

Product datasheet

Anti-Dnmt3a (mutated R882H) antibody [EPR24337-44] ab271004

Recombinant RabMAb

6 Images

Overview

Product name	Anti-Dnmt3a (mutated R882H) antibody [EPR24337-44]
Description	Rabbit monoclonal [EPR24337-44] to Dnmt3a (mutated R882H)
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P, Flow Cyt (Intra) Unsuitable for: ICC/IF or IP
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HEK-293T cells transfected with human Dnmt3a (R882H) expression vector containing a myc-His-tag® whole lysate. IHC-P: HEK-293T cells transfected with human Dnmt3a (R882H) expression vector. Flow Cyt (intra): HEK-293T cells transfected with myc-tagged human Dnmt3a (R882H) expression vector.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.</p>

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. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified

Clonality	Monoclonal
Clone number	EPR24337-44
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab271004 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		1/1000. Predicted molecular weight: 102 kDa.
IHC-P		1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
Flow Cyt (Intra)		1/500.

Application notes Is unsuitable for ICC/IF or IP.

Target

Function Required for genome wide de novo methylation and is essential for the establishment of DNA methylation patterns during development. DNA methylation is coordinated with methylation of histones. It modifies DNA in a non-processive manner and also methylates non-CpG sites. May preferentially methylate DNA linker between 2 nucleosomal cores and is inhibited by histone H1. Plays a role in paternal and maternal imprinting. Required for methylation of most imprinted loci in germ cells. Acts as a transcriptional corepressor for ZNF238. Can actively repress transcription through the recruitment of HDAC activity.

Tissue specificity Highly expressed in fetal tissues, skeletal muscle, heart, peripheral blood mononuclear cells, kidney, and at lower levels in placenta, brain, liver, colon, spleen, small intestine and lung.

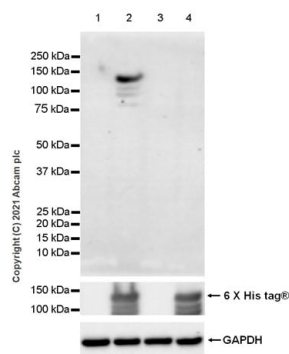
Sequence similarities Belongs to the C5-methyltransferase family.
Contains 1 ADD domain.
Contains 1 GATA-type zinc finger.
Contains 1 PHD-type zinc finger.
Contains 1 PWWP domain.

Domain The PWWP domain is essential for targeting to pericentric heterochromatin.

Post-translational modifications Sumoylated; sumoylation disrupts the ability to interact with histone deacetylases (HDAC1 and HDAC2) and repress transcription.

Cellular localization Nucleus. Cytoplasm. Accumulates in the major satellite repeats at pericentric heterochromatin.

Images



Western blot - Anti-Dnmt3a (mutated R882H) antibody [EPR24337-44] (ab271004)

All lanes : Anti-Dnmt3a (mutated R882H) antibody [EPR24337-44] (ab271004) at 1/1000 dilution

Lane 1 : HEK-293T (human embryonic kidney) transfected with an empty vector (vector control) containing a myc-His-tag®, whole cell lysate

Lane 2 : HEK-293T transfected with human Dnmt3a (R882H) expression vector containing a myc-His-tag®, whole cell lysate

Lane 3 : HEK-293T transfected with an empty vector (vector control) containing a myc-His-tag®, whole cell lysate

Lane 4 : HEK-293T transfected with human Dnmt3a expression vector containing a myc-His-tag®, whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

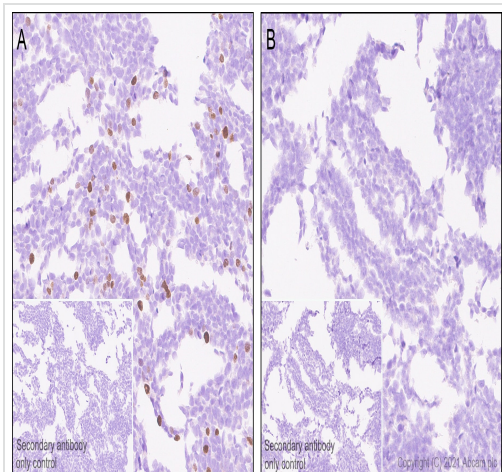
All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 102 kDa

