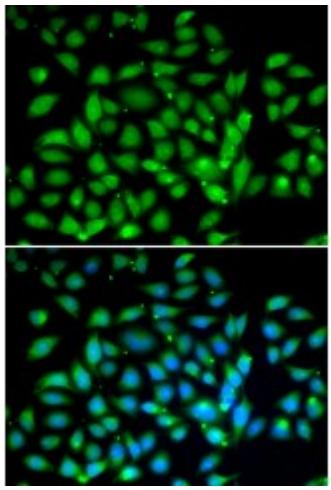
Anti-MECP2 Antibody



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	STJ115291
Host	Rabbit
Reactivity	Human, Mouse
Applications	IF, WB
Immunogen	A synthetic peptide corresponding to a sequence within amino acids 1-100 of human MECP2 (NP_004983.1).
Gene ID	4204
Gene Symbol	MECP2
Dilution range	WB 1:500 - 1:2000 IF 1:50 - 1:200

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:6990OMIM: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,