

## **Ku-80 Polyclonal Antibody**

Catalog No: YT2501

**Reactivity:** Human; Monkey

**Applications:** WB;IHC;IF;ELISA

Target: Ku-80

**Fields:** >>Non-homologous end-joining

Gene Name: XRCC5

**Protein Name:** X-ray repair cross-complementing protein 5

Human Gene Id: 7520

**Human Swiss Prot** 

No:

Mouse Swiss Prot

No:

Immunogen:

P27641

P13010

The antiserum was produced against synthesized peptide derived from human

Ku70/80. AA range:683-732

**Specificity:** Ku-80 Polyclonal Antibody detects endogenous levels of Ku-80 protein.

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

Source: Polyclonal, Rabbit, IgG

**Dilution:** WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:20000. Not

yet tested in other applications.

**Purification:** The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

**Storage Stability:** -15°C to -25°C/1 year(Do not lower than -25°C)

1/4

**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

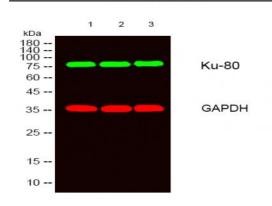
**Sort**: 9042

No4: 1

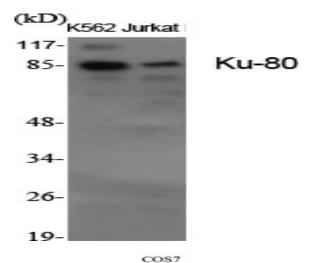
**Host:** Rabbit

Modifications: Unmodified

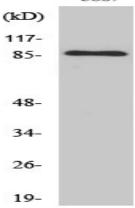
## **Products Images**



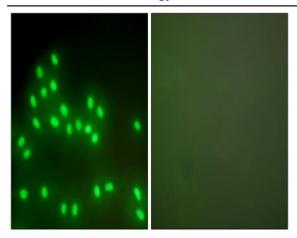
Western blot analysis of lysates from 1) K562, 2) Jurkat, 3) COS7 cells, ?!Green!? primary antibody was diluted at 1:1000, 4° over night, secondary antibody(cat:RS23920)was diluted at 1:10000, 37° 1hour. !?Red!? GAPDH Monoclonal Antibody(2B8) (cat:YM3029) antibody was diluted at 1:5000 as loading control,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



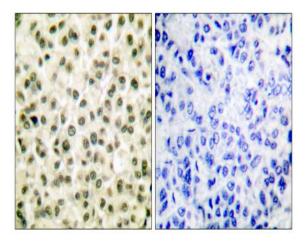
Western Blot analysis of various cells using Ku-80 Polyclonal Antibody



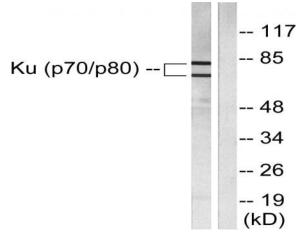
Western Blot analysis of COS7 cells using Ku-80 Polyclonal Antibody



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.