

Ku-70 (Acetyl Lys338) rabbit pAb

Cat No.:ES20111

For research use only

Overview

Product Name	Ku-70 (Acetyl Lys338) rabbit pAb
Host species	Rabbit
Applications	WB;IHC
Species Cross-Reactivity	Human;Mouse
Recommended dilutions	WB 1:500-2000;IHC-p 1:50-300
Immunogen	Synthesized peptide derived from human Ku-70 (Acetyl Lys338)
Specificity	This antibody detects endogenous levels of Human,Mouse Ku-70 (Acetyl Lys338)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Storage	Store at -20°C. Avoid repeated freeze-thaw cycles.
Protein Name	Ku-70 (Acetyl Lys338)
Gene Name	XRCC6 G22P1
Cellular localization	Nucleus . Chromosome .
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Clonality	Polyclonal
Concentration	1 mg/ml
Observed band	70kD
Human Gene ID	2547
Human Swiss-Prot Number	P12956
Alternative Names	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;CTC box-binding fac
Background	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.

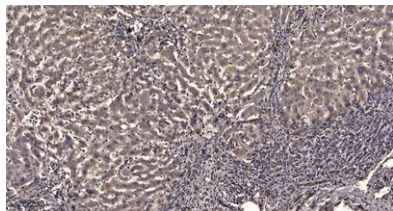
similarity:Contains 1 SAP domain.

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.





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Immunohistochemical analysis of paraffin-embedded human liver cancer. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).



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