

Product Name: KD-Validated Methyl-CpG Binding Domain Protein 2 Recombinant Rabbit Monoclonal Antibody

Catalog #: KVAAb00769

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 43.3kDa

Antigen Information

Gene Name	MBD2
Alternative Names	MBD2; Methyl-CpG Binding Domain Protein 2; Methyl-CpG-Binding Domain Protein 2; Demethylase; DMTase; Methyl-CpG-Binding Protein MBD2; NY-CO-41
Gene ID	8932.0
SwissProt ID	Q9UBB5
Immunogen	A synthesized peptide derived from human MBD2

Background

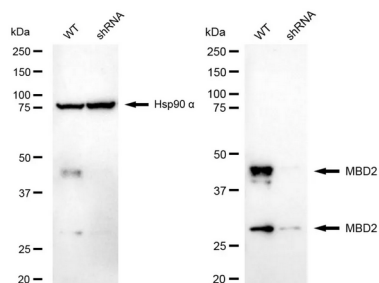
DNA methylation is the major modification of eukaryotic genomes and plays an essential role in mammalian development. Human proteins MECP2, MBD1, MBD2, MBD3, and MBD4 comprise a family of nuclear proteins related by the presence in each

of a methyl-CpG binding domain (MBD). Each of these proteins, with the exception of MBD3, is capable of binding specifically to methylated DNA. MECP2, MBD1 and MBD2 can also repress transcription from methylated gene promoters. The protein encoded by this gene may function as a mediator of the biological consequences of the methylation signal. It is also reported that the this protein functions as a demethylase to activate transcription, as DNA methylation causes gene silencing. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Feb 2011]

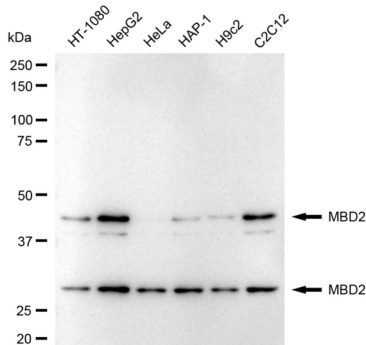
Research Area

Epigenetics and Nuclear Signaling

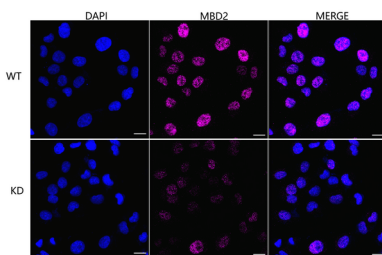
Image Data



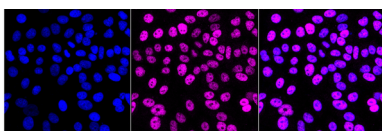
Western blotting analysis using MBD2 antibody (KVA00769). MBD2 expression in wild-type (WT) and MBD2 shRNA knockdown (KD) HT-1080 cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with MBD2 antibody (KVA00769, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



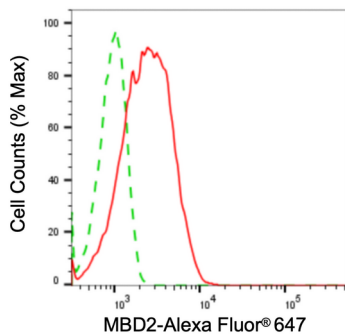
Western blotting analysis using MBD2 antibody (KVA00769). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with MBD2 antibody (KVA00769, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively. MBD2, methyl-CpG binding domain protein 2.



Immunocytochemical staining of HT-1080 cells using MBD2 antibody (KVA00769, 1:1,000), Top panel: wild-type (WT); Bottom panel: MBD2 shRNA knockdown (KD). Nuclei were stained blue with DAPI; MBD2 was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm. Permeabilization: Triton.



Immunocytochemical staining of HepG2 cells with MBD2 antibody (KVA00769, 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.



Flow cytometric analysis of MBD2 expression in HepG2 cells using MBD2 antibody (KVA00769, 1:2,000). Green, isotype control; red, MBD2.