Ku-80 Rabbit pAb

CatalogNo: YT2504

Key Features

Host Species	Reactivity	Applications
• Rabbit	• Human,Mouse	• WB,IHC,IF,ELISA

MW	Isotype
• 80kD (Observed)	• IgG

Recommended Dilution Ratios

WB 1:500-1:2000
IHC 1:100-1:300
ELISA 1:40000
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	The antiserum was produced against synthesized peptide derived from human XRCC5. AA range:441-490
Specificity	Ku-80 Polyclonal Antibody detects endogenous levels of Ku-86 protein.

Target Information

Gene name XRCC5

Protein Name X-ray repair cross-complementing protein 5

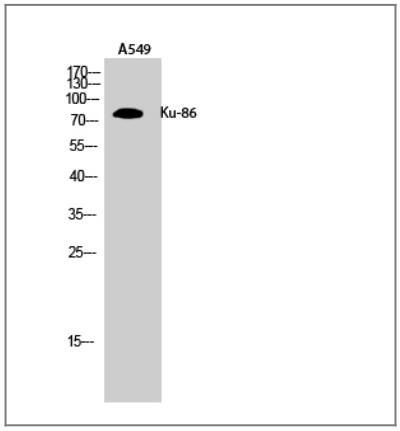
Organism	Gene ID	UniProt ID
Human	7520;	P13010;
Mouse		P27641;

Cellular Localization Nucleus . Nucleus, nucleolus . Chromosome .

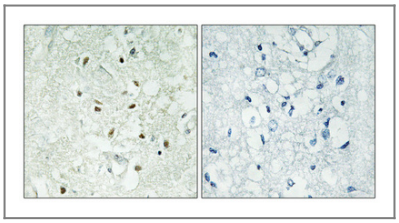
Tissue specificity Cervix carcinoma,Coronary artery,Heart,Neuroblastoma,Osteoblast,Thy

Function developmental stage:Expression increases during promyelocyte differentiation.,Disease:Individuals with systemic lupus erythematosus (SLE) and related disorders produce extremely large amounts of autoantibodies to p70 and p86.,Domain:The EEXXXDDL motif is required for the interaction with catalytic subunit PRKDC and its recruitment to sites of DNA damage.,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. In association with NARG1, the Ku p70/p86 dimer binds to the osteocalcin promoter and activates osteocalcin expression.,induction:In osteoblasts, by FGF2.,PTM:Phosphorylated on serine residues. Phosphorylation by PRKDC may enhance helicase activity.,PTM:Sumoylated.,similarity:Belongs to the ku80 family.,similarity:Contains 1 Ku 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 displays DNA binding activity towards the osteocalcin FGF response element (OCFRE). In addition, the 80 kDa subunit binds to the osteoblast-specific transcription factors MSX2 and RUNX2. Interacts with ELF3. May interact with APLF.,

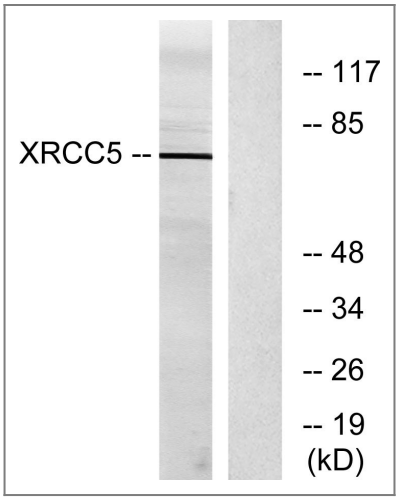
Validation Data



Western Blot analysis of A549 cells using Ku-86 Polyclonal Antibody



Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100(4° overnight). High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negetive contrl (right) obtaned from antibody was pre-absorbed by immunogen peptide.



Western blot analysis of lysates from Jurkat cells, using XRCC5 Antibody. The lane on the right is blocked with the synthesized peptide.

Contact information

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Please scan the QR code to access additional product information:
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