

## Ku-80 (Phospho Thr714) Rabbit pAb

CatalogNo: YP0873

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Monkey

#### Applications

- WB, IHC, IF, ELISA

#### MW

- 83kD (Observed)

#### Isotype

- IgG

### 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.

### Recommended Dilution Ratios

**WB 1:500-1:2000**

**IHC 1:100-1:300**

**IF 1:200-1:1000**

**ELISA 1:10000**

**Not yet tested in other applications.**

### Basic Information

**Clonality** Polyclonal

### Immunogen Information

**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. 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 When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports.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):GDtAA

## Target Information

**Gene name** XRCC5

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

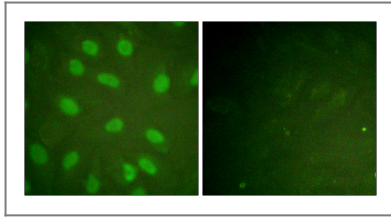
Organism	Gene ID	UniProt ID
Human	<a href="#">7520;</a>	<a href="#">P13010;</a>
Mouse		<a href="#">P27641;</a>

**Cellular Localization** Nucleus . Nucleus, nucleolus . Chromosome .

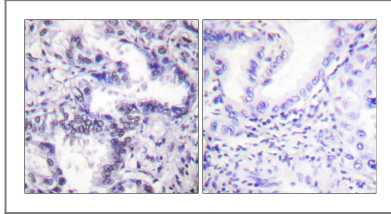
**Tissue specificity** Cervix carcinoma,Coronary artery,Heart,Neuroblastoma,Osteoblast,Thy

**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 EEXXDDL 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.,

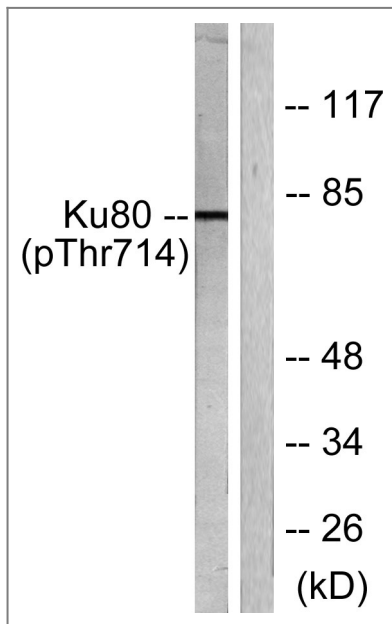
## Validation Data



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.

## Contact information

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Please scan the QR code to access additional product information:  
**Ku-80 (Phospho Thr714) Rabbit pAb**