

DATASHEET
Ku70 Mouse Monoclonal Antibody(C3387)
CAT. NO. AMA02999
KEY FEATURES

| | | | |
|---------------|---|---------------|--------------|
| Target | Ku70 | 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 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 |
| 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 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: 67 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 or your local distributor.

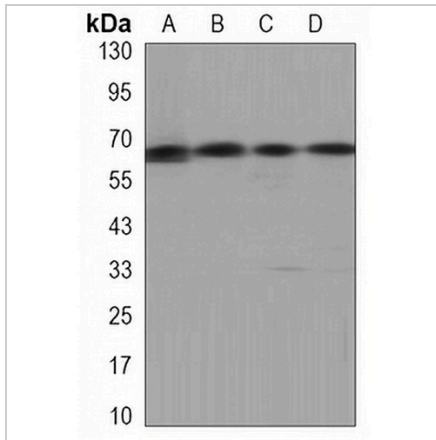
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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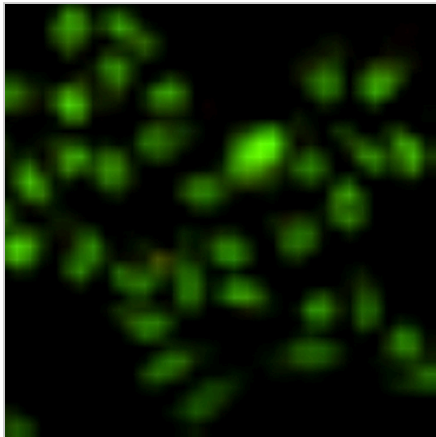
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DATA



Western blot analysis of Ku70 expression in HeLa (A), A549 (B), COS7 (C), K562 (D) whole cell lysates. (Predicted band size: 70 kD; Observed band size: 67 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.