# abcam

# Product datasheet

# Anti-Dnmt3b antibody ab122932

# 15 References 4 图像

## 概述

产**品名称** Anti-Dnmt3b**抗体** 

描述 兔多克隆抗体to Dnmt3b

**宿主** Rabbit

经测试应用 适用于: IHC-Fr, WB, ICC/IF

种属反应性 与反应: Mouse

免疫原 Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.

**阳性**対照 Solubilized mouse embryos at the stages of E7.0-E16.5; transiently transfected 293T cells; E4.5,

5.5 and 7.0 mouse embryo sections.

常规说明

The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or

contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

性能

形式 Liquid

**存放说明** Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw

cycles.

**存储溶液** pH: 6

Preservative: 0.05% Sodium azide

Constituents: 49% PBS, 50% Glycerol (glycerin, glycerine), Ammonium sulphate

trace of ammonium sulphate only

纯**度** Immunogen affinity purified

 克隆
 多克隆

 同种型
 IgG

1

#### The Abpromise guarantee

### Abpromise™承诺保证使用ab122932于以下的经测试应用

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
IHC-Fr		1/2000 - 1/5000.
WB		1/3000. Predicted molecular weight: 96 kDa.
ICC/IF		1/5000.

#### 功能

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. 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.

#### 组织特异性

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.

#### 疾病相关

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.

#### 序列相似性

Belongs to the C5-methyltransferase family.

Contains 1 ADD domain.

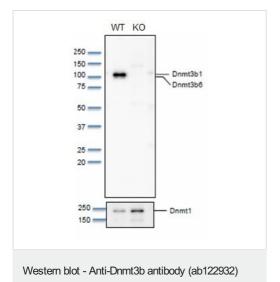
Contains 1 GATA-type zinc finger. Contains 1 PHD-type zinc finger. Contains 1 PWWP domain.

结构域

The PWWP domain is essential for targeting to pericentric heterochromatin.

翻译**后修**饰 Sumoylated. 细**胞定位** Nucleus.

#### 图片

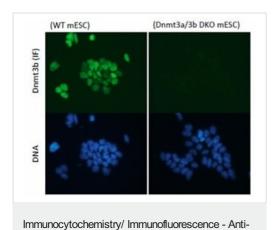


All lanes: Anti-Dnmt3b antibody (ab122932) at 1/3000 dilution

**Lane 1 :** wild-type mouse embryonic stem cell lysate with 5% skim milk

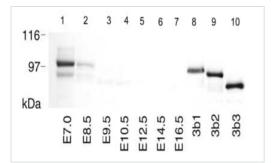
**Lane 2**: Dnmt3b/3a knockout mouse embryonic stem cell lysate with 5% skim milk

Predicted band size: 96 kDa



Dnmt3b antibody (ab122932)

Immunocytochemistry/ Immunofluorescence analysis of wild-type (left) and Dnmt3b/3a knockout (right) mouse embryonic stem cells using ab122932 at 1/5000 dilution. DNA was stained with DAPI (bottom). Cell were fixed with 4% PFA/PBS for 30 min at 4I.



Western blot - Anti-Dnmt3b antibody (ab122932)

All lanes: Anti-Dnmt3b antibody (ab122932) at 1/1000 dilution

**Lane 1 :** stages E7.0 solubilized mouse embryo at 10  $\mu g$ 

Lane 2: stages E8.5 solubilized mouse embryo at 10 µg

Lane 3: stages E9.5 solubilized mouse embryo at 10 µg

Lane 4: stages E10.5 solubilized mouse embryo at 10 µg

Lane 5: stages E12.5 solubilized mouse embryo at 10 µg

Lane 6: stages E14.5 solubilized mouse embryo at 10 µg

Lane 7: stages E16.5 solubilized mouse embryo at 10 µg

Lane 8: 293T cells transiently transfected with 3b1 isoform of

Dnmt3b

Lane 9: 293T cells transiently transfected with 3b2 isoform of

Dnmt3b

Lane 10: 293T cells transiently transfected with 3b3 isoform of

Dnmt3b

Predicted band size: 96 kDa

The embryos were solubilized by sonication or homogenization in the presence of 0.1% SDS.

E4.5

E5.5

E7.0

Immunohistochemistry (Frozen sections) - Anti-

Dnmt3b antibody (ab122932)

Expression of Dnmt3b in mouse embyos was examined by immuno-fluorescence staining using 1/1000 ab122932. Mouse embryos at E4.5, 5.5 and 7.0 were fixed in cold acetone and stained with ab122932 or DAPI (blue). The antibody was detected with anti-rabbit IgG conjugated with ALEXA568 (red). The ICM (the inner cell mass) and trophectoderm (T) are indicated by arrows and arrowheads, respectively. The epiblast (E), and the embryonic ectoderm (EE) and extraembryonic region (EX) are indicated by square brackets. Dnmt3b existed at E4.5-7.0, in ICM at E4.5, the epiblast at E5.5, and the embryonic ectoderm at E7.0.

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

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