

Anti-Ku70 antibody [EPR4026] - BSA and Azide free ab247695

Recombinant RabMAb

4 Images

Overview

Product name	Anti-Ku70 antibody [EPR4026] - BSA and Azide free
Description	Rabbit monoclonal [EPR4026] to Ku70 - BSA and Azide free
Host species	Rabbit
Tested applications	Suitable for: ICC/IF, IHC-P, WB Unsuitable for: Flow Cyt or IP
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
General notes	<p>ab247695 is the carrier-free version of ab108604.</p> <p>Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] is a trademark of Fluidigm Canada Inc.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with</p>

these species. Please contact us for more information.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Affinity purified
Clonality	Monoclonal
Clone number	EPR4026
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab247695 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
ICC/IF		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Antigen retrieval is recommended.
WB		Use at an assay dependent concentration. Detects a band of approximately 70 kDa (predicted molecular weight: 70 kDa).

Application notes Is unsuitable for Flow Cyt or IP.

Target

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.

Sequence similarities

Belongs to the ku70 family.
Contains 1 Ku domain.
Contains 1 SAP domain.

Developmental stage

Expression does not increase during promyelocyte differentiation.

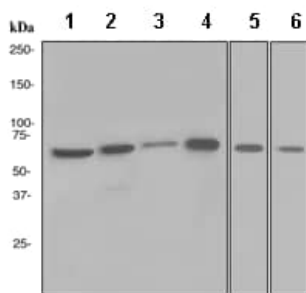
Post-translational modifications

Phosphorylation by PRKDC may enhance helicase activity. Phosphorylation of Ser-51 does not affect DNA repair.

Cellular localization

Nucleus. Chromosome.

Images



Western blot - Anti-Ku70 antibody [EPR4026] - BSA and Azide free (ab247695)

All lanes : Anti-Ku70 antibody [EPR4026] ([ab108604](#)) at 1/10000 dilution

Lane 1 : HeLa cell lysate

Lane 2 : HepG2 cell lysate

Lane 3 : Raji cell lysate

Lane 4 : A673 cell lysate

Lane 5 : A549 cell lysate

Lane 6 : A431 cell lysate

Lysates/proteins at 10 µg per lane.

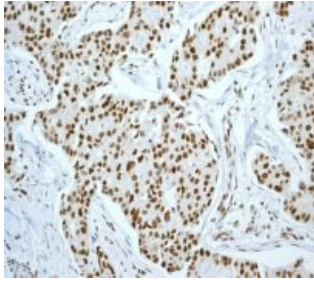
Secondary

All lanes : HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 70 kDa

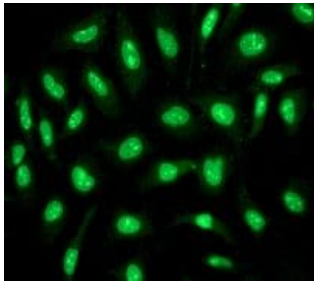
Observed band size: 70 kDa

This data was developed using [ab108604](#), the same antibody clone in a different buffer formulation.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ku70 antibody [EPR4026] - BSA and Azide free (ab247695)

This data was developed using [ab108604](#), the same antibody clone in a different buffer formulation. [ab108604](#), at 1/100 dilution, staining Ku70 in paraffin-embedded Human breast carcinoma tissue by Immunohistochemistry. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-Ku70 antibody [EPR4026] - BSA and Azide free (ab247695)

This data was developed using [ab108604](#), the same antibody clone in a different buffer formulation. [ab108604](#), at 1/100 dilution, staining Ku70 in HeLa cells by Immunofluorescence.

Why choose a recombinant antibody?



Anti-Ku70 antibody [EPR4026] - BSA and Azide free (ab247695)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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