

Mouse anti-Human Ku70 Monoclonal Antibody | anti-XRCC6 antibody

Anti-Ku70 Antibody (monoclonal, 3D7)

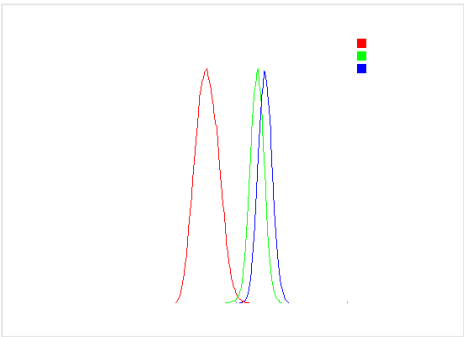
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA19362	Mouse	Human	Western Blot, Immunohistochemistry, Immunocytochemistry, Immunofluorescence, Flow Cytometry, Functional Assay

PRODUCT SYNONYMS

Ku70; Monoclonal Antibody; Anti-Ku70 Antibody (monoclonal; 3D7); 5"-deoxyribose-5-phosphate lyase Ku70 antibody; 5"-dRP lyase Ku70 antibody; 70 kDa subunit of Ku antigen antibody; ATP dependent DNA helicase 2 subunit 1 antibody; ATP dependent DNA helicase II 70 kDa subunit antibody; ATP-dependent DNA helicase 2 subunit 1 antibody; ATP-dependent DNA helicase II 70 kDa subunit antibody; CTC box binding factor 75 kDa subunit antibody; CTC box-binding factor 75 kDa subunit antibody; CTC75 antibody; CTCBF antibody; DNA repair protein XRCC6 antibody; G22P1 antibody; Ku 70 antibody; Ku autoantigen 70kDa antibody; Ku autoantigen p70 subunit antibody; Ku autoantigen; 70kDa antibody; Ku p70 antibody; Ku70 antibody; Ku70 DNA binding component of DNA-dependent proteinkinase complex (thyroid autoantigen 70 kDa antibody; Kup70 antibody; Lupus Ku autoantigen protein p70 antibody; ML8 antibody; Thyroid autoantigen 70kD (Ku antigen) antibody; Thyroid autoantigen antibody; Thyroid lupus autoantigen antibody; Thyroid lupus autoantigen p70 antibody; Thyroid-lupus autoantigen antibody; TLAA antibody; X ray repair complementing defective repair in Chinese hamster cells 6 antibody; X-ray repair complementing defective repair in Chinese hamster cells 6 antibody; X-ray repair cross-complementing protein 6 antibody; XRCC 6 antibody; XRCC6 antibody; XRCC6_HUMAN antibody; X-ray repair complementing defective repair in Chinese hamster cells 6; anti-XRCC6 antibody

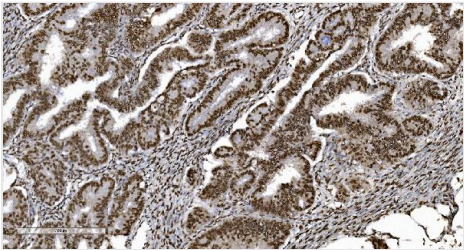
PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	Mouse IgG1
Clone Number	3D7
Specificity	Mouse IgG monoclonal antibody for Ku70 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.
Applicable Applications for anti-XRCC6 antibody	WB (Western Blot), IHC (Immunohistochemistry), ICC (Immunocytochemistry), IF (Immunofluorescence), FCM/FACS (Flow Cytometry)
Application Notes	WB: 0.25-0.5ug/ml Human IHC-P: 2-5ug/ml Human ICC/IF: 5ug/ml Human FC/FACS/FCM: 1-3ug/1x106 cells Human
Immunogen	A synthetic peptide corresponding to a sequence at C-terminus of human Ku70 (464-496aa AIVEKLRFYRSDSFENPVLQQHFRNLEALALD), different from the related mouse sequence by one amino acid.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



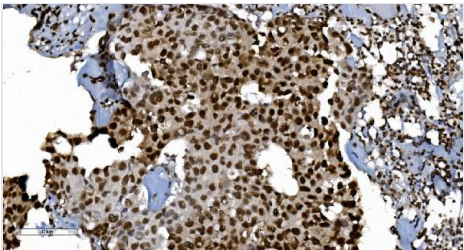
FCM (Flow Cytometry)

Figure 9. Flow Cytometry analysis of THP-1 cells using anti-Ku70 antibody (AAA19362). Overlay histogram showing THP-1 cells stained with AAA19362 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti- Ku70 Antibody (AAA19362, 1μg/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10μg/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was mouse IgG (1μg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



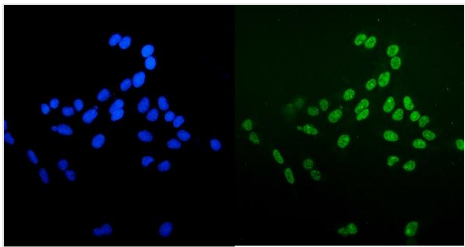
IHC (Immunohistochemistry)

