

Ku-70 (Acetyl Lys539) Rabbit pAb

CatalogNo: YK0032

Orthogonal Validated 

Key Features

Host Species

- Rabbit

Reactivity

- Human,Rat,Mouse,

Applications

- WB,IHC,IF,ELISA

MW

- 70kD (Observed)

Isotype

- IgG

Recommended Dilution Ratios

WB 1:500-1:2000**IHC: 1:100-300****ELISA 1:20000****IF 1:50-200**

Storage

Storage*

-15°C to -25°C/1 year(Do not lower than -25°C)

Formulation

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality

Polyclonal

Immunogen Information

Immunogen

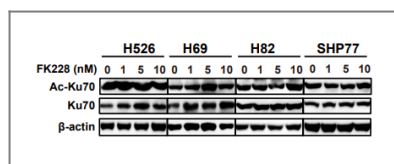
Synthesized acetyl-peptide derived from the human Ku-70 around the acetylation site of K539.

Specificity Acetyl-Ku-70 (K539) Polyclonal Antibody detects endogenous levels of Ku-70 protein only when acetylated at K539. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):EGkVT

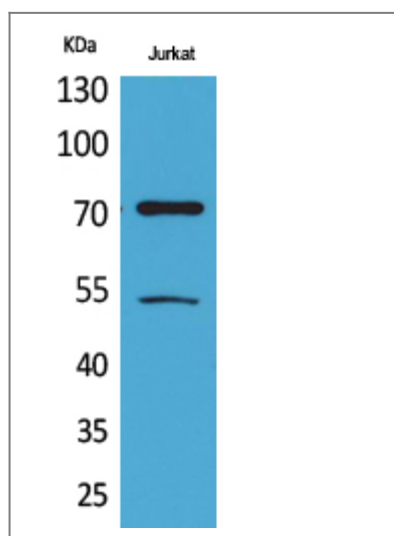
| Target Information

Gene name	XRCC6		
Protein Name	X-ray repair cross-complementing protein 6		
	Organism	Gene ID	UniProt ID
	Human	2547;	P12956;
	Mouse	14375;	P23475;
Cellular Localization	Nucleus . Chromosome .		
Tissue specificity	Brain,Cervix carcinoma,Epithelium,Heart,Hepatocyte,Kidney,Liver,Lun		
Function	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. Interactis with XRCC6BP1.,		

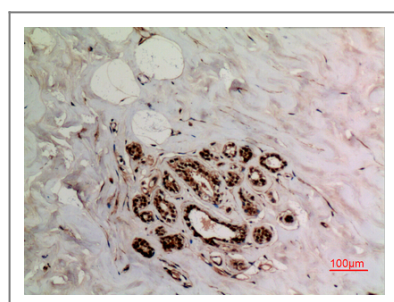
Validation Data



Li, H., Ma, L., Bian, X. et al. FK228 sensitizes radioresistant small cell lung cancer cells to radiation. Clin Epigenet 13, 41 (2021).



Western Blot analysis of Jurkat cells using Acetyl-Ku-70 (K539) Polyclonal Antibody. Antibody was diluted at 1:500. Secondary antibody(catalog#:RS0002) was diluted at 1:20000



Immunohistochemical analysis of paraffin-embedded human-breast, antibody was diluted at 1:100

Contact information

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Please scan the QR code to access additional product information:
Ku-70 (Acetyl Lys539) Rabbit pAb

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