




## Product datasheet

### Anti-Ku70 antibody [2F7F5] ab202022

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#### Overview

<b>Product name</b>	Anti-Ku70 antibody [2F7F5]
<b>Description</b>	Mouse monoclonal [2F7F5] to Ku70
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, Flow Cyt
<b>Species reactivity</b>	<b>Reacts with:</b> Rat, Human <b>Predicted to work with:</b> Mouse 
<b>Immunogen</b>	Recombinant fragment corresponding to Human Ku70 aa 1-250. Expressed in E. Coli. Database link: <a href="#">P12956</a>  <a href="#">Run BLAST with</a>  <a href="#">Run BLAST with</a>
<b>Positive control</b>	Human Ku70 (aa: 6-214) recombinant protein; Ku70 (aa: 6-214)-hlgGfc transfected HEK293 cell lysate; HeLa, PC-2, A549, A431, HepG2 and K562 cell lysates; A431 cells; Human endometrial cancer and cervical cancer tissues
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	Preservative: 0.05% Sodium azide Constituent: 99% PBS
<b>Purity</b>	Protein G purified
<b>Purification notes</b>	Purified from tissue culture supernatant.
<b>Clonality</b>	Monoclonal

Clone number	2F7F5
Isotype	IgG1

## Applications

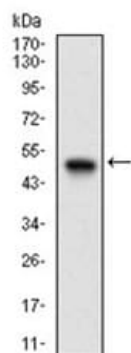
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab202022 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/500 - 1/2000. Predicted molecular weight: 70 kDa.
IHC-P		1/200 - 1/1000.
Flow Cyt		1/200 - 1/400. <b>ab170190</b> - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

## Target

<b>Function</b>	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.
<b>Sequence similarities</b>	Belongs to the ku70 family. Contains 1 Ku domain. Contains 1 SAP domain.
<b>Developmental stage</b>	Expression does not increase during promyelocyte differentiation.
<b>Post-translational modifications</b>	Phosphorylation by PRKDC may enhance helicase activity. Phosphorylation of Ser-51 does not affect DNA repair.
<b>Cellular localization</b>	Nucleus. Chromosome.

## Images

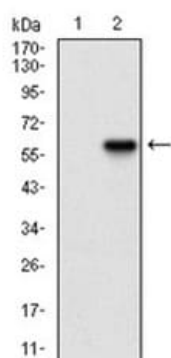


Western blot - Anti-Ku70 antibody [2F7F5]  
(ab202022)

Anti-Ku70 antibody [2F7F5] (ab202022) at 1/500 dilution + Ku70  
(aa: 6-214) recombinant protein. at 1 µg

**Predicted band size:** 70 kDa

Expected MW is 49.7 kDa



Western blot - Anti-Ku70 antibody [2F7F5]  
(ab202022)

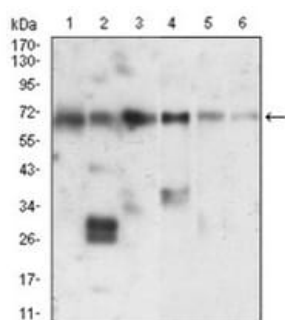
**All lanes :** Anti-Ku70 antibody [2F7F5] (ab202022) at 1/500  
dilution

**Lane 1 :** Non transfected HEK293 cell lysate.

**Lane 2 :** Ku70 (aa: 6-214)-hlgGFc transfected HEK293 cell lysate.

Lysates/proteins at 1 µg per lane.

**Predicted band size:** 70 kDa



Western blot - Anti-Ku70 antibody [2F7F5]  
(ab202022)

**All lanes :** Anti-Ku70 antibody [2F7F5] (ab202022) at 1/500  
dilution

**Lane 1 :** HeLa cell lysate

**Lane 2 :** PC-2 cell lysate

**Lane 3 :** A549 cell lysate

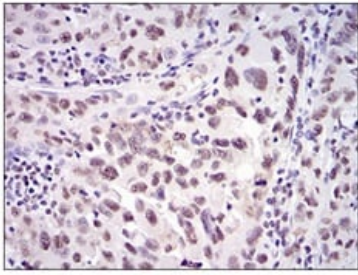
**Lane 4 :** A431 cell lysate

**Lane 5 :** HepG2 cell lysate

**Lane 6 :** K562 cell lysate

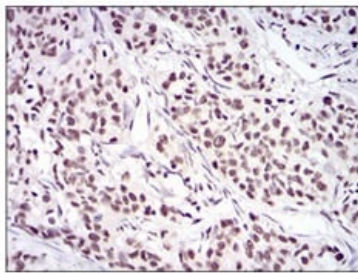
Lysates/proteins at 1 µg per lane.

**Predicted band size:** 70 kDa



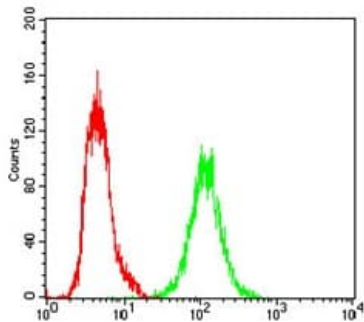
Immunohistochemical analysis of paraffin embedded Human endometrial cancer tissues labeling Ku70 using ab202022 at 1/200 dilution, followed by DAB staining.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ku70 antibody [2F7F5] (ab202022)



Immunohistochemical analysis of paraffin embedded Human cervical cancer tissues labeling Ku70 using ab202022 at 1/200 dilution, followed by DAB staining.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ku70 antibody [2F7F5] (ab202022)



Flow cytometric analysis of A431 cells labeling Ku70 using ab202022 (green) at 1/200 dilution, and negative control (red).

Flow Cytometry - Anti-Ku70 antibody [2F7F5] (ab202022)

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