10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

[KD]MBD2 Rabbit mAb

Catalog # AP75695

Product Information

Application	WB, IHC-P, FC, IP
Primary Accession	Q9UBB5
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	43255

Additional Information

Gene ID	8932
Other Names	MBD2
Dilution	WB~~1:500-1:1000 IHC-P~~N/A FC~~1:20 IP~~1:20
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

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

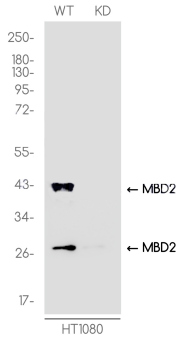
(PubMed:16428440). Localizes to sites of DNA damage in a manner partially dependent on ZMYND8 (PubMed:27732854)

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

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.

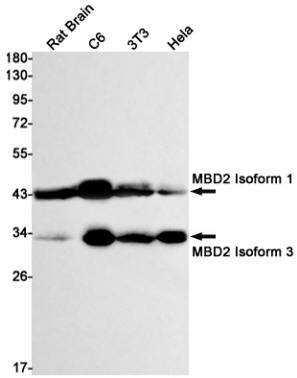
Images



Western blot analysis of MBD2 in HT1080(WT) and MBD2-Knockdown HT1080(KD) using MBD2 antibody.

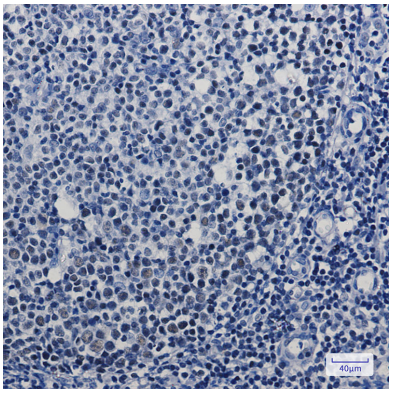


Immunocytochemistry analysis of MBD2 (green) in HL-60 using MBD2 antibody,and DAPI(blue).



Western blot analysis of MBD2 in rat Brain, C6, 3T3, Hela lysates using MBD2 antibody.

Immunohistochemistry analysis of paraffin-embedded Human tonsil using MBD2 antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.



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