



## p-MeCP2 (Ser 80): sc-136171

### BACKGROUND

Methylation of DNA contributes to the regulation of gene transcription in both mammalian and invertebrate systems. DNA methylation predominates on cytosine residues that are present in dinucleotide motifs consisting of a 5'-cytosine followed by guanosine (CpG), and it requires the enzymatic activity of DNA methyltransferase, resulting in transcriptional repression of the methylated gene. Several proteins have been identified that associate with the methyl-CpG sites, including methyl-CpG binding protein-1 (MBD1), MBD2, MBD3 and MeCP2. Expression of the MBD proteins is highest in somatic tissues. MBD1 binds in a context-specific manner to methyl-CpG rich domains and, in turn, mediates the transcriptional inhibition that is commonly observed with DNA methylation. Similarly, MBD2 inhibits transcription of methylated genes by associating with histone deacetylase (HDAC1) within the MeCP1 repressor complex. In addition, MBD4, which is also designated MED1, associates with the mismatch repair protein, MLH1, and preferentially binds to methylated cytosine residues in mismatched base pairs. MeCP2 binds tightly to chromosomes in a methylation-dependent manner and associates with a corepressor complex containing the transcriptional repressor mSin3A and histone deacetylases.

### REFERENCES

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### CHROMOSOMAL LOCATION

Genetic locus: MECP2 (human) mapping to Xq28.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.

### SOURCE

p-MeCP2 (Ser 80) is a rabbit polyclonal antibody raised against a short amino acid sequence containing phosphorylated Ser 80 of MeCP2 of human origin.

### PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

### APPLICATIONS

p-MeCP2 (Ser 80) is recommended for detection of Ser 80 phosphorylated MeCP2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MeCP2 siRNA (h): sc-35892, MeCP2 shRNA Plasmid (h): sc-35892-SH and MeCP2 shRNA (h) Lentiviral Particles: sc-35892-V.

Molecular Weight of p-MeCP2: 75 kDa.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent) and Western Blotting Luminol Reagent: sc-2048.

### STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.