

## Product datasheet

# Anti-Dnmt3b antibody [EPR3523] ab79822

Recombinant RabMAb

★★★★☆ 4 Abreviews 16 References 2 Images

### Overview

<b>Product name</b>	Anti-Dnmt3b antibody [EPR3523]
<b>Description</b>	Rabbit monoclonal [EPR3523] to Dnmt3b
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB <b>Unsuitable for:</b> Flow Cyt, ICC/IF, IHC-P or IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide within Human Dnmt3b aa 50-150. The exact sequence is proprietary.
<b>Positive control</b>	A549, HeLa and A431 cell lysates.
<b>General notes</b>	

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<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb<sup>®</sup> patents](#).

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
<b>Purity</b>	Tissue culture supernatant
<b>Clonality</b>	Monoclonal

**Clone number**                      EPR3523  
**Isotype**                                IgG

## Applications

Our [Abpromise guarantee](#) covers the use of **ab79822** 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 - 1/5000. Predicted molecular weight: 96 kDa.

**Application notes**                      Is unsuitable for Flow Cyt, ICC/IF, IHC-P 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. May preferentially methylates nucleosomal DNA within the nucleosome core region. May function as transcriptional co-repressor by associating with CBX4 and independently of DNA methylation. Seems to be involved in gene silencing (By similarity). In association with DNMT1 and via the recruitment of CTCFL/BORIS, involved in activation of BAG1 gene expression by modulating dimethylation of promoter histone H3 at H3K4 and H3K9. Isoforms 4 and 5 are probably not functional due to the deletion of two conserved methyltransferase motifs.

**Tissue specificity**                      Ubiquitous; highly expressed in fetal liver, heart, kidney, placenta, and at lower levels in spleen, colon, brain, liver, small intestine, lung, peripheral blood mononuclear cells, and skeletal muscle. Isoform 1 is expressed in all tissues except brain, skeletal muscle and PBMC, 3 is ubiquitous, 4 is expressed in all tissues except brain, skeletal muscle, lung and prostate and 5 is detectable only in testis and at very low level in brain and prostate.

**Involvement in disease**                Defects in DNMT3B are a cause of immunodeficiency-centromeric instability-facial anomalies syndrome (ICF) [MIM:242860]. ICF is a rare autosomal recessive disorder characterized by a variable immunodeficiency, mild facial anomalies, and centromeric heterochromatin instability involving chromosomes 1, 9, and 16. ICF is biochemically characterized by hypomethylation of CpG sites in some regions of heterochromatin.

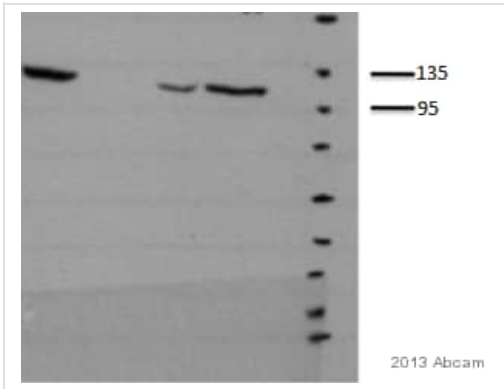
**Sequence similarities**                      Belongs to the C5-methyltransferase family.  
Contains 1 ADD domain.  
Contains 1 GATA-type zinc finger.  
Contains 1 PHD-type zinc finger.  
Contains 1 PWWP domain.

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

**Post-translational modifications**        Sumoylated.

**Cellular localization**                      Nucleus.

## Images



Western blot - Anti-Dnmt3b antibody [EPR3523] (ab79822)

This image is courtesy of an anonymous abreview.

**All lanes :** Anti-Dnmt3b antibody [EPR3523] (ab79822) at 1/1000 dilution

**Lane 1 :** Flag-tagged Dnmt3b

**Lane 2 :** Dnmt3b knockout mouse embryonic stem cell extract

**Lanes 3-4 :** Wild type mouse embryonic stem cell extract

Lysates/proteins at 40 µg per lane.

**Secondary**

**All lanes :** Donkey anti-rabbit IgG conjugated to HRP (NA934) at 1/1000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

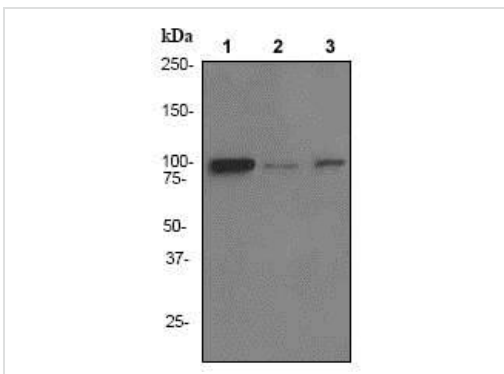
**Predicted band size:** 96 kDa

**Observed band size:** 110 kDa

[why is the actual band size different from the predicted?](#)

**Exposure time:** 5 minutes

**Blocking:** 5% Milk



Western blot - Anti-Dnmt3b antibody [EPR3523] (ab79822)

**All lanes :** Anti-Dnmt3b antibody [EPR3523] (ab79822) at 1/5000 dilution

**Lane 1 :** A549 cell lysate

**Lane 2 :** HeLa cell lysate

**Lane 3 :** A431 cell lysate

Lysates/proteins at 10 µg per lane.

**Secondary**

**All lanes :** Goat anti-rabbit HRP conjugate at 1/2000 dilution

**Predicted band size:** 96 kDa

**Observed band size:** 96 kDa

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