

Product Name: Ku-70 (Acetyl Lys331) Rabbit Polyclonal Antibody
Catalog #: APRab06225

Summary

Production Name	Ku-70 (Acetyl Lys331) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,IHC-P
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Acetylated
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	XRCC6 XRCC6; G22P1; X-ray repair cross-complementing protein 6; 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
Alternative Names	
Gene ID	2547.0
SwissProt ID	P12956.The antiserum was produced against synthesized Acetyl-peptide derived from human Ku70 around the Acetylation site of Lys331. AA range:291-340

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Dilution Ratio	WB 1:500-2000, IHC-P 1:50-300
Molecular Weight	70kDa

Background

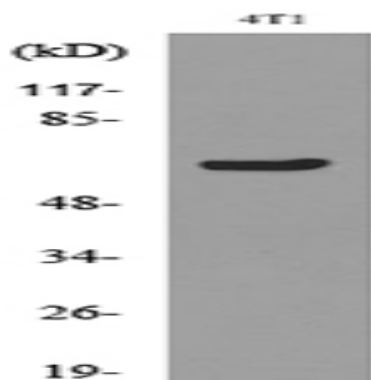
The p70/p80 autoantigen is a nuclear complex consisting of two subunits with molecular masses of approximately 70 and 80 kDa. The complex functions as a single-stranded DNA-dependent ATP-dependent helicase. The complex may be involved in the repair of nonhomologous DNA ends such as that required for 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],developmental stage:Expression does not increase during promyelocyte differentiation.,disease:Individuals with systemic lupus erythematosus (SLE) and related disorders produce extremely large amounts of autoantibodies to p70 and p86. Existence of a major autoantigenic epitope or epitopes on the C-terminal 190 amino acids of p70 containing the leucine repeat. The majority of autoantibodies to p70 in most sera from patients with SLE seem to be reactive with this region.,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 p70. Involved in DNA nonhomologous end joining (NHEJ) required for double-strand break repair and V(D)J recombination. The Ku p70/p86 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 Ku p70/p86 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.,induction:In osteoblasts, by FGF2.,PTM:Phosphorylation by PRKDC may enhance helicase activity. Phosphorylation of Ser-51 does not affect DNA repair.,similarity:Belongs to the ku70 family.,similarity:Contains 1 Ku domain.,similarity:Contains 1 SAP domain.,subunit:Heterodimer of a 70 kDa and a 80 kDa subunit. The dimer associates in a DNA-dependent manner with PRKDC to form the DNA-dependent protein kinase complex DNA-PK, and with the LIG4-XRCC4 complex. The dimer also associates with NARG1, and this complex binds to the osteocalcin promoter and activates osteocalcin expression. In addition, the 70 kDa subunit binds to the osteoblast-specific transcription factors MSX2, RUNX2 and DLX5. Interacts with ELF3. Interacts with XRCC6BP1.,

Research Area

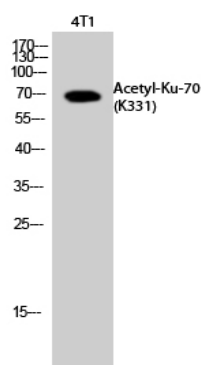
Non-homologous end-joining;

Image Data

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Western blot analysis of lysate from 4T1 cells, using Ku70 (Acetyl-Lys331) Antibody.



Western Blot analysis of 4T1 cells using Acetyl-Ku-70 (K331) Polyclonal Antibody.. Secondary antibody was diluted at 1:20000

Note

For research use only.