



Anti-MBD2/MBD3 Antibody (Clone ABM14A8)

Alternative Names: MBD2, MBD3, Methyl-CpG-Binding Domain Protein 3, Methyl-CpG-Binding Domain Protein 2, NuRD complex, nucleosome remodelling and deacetylation complex

Catalogue Number: AA17-10028-100ug

Size: 100 µg

Background Information

MBD2 and MBD3 are non-enzymatic subunits of the NuRD (nucleosome remodelling and deacetylation) complex. MBD2 and MBD3 are close relatives and probably descend via gene duplication from an ancestral MBD2/MBD3, that is present in some metazoans as for instance *Caenorhabditis elegans* and *Drosophila*. Outside the MBD domain, MBD2 and MBD3 share almost 80% homology; they both have an MBD and a coiled-coil domain (CC). Apart from this common domain, MBD2 contains an additional N-terminal glycine-arginine (GR) rich domain and a transcriptional repressor domain (TRD), whereas MBD3 has a C-terminal poly-glutamate region. Three isoforms have been described for MBD2 protein: the full length MBD2a, MBD2b lacking the N-terminal GR repeat and MBD2c that is a testis specific isoform lacking the C-terminus. Also MBD3 presents three isoforms: Mbd3b – the major isoform in embryonic stem cells, Mbd3a and a smaller isoform Mbd3c. The crucial difference between MBD2 and MBD3 is that MBD3 does not bind methylated DNA, because it lacks four conserved amino acids in the MBD domain.

Product Information

Antibody Type:	Monoclonal	Host:	Mouse
Isotype:	IgG1 kappa	Species Reactivity:	Human
Immunogen:	Full length recombinant human MBD3		
Format:	100 µg in 200 µl PBS containing 0.05% BSA and 0.05% sodium azide.		
Storage Conditions:	6 months: 4°C. Long-term storage: -20°C. Avoid multiple freeze and thaw cycles.		
Applications:	IHC FACS WB WB: 2-4 ug/ml, Immunohistochemical analysis: 5 ug/ml, FACS analysis: 0.5 ug/10 ⁶ cells		

Additional Information

Subcellular location:	Nucleus	MW:	33kDa (Intended as a general guide and does not allow for all isoforms and species variations)
Gene ID	53615	Uniprot ID:	O95983



References

(Menafrà R, Stunnenberg HG. MBD2 and MBD3: elusive functions and mechanisms. *Frontiers in Genetics*. 2014;5:428. doi:10.3389/fgene.2014.00428.)