

Anti-NMDA NR1 Subunit Antibody

Our Anti-NMDA NR1 Subunit primary antibody from PhosphoSolutions is mouse monoclonal. It detects hum
Catalog # AN1474

Specification**Anti-NMDA NR1 Subunit Antibody - Product Information**

Application	WB, IHC
Primary Accession	P35439
Reactivity	Bovine
Host	Mouse
Clonality	Monoclonal
Isotype	IgG
Calculated MW	105509

Anti-NMDA NR1 Subunit Antibody - Additional Information

Gene ID **24408**

Other Names

GluN1 antibody, Glutamate [NMDA] receptor subunit zeta-1 antibody, Glutamate receptor ionotropic N methyl D aspartate 1 antibody, Glutamate receptor ionotropic N-methyl-D aspartate subunit 1 antibody, glutamate receptor ionotropic NMDA 1 antibody, Grin1 antibody, MRD8 antibody, N methyl D aspartate receptor antibody, N methyl D aspartate receptor channel subunit zeta 1 antibody, N methyl D aspartate receptor subunit NR1 antibody, N-methyl-D-aspartate receptor subunit NR1 antibody, NMD-R1 antibody, NMDA 1 antibody, NMDA R1 antibody, NMDAR1 antibody, NMDA receptor 1 antibody, NMDA1 antibody, NMDAR antibody, NMDZ1_HUMAN antibody, NR1 antibody

Target/Specificity

The ion channels activated by glutamate are typically divided into two classes. Glutamate receptors that are activated by kainate and α -amino-3-hydroxy-5-methyl-4-isoxalone propionic acid (AMPA) are known as kainate/AMPA receptors (K/AMPA). Those that are sensitive to N-methyl-D-aspartate (NMDA) are designated NMDA receptors (NMDAR). The NMDAR plays an essential role in memory, neuronal development and it has also been implicated in several disorders of the central nervous system including Alzheimer's, epilepsy and ischemic neuronal cell death (Grosshans et al., 2002; Wenthold et al., 2003; Carroll and Zukin, 2002). The NMDA receptor is also one of the principal molecular targets for alcohol in the CNS (Lovinger et al., 1989; Alvestad et al., 2003; Snell et al., 1996). The NMDAR is also potentiated by protein phosphorylation (Lu et al., 1999). The rat NMDAR1 (NR1) was the first subunit of the NMDAR to be cloned. The NR1 protein can form NMDA activated channels when expressed in *Xenopus* oocytes but the currents in such channels are much smaller than those seen in situ. Channels with more physiological characteristics are produced when the NR1-subunit is combined with one or more of the NMDAR2 (NR2 A-D) subunits.

Dilution

WB~~1:1000
IHC~~1:100~500

Format

Culture supernatant

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Anti-NMDA NR1 Subunit Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

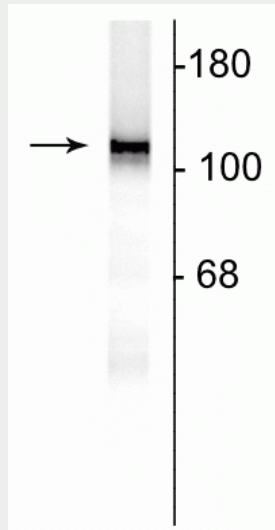
Shipping

Blue Ice

Anti-NMDA NR1 Subunit Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-NMDA NR1 Subunit Antibody - Images

Western blot of 10 µg of rat hippocampal lysate showing specific immunolabeling of the ~120 kDa NR1 subunit of the NMDA receptor.

Anti-NMDA NR1 Subunit Antibody - Background

The ion channels activated by glutamate are typically divided into two classes. Glutamate receptors that are activated by kainate and α -amino-3-hydroxy-5-methyl-4-isoxalone propionic acid (AMPA) are known as kainate/AMPA receptors (K/AMPA). Those that are sensitive to Nmethyl-D-aspartate (NMDA) are designated NMDA receptors (NMDAR). The NMDAR plays an essential role in memory, neuronal development and it has also been implicated in several disorders of the central nervous system including Alzheimer's, epilepsy and ischemic neuronal cell

death (Grosshans et al., 2002; Wenthold et al., 2003; Carroll and Zukin, 2002). The NMDA receptor is also one of the principal molecular targets for alcohol in the CNS (Lovinger et al., 1989; Alvestad et al., 2003; Snell et al., 1996). The NMDAR is also potentiated by protein phosphorylation (Lu et al., 1999). The rat NMDAR1 (NR1) was the first subunit of the NMDAR to be cloned. The NR1 protein can form NMDA activated channels when expressed in *Xenopus* oocytes but the currents in such channels are much smaller than those seen in situ. Channels with more physiological characteristics are produced when the NR1-subunit is combined with one or more of the NMDAR2 (NR2 A-D) subunits.