

Datasheet for ABIN2779420
anti-MBD1 antibody (C-Term)



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Overview

Quantity:	100 µL
Target:	MBD1
Binding Specificity:	C-Term
Reactivity:	Human, Rat, Dog, Cow, Guinea Pig, Horse, Rabbit, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This MBD1 antibody is un-conjugated
Application:	Western Blotting (WB)

Product Details

Immunogen:	The immunogen is a synthetic peptide directed towards the C terminal region of human MBD1
Sequence:	NKDDSASKLA PEEEAGGAGT PVITEIFSLG GTRFRDTAVW LPRSKDLKKP
Predicted Reactivity:	Cow: 100%, Dog: 100%, Guinea Pig: 100%, Horse: 100%, Human: 100%, Mouse: 86%, Rabbit: 100%, Rat: 100%
Characteristics:	This is a rabbit polyclonal antibody against MBD1. It was validated on Western Blot using a cell lysate as a positive control.
Purification:	Affinity Purified

Target Details

Target:	MBD1
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Target Details

Alternative Name: MBD1 ([MBD1 Products](#))

Background: MBD1 belongs to a family of nuclear proteins related by the presence in each of a methyl-CpG binding domain (MBD). Each of these proteins, with the exception of MBD3, is capable of binding specifically to methylated DNA. MBD1 can also repress transcription from methylated gene promoters. Five transcript variants of the MBD1 are generated by alternative splicing resulting in protein isoforms that contain one MBD domain, two to three cysteine-rich (CXXC) domains, and some differences in the COOH terminus. All five transcript variants repress transcription from methylated promoters, in addition, variants with three CXXC domains also repress unmethylated promoter activity. DNA methylation is the major modification of eukaryotic genomes and plays an essential role in mammalian development. Human proteins MECP2, MBD1, MBD2, MBD3, and MBD4 comprise a family of nuclear proteins related by the presence in each of a methyl-CpG binding domain (MBD). Each of these proteins, with the exception of MBD3, is capable of binding specifically to methylated DNA. MECP2, MBD1 and MBD2 can also repress transcription from methylated gene promoters. Five transcript variants of the MBD1 are generated by alternative splicing resulting in protein isoforms that contain one MBD domain, two to three cysteine-rich (CXXC) domains, and some differences in the COOH terminus. All five transcript variants repress transcription from methylated promoters, in addition, variants with three CXXC domains also repress unmethylated promoter activity. MBD1 and MBD2 map very close to each other on chromosome 18q21. DNA methylation is the major modification of eukaryotic genomes and plays an essential role in mammalian development. Human proteins MECP2, MBD1, MBD2, MBD3, and MBD4 comprise a family of nuclear proteins related by the presence in each of a methyl-CpG binding domain (MBD). Each of these proteins, with the exception of MBD3, is capable of binding specifically to methylated DNA. MECP2, MBD1 and MBD2 can also repress transcription from methylated gene promoters. Five transcript variants of the MBD1 are generated by alternative splicing resulting in protein isoforms that contain one MBD domain, two to three cysteine-rich (CXXC) domains, and some differences in the COOH terminus. All five transcript variants repress transcription from methylated promoters, in addition, variants with three CXXC domains also repress unmethylated promoter activity. MBD1 and MBD2 map very close to each other on chromosome 18q21.

Alias Symbols: CXXC3, PCM1, RFT

Protein Interaction Partner: SUMO1, HTT, UBC, ECT2, APP, ATXN1L, TENM1, SUMO2, HIST1H3A, PCNA, ATF7IP2, ATF7IP, CHAF1A, SETDB1, PIAS1, STAT1, PRAM1, HDAC3, PIAS2, ZNF512B, Rnf2, CBX4, CBX5, HIPK3, SMAD9, OASL, SMAD5, SMAD3, SMAD7, SMAD1, SUV39H1,

Target Details

	Protein Size: 549
Molecular Weight:	60 kDa
Gene ID:	4152
NCBI Accession:	NM_015844 , NP_056669

Application Details

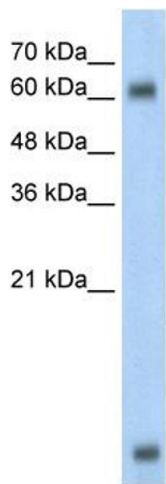
Application Notes:	Optimal working dilutions should be determined experimentally by the investigator.
Comment:	Antigen size: 549 AA
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	Lot specific
Buffer:	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09 % (w/v) sodium azide and 2 % sucrose.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-20 °C
Storage Comment:	For short term use, store at 2-8°C up to 1 week. For long term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles.

Publications

Product cited in:	Zhao, Wu, Bu, Lu, Liang, Cao, Tong, Lu, Wu, Guo et al.: "Epigenetic silence of ankyrin-repeat-containing, SH3-domain-containing, and proline-rich-region- containing protein 1 (ASPP1) and ASPP2 genes promotes tumor growth in hepatitis B virus-positive ..." in: Hepatology (Baltimore, Md.) , Vol. 51, Issue 1, pp. 142-53, (2009) (PubMed).
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Western Blotting

Image 1. WB Suggested Anti-MBD1 Antibody Titration: 0.2-1 ug/ml Positive Control: HepG2 cell lysate