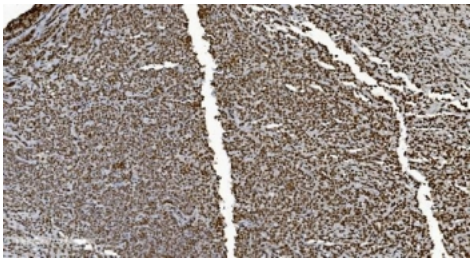
Ku70 Antibody [clone 9B6] (RQ6388)

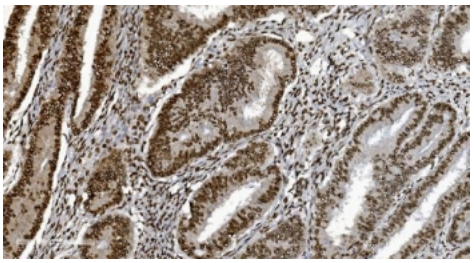
Catalog No.	Formulation	Size
RQ6388	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

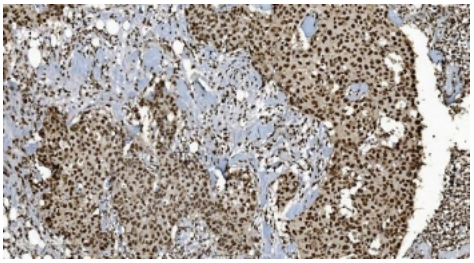
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b
Clone Name	9B6
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P12956
Localization	Nuclear
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml Immunofluorescence (FFPE) : 5ug/ml Flow Cytometry : 1-3ug/million cells
Limitations	This Ku70 antibody is available for research use only.



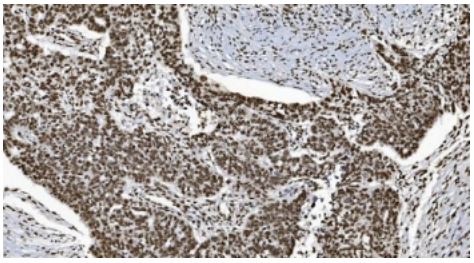
Ku70 Antibody Lymphoma IHC. Immunohistochemistry analysis of FFPE human lymphoma tissue stained with Ku70 Antibody demonstrates strong diffuse nuclear HRP-DAB brown staining throughout densely cellular lymphoid-associated tumor populations, consistent with XRCC6 / Ku70-associated DNA damage response pathway expression. This DNA end binding protein antibody highlights non-homologous end joining-associated repair signaling and genomic stability regulation within lymphoma tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



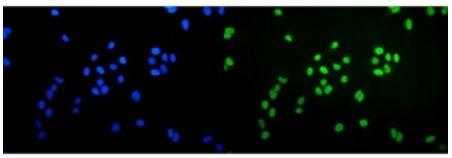
Ku70 Antibody Rectal Cancer IHC. Immunohistochemistry staining of FFPE human rectal cancer tissue with Ku70 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



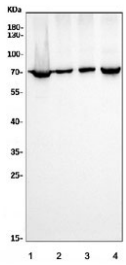
Ku70 Antibody Breast Cancer IHC. Immunohistochemistry staining of FFPE human breast cancer tissue with Ku70 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



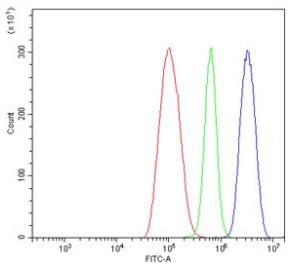
Ku70 Antibody Ovarian Serous Adenocarcinoma IHC. Immunohistochemistry analysis of FFPE human ovarian serous adenocarcinoma tissue stained with Ku70 Antibody demonstrates strong diffuse nuclear HRP-DAB brown staining throughout malignant epithelial tumor cell populations, consistent with XRCC6 / Ku70-associated DNA damage response pathway expression. This DNA end binding protein antibody highlights non-homologous end joining-associated repair signaling and genomic stability regulation within ovarian carcinoma tissue. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Ku70 Antibody U-2 OS Immunofluorescence. Immunofluorescent analysis of FFPE human U-2 OS cells stained with Ku70 Antibody demonstrates strong nuclear-associated green fluorescence consistent with XRCC6 / Ku70 localization within DNA damage response and chromatin-associated repair compartments. This DNA end binding protein antibody highlights non-homologous end joining-associated genomic maintenance pathways in osteosarcoma-derived cells. Nuclei are counterstained with DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.



Western blot testing of human 1) HeLa, 2) A549, 3) HepG2 and 4) MCF7 cell lysate with Ku70 antibody. Predicted molecular weight ~70 kDa.



Flow cytometry testing of human ThP-1 cells with Ku70 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= Ku70 antibody.

Description

Ku70 Antibody specifically detects XRCC6 (X-Ray Repair, Complementing Defective, In Chinese Hamster, 6), also called Ku70, G22P1 or TLAA, 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.

For investigations involving XRCC6-associated DNA end recognition and double-strand break repair signaling, see our Ku70 Antibody / DNA End Binding Protein Antibody featuring IHC, IF, FACS, and western blot validation data across multiple human tumor types and cell lines.

Application Notes

Optimal dilution of the Ku70 antibody should be determined by the researcher.

Immunogen

Amino acids AIVEKLRFTYRSDSFENPVLQQHFRNLEALALD were used as the immunogen for the Ku70 antibody.

Storage

After reconstitution, the Ku70 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.