

**Anti-MBD4 Antibody**  
**Catalog # ABO11350****Specification**

---

**Anti-MBD4 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">O95243</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Methyl-CpG-binding domain protein 4(MBD4) detection. Tested with WB in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-MBD4 Antibody - Additional Information**

**Gene ID** 8930

**Other Names**

Methyl-CpG-binding domain protein 4, 3.2.2.-, Methyl-CpG-binding endonuclease 1, Methyl-CpG-binding protein MBD4, Mismatch-specific DNA N-glycosylase, MBD4, MED1

**Calculated MW**

66051 MW KDa

**Application Details**

Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse<br>

**Subcellular Localization**

Nucleus.

**Protein Name**

Methyl-CpG-binding domain protein 4

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of human MBD4(566-580aa YHDWLWENHEKLSLS), identical to the related rat and mouse sequences.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

Storage

**At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.**

#### Sequence Similarities

Contains 1 MBD (methyl-CpG-binding) domain.

### Anti-MBD4 Antibody - Protein Information

**Name** MBD4 ([HGNC:6919](#))

#### Function

Mismatch-specific DNA N-glycosylase involved in DNA repair. Has thymine glycosylase activity and is specific for G:T mismatches within methylated and unmethylated CpG sites. Can also remove uracil or 5-fluorouracil in G:U mismatches. Has no lyase activity. Was first identified as methyl-CpG-binding protein.

#### Cellular Location

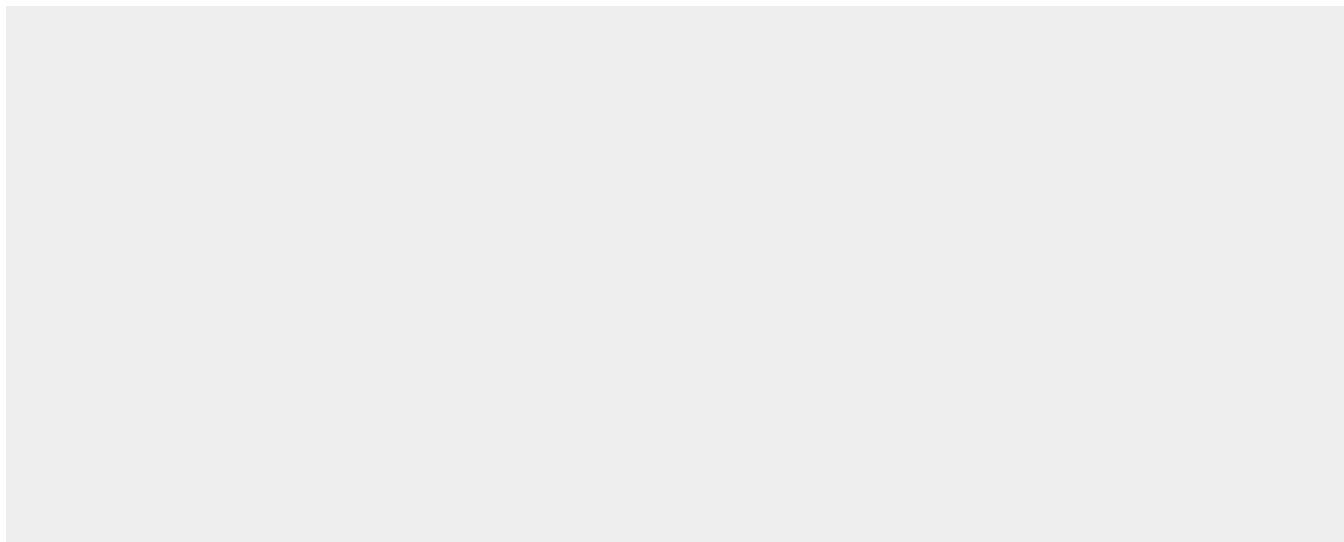
Nucleus.

### Anti-MBD4 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

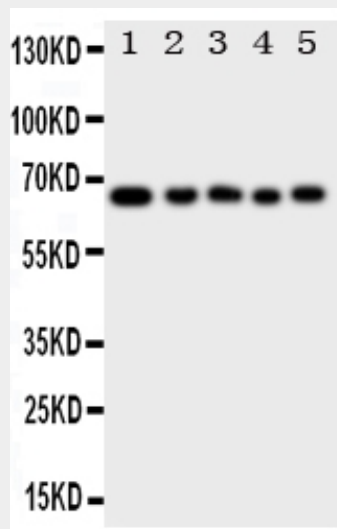
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Anti-MBD4 Antibody - Images





Anti-MBD4 antibody, ABO11350, Western blotting Recombinant Protein Detection Source: E.coli derived -recombinant Human MBD4, 39.7KD(162aa tag+ Q400-S580) Lane 1: Recombinant Human MBD4 Protein 10ng Lane 2: Recombinant Human MBD4 Protein 5ng Lane 3: Recombinant Human MBD4 Protein 2.5ng



Anti-MBD4 antibody, ABO11350, Western blotting Lane 1: Rat Brain Tissue Lysate Lane 2: Rat Kidney Tissue Lysate Lane 3: A549 Cell Lysate Lane 4: HELA Cell Lysate Lane 5: MCF-7 Cell Lysate

### Anti-MBD4 Antibody - Background

MBD4(Methyl-CpG-Binding Domain Protein 4), also known as MED1, is a protein that in humans is encoded by the MBD4 gene. MBD4 specifically binds methylated DNA, colocalizes with methylated sequences, and is likely to mediate the effects of DNA methylation in mammalian cells(Hendrich and Bird, 1998). Riccio et al.(1999) mapped the MBD4 gene to chromosome 3q21-q22 by FISH. Hendrich and Bird(1998) found that both MBD2 and MBD4 specifically bound methylated DNA in vitro and colocalized with methylated sequences in vivo. They concluded that MBD2 and MBD4 are likely to be mediators of the effects of DNA methylation in mammalian cells. Hendrich et al.(1999) showed that MBD4 contains a methyl-CpG-binding domain that can efficiently remove thymine or uracil from mismatched CpG sites in vitro. Furthermore, the methyl-CpG-binding domain of MBD4 binds preferentially to 5-methylcytosine CpG-TpG mismatches--the primary product of deamination at methyl-CpG.