

### Anti-Dnmt3a antibody [EPR18455-94] ab227823

KO 評価済 リコンビナント RabMAb

1 References 画像数 8

#### 製品の概要

製品名	Anti-Dnmt3a antibody [EPR18455-94]
製品の詳細	Rabbit monoclonal [EPR18455-94] to Dnmt3a
由来種	Rabbit
アプリケーション	<b>適用あり:</b> WB, IHC-P <b>適用なし:</b> ChIP, Flow Cyt, ICC/IF or IP
種交差性	<b>交差種:</b> Mouse, Rat, Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	WB: HAP1, HEK-293T, HeLa and NIH/3T3 whole cell lysates; rat brain lysate. IHC-P: Human breast carcinoma and placenta tissue; mouse colon tissue; rat colon tissue.
特記事項	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> For more information <a href="#">see here</a> . Our RabMAb <sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a> .

#### 製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
バッファー	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 0.05% BSA, 40% Glycerol (glycerin, glycerine)
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	EPR18455-94

アイソタイプIgG

アプリケーション

The Abpromise guarantee      Abpromise保証は、 次のテスト済みアプリケーションにおけるab227823の使用に適用されます  
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

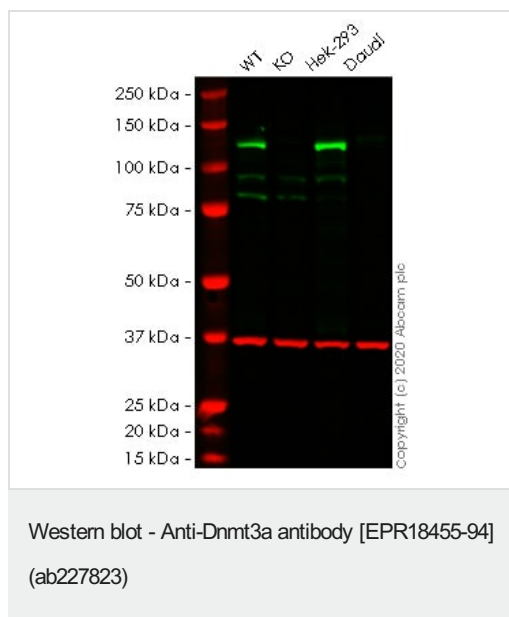
アプリケーション	Abreviews	特記事項
WB		1/1000. Detects a band of approximately 125 kDa (predicted molecular weight: 102 kDa).
IHC-P		1/200. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

追加情報      Is unsuitable for ChIP,Flow Cyt,ICC/IF or IP.

ターゲット情報

機能	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.
組織特異性	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.
配列類似性	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.
ドメイン	The PWWP domain is essential for targeting to pericentric heterochromatin.
翻訳後修飾	Sumoylated; sumoylation disrupts the ability to interact with histone deacetylases (HDAC1 and HDAC2) and repress transcription.
細胞内局在	Nucleus. Cytoplasm. Accumulates in the major satellite repeats at pericentric heterochromatin.

画像



**All lanes :** Anti-Dnmt3a antibody [EPR18455-94] (ab227823) at 1/1000 dilution

**Lane 1 :** Wild-type HeLa cell lysate

**Lane 2 :** Dnmt3a knockout HeLa cell lysate

**Lane 3 :** HEK-293 cell lysate

**Lane 4 :** Daudi cell lysate

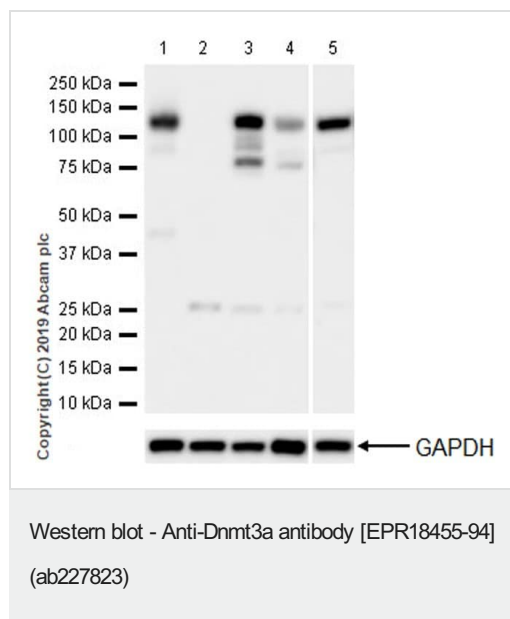
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

