

MeCP2 (aa 11-25; aa 181-195) Antibody
Rabbit Polyclonal Antibody
Catalog # ABV11103**Specification**

MeCP2 (aa 11-25; aa 181-195) Antibody - Product Information

Application	WB
Primary Accession	P51608
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	52441

MeCP2 (aa 11-25; aa 181-195) Antibody - Additional Information**Gene ID** 4204

Positive Control	HeLa cell lysate
Application & Usage	Western blot analysis (2-4 µg/ml). However, the optimal conditions should be determined individually.

Other Names

Methyl-CpG-Binding Protein 2

Target/Specificity

MeCP2

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

50 µg in 100 µl PBS containing 0.2% gelatin and 0.05% sodium azide

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions**Precautions**

MeCP2 (aa 11-25; aa 181-195) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

MeCP2 (aa 11-25; aa 181-195) Antibody - 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 (aa 11-25; aa 181-195) Antibody - 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 (aa 11-25; aa 181-195) Antibody - Images

MeCP2 (aa 11-25; aa 181-195) Antibody - Background

DNA methylation, or the addition of methyl groups to cytosine bases in the dinucleotide CpG, is imperative to proper development and regulates gene expression. The methylation pattern involves the enzymatic processes of methylation and demethylation. A demethylase enzyme has been identified which exhibits demethylase activity associated to a methyl-CpG-binding domain (MBD). The enzyme is able to revert methylated cytosine bases to cytosines within the particular dinucleotide sequence mCpG by catalyzing the cleaving of the methyl group as methanol. MeCP2 and MBD1 (PCM1) repress transcription by binding specifically to methylated DNA. MBD2 and MBD4 (also known as MED1) co-localize with foci of heavily methylated satellite DNA and mediate the biological functions of the methylation signal. Surprisingly, MBD3 does not bind methylated DNA either in vivo or in vitro. MeCP2, MBD1, MBD2, MBD3, and MBD4 are expressed in somatic tissues, but the expression of MBD1 and MBD2 is reduced or absent in embryonic stem cells, which are known to be deficient in MeCP1 activity. MBD4 has homology to bacterial base excision repair DNA N-glycosylases/lyases. In some microsatellite unstable tumors MBD4 is mutated at an exonic polynucleotide tract.