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Datasheet for 200-301-H92

MBD3 Antibody

Overview

Description:	Anti-MBD3 (MOUSE) Monoclonal Antibody - 200-301-H92
Item No.:	200-301-H92
Size:	100 µg
Applications:	ChIP, FC, IF, IHC, WB
Reactivity:	Human
Host Species:	Mouse

Product Details

Background:	Anti-MBD3 Antibody detects human MBD3. 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. Anti-MBD3 Antibody is ideal for investigators involved in Epigenetic, DNA damage and repair, and cell cycle protein research.
Synonyms:	Methyl-CpG-binding domain protein 3, Methyl-CpG-binding protein MBD3
Host Species:	Mouse
Clonality:	Monoclonal
Clone ID:	106B691
Format:	IgG1

Target Details

Gene Name:	MBD3
Reactivity:	Human
Immunogen Type:	Conjugated Peptide
Immunogen:	MBD3 Antibody was produced in mice prepared by repeated immunizations with human MBD3 along the internal region of the protein.
Purity/Specificity:	Anti-MBD3 Antibody was purified by Protein G chromatography. A BLAST analysis was used to suggest cross-reactivity with Anti-MBD3 from human based on 100% homology with the immunizing sequence. Cross-reactivity with Anti-MBD3 from other sources has not been determined.
Relevant Links:	• UniProtKB - O95983 • NCBI - NP_003917.1 • GeneID - 53615

Application Details

Tested Applications:	ChIP, FC, IF, IHC, WB
Application Note:	Anti-MBD3 Antibody is tested for use by WB, ChIP, Flow, IHC, IHC-P, and ICC/IF. Expect a band approximately 33 kDa on specific lysates. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
WB:	2 µg/mL

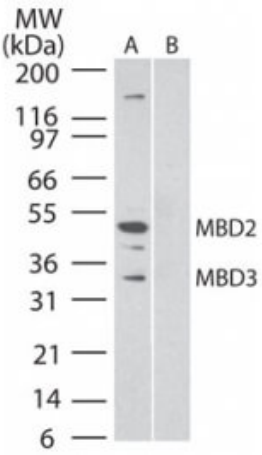
Formulation

Physical State:	Liquid
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.05% (w/v) Sodium Azide
Stabilizer:	0.05% BSA

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot
Western Blot of Mouse Anti-MBD3 antibody. Lane A: HeLa cell lysate probed with MBD3/2 antibody without immunizing peptide. Lane B: HeLa cell lysate probed with MBD3/2 antibody with immunizing peptide. Primary antibody: Livin BIRC7 KIAP antibody at 2 µg/mL for overnight at 4°C. Secondary antibody: IRDye800™ mouse secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 45 kDa for Livin BIRC7 KIAP . Other band(s): none.

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