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MeCP2 Antibody (N-term S80)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11975A

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P51608
Other Accession	Q00566, Q9Z2D6, Q95LG8, NP_001104262.1
Reactivity	Human
Predicted	Monkey, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB27934
Calculated MW	52441
Antigen Region	58-87

Additional Information

Gene ID	4204
Other Names	Methyl-CpG-binding protein 2, MeCp-2 protein, MeCp2, MECP2
Target/Specificity	This MeCP2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 58-87 amino acids from the N-terminal region of human MeCP2.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MeCP2 Antibody (N-term S80) 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.

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. 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. [provided by RefSeq].

References

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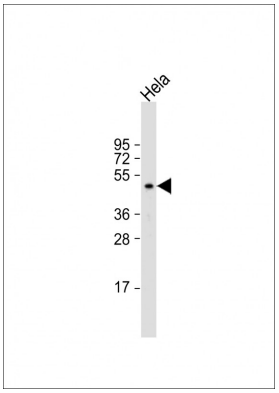
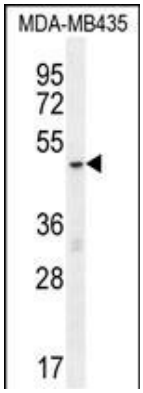
Pintaudi, M., et al. Epilepsy Behav (2010) In press :
Jain, D., et al. Pediatr. Neurol. 43(1):35-40(2010)
Harvey, C.G., et al. Am. J. Med. Genet. B Neuropsychiatr. Genet. 144B (3), 355-360 (2007) :
Francke, U. Nat Clin Pract Neurol 2(4):212-221(2006)

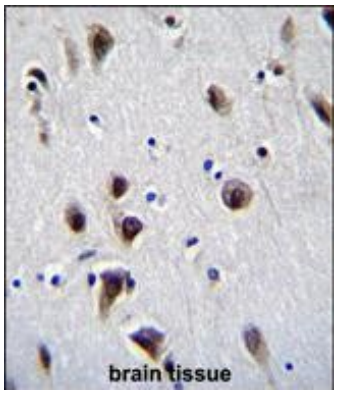
Images



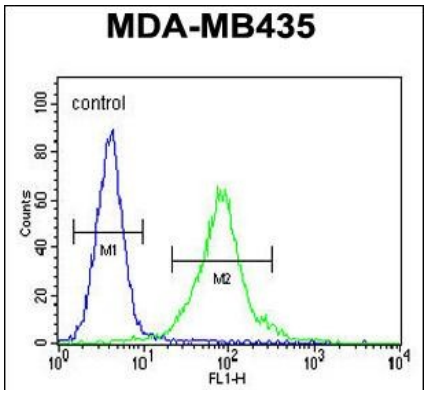
Anti-MeCP2 Antibody (N-term S80) at 1:500 dilution + Hela whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 52 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

MeCP2 Antibody (pS80) (Cat. #AP11975a) western blot analysis in MDA-MB435 cell line lysates (35ug/lane).This demonstrates the MeCP2 antibody detected the MeCP2 protein (arrow).





MeCP2 Antibody (N-term S80) (Cat. #AP11975a)immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of MeCP2 Antibody (N-term S80) for immunohistochemistry. Clinical relevance has not been evaluated.



MeCP2 Antibody (N-term S80) (Cat. #AP11975a) flow cytometric analysis of MDA-MB435 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.