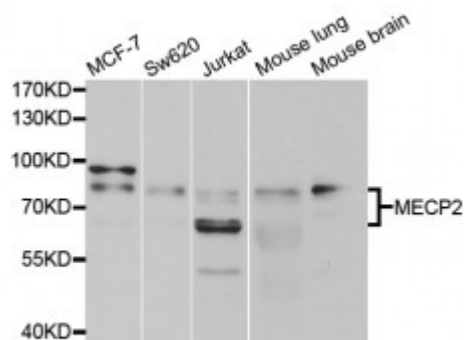


Anti-MECP2 Antibody



Description

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 most cases of Rett syndrome, a progressive neurologic developmental disorder and one of the most common causes of mental retardation in females. Alternative splicing results in multiple transcript variants encoding different isoforms.

| | |
|-----------------------|---|
| Model | STJ114895 |
| Host | Rabbit |
| Reactivity | Human, Mouse |
| Applications | IHC, WB |
| Immunogen | Recombinant fusion protein containing a sequence corresponding to amino acids 1-280 of human MECP2 (NP_004983.1). |
| Gene ID | 4204 |
| Gene Symbol | MECP2 |
| Dilution range | WB 1:500 - 1:1000 IHC 1:50 - 1:100 |

| | |
|---|--|
| Tissue Specificity | Present in all adult somatic tissues tested |
| Purification | Affinity purification |
| Note | For Research Use Only (RUO). |
| Protein Name | Methyl-CpG-binding protein 2 MeCp-2 protein MeCp2 |
| Molecular Weight | 52.441 kDa |
| Clonality | Polyclonal |
| Conjugation | Unconjugated |
| Isotype | IgG |
| Formulation | PBS with 0.02% sodium azide, 50% glycerol, pH7.3. |
| Storage Instruction | Store at -20C. Avoid freeze / thaw cycles. |
| Database Links | HGNC:69900MIM:105830 |
| Alternative Names | Methyl-CpG-binding protein 2 MeCp-2 protein 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 Localization | Nucleus |
| Post-translational Modifications | Phosphorylated on Ser-423 in brain upon synaptic activity, which attenuates its repressor activity and seems to regulate dendritic growth and spine maturation, |