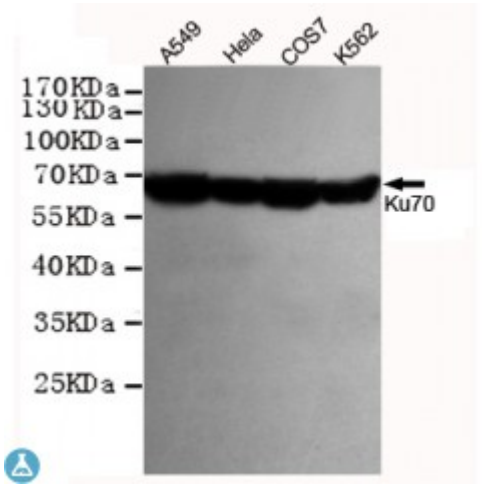
Anti-Ku70 antibody



Description	Mouse monoclonal to Ku70.

Model	STJ99222
Host	Mouse
Reactivity	Human, Simian
Applications	ELISA, WB
Immunogen	Purified recombinant human Ku70 protein fragments expressed in E.coli.
Gene ID	2547
Gene Symbol	XRCC6
Dilution range	WB 1:500-2000ELISA 1:10000-20000
Specificity	This antibody detects endogenous levels of Ku70 and does not cross-react with related proteins.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Clone ID	7B1-E12-G4
Note	For Research Use Only (RUO).
Protein Name	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
Molecular Weight	67kDa

Clonality	Monoclonal
Conjugation	Unconjugated
Isotype	IgG1
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:4055OMIM:152690
Alternative Names	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
Function	Single-stranded DNA-dependent ATP-dependent helicase. Has a role in chromosome translocation. The DNA helicase II complex binds preferentially to fork-like ends of double-stranded DNA in a cell cycle-dependent manner. It works in the 3'-5' direction. Binding to DNA may be mediated by XRCC6. Involved in DNA non-homologous end joining (NHEJ) required for double-strand break repair and V(D)J recombination. The XRCC5/6 dimer acts as regulatory subunit of the DNA-dependent protein kinase complex DNA-PK by increasing the affinity of the catalytic subunit PRKDC to DNA by 100-fold. The XRCC5/6 dimer is probably involved in stabilizing broken DNA ends and bringing them together. The assembly of the DNA-PK complex to DNA ends is required for the NHEJ ligation step. Required for osteocalcin gene expression. Probably also acts as a 5'-deoxyribose-5-phosphate lyase (5'-dRP lyase), by catalyzing the beta-elimination of the 5' deoxyribose-5-phosphate at an abasic site near double-strand breaks. 5'-dRP lyase activity allows to 'clean' the termini of abasic sites, a class of nucleotide damage commonly associated with strand breaks, before such broken ends can be joined. The XRCC5/6 dimer together with APEX1 acts as a negative regulator of transcription.
Cellular Localization	Nucleus Chromosome
Post-translational Modifications	Phosphorylation by PRKDC may enhance helicase activity. Phosphorylation of Ser-51 does not affect DNA repair.