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+1 484.791.3823

Datasheet for 600-401-MM0

MeCP2 Antibody

Overview

Description:	Anti-MeCP2 (RABBIT) Antibody - 600-401-MM0
Item No.:	600-401-MM0
Size:	100 µg
Applications:	ELISA, IHC, WB
Reactivity:	Human, Chicken
Host Species:	Rabbit

Product Details

Background:	MeCP2 (Methyl-CpG Binding Protein 2) is a chromosomal protein that binds to methylated DNA. 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). It can bind specifically to a single methyl-CpG pair. It is not influenced by sequences flanking the methyl-CpGs. MECP2 mediates transcriptional repression through interaction with histone deacetylase and the corepressor SIN3A. It binds both 5-methylcytosine (5mC) and 5-hydroxymethylcytosine (5hmC)-containing DNA, with a preference for 5-methylcytosine (5mC). Anti-MeCP2 Antibody is useful for researchers interested in Rett Syndromes, SIDS, Mental Retardation X-Linked Syndromic 13, and chromatin binding pathways.
Synonyms:	Rabbit Anti-Methyl-CpG Binding Protein 2 Antibody, Rabbit-Anti-MeCP2 Antibody, MeCp-2 Protein, Methyl CpG Binding Protein 2 (Rett Syndrome), Testis Tissue Sperm-Binding Protein Li 41a, Mental Retardation, X-Linked 16, Mental Retardation, X-Linked 79, Methyl-CpG-Binding Protein 2, Methyl CpG Binding Protein 2, Rett Syndrome, AUTSX3, MRXS13, MRXSL, MRX16, MRX79, MeCp2, PPMX, RTS, RTT, RS
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	MECP2

Reactivity:	Human, Chicken
Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-MeCP2 antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to C-terminal portion of human MeCP2 conjugated to Keyhole Limpet Hemocyanin (KLH).
Purity/Specificity:	This affinity purified antibody is directed against human MeCP2. This product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest cross-reactivity with the antigen based on 100% homology with the immunizing sequence to mouse, rat, and macaca fascicularis.
Relevant Links:	• UniProtKB - P51608 • NCBI - NP_001104262.1 • GeneID - 4204

Application Details

Tested Applications:	ELISA, IHC, WB
Application Note:	Anti-MeCP2 Antibody has been tested in ELISA, Western Blot, and Immunohistochemistry. Expect a band at ~52 kDa in western blot using appropriate lysates or tissues. Positive control used U2-OS, A431, human cerebellum tissue, and Chicken Spinal Cord in WB, human tonsil tissue in IHC.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000 - 1:15,000
IHC:	1:200
WB:	1:1000
Other:	This antibody is not suitable for CHIP.

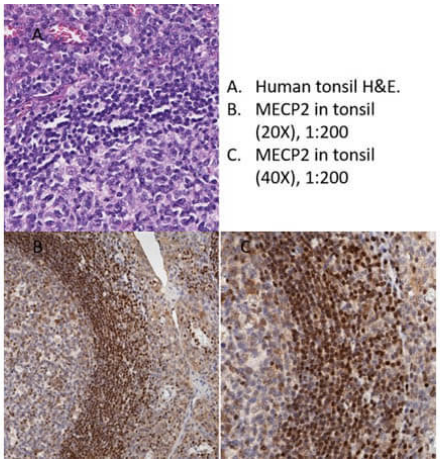
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/ml by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

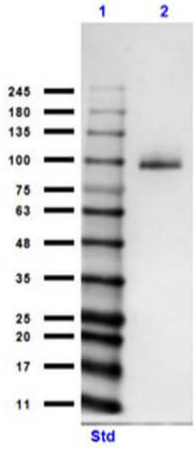
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

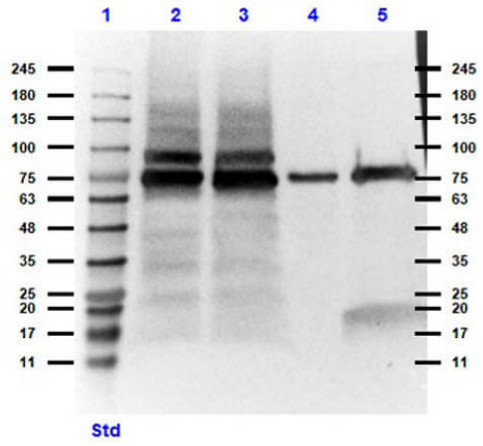
Images



Immunohistochemistry
Immunohistochemistry of Rabbit Anti-MeCP2 Antibody. Tissue: Human Tonsil. Primary Antibody: Anti-MeCP2 Antibody at 1:200 for 30 min at RT. Secondary Antibody: Anti-Rabbit Poly-HRP IgG Ready-to-Use for 8 min at RT. Antigen Retrieval: HIER citrate buffer for 20 min. Counterstain: Hematoxylin. Staining: MeCP2 showed strong nuclear staining in human tonsil while showing less staining in germinal centers. This is consistent with the pattern seen in databases. The pattern is seen most clearly at 1:200 dilution. A concentration of 1:200 or lower is recommended.



Western Blot
Western Blot of Rabbit Anti-MeCP2 Antibody. Lane 1: Prestained Opal Molecular Weight Ladder (p/n MB-210-0500). Lane 2: Human MeCP2 full-length recombinant protein with N-terminal GST-tag. Load: 10µg. Primary Antibody: Anti-MeCP2 at 1:1000 overnight at 2-8°C. Secondary Antibody: Goat Anti-Rabbit IgG MX10 HRP (p/n 611-103-122) at 1:70,000 for 30 min at RT. Blocking Buffer: 5% BLOTTO (p/n B501-0500). Expect: ~100kDa recombinant, observed ~95kDa.



Western Blot

Western Blot of Rabbit Anti-MeCP2 Antibody. Lane 1: Prestained Opal Molecular Weight Ladder (p/n MB-210-0500). Lane 2: U-2OS Whole Cell Lysate (p/n W09-001-374). Lane 3: A431 Whole Cell Lysate (p/n W09-000-361). Lane 4: Human Cerebellum Whole Tissue Lysate. Lane 5: Normal Chicken Spinal Cord Whole Cell Lysate (p/n W03-001-T296). Load: 35µg. Primary Antibody: Anti-MeCP2 at 1:1000 overnight at 2-8°C. Secondary Antibody: Goat Anti-Rabbit IgG MX10 HRP (p/n 611-103-122) at 1:40,000 for 30 min at RT. Blocking Buffer: BlockOut (p/n MB-073). Predicted: ~52kDa, ~75kDa ubiquitous and highly conserved, observed ~75, 80kDa.

Disclaimer

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