

# IHC*easy* PRKDC Ready-To-Use IHC Kit

Catalog Number: **KHC1030**

## General Information

Sample type:  
FFPE tissue

Cited sample type:

Reactivity:  
Human

Cited Reactivity:

Assay type:  
Immunohistochemistry

Primary antibody type:  
Rabbit Polyclonal

Secondary antibody type:  
Polymer-HRP-Goat anti-Rabbit

## Kit Component

Component	Size	Concentration
Antigen Retrieval Buffer	100 mL	50×
Washing Buffer	100 mL ×2	20×
Blocking Buffer	5 mL	RTU
Primary Antibody	5 mL	RTU
Secondary Antibody	5 mL	RTU
Chromogen Component A	0.2 mL	RTU
Chromogen Component B	4 mL	RTU
Signal Enhancer	5 mL	RTU
Counter Staining Reagent	5 mL	RTU
Mounting Media	5 mL	RTU
Control Slide	1 slide (Optional)	FFPE
Datasheet	1 Copy	
Manual	1 Copy	

## Storage Instructions

All the reagents are stored at 2-8°C. The kit is stable for 6 months from the date of receipt.

## Background

PRKDC, also named as HYRC, HYRC1, DNP1 and p460, belongs to the PI3/PI4-kinase family. PRKDC is a serine/threonine-protein kinase that acts as a molecular sensor for DNA damage. Involved in DNA nonhomologous end joining (NHEJ), PRKDC is required for double-strand break (DSB) repair and V(D)J recombination. PRKDC must be bound to DNA to express its catalytic properties. It promotes processing of hairpin DNA structures in V(D)J recombination by activation of the hairpin endonuclease artemis (DCLRE1C). It is required to protect and align broken ends of DNA. PRKDC may also act as a scaffold protein to aid the localization of DNA repair proteins to the site of damage. It is found at the ends of chromosomes, suggesting a further role in the maintenance of telomeric stability and the prevention of chromosomal end fusion. It also involved in modulation of transcription. It recognizes the substrate consensus sequence [ST]-Q. PRKDC phosphorylates 'Ser-139' of histone variant H2AX/H2AFX, thereby regulating DNA damage response mechanism. It phosphorylates DCLRE1C, c-Abl/ABL1, histone H1, HSPCA, c-jun/JUN, p53/TP53, PARP1, POU2F1, DHX9, SRF, XRCC1, XRCC2, XRCC3, XRCC4, XRCC5, XRCC6, WRN, c-myc/MYC and RFA2.

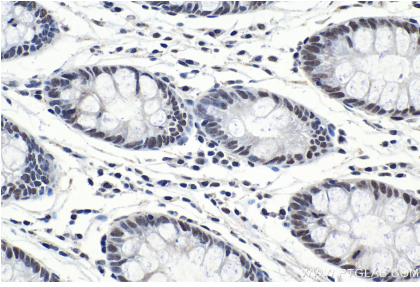
## Synonyms

DNA PK catalytic subunit, DNA PKcs, DNAPK, DNP1, HYRC, HYRC1, p350, p460, PRKDC, XRCC7

For technical support and original validation data for this product please contact:  
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## Selected Validation Data



Immunohistochemical analysis of paraffin-embedded human colon tissue slide using KHC1030 (PRKDC IHC Kit).