abcam

Product datasheet

Anti-MBD1 antibody [EPR3564] ab108510



ייבער RabMAb

3 References 画像数5

製品の概要

製品名 Anti-MBD1 antibody [EPR3564]

製品の詳細 Rabbit monoclonal [EPR3564] to MBD1

由来種 Rabbit

アプリケーション 適用あり: WB, IHC-P, ICC/IF

適用なし: Flow Cyt

種交差性 交差種: 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: HeLa, A431, 293T and Jurkat whole cell lysate (ab7899). IHC-P: Human tonsil tissue. ICC:

MCF7 cells.

特記事項 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® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with

these species. Please contact us for more information.

製品の特性

製品の状態

保存方法 Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.

バッファー pH: 7.20

Preservative: 0.05% Sodium azide

Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue

culture supernatant

精製度 Tissue culture supernatant

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ab108510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		1/500 - 1/1000. Detects a band of approximately 80 kDa (predicted molecular weight: 67 kDa).
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Antigen retrieval is recommended.
ICC/IF		1/100 - 1/250.

追加情報 Is unsuitable for Flow Cyt.

ターゲット情報

機能	Transcriptional repressor that binds CpG islands in promoters where the DNA is methylated	
	position 5 of cytosine within CpG dinucleotides. Binding is abolished by the presence of 7-mG	

that is produced by DNA damage by methylmethanesulfonate (MMS). Acts as transcriptional repressor and plays a role in gene silencing by recruiting AFT7IP, which in turn recruits factors such as the histone methyltransferase SETDB1. Probably forms a complex with SETDB1 and ATF7IP that represses transcription and couples DNA methylation and histone 'Lys-9'

trimethylation. Isoform 1 and isoform 2 can also repress transcription from unmethylated

promoters.

組織特異性 Widely expressed.

配列類似性 Contains 3 CXXC-type zinc fingers.

Contains 1 MBD (methyl-CpG-binding) domain.

ドメイン The methyl-CpG-binding domain (MBD) functions both in binding to methylated DNA and in

protein interactions.

The third CXXC-type zinc finger mediates binding to non-methylated CpG dinucleotides.

The transcriptional repression domain (TRD) is involved in transcription repression and in protein

interactions.

翻訳後修飾 Sumoylated with SUMO1 by PIAS1 and PIAS3. Sumoylation affects transcriptional silencing by

preventing the interaction with SETDB1. In contrast, sumoylation may increase interaction with

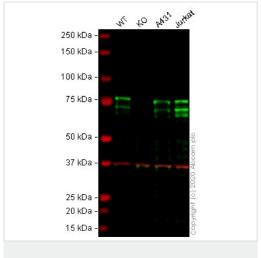
AFT7IP.

Phosphorylated upon DNA damage, probably by ATM or ATR.

細胞内局在 Nucleus speckle. Chromosome. Nuclear, in a punctate pattern. Associated with euchromatic

regions of the chromosomes, with pericentromeric regions on chromosome 1 and with telomeric

regions from several chromosomes.



Western blot - Anti-MBD1 antibody [EPR3564] (ab108510)

All lanes : Anti-MBD1 antibody [EPR3564] (ab108510) at 1/500 dilution

Lane 1: Wild-type HAP1 cell lysate

Lane 2: MBD1 knockout HAP1 cell lysate

Lane 3 : A431 cell lysate

Lane 4 : Jurkat cell lysate

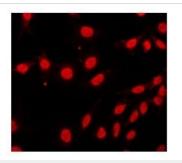
Lysates/proteins at 40 µg per lane.

Performed under reducing conditions.

Predicted band size: 67 kDa **Observed band size:** 70-80 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab108510 observed at 70-80 kDa. Red - loading control <u>ab8245</u> (Mouse anti-GAPDH antibody [6C5]) observed at 37kDa.

ab108510 was shown to react with MBD1 in wild-type HAP1 cells in western blot with loss of signal observed in MBD1 knockout sample. Wild-type and MBD1 knockout HAP1 cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3% milk in TBS-T (0.1% Tween®) before incubation with ab108510 and ab8245 (Mouse anti-GAPDH antibody [6C5]) overnight at 4°C at a 1 in 500 Dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (ab216776) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-MBD1 antibody [EPR3564] (ab108510)

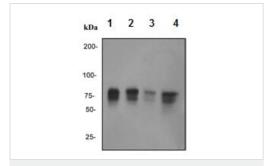
ab108510, at 1/100 dilution, staining MBD1 in MCF7 cells by Immunofluorescence.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-MBD1 antibody
[EPR3564] (ab108510)

ab108510, at 1/100 dilution, staining MBD1 in paraffin-embedded Human tonsil tissue by Immunohistochemistry.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Western blot - Anti-MBD1 antibody [EPR3564] (ab108510)

All lanes : Anti-MBD1 antibody [EPR3564] (ab108510) at 1/500 dilution

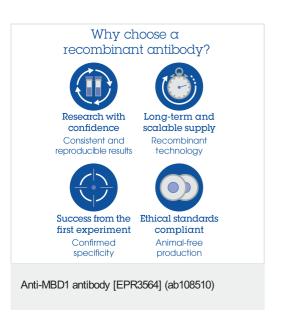
Lane 1 : HeLa cell lysate Lane 2 : A431 cell lysate

Lane 3: 293T (Human embryonic kidney epithelial cell) cell lysate

Lane 4: Jurkat cell lysate

Lysates/proteins at 10 µg per lane.

Predicted band size: 67 kDa



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