

Ku80 monoclonal antibody

Catalog: MB66588

Host: Mouse

Reactivity: Human, Monkey

BackGround:

Ku is a heterodimeric protein composed of two subunits (Ku70 and Ku80) originally identified by researchers as autoantigens associated with several autoimmune diseases including scleroderma, polymyositis, and systemic lupus erythematosus. Ku is an abundant, ubiquitously expressed nuclear protein that binds to and stabilizes the ends of DNA at telomeres or double-stranded DNA breaks. The Ku70/Ku80 heterodimer has ATP-dependent DNA helicase activity and functions as the DNA-binding regulatory component of DNA-dependent protein kinase (DNA-PK). The assembly of the DNA-PK complex at DNA ends is required for nonhomologous end-joining (NHEJ), one mechanism involved in double-stranded DNA break repair and V(D)J recombination. DNA-PK has been shown to phosphorylate many proteins, including p53, serum response factor, c-Jun, c-Fos, c-Myc, Oct-1, Sp-1, and RNA polymerase II. The combined activities of Ku70/Ku80 and DNA-PK implicate Ku in many cellular functions, including cell cycle regulation, DNA replication and repair, telomere maintenance, recombination, and transcriptional activation.

Product:

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.

Molecular Weight:

~ 86 kDa

Swiss-Prot:

P13010

Purification&Purity:

The antibody was purified by immunogen affinity chromatography.

Applications:

WB (1/500 - 1/1000), IF/ICC (1/50 - 1/100), IP (1/10 - 1/50), ChIP (1/10 - 1/50)

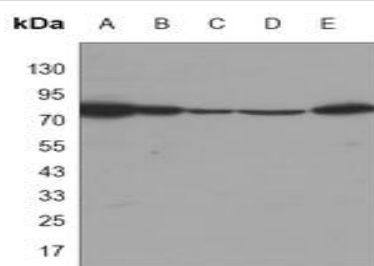
Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

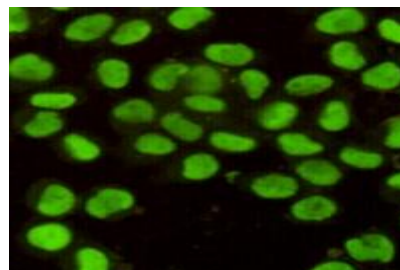
Specificity:

Recognizes endogenous levels of Ku80 protein.

DATA:



Western blot analysis of Ku80 expression in COS7 (A), Jurkat (B), HeLa (C), MCF7 (D), A549 (E) whole cell lysates.



Immunofluorescent analysis of Ku80 staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark.

Note:

For research use only, not for use in diagnostic procedure.

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PRODUCT DATA SHEET

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