abcam

Product datasheet

Anti-nmt55 / p54nrb antibody [EPR5270] - BSA and Azide free ab226140

KO VALIDATED Recombinant RabMAb

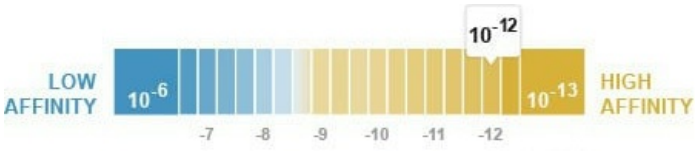
9 Images

Overview

Product name	Anti-nmt55 / p54nrb antibody [EPR5270] - BSA and Azide free
Description	Rabbit monoclonal [EPR5270] to nmt55 / p54nrb - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P, ICC/IF
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: MOLT-4 and HEK293T cell lysates.
General notes	ab226140 is the carrier-free version of ab133574. 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. 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. 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. 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. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information see here. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Dissociation constant (K_D)	K_D = 2.20 x 10 $^{-12}$ M



Learn more about K_D

Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR5270
Isotype	IgG

Applications

The Abpromise guarantee Our Abpromise guarantee covers the use of ab226140 in the following tested applications.

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

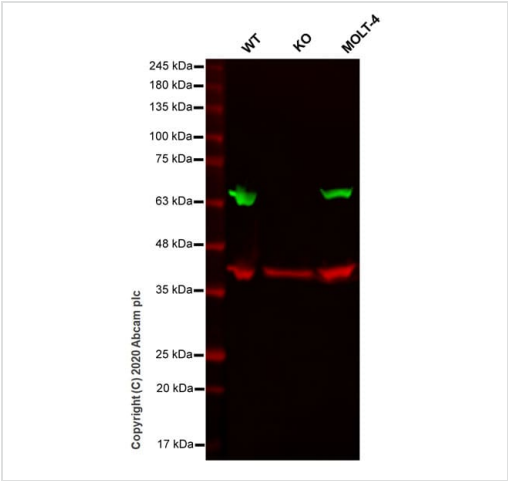
Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Detects a band of approximately 54 kDa (predicted molecular weight: 54 kDa).
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See IHC antigen retrieval protocols. Use a HRP/AP polymerized secondary antibody.
ICC/IF		Use at an assay dependent concentration.

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 [EPR5270] - BSA and Azide free (ab226140)

All lanes : Anti-nmt55 / p54nrb antibody [EPR5270] (ab133574) at 1/1000 dilution

Lane 1 : Wild-type HEK293T cell lysate
Lane 2 : NONO knockout HEK293T cell lysate
Lane 3 : MOLT-4 cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

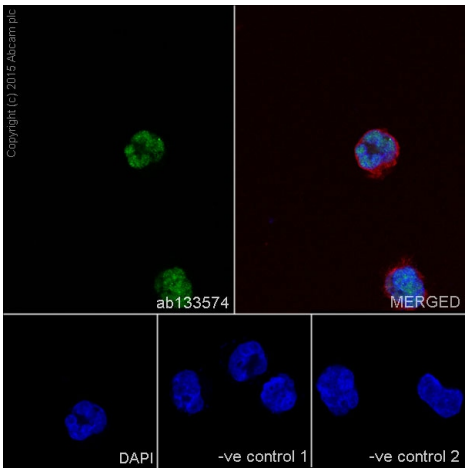
Predicted band size: 54 kDa
Observed band size: 63 kDa

This data was developed using the same antibody clone in a different buffer formulation (ab133574).

Lanes 1-3: Merged signal (red and green). Green - ab133574 observed at 63 kDa. Red - loading control, ab8245 observed at 37 kDa.

ab133574 Anti-nmt55 / p54nrb antibody [EPR5270] was shown to specifically react with nmt55 / p54nrb in wild-type HEK293T cells. Loss of signal was observed when knockout cell line ab266244 (knockout cell lysate ab257160) was used. Wild-type and nmt55 / p54nrb knockout samples were subjected to SDS-PAGE.

ab133574 and Anti-GAPDH antibody [6C5] - Loading Control (ab8245) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) secondary antibodies at 1 in 10000 dilution for 1 hour at room temperature before imaging.



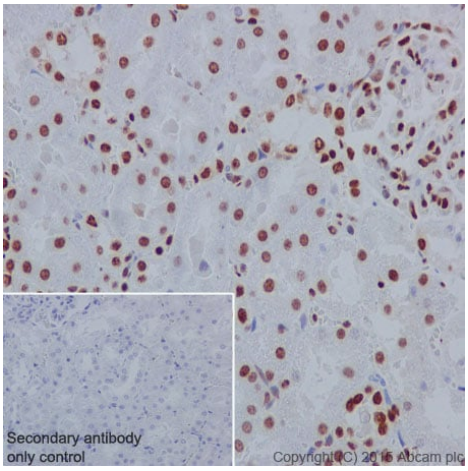
Immunocytochemistry/ Immunofluorescence - Anti-nmt55 / p54nrb antibody [EPR5270] - BSA and Azide free (ab226140)

Immunocytochemistry/Immunofluorescence analysis of Molt-4 (human acute lymphoblastic leukemia) cells labelling nmt55/p54nrb with purified ab133574 at 1/1500. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/500) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain. ab7291, a mouse anti-tubulin (1/1000) and ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000) were also used.

