abcam

Product datasheet

Anti-nmt55 / p54nrb antibody ab70335

5 Abreviews 21 References 6 Images

Overview

Product name	Anti-nmt55 / p54nrb antibody
Description	Rabbit polyclonal to nmt55 / p54nrb
Host species	Rabbit
Tested applications	**Suitable for:** ICC/IF, IHC-P, WB, IP
Species reactivity	**Reacts with:** Mouse, Rat, Human **Predicted to work with:** Rabbit, Horse, Guinea pig, Cow, Dog, Pig, Chimpanzee, Rhesus monkey, Gorilla, Orangutan, Elephant
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	Whole cell lysates from HeLa and 293T cells.
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: 6.8 Preservative: 0.09% Sodium azide Constituents: 0.1% BSA, Tris buffered saline
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab70335 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 a concentration of 1 µg/ml.
IHC-P		Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB	★★★★☆ (3)	1/2000 - 1/10000. Detects a band of approximately 60 kDa (predicted molecular weight: 54 kDa).
IP	★★★★★ (1)	Use at 1-4 µg/mg of lysate.

Target

Function DNA- and RNA binding protein, involved in several nuclear processes. Binds the conventional octamer sequence in double stranded DNA. Also binds single-stranded DNA and RNA at a site independent of the duplex site (By similarity). Involved in pre-mRNA splicing, probably as an heterodimer with SFPQ. Interacts with U5 snRNA, probably by binding to a purine-rich sequence located on the 3' side of U5 snRNA stem 1b. The SFPQ-NONO heteromer associated with MATR3 may play a role in nuclear retention of defective RNAs. The SFPQ-NONO heteromer may be involved in DNA unwinding by modulating the function of topoisomerase I/TOP1. The SFPQ-NONO heteromer may be involved in DNA nonhomologous end joining (NHEJ) required for double-strand break repair and V(D)J recombination and may stabilize paired DNA ends. In vitro, the complex strongly stimulates DNA end joining, binds directly to the DNA substrates and cooperates with the Ku70/G22P1-Ku80/XRCC5 (Ku) dimer to establish a functional preligation complex. Nono is involved in transcriptional regulation. The SFPQ-NONO-NR5A1 complex binds to the CYP17 promoter and regulates basal and cAMP-dependent transcriptional avtivity. NONO binds to an enhancer element in long terminal repeats of endogenous intracisternal A particles (IAPs) and activates transcription.

Tissue specificity Heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas. Also found in a number of breast tumor cell lines.

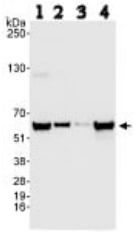
Involvement in disease Note=A chromosomal aberration involving NONO may be a cause of papillary renal cell carcinoma (PRCC). Translocation t(X;X)(p11.2;q13.1) with TFE3.

Sequence similarities Contains 2 RRM (RNA recognition motif) domains.

Post-translational modifications The N-terminus is blocked.

Cellular localization Nucleus.

Images

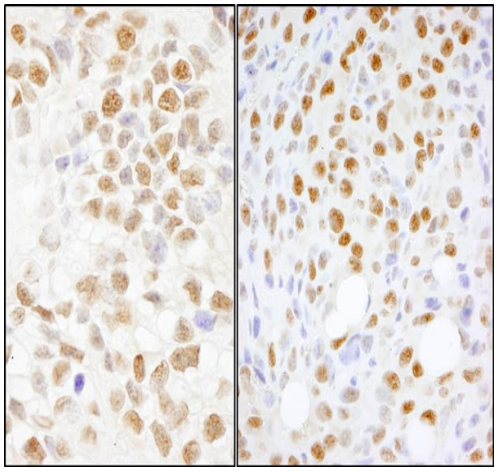


Western blot - Anti-nmt55 / p54nrb antibody (ab70335)

