abcam

Product datasheet

Anti-DNA2 antibody ab96488

★★★★★ 3 Abreviews 28 References 3 Images

Overview

Product name Anti-DNA2 antibody

Description Rabbit polyclonal to DNA2

Host species Rabbit

Specificity From Jan 2024, QC testing of replenishment batches of this polyclonal changed. All tested and

expected application and reactive species combinations are still covered by our Abcam product promise. However, we no longer test all applications. For more information on a specific batch,

please contact our Scientific Support who will be happy to help.

Tested applications Suitable for: WB, IHC-P

Species reactivity Reacts with: Human

Predicted to work with: Mouse, Rat

Immunogen Synthetic peptide corresponding to Human DNA2 aa 1000 to the C-terminus (C terminal)

conjugated to keyhole limpet haemocyanin.

(Peptide available as ab42548)

Positive control This antibody gave a positive signal in the following Human Whole Cell lysates; HEK293, HEK293

(Nuclear) and U2OS and FFPE human liver tissue sections.

General notes ab96488 is raised using the same immunogen as **ab42439**. Batches sold under ab96488 have

passed QC testing in Western Blot. In our hands, this product did not work in ICC/IF. For further

information please contact our Customer Services team.

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. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -

80°C. Avoid freeze / thaw cycle.

1

Storage buffer pH: 7.40

Preservative: 0.02% Sodium azide

Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our

scientific support team who will be happy to help.

Purity Immunogen affinity purified

Clonality Polyclonal

Isotype IgG

Applications

The Abpromise guarantee

Our <u>Abpromise guarantee</u> covers the use of ab96488 in the following tested applications.

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

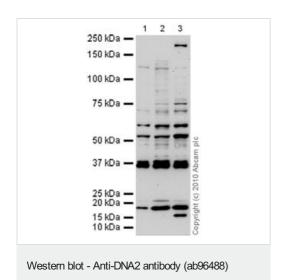
Application	Abreviews	Notes
WB	** * * * * * * (1)	Use a concentration of 1 µg/ml. Detects a band of approximately 125 kDa (predicted molecular weight: 120 kDa).
IHC-P		Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

Target

Function May function in chromosomal DNA replication.

Sequence similarities Belongs to the DNA2/NAM7 helicase family.

Images



All lanes: Anti-DNA2 antibody (ab96488) at 1 µg/ml

Lane 1: HEK293 (Human embryonic kidney cell line) Whole Cell

Lysate

Lane 2: HEK293 (Human embryonic kidney cell line) Nuclear

Lysate

Lane 3: U2OS (Human osteosarcoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes: Goat polyclonal to Rabbit lgG - H&L - Pre-Adsorbed

(HRP) at 1/3000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 120 kDa **Observed band size:** 125 kDa

Additional bands at: 16 kDa, 18 kDa, 210 kDa, 37 kDa, 38 kDa, 54 kDa, 60 kDa, 70 kDa, 76 kDa. We are unsure as to the identity

of these extra bands.

Exposure time: 10 minutes

This antibody detects multiple bands in addition to the band of interest, reflecting low levels of expression of DNA2. siRNA knockdown experiments have demonstrated that this antibody detects a band at ~120 kDa corresponding to human DNA2 (please see image courtesy of Julien Duxin).

All lanes: Anti-DNA2 antibody (ab96488)

Lane 1: U2OS cells plus control shRNA

Lane 2 : U2OS cells plus shDNA2-1 shRNA Lane 3 : U2OS cells plus shDNA2-2 shRNA

Secondary

All lanes: Anti-rabbit at 1/3000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 120 kDa
Observed band size: 120 kDa

150 kDa _______ a- Dna2 91

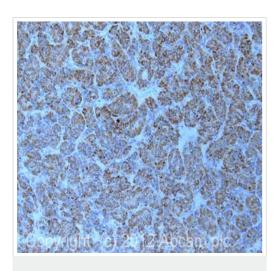
100 kDa ______ a- yTubulin

Western blot - Anti-DNA2 antibody (ab96488)

Image courtesy of Julien Duxin and Sheila Stewart

Western blot showing detection of DNA2 by <u>ab42439</u>. A 120 kDa band corresponding to DNA2 was detected in lysates of U2OS cells treated with control shRNA (lane 1) but not in those from knockdown cells treated with two different shRNAs for DNA2 (lanes 2 and 3). Following pre-blocking for 30 mins in 5% milk, PBS-Tween, the membrane was incubated overnight at 4°C with

<u>ab42439</u> at a dilution of 1/1000 in 5% milk, PBS-Tween. The membrane was then incubated with the secondary antibody at 1/3000 dilution in 5% milk, PBS-Tween for 2 hours at RT, and washed 3×10 mins with PBS-Tween prior to ECL detection.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-DNA2 antibody (ab96488)

IHC image of ab96488 staining in human liver carcinoma formalin fixed paraffin embedded tissue section, performed on a Leica Bond TM system using the standard protocol F. The section was pretreated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab96488, 1µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

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