Figure 7. IHC analysis of Ku70 using anti-Ku70 antibody (AAA19362). Ku70 was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml mouse anti-Ku70 Antibody (AAA19362) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



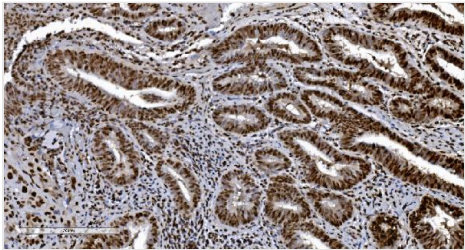
IHC (Immunohistochemistry)

Figure 5. IHC analysis of Ku70 using anti-Ku70 antibody (AAA19362). Ku70 was detected in paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml mouse anti-Ku70 Antibody (AAA19362) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



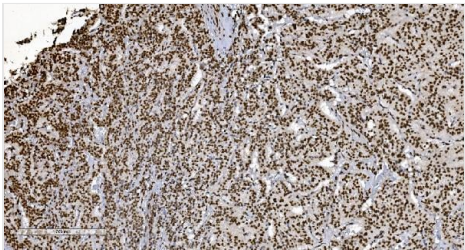
IF (Immunofluorescence)

Figure 8. IF analysis of Ku70 using anti- Ku70 antibody (AAA19362). Ku70 was detected in immunocytochemical section of U2OS cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5μg/mL mouse anti- Ku70 Antibody (AAA19362) overnight at 4 degree C. DyLight®488 Conjugated Goat Anti-Mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



IHC (Immunohistochemistry)

Figure 6. IHC analysis of Ku70 using anti-Ku70 antibody (AAA19362). Ku70 was detected in paraffin-embedded section of human gallbladder adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml mouse anti-Ku70 Antibody (AAA19362) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 4. IHC analysis of Ku70 using anti-Ku70 antibody (AAA19362). Ku70 was detected in paraffin-embedded section of human adrenocortical adenoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml mouse anti-Ku70 Antibody (AAA19362) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.

ADDITIONAL INFORMATION

Related Product Information for anti-XRCC6 antibody	XRCC6 (X-Ray Repair, Complementing Defective, In Chinese Hamster, 6), also called Ku70, G22P1 or TLAA, is a protein that in humans, is encoded by the XRCC6 gene. In addition, the XRCC6 gene encodes subunit p70 of the p70/p80 autoantigen which consists of 2 proteins of molecular mass of approximately 70,000 and 80,000 daltons that dimerize to form a 10 S DNA-binding complex. The XRCC6 gene is mapped to 22q13. 2. XRCC6 and Mre11 are differentially expressed during meiosis. XRCC6 interacts with Baxa, a mediator of mitochondrial-dependent apoptosis. Disruption of both FANCC and XRCC6 suppressed sensitivity to crosslinking agents, diminished chromosome breaks, and reversed defective homologous recombination. Ku70 binds directly to free DNA ends, committing them to NHEJ repair. In early meiotic prophase, however, when meiotic recombination is most probably initiated, Mre11 was abundant, whereas XRCC6 was not detectable.
References	1. Baumann, P., West, S. C. DNA end-joining catalyzed by human cell-free extracts. Proc. Nat. Acad. Sci. 95: 14066- 14070, 1998. 2. Chan, J. Y. C., Lerman, M. I., Prabhakar, B. S., Isozaki, O., Santisteban, P., Kuppers, R. C., Oates, E. L., Notkins, A. L., Kohn, L. D. Cloning and characterization of a cDNA that encodes a 70-kDa novel human thyroid autoantigen. J. Biol. Chem. 264: 3651-3654, 1989.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4503841
NCBI GeneID	2547
NCBI Accession #	NP_001460.1
NCBI GenBank Nucleotide #	NM_001469.3
UniProt Accession #	P12956; Q6FG89; Q9UCQ2; Q9UCQ3
Molecular Weight	69,843 Da
NCBI Official Full Name	X-ray repair cross-complementing protein 6
NCBI Official Synonym Full Names	X-ray repair complementing defective repair in Chinese hamster cells 6
NCBI Official Symbol	XRCC6
NCBI Official Synonym Symbols	ML8; KU70; TLAA; CTC75; CTCBF; G22P1
NCBI Protein Information	X-ray repair cross-complementing protein 6; 5'-dRP lyase Ku70; Ku autoantigen, 70kDa; DNA repair protein XRCC6; Ku autoantigen p70 subunit; 70 kDa subunit of Ku antigen; thyroid-lupus autoantigen p70; lupus Ku autoantigen protein p70; 5'-deoxyribose-5-pho
UniProt Protein Name	X-ray repair cross-complementing protein 6
UniProt Gene Name	XRCC6
UniProt Synonym Gene Names	G22P1; 5'-dRP lyase Ku70; CTC75; CTCBF; Ku70; TLAA
UniProt Entry Name	XRCC6_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/monoclonal/ku70-antibody-clone-3d7-western-blot-immunohistochemistry-immunocytochemistry-immunofluorescence-flow-cytometry-elisa/19362>