

**MeCP2 Antibody (N-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP2545a****Specification**

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**MeCP2 Antibody (N-term) - Product Information**

Application	<b>WB, FC,E</b>
Primary Accession	<a href="#">P51608</a>
Other Accession	<a href="#">O95LG8</a>
Reactivity	<b>Human</b>
Predicted	<b>Monkey</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Isotype	<b>Rabbit IgG</b>
Calculated MW	<b>52441</b>
Antigen Region	<b>1-30</b>

**MeCP2 Antibody (N-term) - 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 1-30 amino acids from the N-terminal region of human MeCP2.

**Dilution**

WB~~1:1000

FC~~1:10~50

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**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) is for research use only and not for use in diagnostic or therapeutic procedures.

**MeCP2 Antibody (N-term) - 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

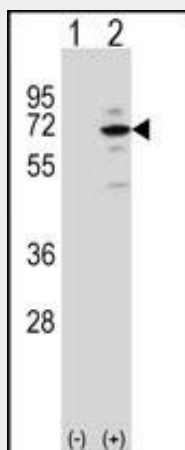
Present in all adult somatic tissues tested.

### MeCP2 Antibody (N-term) - Protocols

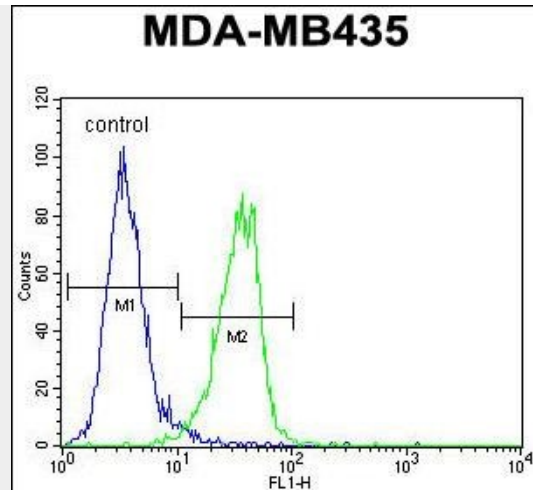
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### MeCP2 Antibody (N-term) - Images



Western blot analysis of MeCP2 (arrow) using rabbit polyclonal MeCP2 Antibody (E11) (Cat. #AP2545a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the MeCP2 gene.



MeCP2 Antibody (N-term) (Cat. #AP2545a) 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.

### **MeCP2 Antibody (N-term) - 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 dispensable in stem cells, but is essential for embryonic development. MECP2 gene mutations are the cause of some cases of Rett syndrome, a progressive neurologic developmental disorder and one of the most common causes of mental retardation in females.

### **MeCP2 Antibody (N-term) - References**

- dos Santos, J.M., et al., *Neurosci. Lett.* 379(1):13-16 (2005).
- Ylisaukko-Oja, T., et al., *Am J Med Genet A* 132(2):121-124 (2005).
- Schanen, C., et al., *Am J Med Genet A* 126(2):129-140 (2004).
- Shibayama, A., et al., *Am. J. Med. Genet. B Neuropsychiatr. Genet.* 128(1):50-53 (2004).
- Fang, J.Y., et al., *World J. Gastroenterol.* 10(23):3394-3398 (2004).