Datasheet for ABIN2173652

anti-PRKDC antibody

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Overview

Quantity:	100 µL
Target:	PRKDC
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PRKDC antibody is un-conjugated
Application:	ELISA, Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunocytochemistry (ICC), Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Flow Cytometry (FACS), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	KLH conjugated synthetic peptide derived from human DNA PKcs
Isotype:	IgG
Cross-Reactivity:	Mouse, Rat
Predicted Reactivity:	Human,Dog,Pig,Horse
Purification:	Purified by Protein A.

Target Details

Target:	PRKDC
Alternative Name:	DNA PKcs (PRKDC Products)

Target Details

Background:	Synonyms: DNA-dependent protein kinase catalytic subunit, DNA-PK catalytic subunit, DNA-PKcs, DNPK1, p460, PRKDC, HYRC, HYRC1, Variant, DNAPK, DNAPK catalytic subunit, p350, PRKDC, Protein Kinase DNA Activated Catalytic Polypeptide, XRCC 7, XRCC7, PRKDC_HUMAN. Background: Serine/threonine-protein kinase that acts as a molecular sensor for DNA damage. Involved in DNA nonhomologous 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, c-myc/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 TP53/p53 in the presence of supercoiled DNA is dependent on C1D.
Gene ID:	5591
Pathways:	DNA Damage Repair, Production of Molecular Mediator of Immune Response

Application Details

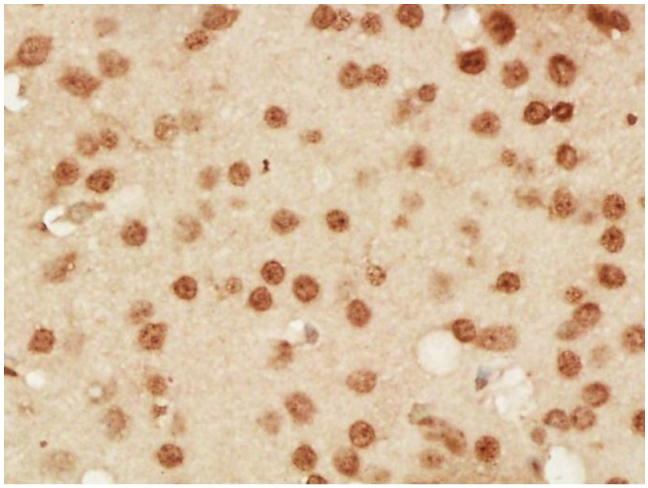
Application Notes:	ELISA 1:500-1000
	FCM 1:20-100
	IHC-P 1:200-400
	IHC-F 1:100-500
	IF(IHC-P) 1:50-200
	IF(IHC-F) 1:50-200
	IF(ICC) 1:50-200
	ICC 1:100-500

Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1 μg/μL
Buffer:	0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.
Expiry Date:	12 months

Images



Immunohistochemistry (Paraffin-embedded Sections)

Image 1. Paraformaldehyde-fixed, paraffin embedded Mouse brain Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes Blocking buffer (normal goat serum) at 37°C for 30min Antibody incubation with DNA PKcs Polyclonal Antibody, Unconjugated at 1:400 overnight at 4°C, DAB staining.