

MBD2 Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8622b

Specification

MBD2 Antibody - Product Information

| | |
|-------------------|------------------------|
| Application | WB, IHC-P,E |
| Primary Accession | O9UBB5 |
| Reactivity | Human |
| Host | Mouse |
| Clonality | monoclonal |
| Isotype | IgG1,k |
| Calculated MW | 43255 |

MBD2 Antibody - Additional Information

Gene ID 8932

Other Names

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

Target/Specificity

This MBD2 antibody is generated from a mouse immunized with a recombinant protein between 10-228 amino acids from human MBD2.

Dilution

WB~~1:2000

IHC-P~~1:25

Format

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage

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

Precautions

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

MBD2 Antibody - 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:[9774669](#)). Binds hemimethylated DNA as well (PubMed:[10947852](#), PubMed:[24307175](#)). Recruits histone deacetylases and DNA

methyltransferases to chromatin (PubMed:[10471499](#), PubMed:[10947852](#)). Acts as a component of the histone deacetylase NuRD complex which participates in the remodeling of chromatin (PubMed:[16428440](#), PubMed:[28977666](#)). Acts as a transcriptional repressor and plays a role in gene silencing (PubMed:[10471499](#), PubMed:[10947852](#), PubMed:[16415179](#)). Functions as a scaffold protein, targeting GATAD2A and GATAD2B to chromatin to promote repression (PubMed:[16415179](#)). May enhance the activation of some unmethylated cAMP-responsive promoters (PubMed:[12665568](#)).

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

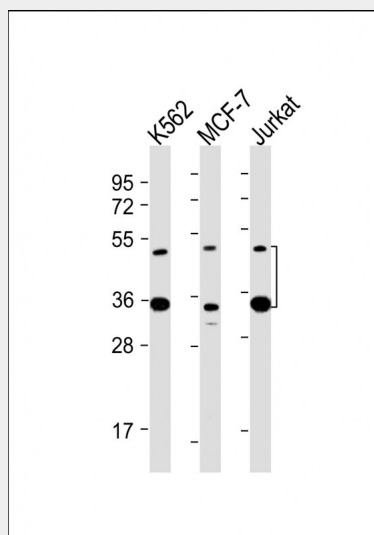
Highly expressed in brain, heart, kidney, stomach, testis and placenta.

MBD2 Antibody - Protocols

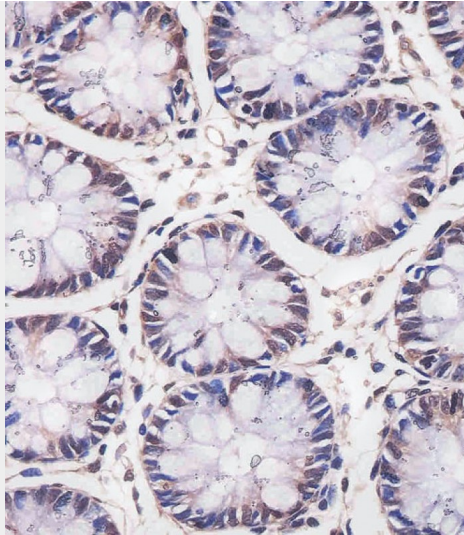
Provided below are standard protocols that you may find useful for product applications.

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

MBD2 Antibody - Images



All lanes : Anti-MBD2 Antibody at 1:2000 dilution Lane 1: K562 whole cell lysate Lane 2: MCF-7 whole cell lysate Lane 3: Jurkat whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 43 kDa Blocking/Dilution buffer: 5% NFDN/TBST.



AM8622b staining MBD2 in human colon tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0.5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hour at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.

MBD2 Antibody - 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 - 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).