Control 1: primary antibody (1/100) and secondary antibody, ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/500).

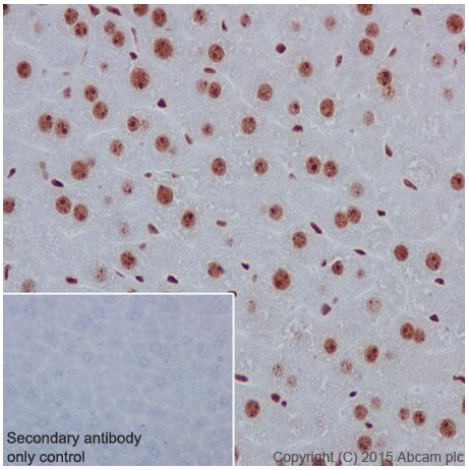
Control 2: ab7291 (1/1000) and secondary antibody, ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/500).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab133574).



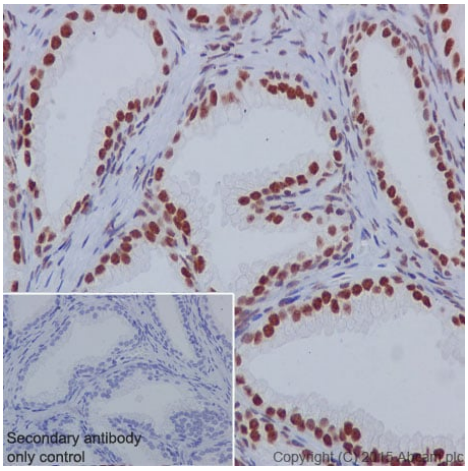
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-nmt55 / p54nrb antibody [EPR5270] - BSA and Azide free (ab226140)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat kidney tissue labelling nmt55/p54nrb with purified ab133574 at 1/500. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. ab97051, a goat anti-rabbit IgG H&L (HRP) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab133574).



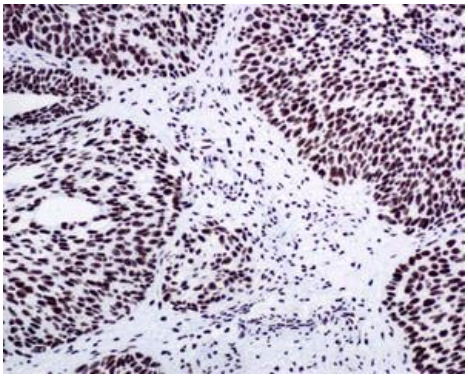
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-nmt55 / p54nrb antibody [EPR5270] - BSA and Azide free (ab226140)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse liver tissue labelling nmt55/p54nrb with purified ab133574 at 1/500. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. ab97051, a goat anti-rabbit IgG H&L (HRP) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab133574).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-nmt55 / p54nrb antibody [EPR5270] - BSA and Azide free (ab226140)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human prostate tissue labelling nmt55/p54nrb with purified ab133574 at 1/500. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. ab97051, a goat anti-rabbit IgG H&L (HRP) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab133574).

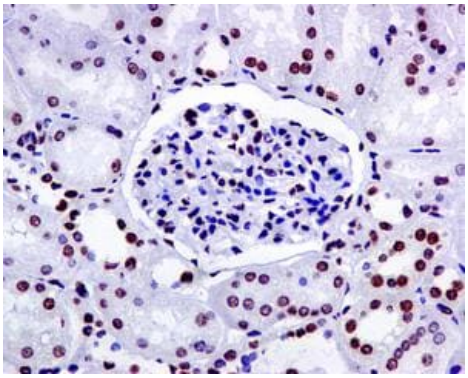


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-nmt55 / p54nrb antibody [EPR5270] - BSA and Azide free (ab226140)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human bladder carcinoma tissue labelling nmt55 / p54nrb using unpurified ab133574 at a 1/250 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab133574).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

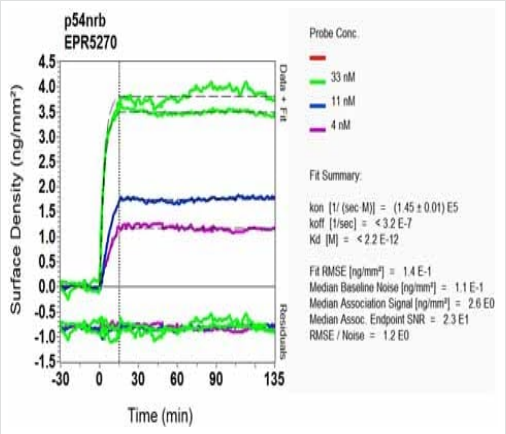


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-nmt55 / p54nrb antibody [EPR5270] - BSA and Azide free (ab226140)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human kidney tissue labelling nmt55 /p54nrb using unpurified ab133574 at a 1/250 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab133574).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



OI-RD Scanning - Anti-nmt55 / p54nrb antibody [EPR5270] - BSA and Azide free (ab226140)

Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab133574).

Anti-nmt55 / p54nrb antibody [EPR5270] - BSA and Azide free (ab226140)

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