

DATASHEET

Ku80 Mouse Monoclonal Antibody(C3389)

CAT. NO. AMA03001

KEY FEATURES

Target	Ku80	Source / Host	Mouse
Reactivity	Human, Monkey	Clonality	Monoclonal
Applications	WB, IF/ICC, IP, ChIP	Conjugation	Unconjugated
Form / Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.	Storage	at-20°C

BACKGROUND

DNA-binding protein critical for the DNA damage response, specifically in repairing double-strand breaks (DSBs) via the classical non-homologous end joining (NHEJ) pathway. It forms a heterodimer with XRCC6 (Ku70), creating the Ku70:Ku80 heterodimer (Ku complex), which serves as a DNA end-binding complex. It primarily binds DSBs and recruits essential repair factors, assembling the core long-range NHEJ complex to facilitate the alignment and ligation of broken DNA ends via the classical non-homologous end joining (NHEJ) pathway. It forms a heterodimer with XRCC6 (Ku70), creating the Ku70:Ku80 heterodimer (Ku complex), which serves as a DNA end-binding complex.

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IF/ICC	1:50 - 1:100
IP	1:10 - 1:50
ChIP	1:10 - 1:50

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

Description	Mouse monoclonal antibody to Ku80
Specificity	Recognizes endogenous levels of Ku80 protein.
Antibody Type	Primary antibody
Immunogen	Purified recombinant human Ku80 protein fragments expressed in E.coli
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 83 kD; Observed: 86 kD
Form/Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.
Alternative Names	G22P2; X-ray repair cross-complementing protein 5; 86 kDa subunit of Ku antigen; ATP-dependent DNA helicase 2 subunit 2; ATP-dependent DNA helicase II 80 kDa subunit; CTC box-binding factor 85 kDa subunit; CTC85; CTCBF; DNA repair protein XRCC5; Ku80; Ku86; Lupus Ku autoantigen protein p86; Nuclear factor IV; Thyroid-lupus autoantigen; TLAA; X-ray repair complementing defective repair in Chinese hamster cells 5 (double-strand-break rejoining)
Gene Symbol	XRCC5
Entrez Gene	7520(Human)
SwissProt	P13010(Human)

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arex.bio or your local distributor.

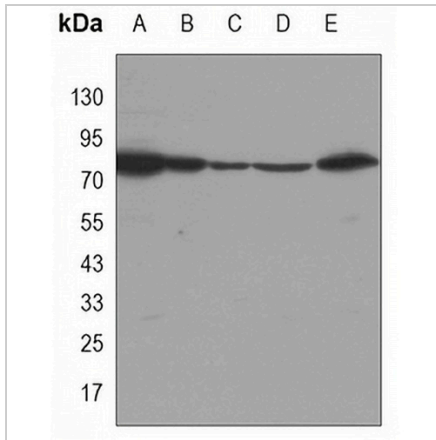
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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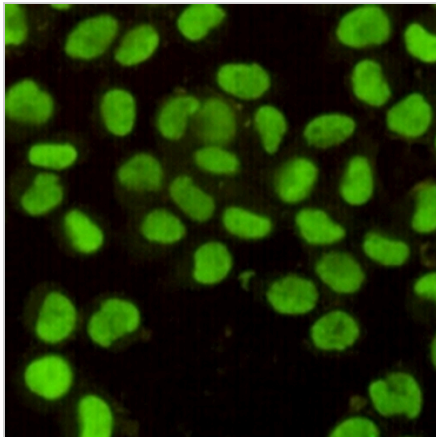
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Western blot analysis of Ku80 expression in COS7 (A), Jurkat (B), HeLa (C), MCF7 (D), A549 (E) whole cell lysates. (Predicted band size: 83 kD; Observed band size: 86 kD)



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 AREX® Fluor 488 -conjugated secondary antibody (green) in PBS at room temperature in the dark.

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.