

## Ku-80 Monoclonal Antibody

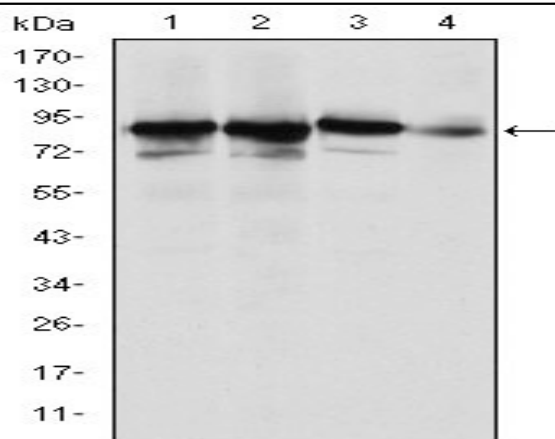
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|------------------------------|--|
| <b>Catalog No :</b>          | YM0409   |
| <b>Reactivity :</b>          | Human;Mouse  |
| <b>Applications :</b>        | WB;IHC;IF;FCM;ELISA  |
| <b>Target :</b>              | Ku-80  |
| <b>Fields :</b>              | >>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 Gene Id :</b>       | 22596  |
| <b>Mouse Swiss Prot No :</b> | P27641   |
| <b>Immunogen :</b>           | Purified recombinant fragment of human Ku-80 expressed in E. Coli.   |
| <b>Specificity :</b>         | Ku-80 Monoclonal 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>              | Monoclonal, Mouse  |
| <b>Dilution :</b>            | WB 1:500 - 1:2000. IHC 1:200 - 1:1000. IF 1:200 - 1:1000. Flow cytometry: 1:200 - 1:400. ELISA: 1:10000. Not yet tested in other applications. |
| <b>Purification :</b>        | Affinity purification  |
| <b>Storage Stability :</b>   | -15°C to -25°C/1 year(Do not lower than -25°C)   |

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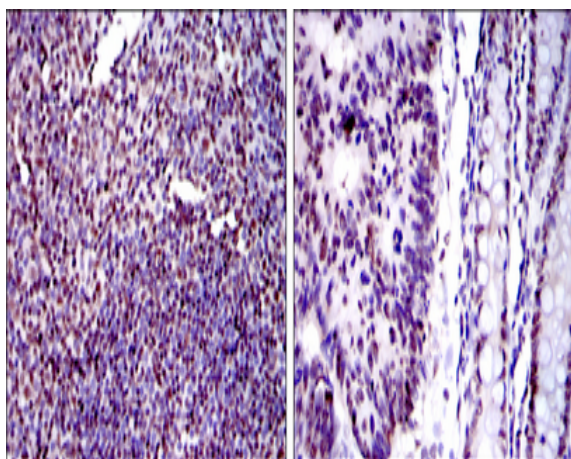
|                               |   |
|-------------------------------|---|
| <b>Molecularweight :</b>      | 83kD  |
| <b>Cell Pathway :</b>         | Non-homologous end-joining;   |
| <b>P References :</b>         | <ol style="list-style-type: none"><li>1. Breast Cancer Res. 2009;11(6):R83.</li><li>2. Biochem Biophys Res Commun. 2009 Dec 18;390(3):738-42.</li></ol>   |
| <b>Background :</b>           | <p>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],</p>  |
| <b>Function :</b>             | <p>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</p> |
| <b>Subcellular Location :</b> | Nucleus . Nucleus, nucleolus . Chromosome .   |
| <b>Expression :</b>           | Cervix carcinoma,Coronary artery,Heart,Neuroblastoma,Osteoblast,Thy   |
| <b>Sort :</b>                 | 9039  |
| <b>No4 :</b>                  | 1   |
| <b>Host :</b>                 | Mouse   |
| <b>Modifications :</b>        | Unmodified  |

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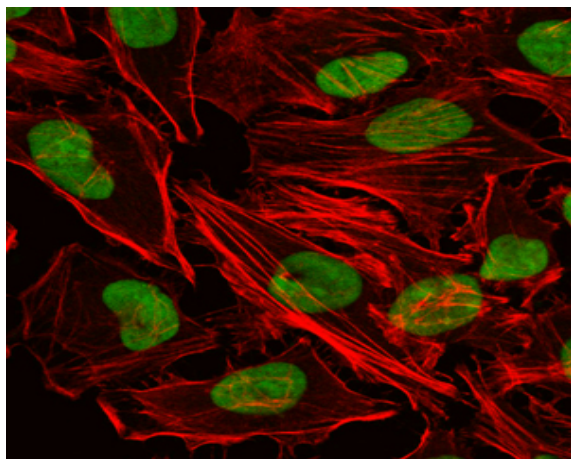
**Products Images**



Western Blot analysis using Ku-80 Monoclonal Antibody against HeLa (1), MCF-7 (2), A549 (3) and NIH/3T3 (4) cell lysate.



Immunohistochemistry analysis of paraffin-embedded human tonsil tissues (left) and human colon cancer tissues (right) with DAB staining using Ku-80 Monoclonal Antibody.



Immunofluorescence analysis of HeLa cells using Ku-80 Monoclonal Antibody (green). Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

Flow cytometric analysis of Hela cells using Ku-80 Monoclonal Antibody (green) and negative control (purple).

