DATASHEET

DNA-PKcs (Phospho-S2612) Rabbit Polyclonal Antibody

CAT. NO. APA11395

KEY FEATURES

Target	DNA-PKcs (Phospho-S2612)	Source / Host	Rabbit
Reactivity	Human, Mouse	Clonality	Polyclonal
Applications	WB, IHC	Conjugation	Unconjugated
Form / Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.	Storage	at-20°C

BACKGROUND

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) . Recruited by XRCC5 and XRCC6 to DNA ends and is required to (1) protect and align broken ends of DNA, thereby preventing their degradation, (2) and sequester the DSB for repair by NHEJ . Acts as a scaffold protein to aid the localization of DNA repair proteins to the site of damage . The assembly of the DNA-PK complex at DNA ends is also required for the NHEJ ligation step .

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IHC	1:50 - 1:200

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

Description	Rabbit polyclonal antibody to DNA-PKcs (Phospho-S2612)
Specificity	Recognizes endogenous levels of DNA-PKcs protein only when phosphorylated at S2612.
Antibody Type	Primary antibody
Immunogen	KLH-conjugated synthetic phosphopeptide corresponding to residues surrounding S2612 of human DNA-PKcs protein. The exact sequence is proprietary.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 469 kD; Observed: 470 kD
Form/Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	HYRC; HYRC1; DNA-dependent protein kinase catalytic subunit; DNA-PK catalytic subunit; DNA-PKcs; DNPK1; p460
Gene Symbol	PRKDC
Entrez Gene	5591(Human); 19090(Mouse)
SwissProt	P78527(Human); P97313(Mouse)

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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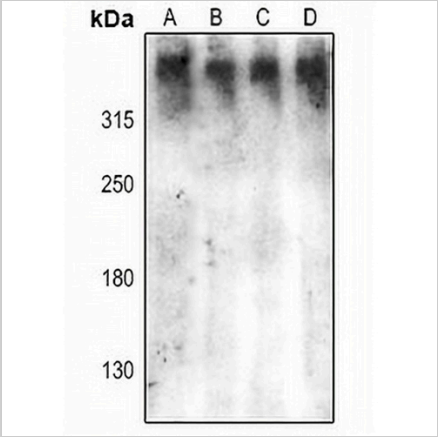
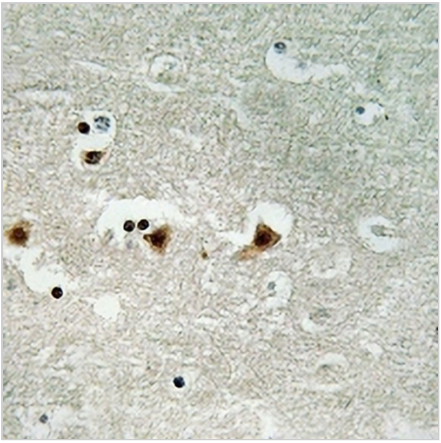
DATA



Western blot analysis of DNA-PKcs (Phospho-S2612) expression in mouse heart (A), NIH3T3L1 (B), HEK293T (C), SGC7901 (D) whole cell lysates. (Predicted band size: 469 kD; Observed band size: 470 kD)



Immunohistochemical analysis of DNA-PKcs (Phospho-S2612) staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.