

10-7007: Monoclonal Antibody to MBD1 (Clone: ABM15H2)

Clonality :	Monoclonal
Clone Name :	ABM15H2
Application :	IHC,FACS,WB
Reactivity :	Human
Gene :	MBD1
Gene ID :	4152
Uniprot ID :	Q9UIS9
Format :	Purified
Alternative Name :	MBD1,CXXC3,PCM1
Isotype :	Mouse IgG1 Kappa
Immunogen Information :	A partial length recombinant MBD1 protein (amino acids 291-586) was used as the immunogen for this antibody.

Description

MBD1 (Methyl-CpG-Binding Domain Protein 1) protein is a primary candidate for the readout of DNA methylation as it recruits chromatin remodelers, histone deacetylases and methylases to methylated DNA associated with gene repression. This protein, a member of a transcriptional repressor family MBD, is predominantly expressed in neurons. MBD protein binding requires both functional MBD domains and methyl-CpGs; however, some MBD proteins also bind unmethylated DNA and active regulatory regions via alternative regulatory domains or interaction with the NuRD/Mi-2 (Nucleosome Remodeling Deacetylase) complex members. The CXXC3 domain of MBD1 makes it a unique member of the MBD family due to its affinity to unmethylated DNA. MBD1 acts as an epigenetic regulator via different mechanisms, such as the formation of the MCAF1/MBD1/SETDB1 complex or the MBD1-HDAC3 complex. It also plays an important role in disease progression, contributes to the drug resistance of PC cells; however, the mechanism underlying the drug resistance endowed by MBD1 remains unknown.

Product Info

Amount :	25 µg / 100 µg
Purification :	Protein G Chromatography
Content :	25 µg in 50 µl/100 µg in 200 µl PBS containing 0.05% BSA and 0.05% sodium azide. Sodium azide is highly toxic.
Storage condition :	Store the antibody at 4°C, stable for 6 months. For long-term storage, store at -20°C. Avoid repeated freeze and thaw cycles.

Application Note

Western blot analysis: 2-4 µg/ml, Immunohistochemical analysis: 5 µg/ml, FACS analysis: 0.5-1 µg/10⁶ Cells

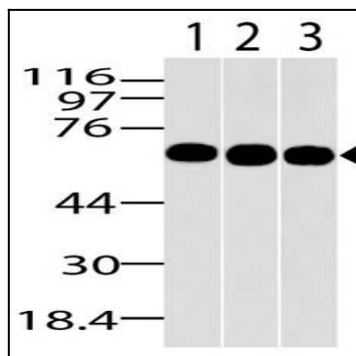


Fig-1: Western blot analysis of MBD1. Anti-MBD1 antibody (Clone: ABM15H2) was used at 2 µg/ml on HepG2, MCF7 and A431 lysates.

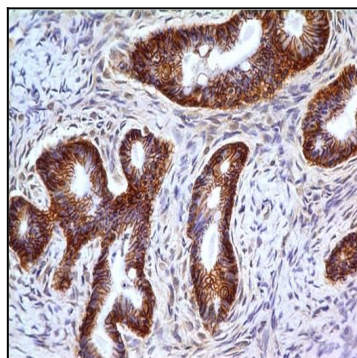


Fig-2 : Immunohistochemical analysis of MBD1 in Cystadenocarcinoma of ovary using MBD1 antibody (Clone: ABM15H2) at 5 µg/ml.

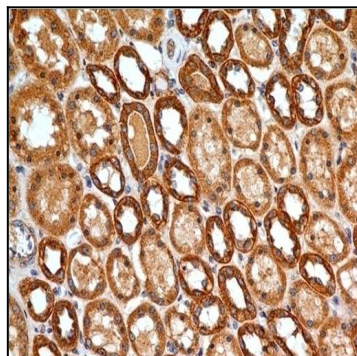


Fig-3 : Immunohistochemical analysis of MBD1 in human Kidney tissue using MBD1 antibody (Clone: ABM15H2) at 5 µg/ml.

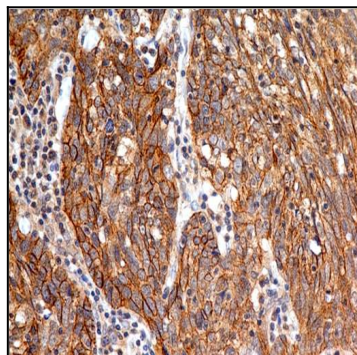


Fig-4 : Immunohistochemical analysis of MBD1 in Squamous cell carcinoma of Lungs using MBD1 antibody (Clone: ABM15H2) at 5 µg/ml.

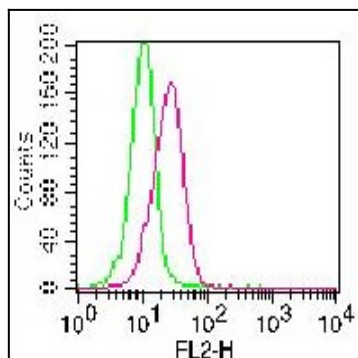


Fig-5: Intracellular staining of PMA treated Jurkat cells using 0.5 $\mu\text{g}/10^6$ Cells. Green represents isotope control, Red represents 10-7007 (ABM15H2) antibody. Goat anti-mouse PE was used as secondary antibody.