**Predicted band size:** 102 kDa

**Lanes 1-4:** Merged signal (red and green). Green - ab227823 observed at 125 kDa. Red - loading control [ab8245](#) observed at 37 kDa.

ab227823 Anti-Dnmt3a antibody [EPR18455-94] was shown to specifically react with Dnmt3a in wild-type HeLa cells. Loss of signal was observed when knockout cell line [ab261793](#) (knockout cell lysate [ab257128](#)) was used. Wild-type and Dnmt3a knockout samples were subjected to SDS-PAGE. ab227823 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 20000 dilution for 1 hour at room temperature before imaging.



**All lanes** : Anti-Dnmt3a antibody [EPR18455-94] (ab227823) at 1/1000 dilution

**Lane 1** : Wild-type HAP1 whole cell lysate

**Lane 2** : Dnmt3a knockout HAP1 whole cell lysate

**Lane 3** : HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate

**Lane 4** : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate

**Lane 5** : NIH/3T3 (mouse embryo fibroblast cell line) whole cell lysate

Lysates/proteins at 20 µg per lane.

## Secondary

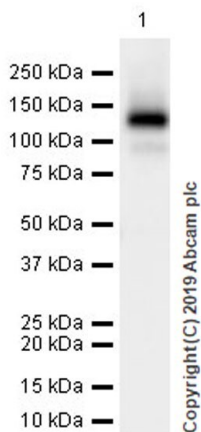
**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

**Predicted band size:** 102 kDa

Blocking and dilution buffer: 5% NFDM/TBST.

ab227823 was shown to specifically react with wild-type HAP1 cells as signal was lost in Dnmt3a knockout cells. Wild-type and Dnmt3a knockout samples were subjected to SDS-PAGE. ab227823 and [ab181602](#) (Rabbit anti-GAPDH loading control) were incubated 1 hour at room temperature at 1/1000 dilution and 1/200,000 dilution respectively. Blots were developed with Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated ([ab97051](#)) secondary antibody at 1/100,000 dilution for 1 hour at room temperature before imaging. The blot was developed on a BIO-RAD® ChemiDoc™ MP instrument using the ECL technique.

The observed bands ranging from 75~125kDa represent different Dnmt3a isoforms.



Western blot - Anti-Dnmt3a antibody [EPR18455-94] (ab227823)

Anti-Dnmt3a antibody [EPR18455-94] (ab227823) at 1/1000 dilution + Rat brain lysate at 20 µg

### Secondary

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

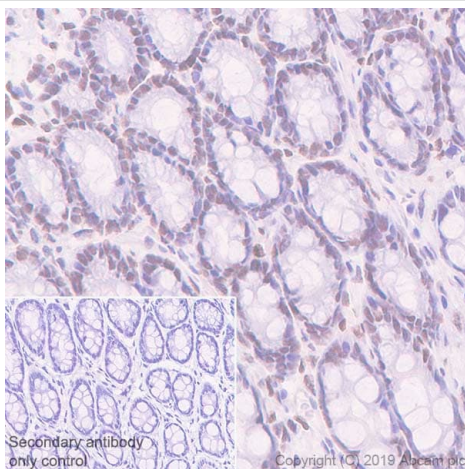
**Predicted band size:** 102 kDa

**Observed band size:** 125 kDa

**Exposure time:** 26 seconds

Blocking and dilution buffer: 5% NFDM/TBST.