All lanes : Anti-nmt55 / p54nrb antibody (ab70335) at 0.04 µg/ml

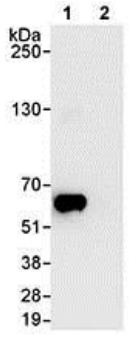
Lane 1 : Whole cell lysate from HeLa cells at 50 µg
Lane 2 : Whole cell lysate from HeLa cells at 15 µg
Lane 3 : Whole cell lysate from HeLa cells at 5 µg
Lane 4 : Whole cell lysate from 293T cells at 50 µg

Predicted band size: 54 kDa
Observed band size: 60 kDa



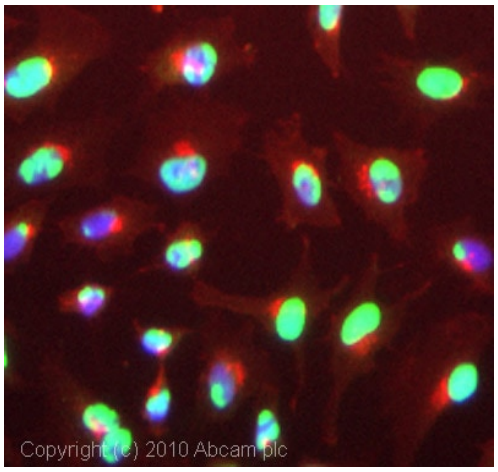
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-nmt55 / p54nrb antibody (ab70335)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human breast carcinoma (left) and mouse squamous cell carcinoma (right) tissues labelling nmt55 / p54nrb with ab70335 at 1/1000 (0.2µg/ml) and 1/200 (1µg/ml). Detection: DAB.



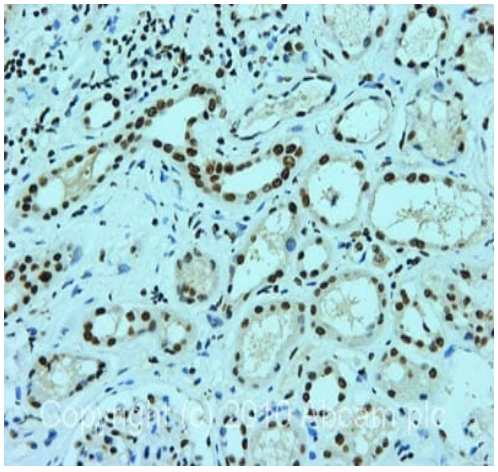
Immunoprecipitation - Anti-nmt55 / p54nrb antibody (ab70335)

Detection of Human nmt55 / p54nrb by Immunoprecipitation in Whole cell lysate from HeLa cells (1 mg for IP, 1/4 of IP loaded) using ab70335 at 3 µg/mg lysate for IP (Lane 1) and at 1 µg/ml for subsequent WB detection. Lane 2 represents control IgG IP.



Immunocytochemistry/ Immunofluorescence - Anti-nmt55 / p54nrb antibody (ab70335)

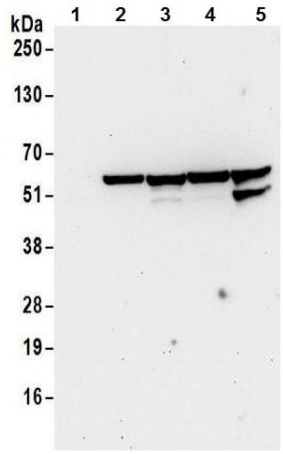
ICC/IF image of ab70335 stained HeLa cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (**ab42905**, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 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.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-nmt55 / p54nrb antibody (ab70335)

IHC image of ab70335 staining in human normal kidney formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ 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 ab70335, 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.



Western blot - Anti-nmt55 / p54nrb antibody (ab70335)

All lanes : Anti-nmt55 / p54nrb antibody (ab70335) at 0.1 µg/ml

Lane 1 : NIH3T3 whole cell lysate
Lane 2 : TCMK-1 whole cell lysate
Lane 3 : 4T1 whole cell lysate
Lane 4 : CT26.WT whole cell lysate
Lane 5 : C6 whole cell lysate

Lysates/proteins at 50 µg per lane.

Developed using the ECL technique.

Predicted band size: 54 kDa

Exposure time: 30 seconds

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