

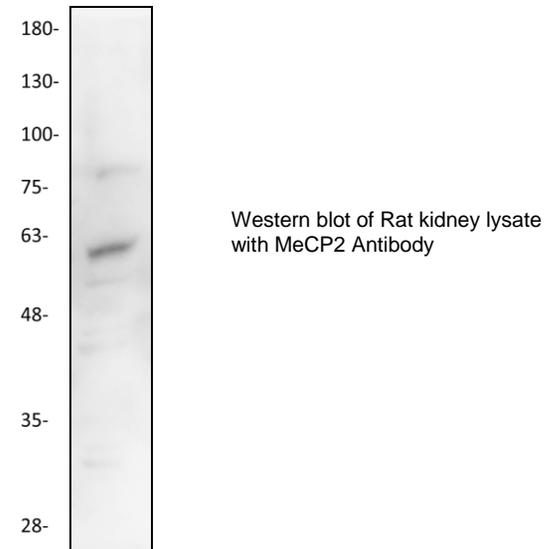
# MeCP2 Antibody

|                            |  |
|----------------------------|--|
| <b>ALTERNATE NAMES:</b>    | Methyl-CpG-Binding Domain 2  |
| <b>CATALOG NO:</b>         | 3199-30T      30 µg (Trial size)<br>3199-100      100 µg                               |
| <b>HOST:</b>               | Rabbit   |
| <b>ISOTYPE:</b>            | IgG  |
| <b>IMMUNOGEN:</b>          | Synthetic peptide at C-terminal (BV-M30)   |
| <b>PURIFICATION:</b>       | Affinity purified rabbit IgG   |
| <b>FORM:</b>               | Liquid   |
| <b>FORMULATION:</b>        | 0.5 mg/ml of antibody in PBS, 0.01 % BSA, 0.01 % thimerosal, and 50 % glycerol, pH 7.2 |
| <b>SPECIES REACTIVITY:</b> | Human, Mouse and Rat.  |
| <b>STORAGE CONDITIONS:</b> | Store for 1 year at -20°C from date of shipment. Avoid repeated freeze/thaw cycles.    |

**DESCRIPTION:** 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 mdCpdG 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. 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.

**APPLICATION:** Western blot: 1:200

**Note:** This information is only intended as a guide. The optimal dilutions must be determined by the user.



## RELATED PRODUCTS:

- MBD2a Antibody (Cat. No. 3232-100)
- MBD2a Blocking peptide (Cat. No. 3232BP-50)
- MBD1 Antibody (Cat. No. 3281-100)
- Anti-MBD1 Monoclonal Antibody (Clone 100B272.1) (Cat. No. 6103-50)
- MBD1 Blocking peptide (Cat. No. 3281BP-50)
- MCAF Antibody (Cat. No. 3759-100)
- MBD4 Antibody (Cat. No. 3056-100)
- MBD4 Blocking peptide (Cat. No. 3056BP-50)
- p66α Polyclonal Antibody (575-585 aa) (Cat. No. 6106-50)
- MeCP2 Polyclonal Antibody (11-25aa; 181-195aa) (Cat. No. 6105-50)

**FOR RESEARCH USE ONLY! Not to be used on humans.**