The observed bands ranging from 75~125kDa represent different Dnmt3a isoforms.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Dnmt3a antibody [EPR18455-94] (ab227823)

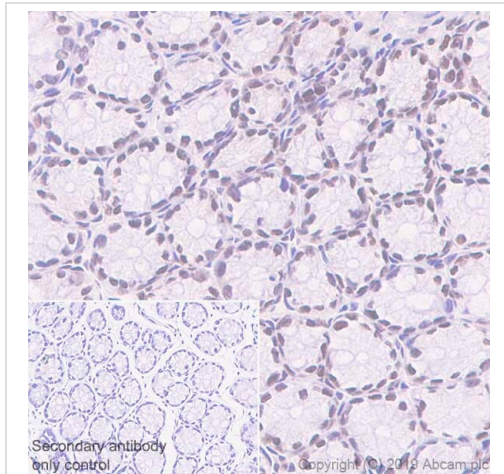
Immunohistochemical analysis of paraffin-embedded rat colon tissue labeling Dnmt3a with ab227823 at 1/200 dilution, followed by Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)). Nuclear staining on the rat colon (PMID: 24837369) is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 minutes.

The section was incubated with ab227823 for 30 mins at room temperature.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Dnmt3a antibody [EPR18455-94] (ab227823)

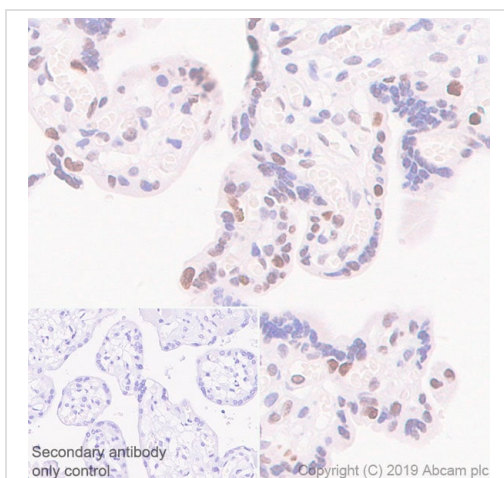
Immunohistochemical analysis of paraffin-embedded mouse colon tissue labeling Dnmt3a with ab227823 at 1/200 dilution, followed by Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)). Nuclear staining on the mouse colon (PMID: 24837369) is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 minutes.

The section was incubated with ab227823 for 30 mins at room temperature.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Dnmt3a antibody [EPR18455-94] (ab227823)

Immunohistochemical analysis of paraffin-embedded human placenta tissue labeling Dnmt3a with ab227823 at 1/200 dilution, followed by Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)). Nuclear staining on the human placenta (PMID: 22413869) is observed. Counter stained with hematoxylin.

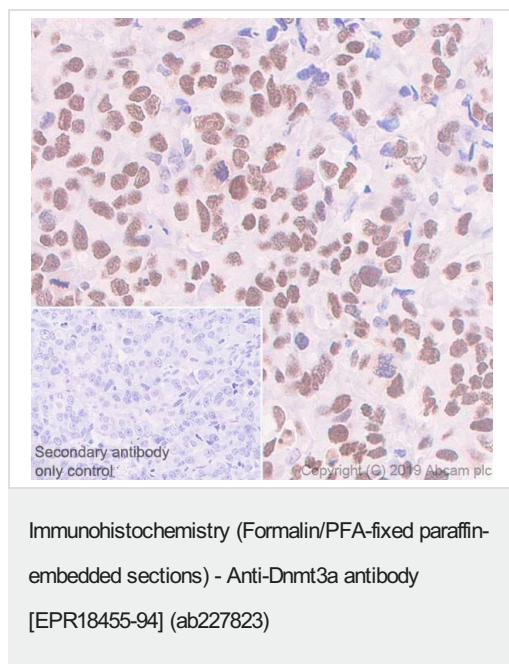
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 minutes.

The section was incubated with ab227823 for 30 mins at room temperature.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument.





Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue labeling Dnmt3a with ab227823 at 1/200 dilution, followed by Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Nuclear staining on the human breast carcinoma (PMID: 24464625) is observed. Counter stained with hematoxylin.





Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 minutes.

The section was incubated with ab227823 for 30 mins at room temperature.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

Why choose a recombinant antibody?

 <p><b>Research with confidence</b> Consistent and reproducible results</p>	 <p><b>Long-term and scalable supply</b> Recombinant technology</p>
 <p><b>Success from the first experiment</b> Confirmed specificity</p>	 <p><b>Ethical standards compliant</b> Animal-free production</p>

Anti-Dnmt3a antibody [EPR18455-94] (ab227823)

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