

Product datasheet for **TA336395**

MBD1 Mouse Monoclonal Antibody [Clone ID: 100B272.1]

Product data:

Product Type:	Primary Antibodies
Clone Name:	100B272.1
Applications:	WB
Recommend Dilution:	WB: 2-4 ug/ml
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	This antibody was generated by immunizing mice with a synthetic peptide corresponding to amino acids 391-405 (SESEDGAGSPPPYRR) of human MBD1; GenBank no ref NP_056671.2
Formulation:	PBS containing 0.05% BSA, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	0.5 mg/ml
Purification:	Protein G purified
Gene Name:	methyl-CpG binding domain protein 1
Database Link:	NP_056669 Entrez Gene 4152 Human



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Background:

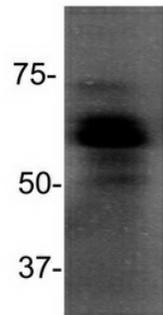
DNA methylation, or the addition of methyl groups to cytosine bases in the dinucleotide CpG, is imperative to proper development and regulates gene expression. The methylation pattern involves the enzymatic processes of methylation and demethylation. The demethylation enzyme was recently found to be a mammalian protein, which exhibits demethylase activity associated to a methyl-CpG-binding domain (MBD). 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. 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. In some microsatellite unstable tumors MBD4 is mutated at an exonic polynucleotide tract.

Synonyms:

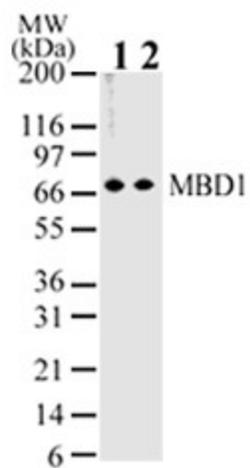
CXXC3; PCM1; RFT

Protein Families:

Druggable Genome, Transcription Factors

Product images:

Western Blot: MBD1 Antibody (100B272.1)
TA336395 - analysis of Jurkat cell lysate using
anti-MBD1 antibody. Image from verified
customer review.



Western Blot: MBD1 Antibody (100B272.1)
TA336395 - Analysis of MBD1 in HeLa lysate using
MBD1 antibody at 2 ug/ml (lane 1) and 1 ug/ml
(lane 2).