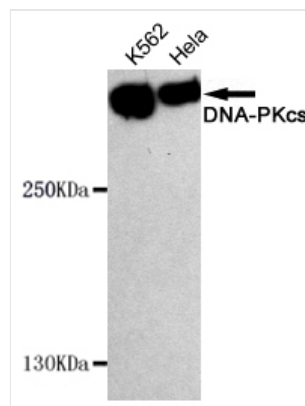
IP (Immunoprecipitation)

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



ICC (Immunocytochemistry)

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



WB (Western Blot)

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

ADDITIONAL INFORMATION

Related Product Information for anti-PRKDC antibody	Serine/threonine-protein kinase that acts as a molecular sensor for DNA damage. Involved in DNA non-homologous 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 telomeric stability and the prevention of chromosomal end fusion. Also involved in modulation of transcription. Recognizes the substrate consensus sequence [ST]-Q. Phosphorylates 'Ser-139' of histone variant H2AX/H2AFX, thereby regulating DNA damage response mechanism. Phosphorylates DCLRE1C, c-Abl/ABL1, histone H1, HSPCA, c-jun/JUN, p53/TP53, PARP1, POU2F1, DHX9, SRF, XRCC1, XRCC1, XRCC4, XRCC5, XRCC6, WRN, MYC and RFA2. Can phosphorylate C1D not only in the presence of linear DNA but also in the presence of supercoiled DNA. Ability to phosphorylate p53/TP53 in the presence of supercoiled DNA is dependent on C1D. Contributes to the determination of the circadian period length by antagonizing phosphorylation of CRY1 'Ser-588' and increasing CRY1 protein stability, most likely through an indirect mechanism. Interacts with CRY1 and CRY2; negatively regulates CRY1 phosphorylation.
Product Categories/Family for anti-PRKDC antibody	Cell Biology ; Signal transduction
References	Hartley K.O., et al. Cell 82:849-856(1995). Gell D., et al. Submitted (APR-2001) to the EMBL/GenBank/DDBJ databases. Anderson C.W., et al. Radiat. Res. 156:2-9(2001). Ladenburger E.M., et al. Cytogenet. Cell Genet. 77:268-270(1997). Siple J.D., et al. Proc. Natl. Acad. Sci. U.S.A. 92:7515-7519(1995).

NCBI AND UNIPROT INFORMATION

NCBI GI #	126032350
NCBI GeneID	5591
NCBI Accession #	NP_001075109.1
NCBI GenBank Nucleotide #	NM_001081640.1
UniProt Accession #	P78527 ; P78528 ; Q13327 ; Q13337 ; Q14175 ; Q59H99 ; Q7Z611 ; Q96SE6 ; Q9UME3
Molecular Weight	469089
NCBI Official Full Name	DNA-dependent protein kinase catalytic subunit isoform 2
NCBI Official Synonym Full Names	protein kinase, DNA-activated, catalytic polypeptide
NCBI Official Symbol	PRKDC
NCBI Official Synonym Symbols	HYRC; p350; DNAPK; DNP1K1; HYRC1; IMD26; XRCC7; DNA-PKcs

NCBI Protein Information	DNA-dependent protein kinase catalytic subunit
UniProt Protein Name	DNA-dependent protein kinase catalytic subunit
UniProt Gene Name	PRKDC
UniProt Synonym Gene Names	HYRC; HYRC1; DNA-PK catalytic subunit; DNA-PKcs
UniProt Entry Name	PRKDC_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/dna-pkcs-antibody-immunohistochemistry-immunoprecipitation-immunocytochemistry-western-blot-elisa/290482>