# abcam

### Product datasheet

## Recombinant human Dnmt3b protein ab170410

2 References 4 图像

#### 描述

产品名称 重组人Dnmt3b蛋白

生物活性 The specific activity of ab170410 was determined to be 525 pmol/min/mg.

纯**度** > 75 % Densitometry.

Affinity purified.

表达系统 Baculovirus infected Sf9 cells

Accession Q9UBC3

**蛋白长度** Full length protein

无动物成分 No

性质 Recombinant

种属 Human

序列 MKGDTRHLNGEEDAGGREDSILVNGACSDQSSDSPPILEAIR

**TPEIRGRR** 

SSSRLSKREVSSLLSYTQDLTGDGDGEDGDGSDTPVMPKLFR

**ETRTRSES** 

PAVRTRNNNSVSSRERHRPSPRSTRGRQGRNHVDESPVEFPA

TRSI RRRA

TASAGTPWPSPPSSYLTIDLTDDTEDTHGTPQSSSTPYARLA

QDSQQGGM

ESPQVEADSGDGDSSEYQDGKEFGIGDLVWGKIKGFSWWPAM

**VVSWKATS** 

KRQAMSGMRWVQWFGDGKFSEVSADKLVALGLFSQHFNLATF

**NKLVSYRK** 

AMYHALEKARVRAGKTFPSSPGDSLEDQLKPMLEWAHGGFKP

TGIEGLKP

 ${\tt NNTQPVVNKSKVRRAGSRKLESRKYENKTRRRTADDSATSDY}$ 

CPAPKRLK

TNCYNNGKDRGDEDQSREQMASDVANNKSSLEDGCLSCGRKN

**PVSFHPLF** 

EGGLCQTCRDRFLELFYMYDDDGYQSYCTVCCEGRELLLCSN

**TSCCRCFC** 

VECLEVLVGTGTAAEAKLQEPWSCYMCLPQRCHGVLRRRKDW

**NVRLQAFF** 

TSDTGLEYEAPKLYPAIPAARRRPIRVLSLFDGIATGYLVLK

ELGIKVGK

1

YVASEVCEESIAVGTVKHEGNIKYVNDVRNITKKNIEEWGPF

**DLVIGGSP** 

CNDLSNVNPARKGLYEGTGRLFFEFYHLLNYSRPKEGDDRPF

**FWMFENVV** 

 ${\tt AMKVGDKRDISRFLECNPVMIDAIKVSAAHRARYFWGNLPGM}$ 

NRPVIASK

NDKLELQDCLEYNRIAKLKKVQTITTKSNSIKQGKNQLFPVV

MNGKEDVL

WCTELERIFGFPVHYTDVSNMGRGARQKLLGRSWSVPVIRHL

FAPLKDYF ACE

预测分子量 138 kDa including tags

**氨基酸** 1 to 853

标签 proprietary tag N-Terminus

#### 技术指标

Our Abpromise quarantee covers the use of ab170410 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应用 SDS-PAGE

Functional Studies

形式 Liquid

#### 制备和贮存

稳**定性和存储** Shipped on dry ice. Upon delivery aliquot and store at -80℃. Avoid freeze / thaw cycles.

pH: 7.50

Constituents: 0.31% Glutathione, 0.002% PMSF, 0.004% DTT, 0.79% Tris HCI, 0.003% EDTA,

25% Glycerol (glycerin, glycerine), 0.29% Sodium chloride

This product is an active protein and may elicit a biological response in vivo, handle with caution.

#### 常规信息

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.

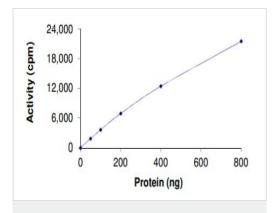
Contains 1 GATA-type zinc finger.
Contains 1 PHD-type zinc finger.

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



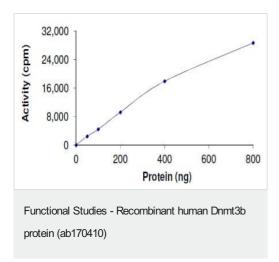
Functional Studies - Recombinant human Dnmt3b protein (ab170410)

The specific activity of Dnmt3b (ab170410) was determined to be 450 nmol/min/mg as per activity assay protocol

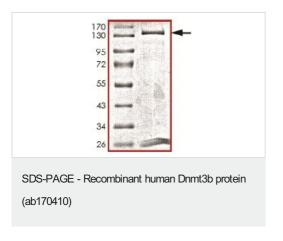


SDS-PAGE - Recombinant human Dnmt3b protein (ab170410)

SDS PAGE analysis of ab170410



Sample Methyltransferase Activity plot using ab170410.



SDS-PAGE analysis of ab170410.

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