

## ARG57831 anti-Ku 70 antibody

Package: 100 µl  
Store at: -20°C

### Summary

Product Description	Rabbit Polyclonal antibody recognizes Ku 70
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	Ku 70
Species	Human
Immunogen	Synthetic peptide of Human Ku70.
Conjugation	Un-conjugated
Alternate Names	DNA repair protein XRCC6; Thyroid-lupus autoantigen; Lupus Ku autoantigen protein p70; EC 4.2.99.-; EC 3.6.4.-; ATP-dependent DNA helicase II 70 kDa subunit; X-ray repair complementing defective repair in Chinese hamster cells 6; CTC box-binding factor 75 kDa subunit; 70 kDa subunit of Ku antigen; CTC75; 5'-deoxyribose-5-phosphate lyase Ku70; KU70; TLAA; 5'-dRP lyase Ku70; CTCBF; ML8; G22P1; X-ray repair cross-complementing protein 6; ATP-dependent DNA helicase 2 subunit 1; Ku70

### Application Instructions

Application table	Application	Dilution
	ICC/IF	1:50 - 1:100
	IHC-P	1:50 - 1:100
	WB	1:500 - 1:1000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	SW480	
Observed Size	~ 70 kDa	

### Properties

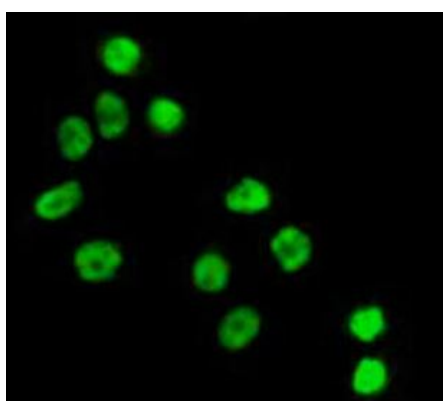
Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol

Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

## Bioinformation

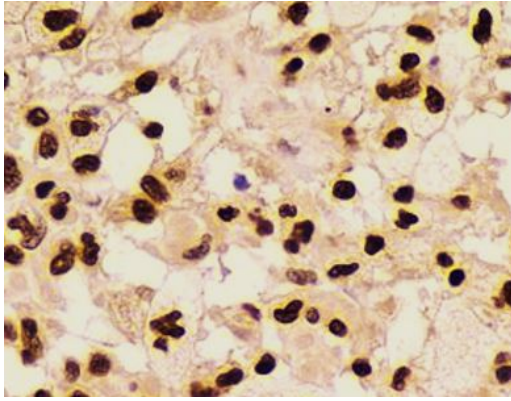
Gene Symbol	XRCC6
Gene Full Name	X-ray repair complementing defective repair in Chinese hamster cells 6
Background	The p70/p80 autoantigen is a nuclear complex consisting of two subunits with molecular masses of approximately 70 and 80 kDa. The complex functions as a single-stranded DNA-dependent ATP-dependent 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. [provided by RefSeq, Jul 2008]
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. [UniProt]
Calculated Mw	Isoform 1: 70 kDa Isoform 2: 65 kDa
PTM	Phosphorylation by PRKDC may enhance helicase activity. Phosphorylation of Ser-51 does not affect DNA repair. [UniProt]
Cellular Localization	Chromosome, Nucleus. [UniProt]

## Images



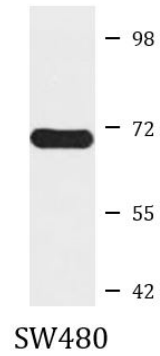
ARG57831 anti-Ku 70 antibody ICC/IF image

Immunofluorescence: HeLa cells stained with ARG57831 anti-Ku 70 antibody at 1:100 dilution.



ARG57831 anti-Ku 70 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human brain astrocytoma stained with ARG57831 anti-Ku 70 antibody at 1:100 dilution.



ARG57831 anti-Ku 70 antibody WB image

Western blot: 25 µg of SW480 cell lysate stained with ARG57831 anti-Ku 70 antibody at 1:1000 dilution.