

Product Name: Ku-70 (Acetyl Lys317) Rabbit Polyclonal Antibody
Catalog #: APRab06224

Summary

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|------------------------|--|
| Production Name | Ku-70 (Acetyl Lys317) Rabbit Polyclonal Antibody |
| Description | Rabbit Polyclonal Antibody |
| Host | Rabbit |
| Application | WB |
| Reactivity | Human,Rat,Mouse |

Performance

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|---------------------|--|
| Conjugation | Unconjugated |
| Modification | Acetyl Antibody |
| 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% BSA and 0.02% New type preservative N. |
| Purification | Affinity purification |

Immunogen

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|--------------------------|---|
| Gene Name | XRCC6 G22P1 X-ray repair cross-complementing protein 6 (EC 3.6.4.-) (EC 4.2.99.-) (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) |
| Alternative Names | (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) |
| Gene ID | 2547.0 |
| SwissProt ID | P12956.Synthetic Acetyl peptide from human protein at AA range: 317 |

Application

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| Dilution Ratio | WB 1:500-2000; ELISA 2000-20000 |
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Molecular Weight 69kD

Background

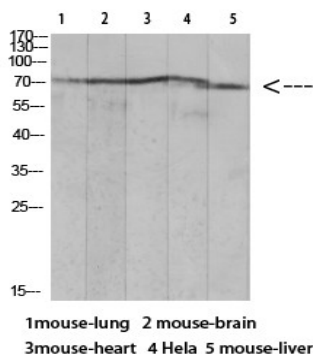
The p70/p80 autoantigen is a nuclear complex consisting of two subunits with molecular masses of approximately 70 and 80 kDa. The complex functions as a single-stranded DNA-dependent ATP-dependent helicase. The complex may be involved in the repair of nonhomologous DNA ends such as that required for 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 mouse-lung lysate, antibody was diluted at 1000. Secondary antibody was diluted at 1:20000

Note

For research use only.