

## Ku-80 (phospho Thr714) Polyclonal Antibody

Catalog No: YP0873

Reactivity: Human; Monkey

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

Target: Ku-80

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

P13010

P27641

Gene Name: XRCC5

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

Human Gene Id: 7520

**Human Swiss Prot** 

Idiliali Swiss Flot

No:

**Mouse Swiss Prot** 

No:

**Immunogen:** The antiserum was produced against synthesized peptide derived from human

Ku80 around the phosphorylation site of Thr714. AA range:683-732

**Specificity:** Phospho-Ku-80 (T714) Polyclonal Antibody detects endogenous levels of Ku-80

protein only when phosphorylated at T714.

**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: 1:10000. 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

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

Observed Band: 83kD

**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

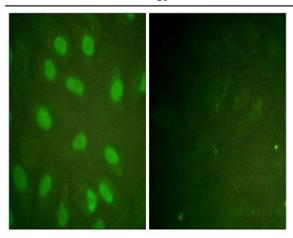
Subcellular Location:

Nucleus . Nucleus, nucleolus . Chromosome .

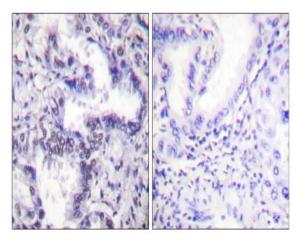
**Expression:** Cervix carcinoma, Coronary artery, Heart, Neuroblastoma, Osteoblast, Thy

## **Products Images**

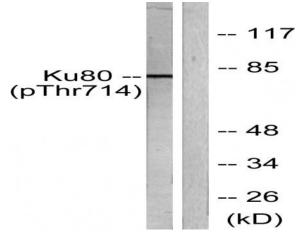
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Immunofluorescence analysis of HeLa cells, using Ku80 (Phospho-Thr714) Antibody. The picture on the right is blocked with the phospho peptide.



Immunohistochemistry analysis of paraffin-embedded human lung carcinoma, using Ku80 (Phospho-Thr714) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from COS7 cells, using Ku80 (Phospho-Thr714) Antibody. The lane on the right is blocked with the phospho peptide.