

Product Name: Ku-70 Rabbit Polyclonal Antibody
Catalog #: APRab13154



Summary

| | |
|------------------------|----------------------------------|
| Production Name | Ku-70 Rabbit Polyclonal Antibody |
| Description | Rabbit Polyclonal Antibody |
| Host | Rabbit |
| Application | IF,IHC,WB, |
| Reactivity | Human,Mouse,Rat |

Performance

| | |
|---------------------|--|
| Conjugation | Unconjugated |
| Modification | Unmodified |
| 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

| | |
|--------------------------|---|
| 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- |
| Alternative Names | |
| Gene ID | 2547.0 |
| SwissProt ID | P12956.The antiserum was produced against synthesized peptide derived from human Ku70. AA range:560-609 |

Application

| | |
|-----------------------|--|
| Dilution Ratio | WB 1:500 - 1:2000 IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:10000. Not yet tested |
|-----------------------|--|

in other applications.

Molecular Weight 70kD

Background

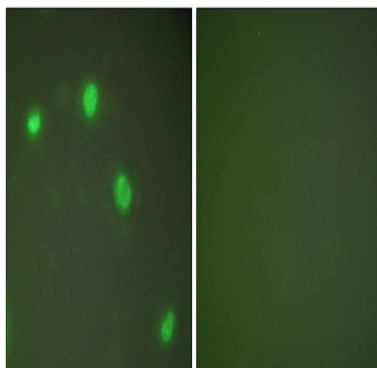
The p70/p80 autoantigen is a nuclear complex consisting of two subunits with molecular masses of approximately 70 and 80 kDa. The complex functions as a single-stranded DNA-dependent ATP-dependent helicase. The complex may be involved in the repair of nonhomologous DNA ends such as that required for 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

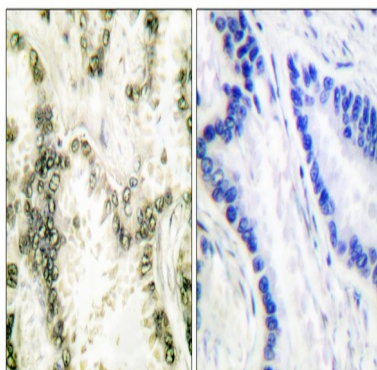
Protein_Acetylation

Image Data

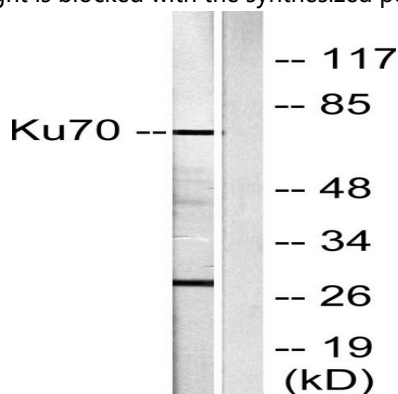
Product Name: Ku-70 Rabbit Polyclonal Antibody
Catalog #: APRab13154



Immunofluorescence analysis of COS7 cells, using Ku70 Antibody. The picture on the right is blocked with the synthesized peptide.

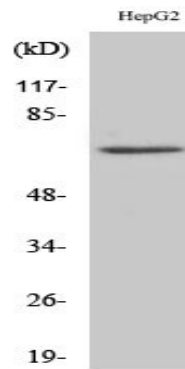


Immunohistochemistry analysis of paraffin-embedded human lung carcinoma tissue, using Ku70 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from HepG2 cells, using Ku70 Antibody. The lane on the right is blocked with the synthesized peptide.

Product Name: Ku-70 Rabbit Polyclonal Antibody
Catalog #: APRab13154



Western Blot analysis of various cells using Ku-70 Polyclonal Antibody

Note

For research use only.