

Datasheet for 600-401-MM0S**MeCP2 Antibody****Overview**

Description:	Anti-MeCP2 (RABBIT) Antibody - 600-401-MM0S
Item No.:	600-401-MM0S
Size:	25 µL
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
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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:	Not suitable for CHIP.

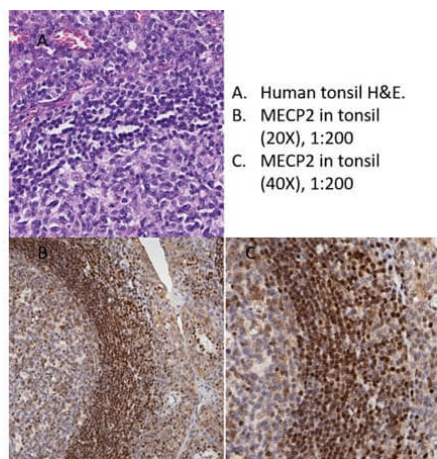
Formulation

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 or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Expiration:	Expiration date is one (1) year from date of receipt.

Images

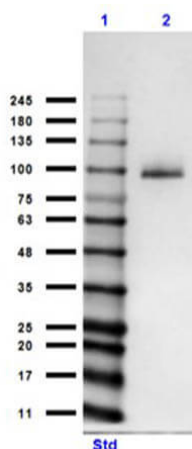


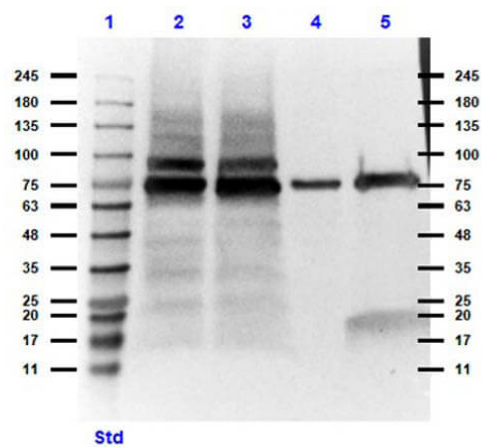
Immunohistochemistry

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

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.