

# Resource Summary Report

Generated by [RRID](#) on Jul 31, 2026

## Mouse Anti-NMDAR1 Monoclonal Antibody, Unconjugated, Clone 54.1

RRID:AB\_396353

Type: Antibody

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### Proper Citation

BD Biosciences Cat# 556308, RRID:AB\_396353

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### Antibody Information

**URL:** [http://antibodyregistry.org/AB\\_396353](http://antibodyregistry.org/AB_396353)

**Proper Citation:** BD Biosciences Cat# 556308, RRID:AB\_396353

**Target Antigen:** NMDAR1

**Host Organism:** mouse

**Clonality:** monoclonal

**Comments:** Bioimaging, Immunohistochemistry, Western blot

**Antibody Name:** Mouse Anti-NMDAR1 Monoclonal Antibody, Unconjugated, Clone 54.1

**Description:** This monoclonal targets NMDAR1

**Target Organism:** rat, simian, monk, human

**Clone ID:** 54.1

**Defining Citation:** [PMID:19711416](#), [PMID:18181141](#)

**Antibody ID:** AB\_396353

**Vendor:** BD Biosciences

**Catalog Number:** 556308

**Record Creation Time:** 20250820T065913+0000

**Record Last Update:** 20250821T012109+0000

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### Ratings and Alerts

No rating or validation information has been found for Mouse Anti-NMDAR1 Monoclonal Antibody, Unconjugated, Clone 54.1.

No alerts have been found for Mouse Anti-NMDAR1 Monoclonal Antibody, Unconjugated, Clone 54.1.

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## Data and Source Information

**Source:** [Antibody Registry](#)

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## Usage and Citation Metrics

We found 20 mentions in open access literature.

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

Voglewede MM, et al. (2024) Loss of the polarity protein Par3 promotes dendritic spine neoteny and enhances learning and memory. *iScience*, 27(7), 110308.

Gao Y, et al. (2023) ?2-microglobulin functions as an endogenous NMDAR antagonist to impair synaptic function. *Cell*, 186(5), 1026.

Guo Z, et al. (2022) Activity-dependent PI4P synthesis by PI4KIII? regulates long-term synaptic potentiation. *Cell reports*, 38(9), 110452.

Faruk MO, et al. (2022) Muscarinic signaling regulates voltage-gated potassium channel KCNQ2 phosphorylation in the nucleus accumbens via protein kinase C for aversive learning. *Journal of neurochemistry*, 160(3), 325.

Thomas R, et al. (2022) Integrated regulation of PKA by fast and slow neurotransmission in the nucleus accumbens controls plasticity and stress responses. *The Journal of biological chemistry*, 298(8), 102245.

Lin C, et al. (2021) Maternal High-Fat Diet Multigenerationally Impairs Hippocampal Synaptic Plasticity and Memory in Male Rat Offspring. *Endocrinology*, 162(1).

Salm EJ, et al. (2020) TMEM163 Regulates ATP-Gated P2X Receptor and Behavior. *Cell reports*, 31(9), 107704.

Lybrand ZR, et al. (2020) Coupled sensory interneurons mediate escape neural circuit processing in an aquatic annelid worm, *Lumbriculus variegatus*. *The Journal of comparative neurology*, 528(3), 468.

Kesner P, et al. (2020) Postsynaptic and Presynaptic NMDARs Have Distinct Roles in Visual Circuit Development. *Cell reports*, 32(4), 107955.

Mayanagi T, et al. (2019) Social Stress-Induced Postsynaptic Hyporesponsiveness in Glutamatergic Synapses Is Mediated by PSD-Zip70-Rap2 Pathway and Relates to Anxiety-Like Behaviors. *Frontiers in cellular neuroscience*, 13, 564.

Zhang X, et al. (2019) Balance between dopamine and adenosine signals regulates the PKA/Rap1 pathway in striatal medium spiny neurons. *Neurochemistry international*, 122, 8.

Cook SG, et al. (2019) Simultaneous Live Imaging of Multiple Endogenous Proteins Reveals a Mechanism for Alzheimer's-Related Plasticity Impairment. *Cell reports*, 27(3), 658.

Motodate R, et al. (2019) X11 and X11-like proteins regulate the level of extrasynaptic glutamate receptors. *Journal of neurochemistry*, 148(4), 480.

Sharma R, et al. (2018) Monoclonal antibodies from a patient with anti-NMDA receptor encephalitis. *Annals of clinical and translational neurology*, 5(8), 935.

Siu CR, et al. (2017) Development of Glutamatergic Proteins in Human Visual Cortex across the Lifespan. *The Journal of neuroscience : the official journal of the Society for Neuroscience*, 37(25), 6031.

Martenson JS, et al. (2017) Assembly rules for GABAA receptor complexes in the brain. *eLife*, 6.

Ferreira JS, et al. (2017) Co-agonists differentially tune GluN2B-NMDA receptor trafficking at hippocampal synapses. *eLife*, 6.

Yamasaki T, et al. (2017) GARLH Family Proteins Stabilize GABAA Receptors at Synapses. *Neuron*, 93(5), 1138.

Chenaux G, et al. (2016) Loss of SynDIG1 Reduces Excitatory Synapse Maturation But Not Formation In Vivo. *eNeuro*, 3(5).

Pierce MR, et al. (2015) Sodium-dependent vitamin C transporter-2 mediates vitamin C transport at the cortical nerve terminal. *Journal of neuroscience research*, 93(12), 1881.