Observed band size: 135 kDa

Blocking and diluting buffer and concentration: 5% NFDM/TBST

Exposure time: 103 seconds



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Dnmt3a (mutated R882H) antibody [EPR24337-44] (ab271004)

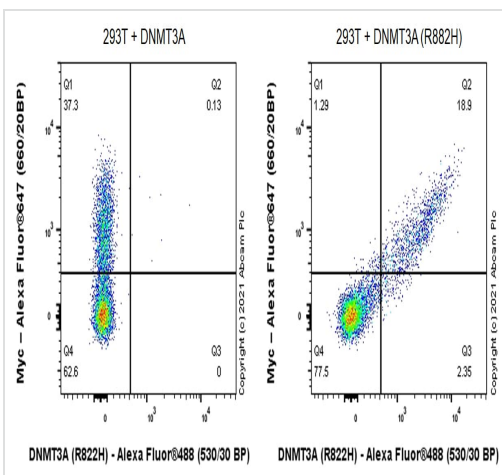
Immunohistochemical analysis of paraffin-embedded HEK-293T transfected with human Dnmt3a (mutated R882H) expression vector (Image A) and HEK-293T transfected with human Dnmt3a wild type expression vector (Image B) tissue labelling Dnmt3a (mutated R882H) with ab271004 at 1/1000 (0.585 µg/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Nuclear staining on HEK-293T cells transfected with human Dnmt3a (mutated R882H) expression vector (Image A) and no staining on HEK-293T cells transfected with human Dnmt3a wild type vector (Image B).

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

The section was incubated with ab271004 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND[®] RX instrument. Counterstained with Hematoxylin.

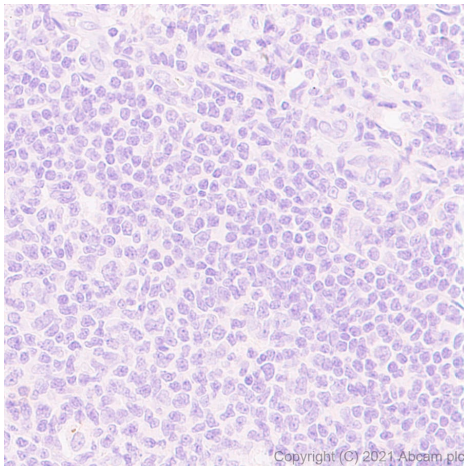
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



Flow Cytometry (Intracellular) - Anti-Dnmt3a (mutated R882H) antibody [EPR24337-44] (ab271004)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized HEK-293T (human embryonic kidney) transfected with myc-tagged human Dnmt3a expression vector (Left)/ HEK-293T transfected with myc-tagged human Dnmt3a (mutated R882H) expression vector (Right) cells labelling Dnmt3a (mutated R882H) with ab271004 at 1/500 dilution (0.1 µg).

A Goat anti rabbit IgG (Alexa Fluor[®] 488, **ab150077**) at 1/2000 dilution was used as the secondary antibody.



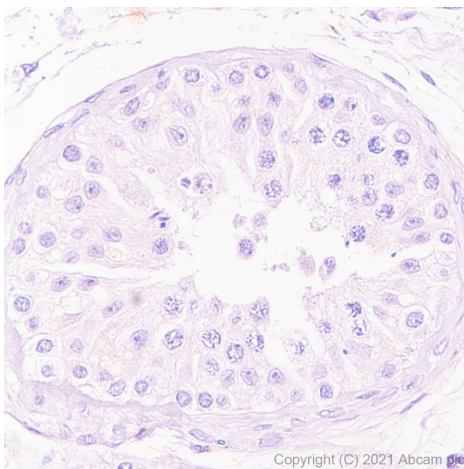
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Dnmt3a (mutated R822H) antibody [EPR24337-44] (ab271004)

Immunohistochemical analysis of paraffin-embedded human tonsil tissue labelling Dnmt3a (mutated R822H) with ab271004 at 1/1000 (0.585 µg/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). The section was incubated with ab271004 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Negative control: no staining on human tonsil.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Dnmt3a (mutated R822H) antibody [EPR24337-44] (ab271004)

Immunohistochemical analysis of paraffin-embedded human testis tissue labelling Dnmt3a (mutated R822H) with ab271004 at 1/1000 (0.585 µg/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). The section was incubated with ab271004 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Negative control: no staining on human testis.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-Dnmt3a (mutated R882H) antibody [EPR24337-44] (ab271004)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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