

Rabbit anti-Human DNA PKcs Monoclonal Antibody | anti-DNA PKcs antibody

Anti-Phospho-DNA PKcs (S2056) Rabbit Monoclonal Antibody

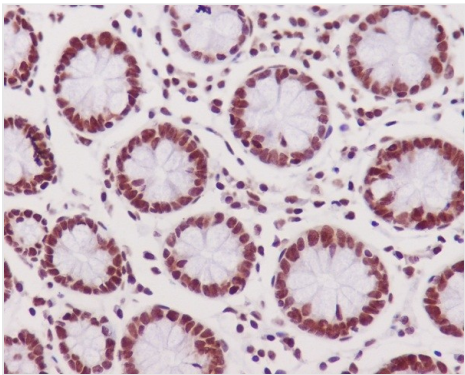
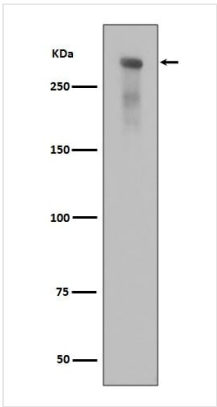
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA124532	Rabbit	Human	Western Blot, Immunocytochemistry, Immunohistochemistry, Immunofluorescence

PRODUCT SYNONYMS

DNA PKcs; Monoclonal Antibody; Anti-Phospho-DNA PKcs (S2056) Rabbit Monoclonal Antibody; DNA-dependent protein kinase catalytic subunit; DNA-PK catalytic subunit; DNA-PKcs; 2.7.11.1; DNPK1; p460; PRKDC; HYRC; HYRC1; anti-DNA PKcs antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Monoclonal
Purity/Purification	Affinity-chromatography
Form/Format	Liquid
Sequence Length	4,097
Applicable Applications for anti-DNA PKcs antibody	WB (Western Blot), ICC (Immunocytochemistry), IHC (Immunohistochemistry), IF (Immunofluorescence)
Immunogen	A synthesized peptide derived from human Phospho-DNA PKcs (S2056)
Subcellular Localization	Nucleus. Nucleus, nucleolus.
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



IHC (Immunohistochemistry)
Immunohistochemical analysis of paraffin-embedded human colon, using Phospho-DNA PKcs (S2056) Antibody(AAA124532)PRKDC was detected in paraffin-embedded tissue section. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-PRKDC Antibody (AAA124532)overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

WB (Western Blot)
Western blot analysis of Phospho-DNA PKcs (Ser2056) expression in alkaline treated Jurkat cell lysate (AAA124532).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-PRKDC monoclonal antibody overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for PRKDC

ADDITIONAL INFORMATION

Related Product Information for anti-DNA PKcs 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-DNA PKcs antibody	Epigenetics and Nuclear Signaling; DNA/RNA; DNA Damage & Repair; non homol. end joining; Epigenetics and Nuclear Signaling; DNA Damage Response; dna damage recognition; ChIP'ing Antibodies

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 MW
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; DNPk1; 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

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-western-blot-immunocytochemistry-immunohistochemistry-immunofluorescence-elisa/124532>