abcam

ab282710

# Anti-Dnmt3a (mutated R882H) antibody [EPR24337-44] - BSA and Azide free

Recombinant | RabMAb

## Key facts

| | |
|---|---|
| **Isotype** | IgG |
| **Host species** | Rabbit |
| **Storage buffer** | pH: 7.2 - 7.4 Constituents: PBS |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | The exact immunogen used to generate this antibody is proprietary information. |
| **Carrier free** | Yes |
| **Clone number** | EPR24337-44 |
| **Purification technique** | Affinity purification Protein A |
| **Concentration** | 0.995 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

## ICC/IF

**Not recommended**

| | |
|---|---|
| **Species** | Human, Transfected cell line - Human |
| **Dilution info** | - |

| | |
|---|---|
| **Notes** | - |

## IP

### Not recommended

| | |
|---|---|
| **Species** | Human, Transfected cell line - Human |
| **Dilution info** | - |
| **Notes** | - |

## WB

### Tested

| | |
|---|---|
| **Species** | Transfected cell line - Human |
| **Dilution info** | - |
| **Notes** | - |

### Predicted

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | - |

## Flow Cyt (Intra)

### Tested

| | |
|---|---|
| **Species** | Transfected cell line - Human |
| **Dilution info** | - |
| **Notes** | - |

### Predicted

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | - |

## IHC-P

### Tested

| | |
|---|---|
| **Species** | Transfected cell line - Human |
| **Dilution info** | - |
| **Notes** | - |

### Predicted

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | - |

## Target data

See full target information DNMT3A mutated R882H

**Function**

Required for genome-wide de novo methylation and is essential for the establishment of DNA methylation patterns during development (PubMed:12138111, PubMed:16357870, PubMed:30478443). DNA methylation is coordinated with methylation of histones (PubMed:12138111, PubMed:16357870, PubMed:30478443). It modifies DNA in a non-processive manner and also methylates non-CpG sites (PubMed:12138111, PubMed:16357870, PubMed:30478443). May preferentially methylate DNA linker between 2 nucleosomal cores and is inhibited by histone H1 (By similarity). Plays a role in paternal and maternal imprinting (By similarity). Required for methylation of most imprinted loci in germ cells (By similarity). Acts as a transcriptional corepressor for ZBTB18 (By similarity). Recruited to trimethylated 'Lys-36' of histone H3 (H3K36me3) sites (By similarity). Can actively repress transcription through the recruitment of HDAC activity (By similarity). Also has weak auto-methylation activity on Cys-710 in absence of DNA (By similarity).

## Storage

| | |
|---|---|
| **Shipped at conditions** | Blue Ice |
| **Appropriate short-term storage conditions** | +4°C |
| **Appropriate long-term storage conditions** | +4°C |

# Notes

ab282710 is the carrier-free version of ab271004.

**Patented technology**

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

**What are the advantages of a recombinant monoclonal antibody?**

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 batch production

For more information, read more on recombinant antibodies.

**Conjugation ready**

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. 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.

**Compatibility**

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.

# Product promise

**Tested**

We have tested this species and application combination and it works. It is covered by our product promise.

**Expected**

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

**Predicted**

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

**Not recommended**

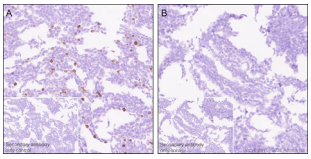
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

## 5 product images



### Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Dnmt3a (mutated R882H) antibody [EPR24337-44] - BSA and Azide free (ab282710)

Dnmt3a (mutated R882H) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Dnmt3a (mutated R882H) antibody

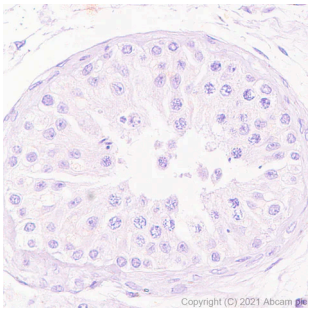
This data was developed using ab271004, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded HEK-293T transfected with human Dnmt3a (mutated R882H) expression vector (Image A) and HEK-293T transfected with human Dnmt3a wild type expression vector (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.




### Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Dnmt3a (mutated R882H) antibody [EPR24337-44] - BSA and Azide free (ab282710)

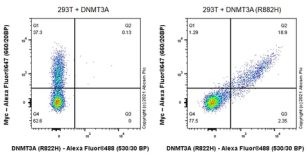
Dnmt3a (mutated R882H) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Dnmt3a (mutated R882H) antibody

This data was developed using ab271004, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded human testis 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). 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.

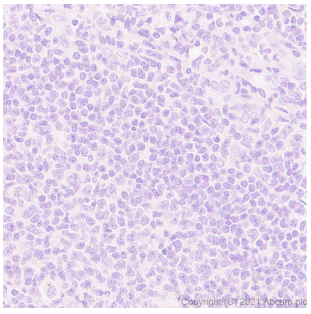



## Flow Cytometry (Intracellular) - Anti-Dnmt3a (mutated R882H) antibody [EPR24337-44] - BSA and Azide free (ab282710)

Dnmt3a (mutated R882H) Flow Cytometry (Intracellular) staining using rabbit Anti-Dnmt3a (mutated R882H) antibody

This data was developed using ab271004, the same antibody clone in a different buffer formulation.
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 R882H) antibody [EPR24337-44] - BSA and Azide free (ab282710)

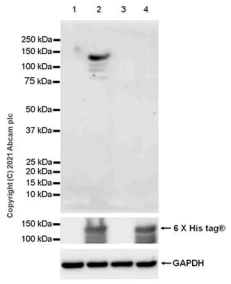
Dnmt3a (mutated R882H) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Dnmt3a (mutated R882H) antibody

This data was developed using ab271004, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded human tonsil 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). 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.




## Western blot - Anti-Dnmt3a (mutated R882H) antibody [EPR24337-44] - BSA and Azide free (ab282710)

Dnmt3a (mutated R882H) Western blot staining using rabbit Anti-Dnmt3a (mutated R882H) antibody

This data was developed using ab271004, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST.

Exposure time: 103 seconds.

All lanes:
Western blot - 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 at 20 µg

Lane 2:
HEK-293T transfected with human Dnmt3a (R882H) expression vector containing a myc-His-tag®, whole cell lysate at 20 µg

Lane 3:
HEK-293T transfected with an empty vector (vector control) containing a myc-His-tag®, whole cell lysate at 20 µg

Lane 4:
HEK-293T transfected with human Dnmt3a expression vector containing a myc-His-tag®, whole cell lysate at 20 µg

Secondary

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

Predicted band size: 102 kDa

Observed band size: 135 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.