

Resource Summary Report

Generated by [RRID](#) on Aug 10, 2026

MeCP2 (D4F3) XP(tm) Rabbit mAb

RRID:AB_2143849

Type: Antibody

Proper Citation

Cell Signaling Technology Cat# 3456, RRID:AB_2143849

Antibody Information

URL: http://antibodyregistry.org/AB_2143849

Proper Citation: Cell Signaling Technology Cat# 3456, RRID:AB_2143849

Target Antigen: Mecp2

Host Organism: rabbit

Clonality: monoclonal

Comments: Applications: W, IP, IHC-P, IF-IC, F. Consolidation on 10/2018: AB_10396620, AB_10828482, AB_2143849.

Antibody Name: MeCP2 (D4F3) XP(tm) Rabbit mAb

Description: This monoclonal targets Mecp2

Target Organism: rat, mouse, human

Antibody ID: AB_2143849

Vendor: Cell Signaling Technology

Catalog Number: 3456

Record Creation Time: 20250820T030340+0000

Record Last Update: 20250820T151433+0000

Ratings and Alerts

No rating or validation information has been found for MeCP2 (D4F3) XP(tm) Rabbit mAb.

No alerts have been found for MeCP2 (D4F3) XP(tm) Rabbit mAb.

Data and Source Information

Source: [Antibody Registry](#)

Usage and Citation Metrics

We found 31 mentions in open access literature.

Listed below are recent publications. The full list is available at [RRID](#) .

Nakano H, et al. (2026) Maternal hyperglycemia disrupts cardiomyocyte maturation via aberrant nucleotide metabolism and suppression of AMPK signaling. *Cell reports*, 45(5), 117321.

Sinha A, et al. (2026) Astrocytic Regulation of Aberrant Perineuronal Net Formation in Mecp2-Null Neocortex. *Journal of neurochemistry*, 170(6), e70503.

Tenreiro MF, et al. (2025) MeCP2 regulates telencephalic development in human cerebral organoids. *Cell reports*, 44(12), 116670.

Bajikar SS, et al. (2025) Acute MeCP2 loss in adult mice reveals transcriptional and chromatin changes that precede neurological dysfunction and inform pathogenesis. *Neuron*, 113(3), 380.

Reautschnig P, et al. (2024) Precise in vivo RNA base editing with a wobble-enhanced circular CLUSTER guide RNA. *Nature biotechnology*.

Fujiwara K, et al. (2024) Spatial organizations of heterochromatin underpin nuclear structural integrity of ventricular cardiomyocytes against mechanical stress. *Cell reports*, 43(12), 115048.

Mori M, et al. (2024) Generation of human induced pluripotent stem cell lines derived from four Rett syndrome patients with MECP2 mutations. *Stem cell research*, 77, 103432.

Pehlivan D, et al. (2024) Structural variant allelic heterogeneity in MECP2 duplication syndrome provides insight into clinical severity and variability of disease expression. *Genome medicine*, 16(1), 146.

Bajikar SS, et al. (2024) Modeling antisense oligonucleotide therapy in MECP2 duplication syndrome human iPSC-derived neurons reveals gene expression programs responsive to MeCP2 levels. *Human molecular genetics*.

Yang J, et al. (2024) Mecp2 fine-tunes quiescence exit by targeting nuclear receptors. *eLife*, 12.

Kleene R, et al. (2023) The KDET Motif in the Intracellular Domain of the Cell Adhesion Molecule L1 Interacts with Several Nuclear, Cytoplasmic, and Mitochondrial Proteins Essential for Neuronal Functions. *International journal of molecular sciences*, 24(2).

Loers G, et al. (2023) The Interactions of the 70 kDa Fragment of Cell Adhesion Molecule L1 with Topoisomerase 1, Peroxisome Proliferator-Activated Receptor γ and NADH

Dehydrogenase (Ubiquinone) Flavoprotein 2 Are Involved in Gene Expression and Neuronal L1-Dependent Functions. *International journal of molecular sciences*, 24(3).

Mykins M, et al. (2023) Wild-type MECP2 expression coincides with age-dependent sensory phenotypes in a female mouse model for Rett syndrome. *Journal of neuroscience research*, 101(8), 1236.

Sun J, et al. (2023) Mutations in the transcriptional regulator MeCP2 severely impact key cellular and molecular signatures of human astrocytes during maturation. *Cell reports*, 42(1), 111942.

Sinnamon JR, et al. (2022) Targeted RNA editing in brainstem alleviates respiratory dysfunction in a mouse model of Rett syndrome. *Proceedings of the National Academy of Sciences of the United States of America*, 119(33), e2206053119.

He L, et al. (2022) A weakened recurrent circuit in the hippocampus of Rett syndrome mice disrupts long-term memory representations. *Neuron*, 110(10), 1689.

Loers G, et al. (2022) The Cell Adhesion Molecule L1 Interacts with Methyl CpG Binding Protein 2 via Its Intracellular Domain. *International journal of molecular sciences*, 23(7).

Achilly NP, et al. (2021) Deleting Mecp2 from the cerebellum rather than its neuronal subtypes causes a delay in motor learning in mice. *eLife*, 10.

Villani C, et al. (2021) Fluoxetine increases brain MeCP2 immuno-positive cells in a female Mecp2 heterozygous mouse model of Rett syndrome through endogenous serotonin. *Scientific reports*, 11(1), 14690.

Ribeiro MC, et al. (2020) Vitamin D Supplementation Rescues Aberrant NF- κ B Pathway Activation and Partially Ameliorates Rett Syndrome Phenotypes in Mecp2 Mutant Mice. *eNeuro*, 7(3).