

Rabbit anti-Human DNA-PK Polyclonal Antibody | anti-DNA-PK antibody

DNA-PK Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA306324	Rabbit	Human	Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

DNA-PK; Polyclonal Antibody; DNA-PK Antibody; DNA-PKcs; DNA-dependent protein kinase catalytic subunit; DNPk1; EC 2.7.11.1; P460; anti-DNA-PK antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Specificity	The antibody detects endogenous levels of total DNA-PK protein.
Purity/Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Form/Format	Rabbit IgG in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1.0 mg/ml (varies by lot)
Sequence Length	4097
Applicable Applications for anti-DNA-PK antibody	IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen Type	Peptide
Immunogen Description	Synthesized peptide derived from human DNA-PK.
Target Name	DNA-PK
Preparation and Storage	Store at -20 degree C

IMAGES



WB (Western Blot)

Western blot analysis of extracts from HeLa cells (Lane 2), using DNA-PK antibody. The lane on the left is treated with synthesized peptide.



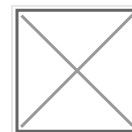
WB (Western Blot)

Western blot analysis of extracts from HeLa cells using DNA-PK antibody.



IF (Immunofluorescence)

Immunofluorescence analysis of HeLa cells, treated with Forskolin (40nM, 30mins), using DNA-PK antibody.



IHC (Immunohistochemistry)

Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using DNA-PK antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-DNA-PK 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.Wesley D. Block, Nucleic Acids Res., Apr 2004; 32: 1967 - 1972.Katherine S. Pawelczak, Nucleic Acids Res., Jan 2005; 33: 152 - 161.Eun-Jung Park, Nucleic Acids Res., Dec 2003; 31: 6819 - 6827.Suisheng Zhang, Nucleic Acids Res., Jan 2004; 32: 1 - 10.
Product Categories/Family for anti-DNA-PK antibody	Total protein Ab

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	465,501 Da
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
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/polyclonal/dna-pk-antibody-immunofluorescence-immunohistochemistry-western-blot-elisa/306324>