

Anti-MBD4 Antibody

Catalog # ABO11350

Product Information

Application	WB
Primary Accession	O95243
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.

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
Application Details	Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse
Subcellular Localization	Nucleus.
Source	Eukaryota
Protein Name	Methyl-CpG-binding domain protein 4
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
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.

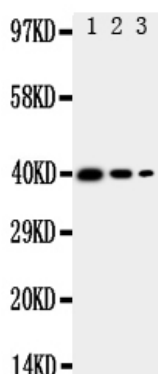
Protein Information

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.

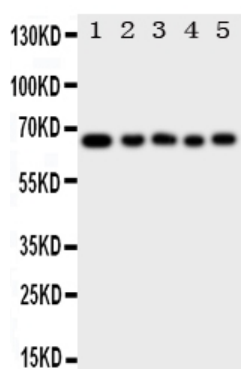
Background

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.

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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.