

## Ku-80 Polyclonal Antibody

<b>Catalog No :</b>	YT2501
<b>Reactivity :</b>	Human;Monkey
<b>Applications :</b>	WB;IHC;IF;ELISA
<b>Target :</b>	Ku-80
<b>Fields :</b>	>>Non-homologous end-joining
<b>Gene Name :</b>	XRCC5
<b>Protein Name :</b>	X-ray repair cross-complementing protein 5
<b>Human Gene Id :</b>	7520
<b>Human Swiss Prot No :</b>	P13010
<b>Mouse Swiss Prot No :</b>	P27641
<b>Immunogen :</b>	The antiserum was produced against synthesized peptide derived from human Ku70/80. AA range:683-732
<b>Specificity :</b>	Ku-80 Polyclonal Antibody detects endogenous levels of Ku-80 protein.
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source :</b>	Polyclonal, Rabbit,IgG
<b>Dilution :</b>	WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:20000. Not yet tested in other applications.
<b>Purification :</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Concentration :</b>	1 mg/ml
<b>Storage Stability :</b>	-15°C to -25°C/1 year(Do not lower than -25°C)

**Observed Band :** 80kD

**Cell Pathway :** Non-homologous end-joining;

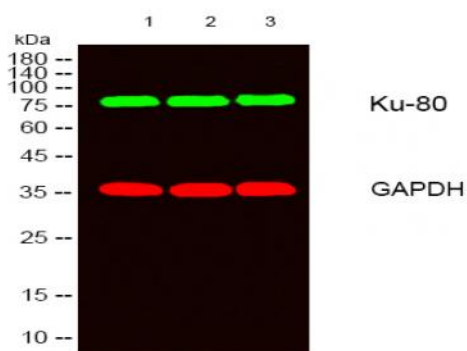
**Background :** The protein encoded by this gene is the 80-kilodalton subunit of the Ku heterodimer protein which is also known as ATP-dependant DNA helicase II or DNA repair protein XRCC5. Ku is the DNA-binding component of the DNA-dependent protein kinase, and it functions together with the DNA ligase IV-XRCC4 complex in the repair of DNA double-strand break by non-homologous end joining and the completion of V(D)J recombination events. This gene functionally complements Chinese hamster xrs-6, a mutant defective in DNA double-strand break repair and in ability to undergo V(D)J recombination. A rare microsatellite polymorphism in this gene is associated with cancer in patients of varying radiosensitivity. [provided by RefSeq, Jul 2008],



**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 t

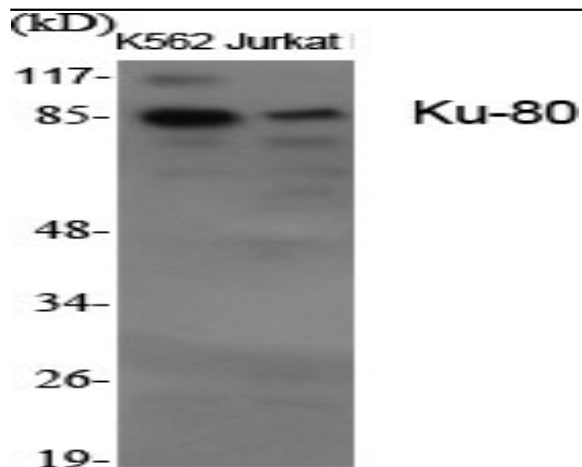
**Subcellular Location :** Nucleus . Nucleus, nucleolus . Chromosome .

**Expression :** Cervix carcinoma,Coronary artery,Heart,Neuroblastoma,Osteoblast,Thy

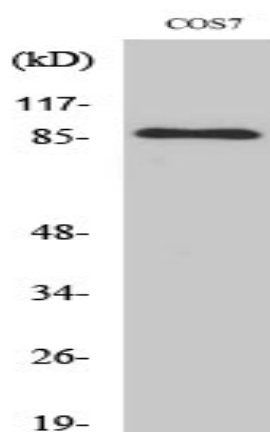
## Products Images



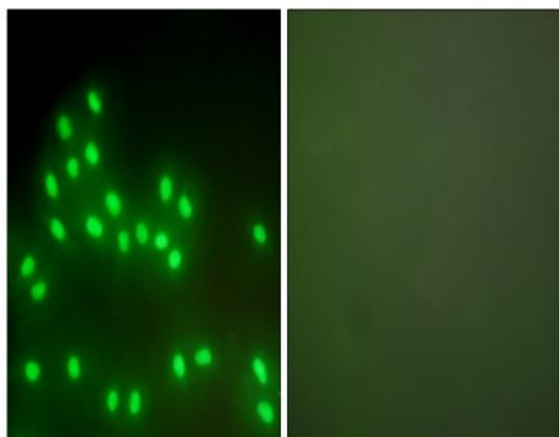
Western blot analysis of lysates from 1) K562, 2) Jurkat, 3) COS7 cells,  primary antibody was diluted at 1:1000, 4° over night, secondary antibody(cat:RS23920)was diluted at 1:10000, 37° 1hour.  GAPDH Monoclonal Antibody(2B8) (cat:YM3029) antibody was diluted at 1:5000 as loading control, 4° over night,secondary antibody(cat:RS23710)was diluted at 1:10000, 37° 1hour.



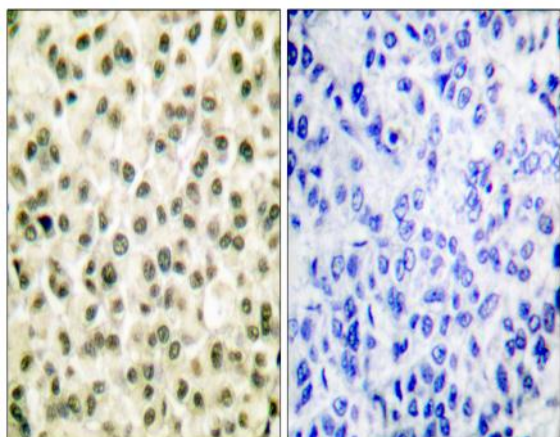
Western Blot analysis of various cells using Ku-80 Polyclonal Antibody



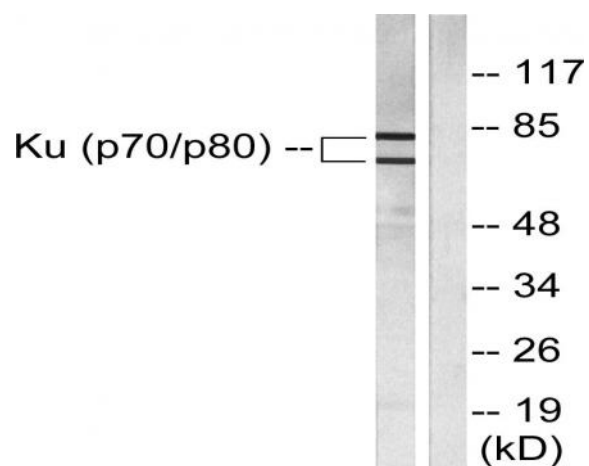
Western Blot analysis of COS7 cells using Ku-80 Polyclonal Antibody



Immunofluorescence analysis of A549 cells, using Ku70/80 Antibody. The picture on the right is blocked with the synthesized peptide.



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue, using Ku70/80 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from LOVO cells, using Ku70/80 Antibody. The lane on the right is blocked with the synthesized peptide.