

**KD-Validated Anti-Methyl-CpG Binding Domain Protein 2 Rabbit Monoclonal Antibody**  
**Rabbit monoclonal antibody**  
**Catalog # AGI1606****Specification****KD-Validated Anti-Methyl-CpG Binding Domain Protein 2 Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	<a href="#">Q9UBB5</a>
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 43 kDa , observed , 29,43 kDa
Gene Name	KDa
Aliases	MBD2 MBD2; Methyl-CpG Binding Domain Protein 2; Methyl-CpG-Binding Domain Protein 2; Demethylase; DMTase; Methyl-CpG-Binding Protein MBD2; NY-CO-41
Immunogen	A synthesized peptide derived from human MBD2

**KD-Validated Anti-Methyl-CpG Binding Domain Protein 2 Rabbit Monoclonal Antibody - Additional Information**

Gene ID 8932

**Other Names**

Methyl-CpG-binding domain protein 2, Demethylase, DMTase, Methyl-CpG-binding protein MBD2, MBD2 ([http://www.genenames.org/cgi-bin/gene\\_symbol\\_report?hgnc\\_id=6917](http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=6917))  
[HGNC:6917](#))

**KD-Validated Anti-Methyl-CpG Binding Domain Protein 2 Rabbit Monoclonal 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:<http://www.uniprot.org/citations/9774669>). Binds hemimethylated DNA as well (PubMed:<http://www.uniprot.org/citations/10947852>, PubMed:<http://www.uniprot.org/citations/24307175>). Recruits histone deacetylases and DNA methyltransferases to chromatin (PubMed:<http://www.uniprot.org/citations/10471499>, PubMed:<http://www.uniprot.org/citations/10947852>). Acts as a component of the histone deacetylase NuRD complex which participates in the remodeling of chromatin (PubMed:<http://www.uniprot.org/citations/16428440>, PubMed:<http://www.uniprot.org/citations/28977666>)

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

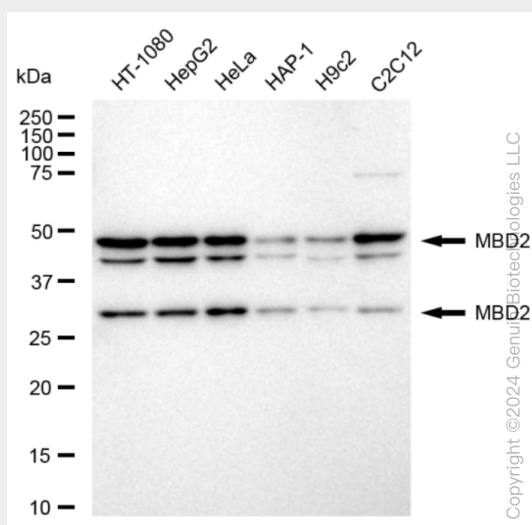
Highly expressed in brain, heart, kidney, stomach, testis and placenta.

## KD-Validated Anti-Methyl-CpG Binding Domain Protein 2 Rabbit Monoclonal Antibody - Protocols

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

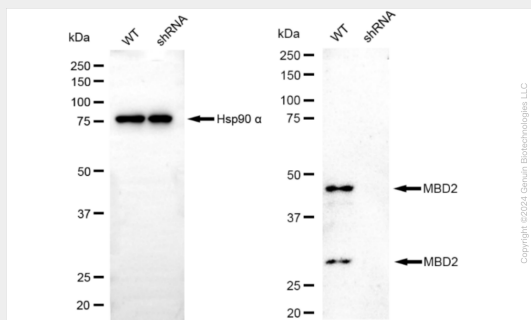
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## KD-Validated Anti-Methyl-CpG Binding Domain Protein 2 Rabbit Monoclonal Antibody - Images

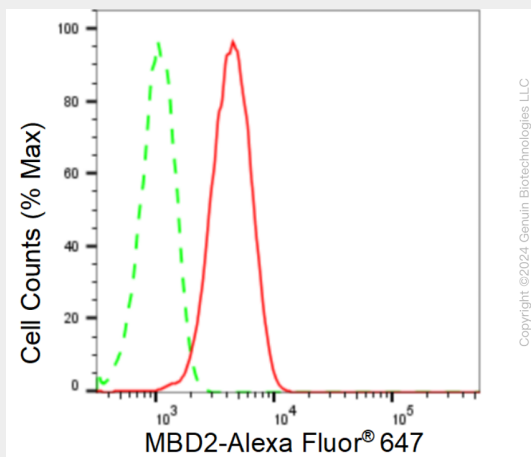


Western blotting analysis using anti-MBD2 antibody (Cat#AGI1606). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with

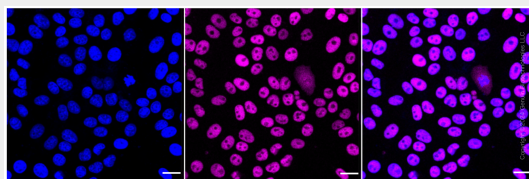
anti-MBD2 antibody (Cat#AGI1606, 1:10,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-MBD2 antibody (Cat#AGI1606). MBD2 expression in wild type (WT) and MBD2 shRNA knockdown (KD) HT-1080 cells with 20 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-MBD2 antibody (Cat#AGI1606, 1:10,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of MBD2 expression in HepG2 cells using MBD2 antibody (Cat#AGI1606, 1:2,000). Green, isotype control; red, MBD2.



Immunocytochemical staining of HepG2 cells with anti-MBD2 antibody (Cat#AGI1606, 1:1,000). Nuclei were stained blue with DAPI; MBD2 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.