



Datasheet for ABIN387891  
**anti-MBD3 antibody (C-Term)**



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2 Images

Overview

Quantity:	400 µL
Target:	MBD3
Binding Specificity:	AA 264-291, 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))

Product Details

Immunogen:	This MBD3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 264-291 amino acids from the C-terminal region of human MBD3.
Clone:	RB02375
Isotype:	Ig Fraction
Purification:	This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Target Details

Target:	MBD3
Alternative Name:	MBD3 ( <a href="#">MBD3 Products</a> )

## Target Details

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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.

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**Molecular Weight:** 32844

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**Gene ID:** 53615

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**NCBI Accession:** [NP\\_001268382](#), [NP\\_001268383](#)

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**UniProt:** [O95983](#)

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**Pathways:** [Chromatin Binding](#)

## Application Details

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**Application Notes:** WB: 1:1000. IHC-P: 1:50~100

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**Restrictions:** For Research Use only

## Handling

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**Format:** Liquid

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**Buffer:** Purified polyclonal antibody supplied in PBS with 0.09 % (W/V) sodium azide.

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**Preservative:** Sodium azide

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**Precaution of Use:** This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

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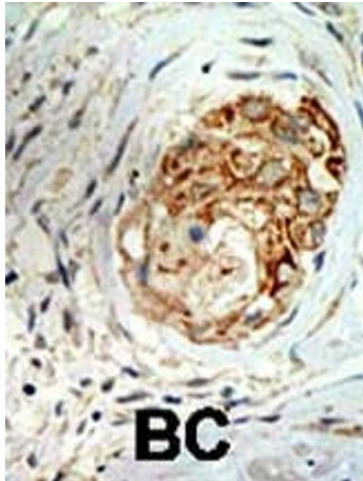
## Handling

Storage: 4 °C, -20 °C

Storage Comment: Maintain refrigerated at 2-8 °C for up to 6 months. For long term storage store at -20 °C in small aliquots to prevent freeze-thaw cycles.

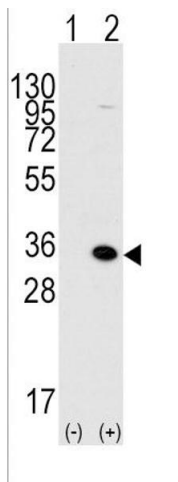
Expiry Date: 6 months

## Images



### Immunohistochemistry (Paraffin-embedded Sections)

**Image 1.** Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry, clinical relevance has not been evaluated. BC = breast carcinoma, HC = hepatocarcinoma.



### Western Blotting

**Image 2.** Western blot analysis of MBD3 (arrow) using rabbit polyclonal MBD3 Antibody (C-term) (ABIN387891 and ABIN2844115). 293 cell lysates (2 µg/lane) either nontransfected (Lane 1) or transiently transfected with the MBD3 gene (Lane 2) (Origene Technologies).