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# Phospho-MECP2(S292) Antibody
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**
**Catalog # AP3157a**

## Specification

### Phospho-MECP2(S292) Antibody - Product Information

| | |
|---|---|
| Application | **IHC-P,E** |
| Primary Accession | P51608 |
| Other Accession | Q9Z2D6 |
| Reactivity | **Human** |
| Predicted | **Mouse** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **Rabbit IgG** |
| Calculated MW | **52441** |

### Phospho-MECP2(S292) Antibody - 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 phosphopeptide corresponding to amino acid residues surrounding S292 of human MECP2.

**Dilution**
IHC-P~~1:50~100
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**
Phospho-MECP2(S292) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### Phospho-MECP2(S292) 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.

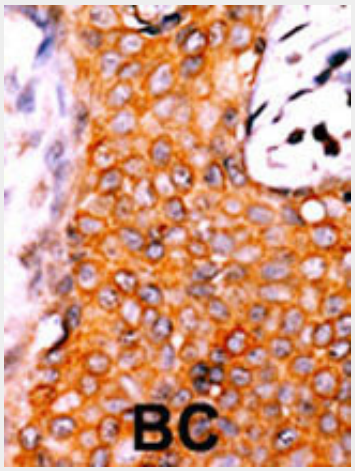
**Tissue Location**
Present in all adult somatic tissues tested.

## Phospho-MECP2(S292) 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 Cytomety
- Cell Culture

## Phospho-MECP2(S292) Antibody - Images




Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

## Phospho-MECP2(S292) Antibody - 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 some cases of Rett syndrome, a progressive neurologic developmental disorder and one of the most common causes of mental retardation in females.

**Phospho-MECP2(S292) Antibody - References**

Mnatzakanian, G.N., et al., Nat. Genet. 36(4):339-341 (2004).
Laccone, F., et al., Hum. Mutat. 23(3):234-244 (2004).
Suzuki, M., et al., Oncogene 22(54):8688-8698 (2003).
Balmer, D., et al., J. Mol. Med. 81(1):61-68 (2003).
Hagberg, B., et al., Eur. J. Paediatr. Neurol. 7(6):417-421 (2003).