Datasheet for ABIN1882100

anti-MBD1 antibody (C-Term)

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Overview

Quantity:	400 µL
Target:	MBD1
Binding Specificity:	AA 376-405, C-Term
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB)

Product Details

Immunogen:	This MBD1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 376-405 amino acids from the C-terminal region of human MBD1.
Clone:	RB2371
Isotype:	Ig Fraction
Purification:	This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Target Details

Target:	MBD1
Alternative Name:	MBD1 (MBD1 Products)
Background:	DNA methylation, or the addition of methyl groups to cytosine bases in the dinucleotide CpG, is imperative to proper development and regulates gene expression. The methylation pattern

Target Details

	involves the enzymatic processes of methylation and demethylation. The demethylation enzyme was recently found to be a mammalian protein, which exhibits demethylase activity associated to a methyl-CpG-binding domain (MBD) (1). The enzyme is able to revert methylated cytosine bases to cytosines within the particular dinucleotide sequence mdCpdG by catalyzing the cleaving of the methyl group as methanol. MeCP2 and MBD1 (PCM1) are first found to repress transcription by binding specifically to methylated DNA (2). MBD2 and MBD4 (also known as MED1) were later found to colocalize with foci of heavily methylated satellite DNA and believed to mediate the biological functions of the methylation signal. Surprisingly, MBD3 does not bind methylated DNA both in vivo and in vitro. MBD1, MBD2, MBD3, and MBD4 are found to be expressed in somatic tissues, but the expression of MBD1 and MBD2 is reduced or absent in embryonic stem cells, which are known to be deficient in MeCP1 activity. MBD4 have homology to bacterial base excision repair DNA N-glycosylases/lyases (3). In some microsatellite unstable tumors MBD4 is mutated at an exonic polynucleotide tract (4).
Molecular Weight:	66607
NCBI Accession:	NP_001191065, NP_001191066, NP_001191067, NP_001191068, NP_001191069, NP_001191070, NP_001191071, NP_001191072, NP_001191080, NP_002375, NP_056669, NP_056670, NP_056671, NP_056723
UniProt:	Q9UIS9

Application Details

Application Notes:	WB: 1:1000
Restrictions:	For Research Use only

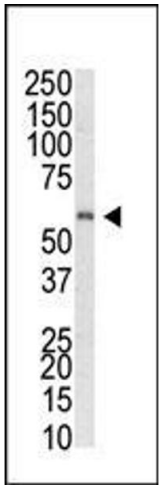
Handling

Format:	Liquid
Buffer:	Purified polyclonal antibody supplied in PBS with 0.09 % (W/V) sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Expiry Date:	6 months

Publications

Product cited in:	Mei, Li, Chu, Yiu, Lo: "The inhibitory effects of silver diamine fluoride at different concentrations on matrix metalloproteinases." in: **Dental materials : official publication of the Academy of Dental Materials**, Vol. 28, Issue 8, pp. 903-8, (2012) (PubMed).

Images



Western Blotting

Image 1. Western blot analysis of anti-MBD1 Pab (ABIN1882100 and ABIN2844105) in HeLa cell lysate. MBD1 (Arrow) was detected using purified Pab. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.