



# IHCeasy® XRCC5 Ready-To-Use IHC Kit

Catalog Number: KHC1528

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

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.

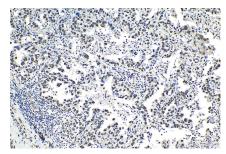
## Background

There are at least two pathways for eukaryotes to repair DNA double-strand breaks: homologous recombination and nonhomologous end joining(NHEJ). The core NHEJ machinery includes XRCC4, DNA ligase IV and the DNA-dependent protein kinase complex, which consists of the DNA end-binding XRCC5/XRCC6 heterodimer and the catalytic subunit PRKDC. The heterdimer of XRCC5/XRCC6 enhanced teh affinity of the catalytic subunit PRKDC to DNA by 100-fold. Once the XRCC5/6 dimer association with NAA15, it can bind to the osteocalcin promoter and activate osteocalcin expression. The XRCC5/6 dimer acts as a negative regulator of transcription when together with APEX1. Some publised papers indicated that the MW of XRCC5 is 86kDa, while more papers suggested that XRCC5 is a 80kDa protein, as it was firstly introducted in publication. Thus, Ku80 and Ku86 are the same protein.

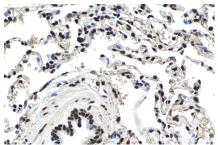
#### **Synonyms**

86 kDa subunit of Ku antigen, CTC85, CTCBF, DNA repair protein XRCC5, G22P2, KARP 1, KARP1, Ku80, Ku86, KUB2, NFIV, Nuclear factor IV, Thyroid lupus autoantigen, TLAA, XRCC5, XRCC5/Ku80

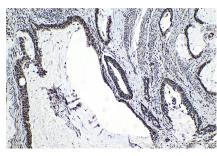
# Selected Validation Data



Immunohistochemical analysis of paraffinembedded human lung cancer tissue slide using KHC1528 (XRCC5 IHC Kit).



Immunohistochemical analysis of paraffinembedded human lung tissue slide using KHC1528 (XRCC5 IHC Kit).



Immunohistochemical analysis of paraffinembedded human urothelial carcinoma tissue slide using KHC1528 (XRCC5 IHC Kit).