# abcam

## Product datasheet

# Anti-Dnmt1 antibody [60B1220.1] ab13537

★★★★★ 22 Abreviews 195 References 画像数 5

#### 製品の概要

製品名 Anti-Dnmt1 antibody [60B1220.1]

製品の詳細 Mouse monoclonal [60B1220.1] to Dnmt1

由来種 Mouse

特異性 This antibody detects a ~180 kDa protein, corresponding to the apparent molecular mass of

Dnmt1 on SDS-PAGE immunoblots in samples of human and mouse origin. Immunogen itself has

been shown to be toxic.

アプリケーション 適用あり: IHC-P, Flow Cyt, WB

種交差性 交差種: Mouse, Human

交差が予測される動物種: Cow 🕰

免疫原 Synthetic peptide:

**EKDDREDKENAFKR** 

, corresponding to amino acids 637-650 of Human Dnmt1

Run BLAST with
Run BLAST with

ポジティブ・コントロール WB: H1299 cell lysate. IHC-Fr: Human colon carcinoma tissue. Mouse medullar kidney tissue.

Flow Cyt: HeLa cells.

特記事項 For maximum product recovery, centrifuge the product vial before removing cap. Shipped at on

gel packs.

DNMT1 high levels are toxic, as a result it may be tough to find sometimes. Signal amplification

might be needed.

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

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.

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Avoid freeze / thaw cycle.

ארע"ד Preservative: 0.09% Sodium azide

Constituents: PBS, 50% Glycerol

精製度 Protein G purified

特記事項(精製) This antibody is affinity purified.

**ポリ/モノ** モノクローナル **クローン名** 60B1220.1

アイソタイプ IgG1

#### アプリケーション

**The Abpromise guarantee** <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab13537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
IHC-P	*** <u>*</u>	Use at an assay dependent concentration.
Flow Cyt		1/100.  ab170190 - Mouse monoclonal lgG1, is suitable for use as an isotype control with this antibody.
WB	<b>★★★★</b> (12)	1/1000. Detects a band of approximately 180 kDa (predicted molecular weight: 180 kDa).  Block in 1.5% BSA in 1x TBST. Other Band(s): Lower bands are DNMT1 degradation.

## ターゲット情報

機能 Methylates CpG residues. Preferentially methylates hemimethylated DNA. Associates with DNA replication sites in S phase maintaining the methylation pattern in the newly synthesized strand,

that is essential for epigenetic inheritance. Associates with chromatin during G2 and M phases to

maintain DNA methylation independently of replication. It is responsible for maintaining

methylation patterns established in development. DNA methylation is coordinated with methylation of histones. Mediates transcriptional repression by direct binding to HDAC2. In association with

DNMT3B 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.

組織特異性 Ubiquitous; highly expressed in fetal tissues, heart, kidney, placenta, peripheral blood

mononuclear cells, and expressed at lower levels in spleen, lung, brain, small intestine, colon,

liver, and skeletal muscle. Isoform 2 is less expressed than isoform 1.

**配列類似性** Belongs to the C5-methyltransferase family.

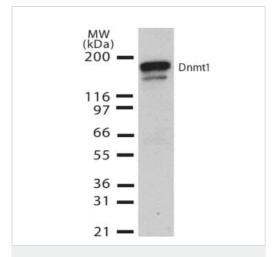
Contains 2 BAH domains.

Contains 1 CXXC-type zinc finger.

ドメイン The N-terminal part is required for homodimerization and acts as a regulatory domain.

翻訳後修飾 Sumoylated; sumoylation increases activity.

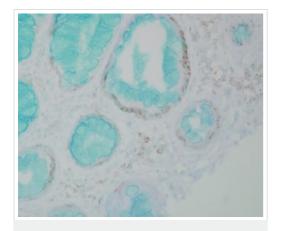
細胞内局在 Nucleus.



Western blot - Anti-Dnmt1 antibody [60B1220.1] (ab13537)

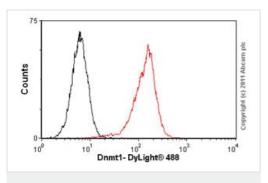
Anti-Dnmt1 antibody [60B1220.1] (ab13537) at 1/1000 dilution + H1299 (Human non-small cell lung carcinoma cell line) lysate

Predicted band size: 180 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Dnmt1 antibody
[60B1220.1] (ab13537)

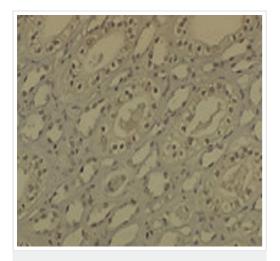
Immunohistochemistry analysis of formalin-fixed human colon carcinoma tissue labelling Dnmt1 with ab13537 at 1/10000 dilution (12 hours at 4°C), followed by biotin Goat Anti-Mouse antibody at 1/2000 for 1 hour at RT. Counterstain: Hematoxylin (purple/blue) nuclear stain at 200µl for 2 mins at RT.



Flow Cytometry - Anti-Dnmt1 antibody [60B1220.1] (ab13537)

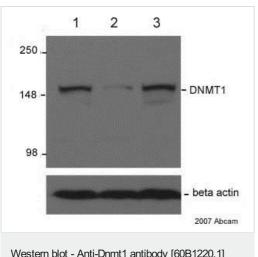
Overlay histogram showing HeLa cells stained with ab13537 (red line). The cells were fixed with methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab13537, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a slightly

decreased signal in HeLa cells fixed with 4% paraformaldehyde (10 min)/permeabilized in 0.1% PBS-Tween used under the same conditions.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Dnmt1 antibody
[60B1220.1] (ab13537)

Immunohistochemistry analysis of mouse medullar kidney tissue labelling Dnmt1 with ab13537 at 1/10000 dilution, followed by biotin Goat Anti-Mouse antibody (brown). Counterstain: Hematoxylin (purple/blue) nuclear stain.



Western blot - Anti-Dnmt1 antibody [60B1220.1] (ab13537)

This image is courtesy of an anonymous Abreview

All lanes: Anti-Dnmt1 antibody [60B1220.1] (ab13537) at 1 µg/ml

Lane 1: HCT116 whole cell lysate

Lane 2: HCT116 DNMT1 KO whole cell lysate
Lane 3: HCT116 DNMT3b KO whole cell lysate

#### **Secondary**

All lanes: HRP conjugated Sheep anti-mouse IgG

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 180 kDa

Exposure time: 1 minute

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

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