abcam

Product datasheet

Anti-Ku70 (phospho S5) antibody ab61783

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Overview

Product name	Anti-Ku70 (phospho S5) antibody
Description	Rabbit polyclonal to Ku70 (phospho S5)
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse
Immunogen	Synthetic peptide corresponding to Human Ku70 aa 1-100 (phospho S5). Database link: **P12956**
Positive control	Extracts from HeLa cells (WB) Human lung carcinoma tissue (IHC)
General notes	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. 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&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine), 0.87% Sodium chloride Without Mg2+ and Ca2+
Purity	Immunogen affinity purified
Purification notes	Affinity purified from rabbit antiserum by affinity chromatography using epitope specific phosphopeptide. The antibody against non phosphopeptide was removed by chromatography using non phosphopeptide corresponding to the phosphorylation site.
Clonality	Polyclonal

Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab61783 in the following tested applications.

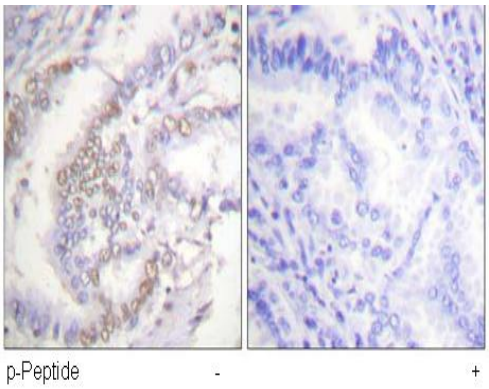
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/500 - 1/1000. Predicted molecular weight: 70 kDa.
IHC-P		1/50 - 1/100.

Target

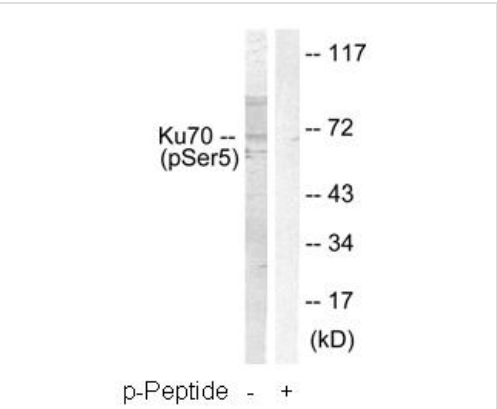
Function	Single stranded DNA-dependent ATP-dependent helicase. Has a role in chromosome translocation. The DNA helicase II complex binds preferentially to fork-like ends of double-stranded DNA in a cell cycle-dependent manner. It works in the 3'-5' direction. Binding to DNA may be mediated by XRCC6. 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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ku70 (phospho S5) antibody (ab61783)

Immunohistochemistry analysis of paraffin embedded human lung carcinoma tissue using ab61783 at 1/50 dilution in the presence and abscence of immunizing peptide antibody.



Western blot - Anti-Ku70 (phospho S5) antibody (ab61783)

All lanes : Anti-Ku70 (phospho S5) antibody (ab61783) at 1/500 dilution

Lane 1 : extracts from HeLa cells with no immunizing peptide
Lane 2 : extracts from HeLa cells with immunizing peptide

Predicted band size: 70 kDa
Observed band size: 70 kDa

- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors