

**DATASHEET**

**Ku70 Mouse Monoclonal Antibody(C3483)**

CAT. NO. AMA03095

**KEY FEATURES**

Target	Ku70	Source / Host	Mouse
Reactivity	Human	Clonality	Monoclonal
Applications	WB, IF/ICC	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 XRCC5 (Ku80), 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 XRCC5 (Ku80), 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

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

**PRODUCT OVERVIEW**

Description	Mouse monoclonal antibody to Ku70
Specificity	Recognizes endogenous levels of Ku70 protein.
Antibody Type	Primary antibody
Immunogen	Purified recombinant human Ku70 protein fragments expressed in E.coli.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 70 kD; Observed: 70 kD
Form/Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.
Alternative Names	G22P1; X-ray repair cross-complementing protein 6; 5'-deoxyribose-5-phosphate lyase Ku70; 5'-dRP lyase Ku70; 70 kDa subunit of Ku antigen; ATP-dependent DNA helicase 2 subunit 1; ATP-dependent DNA helicase II 70 kDa subunit; CTC box-binding factor 75 kDa subunit; CTC75; CTCBF; DNA repair protein XRCC6; Lupus Ku autoantigen protein p70; Ku70; Thyroid-lupus autoantigen; TLAA; X-ray repair complementing defective repair in Chinese hamster cells 6
Gene Symbol	XRCC6
Entrez Gene	2547(Human)
SwissProt	P12956(Human)

\*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact [info@arexbio.com](mailto:info@arexbio.com) or your local distributor.

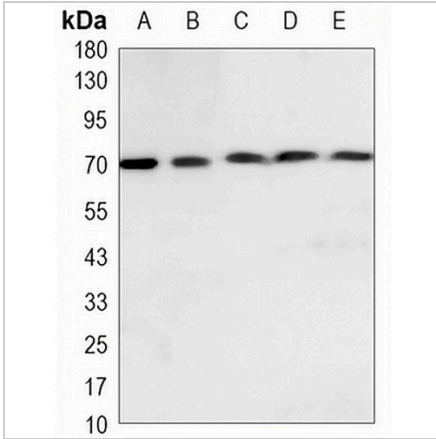
\*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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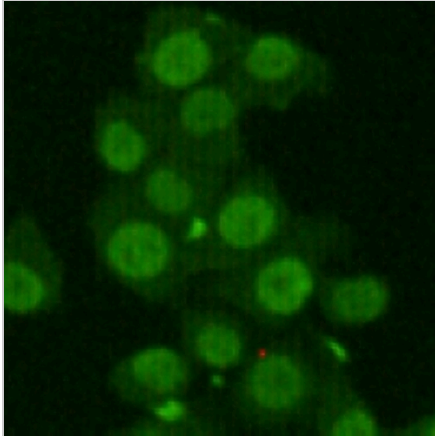
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**DATA**



Western blot analysis of Ku70 expression in HeLa (A), A549 (B), MCF7 (C), Jurkat (D), Raji (E) whole cell lysates. (Predicted band size: 70 kD; Observed band size: 70 kD)



Immunofluorescent analysis of Ku70 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.