

**MBD2 Antibody (Internal)**  
**Goat Polyclonal Antibody**  
**Catalog # ALS12862****Specification**

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**MBD2 Antibody (Internal) - Product Information**

Application	IHC
Primary Accession	<a href="#">Q9UBB5</a>
Reactivity	Human, Mouse, Rat, Rabbit, Hamster, Monkey, Pig, Horse, Bovine, Dog
Host	Goat
Clonality	Polyclonal
Calculated MW	43kDa KDa

**MBD2 Antibody (Internal) - Additional Information****Gene ID** 8932**Other Names**

Methyl-CpG-binding domain protein 2, Demethylase, DMTase, Methyl-CpG-binding protein MBD2, MBD2

**Target/Specificity**

Human MBD2. This antibody is expected to recognize isoform 1 (NP\_003918.1) only.

**Reconstitution & Storage**

Store at -20°C. Minimize freezing and thawing.

**Precautions**

MBD2 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

**MBD2 Antibody (Internal) - Protein Information****Name** MBD2 ([HGNC:6917](#))**Function**

Binds CpG islands in promoters where the DNA is methylated at position 5 of cytosine within CpG dinucleotides (PubMed:<a href="http://www.uniprot.org/citations/9774669" target="\_blank">9774669</a>). Binds hemimethylated DNA as well (PubMed:<a href="http://www.uniprot.org/citations/10947852" target="\_blank">10947852</a>, PubMed:<a href="http://www.uniprot.org/citations/24307175" target="\_blank">24307175</a>). Recruits histone deacetylases and DNA methyltransferases to chromatin (PubMed:<a href="http://www.uniprot.org/citations/10471499" target="\_blank">10471499</a>, PubMed:<a href="http://www.uniprot.org/citations/10947852" target="\_blank">10947852</a>). Acts as a component of the histone deacetylase NuRD complex which participates in the remodeling of chromatin (PubMed:<a href="http://www.uniprot.org/citations/16428440" target="\_blank">16428440</a>, PubMed:<a href="http://www.uniprot.org/citations/28977666" target="\_blank">28977666</a>).

target="\_blank">28977666</a>). Acts as a transcriptional repressor and plays a role in gene silencing (PubMed:<a href="http://www.uniprot.org/citations/10471499" target="\_blank">10471499</a>, PubMed:<a href="http://www.uniprot.org/citations/10947852" target="\_blank">10947852</a>, PubMed:<a href="http://www.uniprot.org/citations/16415179" target="\_blank">16415179</a>). Functions as a scaffold protein, targeting GATAD2A and GATAD2B to chromatin to promote repression (PubMed:<a href="http://www.uniprot.org/citations/16415179" target="\_blank">16415179</a>). May enhance the activation of some unmethylated cAMP-responsive promoters (PubMed:<a href="http://www.uniprot.org/citations/12665568" target="\_blank">12665568</a>).

#### **Cellular Location**

Nucleus. Chromosome Note=Nuclear, in discrete foci (PubMed:12183469). Detected at replication foci in late S phase. Localizes to methylated chromatin (PubMed:16428440). Localizes to sites of DNA damage in a manner partially dependent on ZMYND8 (PubMed:27732854)

#### **Tissue Location**

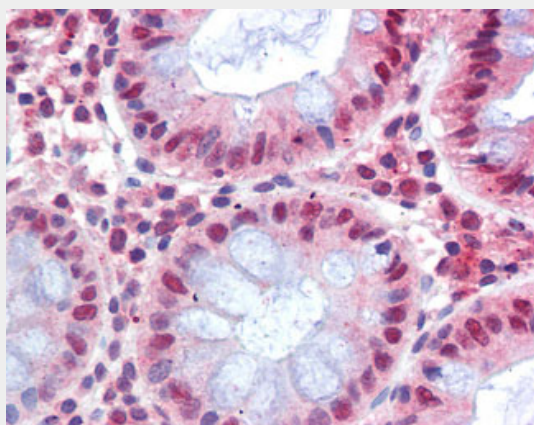
Highly expressed in brain, heart, kidney, stomach, testis and placenta.

### **MBD2 Antibody (Internal) - 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](#)

### **MBD2 Antibody (Internal) - Images**



Anti-MBD2 antibody IHC of human colon.

### **MBD2 Antibody (Internal) - Background**

Binds CpG islands in promoters where the DNA is methylated at position 5 of cytosine within CpG dinucleotides. Binds hemimethylated DNA as well. Recruits histone deacetylases and DNA methyltransferases. Acts as transcriptional repressor and plays a role in gene silencing. Functions as a scaffold protein, targeting GATAD2A and GATAD2B to chromatin to promote repression. May

enhance the activation of some unmethylated cAMP-responsive promoters.

**MBD2 Antibody (Internal) - References**

Hendrich B.,et al.Mol. Cell. Biol. 18:6538-6547(1998).  
Hendrich B.,et al.Mamm. Genome 10:906-912(1999).  
Bhattacharya S.K.,et al.Nature 397:579-583(1999).  
Ng H.-H.,et al.Nat. Genet. 23:58-61(1999).  
Tatematsu K.,et al.Genes Cells 5:677-688(2000).