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# XRCC6 Antibody (C-term)

**Affinity Purified Rabbit Polyclonal Antibody (Pab)**

**Catalog # AP5089B**

## Specification

### XRCC6 Antibody (C-term) - Product Information

| | |
|---|---|
| Application | IF, WB, IHC-P, FC,E |
| Primary Accession | P12956 |
| Reactivity | Human |
| Host | Rabbit |
| Clonality | Polyclonal |
| Isotype | Rabbit Ig |
| Calculated MW | 69843 |
| Antigen Region | 521-548 |

### XRCC6 Antibody (C-term) - Additional Information

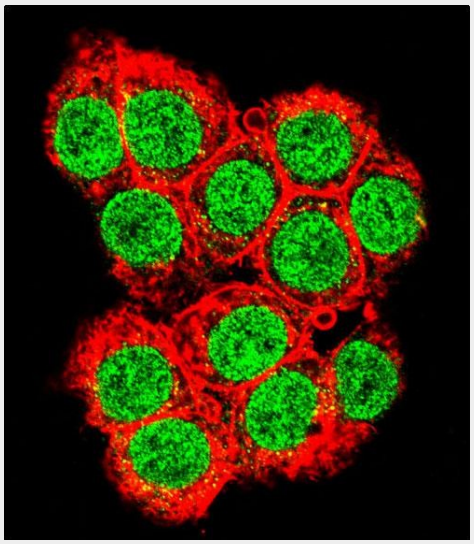
**Gene ID** 2547

**Other Names**
X-ray repair cross-complementing protein 6, 364-, 4299-, 5'-deoxyribose-5-phosphate lyase Ku70, 5'-dRP lyase Ku70, 70 kDa subunit of Ku antigen, ATP-dependent DNA helicase 2 subunit 1, ATP-dependent DNA helicase II 70 kDa subunit, CTC box-binding factor 75 kDa subunit, CTC75, CTCBF, DNA repair protein XRCC6, Lupus Ku autoantigen protein p70, Ku70, Thyroid-lupus autoantigen, TLAA, X-ray repair complementing defective repair in Chinese hamster cells 6, XRCC6, G22P1

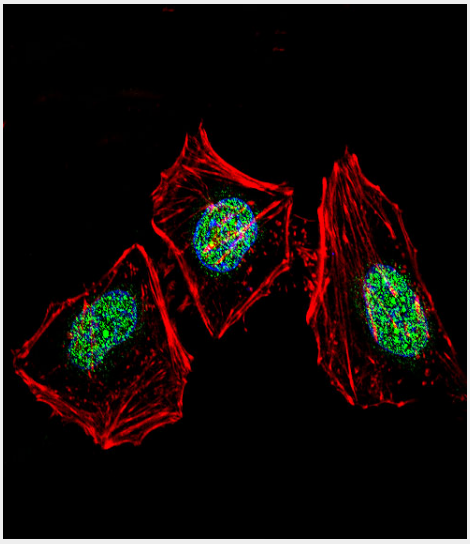
**Target/Specificity**
This XRCC6 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 521-548 amino acids from the C-terminal region of human XRCC6.

**Dilution**
IF~~1:10~50
WB~~1:1000
IHC-P~~1:50~100
FC~~1:10~50

**Format**
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A



Confocal immunofluorescent analysis of XRCC6 Antibody (C-term)(Cat#AP5089b) with 293 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red).



Fluorescent confocal image of Hela cell stained with XRCC6 Antibody (C-term)(Cat#AP5089b). Hela cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated

column, followed by peptide affinity purification.

**Storage**
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**
XRCC6 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

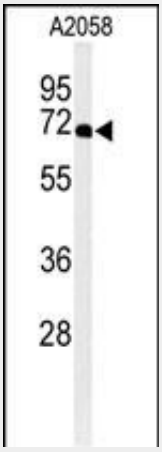
**XRCC6 Antibody (C-term) - Protein Information**

**Name** XRCC6

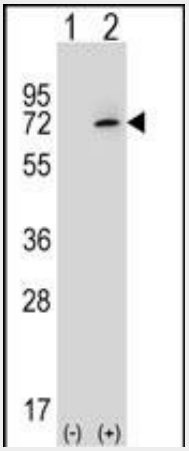
**Synonyms** G22P1

**Function**
Single-stranded DNA-dependent ATP-dependent helicase. Has a role in chromosome translocation. The DNA helicase II complex binds preferentially to fork-like ends of double-stranded DNA in a cell cycle-dependent manner. It works in the 3'-5' direction. Binding to DNA may be mediated by XRCC6. Involved in DNA non-homologous end joining (NHEJ) required for double-strand break repair and V(D)J recombination. The XRCC5/6 dimer acts as regulatory subunit of the DNA-dependent protein kinase complex DNA-PK by increasing the affinity of the catalytic subunit PRKDC to DNA by 100-fold. The XRCC5/6 dimer is probably involved in stabilizing broken DNA ends and bringing them together. The assembly of the DNA-PK complex to DNA ends is required for the NHEJ ligation step. Required for osteocalcin gene expression. Probably also acts as a 5'-deoxyribose-5-phosphate lyase (5'-dRP lyase), by catalyzing the beta-elimination of the 5' deoxyribose-5- phosphate at an abasic site near double-strand breaks. 5'-dRP lyase activity allows to 'clean' the termini of abasic sites, a class of nucleotide damage commonly associated with strand breaks, before such broken ends can be joined. The XRCC5/6 dimer together with APEX1 acts as a negative regulator of transcription. Plays a role in the regulation of DNA virus-mediated innate immune response by assembling into the HDP-RNP complex, a complex that serves as a

with XRCC6 primary antibody (1:25, 1 h at 37℃). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37℃).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37℃). Nuclei were counterstained with DAPI (blue) (10 µg/ml, 10 min). XRCC6 immunoreactivity is localized to nucleus significantly and Cytoplasm weakly.




Western blot analysis of XRCC6 Antibody (C-term) (Cat. #AP5089b) in A2058 cell line lysates (35ug/lane).XRCC6 (arrow) was detected using the purified Pab.




Western blot analysis of XRCC6 (arrow) using rabbit polyclonal XRCC6 Antibody (C-term) (Cat. #AP5089b). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the XRCC6 gene.

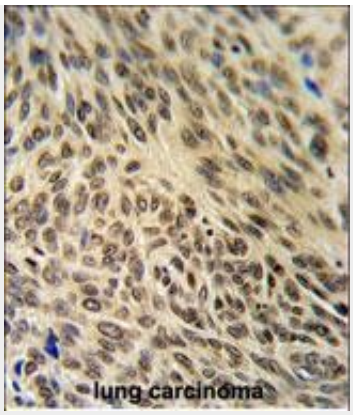
platform for IRF3 phosphorylation and subsequent innate immune response activation through the cGAS-STING pathway.

**Cellular Location**
Nucleus. Chromosome

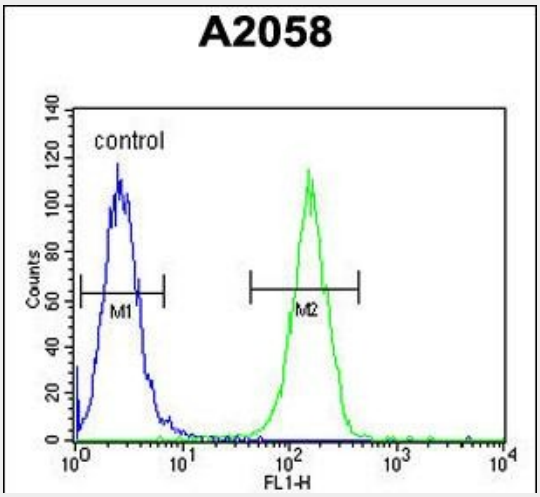
## XRCC6 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture




XRCC6 Antibody (C-term) (Cat. #AP5089b) IHC analysis in formalin fixed and paraffin embedded human lung carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the XRCC6 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.




XRCC6 Antibody (C-term) (Cat. #AP5089b) flow cytometric analysis of A2058 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

## XRCC6 Antibody (C-term) - Background

XRCC6 is a nuclear complex consisting of two subunits with molecular masses of approximately 70 and 80 kDa. The complex functions as a single-stranded DNA-dependent ATP-dependent helicase. The complex may be involved in the repair of nonhomologous DNA ends such as that required for double-strand break repair, transposition, and V(D)J

recombination. High levels of autoantibodies to p70 and p80 have been found in some patients with systemic lupus erythematosus.

**XRCC6 Antibody (C-term) - References**

Vishnudas, V.K., et al. Hum. Mol. Genet. 18(23):4467-4477(2009)
Wang, Q., et al. Neoplasia 11(10):1012-1021(2009)
Beskow, C., et al. Br. J. Cancer 101(5):816-821(2009)