

MECP2 Antibody

Purified Mouse Monoclonal Antibody

Catalog # AO2163a

Product Information

Application	WB, IHC, FC, ICC, E
Primary Accession	P51608
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	8H4A5B9
Isotype	IgG1
Calculated MW	52441
Description	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. In contrast to other MBD family members, MECP2 is X-linked and subject to X inactivation. MECP2 is dispensible in stem cells, but is essential for embryonic development. MECP2 gene mutations are the cause of most cases of Rett syndrome, a progressive neurologic developmental disorder and one of the most common causes of mental retardation in females.
Immunogen	Purified recombinant fragment of human MECP2 (AA: 7-148) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	4204
Other Names	Methyl-CpG-binding protein 2, MeCp-2 protein, MeCp2, MECP2
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 ICC~~N/A E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MECP2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MECP2
Function	Chromosomal protein that binds to methylated DNA. It can bind specifically to a single methyl-CpG pair. It is not influenced by sequences flanking the methyl-CpGs. Mediates transcriptional repression through interaction with histone deacetylase and the corepressor SIN3A. Binds both 5-methylcytosine (5mC) and 5-hydroxymethylcytosine (5hmC)- containing DNA, with a preference for 5-methylcytosine (5mC).
Cellular Location	Nucleus {ECO:0000250 UniProtKB:Q9Z2D6}. Note=Colocalized with methyl-CpG in the genome. Colocalized with TBL1X to the heterochromatin foci.
Tissue Location	Present in all adult somatic tissues tested.

References

1.J Pediatr Surg. 2013 Oct;48(10):2099-105.2.Cell Res. 2013 Nov;23(11):1244-6.

Images

