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MBD4 antibody - middle region
Rabbit Polyclonal Antibody
Catalog # AI10147

Specification

MBD4 antibody - middle region - Product Information

Application	**CHIP, WB**
Primary Accession	O95243
Other Accession	O95243, NP_003916, NM_003925
Reactivity	**Human, Guinea Pig**
Predicted	**Human, Pig, Guinea Pig**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**66 kDa KDa**

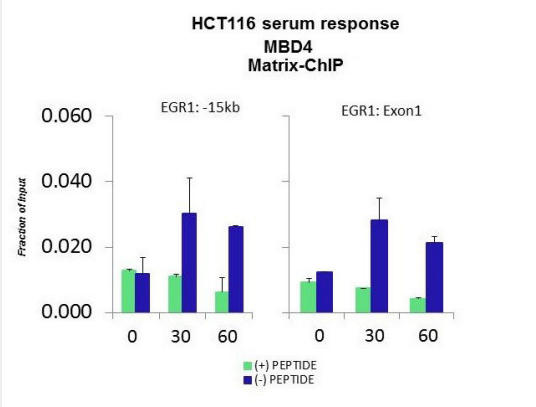
MBD4 antibody - middle region - Additional Information

Gene ID 8930

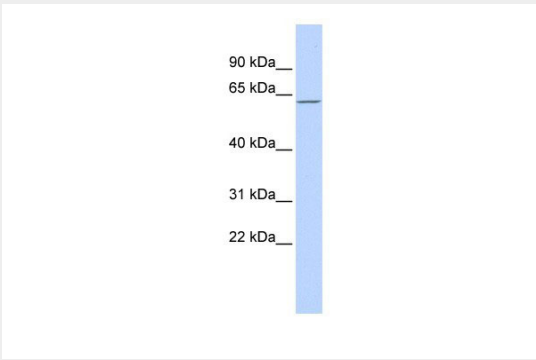
Alias Symbol	**MED1**

Other Names
Methyl-CpG-binding domain protein 4, 322-, Methyl-CpG-binding endonuclease 1, Methyl-CpG-binding protein MBD4, Mismatch-specific DNA N-glycosylase, MBD4, MED1

Target/Specificity
MBD4 is involved with DNA methylation. DNA methylation is the major modification of eukaryotic genomes and plays an essential role in mammalian development. Human proteins MECP2, MBD1, MBD2, MBD3, and MBD3 comprise a family of nuclear proteins related by??he 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. MBD4 may function to mediate the biological consequences of the methylation signal. In addition, MBD4 has protein sequence similarity to bacterial DNA repair enzymes and thus may have some function in DNA repair. Further, MBD4 gene mutations are



MBD4 antibody - middle region (AI10147) in HCT116 using CHIP
Quiescent human colon carcinoma HCT116 cultures were treated with 10% FBS for three time points (0, 15, 30min) or (0, 30, 60min) were used in Matrix-ChIP and real-time PCR assays at EGR1 gene (Exon1) and 15kb upstream site.



MBD4 antibody - middle region (AI10147) in Human HeLa cells using Western Blot
WB Suggested Anti-MBD4 Antibody Titration: 0.2-1 µg/ml
ELISA Titer: 1:12500
Positive Control: Hela cell lysate
MBD4 is strongly supported by BioGPS gene expression data to be expressed in Human HeLa cells

MBD4 antibody - middle region - Background

detected in tumors with primary microsatellite-instability (MSI), a form of genomic instability associated with defective DNA mismatch repair, and MBD4 gene meets 4 of 5 criteria of a bona fide MIS target gene.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. MBD4 may function to mediate the biological consequences of the methylation signal. In addition, MBD4 has protein sequence similarity to bacterial DNA repair enzymes and thus may have some function in DNA repair. Further, MBD4 gene mutations are detected in tumors with primary microsatellite-instability (MSI), a form of genomic instability associated with defective DNA mismatch repair, and MBD4 gene meets 4 of 5 criteria of a bona fide MIS target gene. Publication Note: This RefSeq record includes a subset of the publications that are available for this gene. Please see the Entrez Gene record to access additional publications.

Format
Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.

Reconstitution & Storage
Add 50 ul of distilled water. Final anti-MBD4 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at -20°C. Avoid repeat freeze-thaw cycles.

Precautions
MBD4 antibody - middle region is for research use only and not for use in diagnostic or therapeutic procedures.

MBD4 antibody - middle region - Protein Information

Name MBD4

Synonyms MED1

This is a rabbit polyclonal antibody against MBD4. It was validated on Western Blot using a cell lysate as a positive control. Abgent strives to provide antibodies covering each member of a whole protein family of your interest. We also use our best efforts to provide you antibodies recognize various epitopes of a target protein. For availability of antibody needed for your experiment, please inquire (sales@abgent.com).

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.

MBD4 antibody - middle region - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture