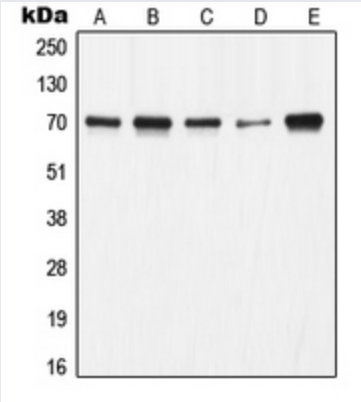
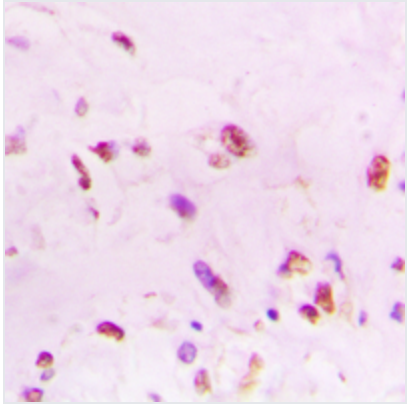
KU70 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

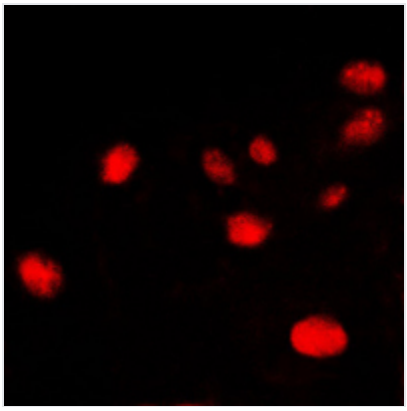
Product Name	Ku70, Polyclonal Antibody
Full Product Name	Rabbit anti-Ku70 Antibody
Product Gene Name	anti-Ku70 antibody
Product Synonym Names	G22P1; X-ray repair cross-complementing protein 6; 5'-deoxyribose-5-phosphate lyase Ku70; 5'-dRP lyase Ku70; 70 kDa subunit of Ku antigen; ATP-dependent DNA helicase 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
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Monkey
Form/Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Purity/Purification	The antibody was purified by immunogen affinity chromatography.
Concentration	1mg/mL (lot specific)
Preparation and Storage	Store at -20 degree C. Avoid repeated freeze/thaw cycles.
Molecular Weight	69,843 Da
Chromosome Location	Chromosome: 22; NC_000022.10 (42017295..42060052). Location: 22q13.2
OMIM	152690
3D Structure	ModBase 3D Structure for P12956
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human Ku70. The exact sequence is proprietary.
Product Categories/Family for anti-Ku70 antibody	Primary antibodies
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-Ku70 antibody	Western Blot (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunochemistry (IC)
Application Notes for anti-Ku70 antibody	WB: 1:500-1:1000 IHC: 1:100-1:200 IF:IC: 1:100-1:500
Related Product Information for anti-Ku70 antibody	MBS4508524 is an antibody targeting Ku70. Also known as Rabbit anti-Ku70 Antibody. Reactive in Human, Monkey. Host: Rabbit.
Other Notes	Small volumes of anti-Ku70 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Western Blot (WB) of anti-Ku70 antibody
Western blot analysis of Ku70 expression in A549 (A), HeLa (B), A673 (C), Jurkat (D), COS7 (E) whole cell lysates.



Immunohistochemistry (IHC) of anti-Ku70 antibody
Immunohistochemical analysis of Ku70 staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescence (IF) of anti-Ku70 antibody
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 DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Ku70. It may not necessarily be applicable to this product.

NCBI GI #	4503841
NCBI GeneID	2547
NCBI Accession #	NP_001460.1
UniProt Primary Accession #	P12956
UniProt Secondary Accession #	Q6FG89; Q9UCQ2; Q9UCQ3
UniProt Related Accession #	P12956
GenBank Nucleotide #	NM_001469.3
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
UniProt Protein Name	X-ray repair cross-complementing protein 6
UniProt Synonym Protein Names	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
Protein Family	ATP-dependent DNA helicase
UniProt Gene Name	XRCC6
UniProt Synonym Gene Names	G22P1; 5'-dRP lyase Ku70; CTC75; CTCBF; Ku70; TLAA
UniProt Entry Name	XRCC6_HUMAN
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
NCBI Summary for Ku70	The p70/p80 autoantigen is a nuclear complex consisting of two subunits with molecular masses of approximately 70 and 80 kDa. The complex functions as a single-stranded DNA-dependent ATP-dependent helicase. The complex may be involved in the repair of nonhomologous DNA ends such as that required for double-strand break repair, transposition, and V(D)J recombination. High levels of autoantibodies to p70 and p80 have been found in some patients with systemic lupus erythematosus. [provided by RefSeq, Jul 2008]
UniProt Comments for Ku70	Ku70: a mini-chromosome maintenance protein, essential for the initiation of eukaryotic genome replication. Allows DNA to undergo a single round of replication per cell cycle. Required for the entry in S phase and for cell division. Protein type: Helicase; EC 3.6.4.-; DNA-binding; DNA repair, damage; Nuclear receptor co-regulator; EC 4.2.99.-; RNA-binding Chromosomal Location of Human Ortholog: 22q13.2 Cellular Component: nucleoplasm; transcription factor complex; nuclear telomere cap complex; membrane; nucleolus; cytosol; nucleus Molecular Function: ATP-dependent DNA helicase activity; protein C-terminus binding; protein binding; DNA binding; double-stranded DNA binding; damaged DNA binding; double-stranded telomeric DNA binding; 5'-deoxyribose-5-phosphate lyase activity; ATP binding Biological Process: positive regulation of neurogenesis; V(D)J recombination; transcription, DNA-dependent; viral reproduction; positive regulation of transcription, DNA-dependent; DNA repair; double-strand break repair via nonhomologous end joining; DNA duplex unwinding; DNA ligation; double-strand break repair; positive regulation of interferon type I production; innate immune response; positive regulation of transcription from RNA polymerase II promoter; brain development; negative regulation of transcription, DNA-dependent; telomere maintenance
Research Articles on Ku70	**1.** XRCC6 C1310G polymorphism is associated with risk of cancer development.
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