

Datasheet for ABIN356576
anti-MBD3 antibody (C-Term)



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2 Images

Overview

Quantity:	0.4 mL
Target:	MBD3
Binding Specificity:	C-Term
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This MBD3 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Enzyme Immunoassay (EIA)

Product Details

Immunogen:	This antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide corresponding to amino acid residues surrounding E279 of human MBD3.
Isotype:	Ig Fraction
Specificity:	This antibody is specific to MBD3 (C-term).
Purification:	Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Target Details

Target:	MBD3
Alternative Name:	MBD3 (MBD3 Products)

Target Details

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) (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).Synonyms: Methyl-CpG-binding domain protein 3

Gene ID: 53615, 9606

UniProt: [O95983](#)

Pathways: [Chromatin Binding](#)

Application Details

Application Notes: ELISA: 1/1,000. Western Blot: 1/100-1/500. Immunohistochemistry: 1/50-1/100.
Other applications not tested.
Optimal dilutions are dependent on conditions and should be determined by the user.

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 0.25 mg/mL

Buffer: PBS containing 0.09 % (W/V) Sodium Azide as preservative.

Preservative: Sodium azide

Precaution of Use: This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which

Handling

should be handled by trained staff only.

Handling Advice: Avoid repeated freezing and thawing.

Storage: 4 °C/-20 °C

Storage Comment: Store the antibody undiluted at 2-8 °C for one month or (in aliquots) at -20 °C for longer.

Images

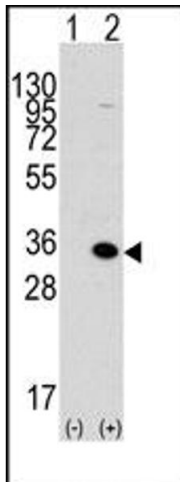


Image 1.

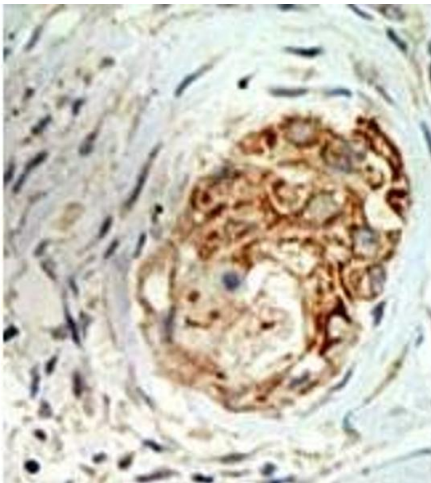


Image 2.