abcam

Product datasheet

Anti-NAP1L1 antibody ab21630

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Overview

Product name Anti-NAP1L1 antibody

Description Rabbit polyclonal to NAP1L1

Host species Rabbit

Tested applications Suitable for: IHC-P, WB, ICC/IF

Species reactivity Reacts with: Human

Predicted to work with: Mouse, Rat, Dog, Xenopus laevis

Immunogen Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

Positive control Recombinant Human NAP1L1 protein (ab117213) can be used as a positive control in WB. This

antibody gave a positive signal in the following whole cell lysates: U2OS (+/- ionizing radiation); HeLa; A431; HEK293. This antibody gave a positive signal in the following tissues: Formalin

Fixed Paraffin Embedded Normal Human Skin.

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

80°C. Avoid freeze / thaw cycle.

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.

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Purity Immunogen affinity purified

Clonality Polyclonal

Isotype IgG

Applications

The Abpromise guarantee Our Abpromise guarantee covers the use of ab21630 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
IHC-P		Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB	★★★★☆ (3)	1/250 - 1/1000. Detects a band of approximately 52 kDa (predicted molecular weight: 45 kDa).
ICC/IF	★★★★★ (1)	Use a concentration of 1 µg/ml.

Target

Function May be involved in modulating chromatin formation and contribute to regulation of cell

proliferation.

Tissue specificity Ubiquitously expressed.

Sequence similaritiesBelongs to the nucleosome assembly protein (NAP) family.

Domain The acidic domains are probably involved in the interaction with histones.

Post-translational Polyglutamylated by TTLL4, a modification that occurs exclusively on glutamate residues and

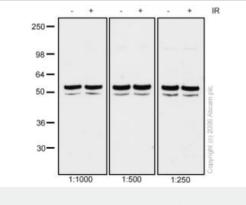
modifications results in polyglutamate chains on the gamma-carboxyl group. Some residues may also be

monoglycylated but not polyglycylated due to the absence of functional TTLL10 in human.

Cellular localization Nucleus. Melanosome. Identified by mass spectrometry in melanosome fractions from stage I to

stage IV.

Images



Western blot - Anti-NAP1L1 antibody (ab21630)

Lanes 1-2: Anti-NAP1L1 antibody (ab21630) at 1/1000 dilution Lanes 3-4: Anti-NAP1L1 antibody (ab21630) at 1/500 dilution

Lanes 5-6: Anti-NAP1L1 antibody (ab21630) at 1/250 dilution

Lanes 1 & 3 & 5: U2OS cell lysate

Lanes 2 & 4 & 6: U2OS cell lysate treated with ionizing radiation

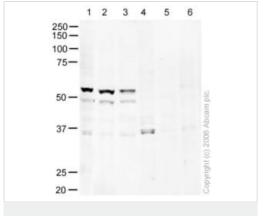
Performed under reducing conditions.

Predicted band size: 45 kDa **Observed band size:** 52 kDa

Additional bands at: 49 kDa (possible cleavage fragment), 49

kDa (possible cross reactivity)

For each lane, U2OS cells, either treated or not treated with ionizing radiation, were scraped from a 60 mm dish and added to 75µl of 2X Laemmli buffer. 20µl of these samples were loaded into each lane. ab21630 recognizes a major band of approximately 52 kDa corresponding closely in size to NAP1L1.



Western blot - Anti-NAP1L1 antibody (ab21630)

All lanes: Anti-NAP1L1 antibody (ab21630) at 1 µg/ml

Lane 1: HeLa whole cell lysate at 20 µg

Lane 2: A431 whole cell lysate at 20 µg

Lane 3: HEK293 whole cell lysate at 20 µg

Lane 4: HeLa whole cell lysate at 20 µg with Human NAP1L1

peptide (ab22417) at 1 µg/ml

Lane 5: A431 whole cell lysate with Human NAP1L1 peptide

(ab22417) at 1 µg/ml

Lane 6: HEK293 whole cell lysate at 20 µg with Human NAP1L1

peptide (<u>ab22417</u>) at 1 μg/ml

Secondary

All lanes : Alexa fluor goat polyclonal to rabbit lgG at 1/10000 dilution

Predicted band size: 45 kDa Observed band size: 52 kDa

Additional bands at: 35 kDa (possible cross reactivity, but this band is not blocked), 49 kDa (possible cleavage fragment), 49 kDa

(possible cross reactivity)

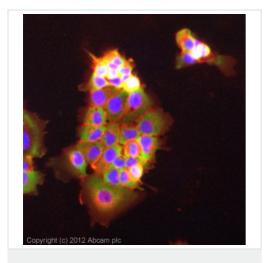
ab21630 recognizes a major band of approximately 52 kDa corresponding closely in size to NAP1L1. This band is competed away by the addition of the immunizing peptide, suggesting that this is a specific interaction.

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Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-NAP1L1 antibody (ab21630)

IHC image of ab21630 staining in human skin formalin fixed paraffin embedded tissue section, performed on a Leica BondTM system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab21630, 5µg/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.



Immunocytochemistry/ Immunofluorescence - Anti-NAP1L1 antibody (ab21630)

ICC/IF image of ab21630 stained A431 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab21630, 5μg/ml) overnight at +4°C. The secondary antibody (green) was **ab96899**, DyLight® 488 goat anti-rabbit lgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43μM.

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