

NMDA Receptor, NR1 Subunit Antibody
Mouse monoclonal antibody
Catalog # AN1050**Specification**

NMDA Receptor, NR1 Subunit Antibody - Product Information

Application	WB
Primary Accession	P35439
Reactivity	Mouse, Rat
Host	Mouse
Clonality	monoclonal
Calculated MW	120 KDa

NMDA Receptor, NR1 Subunit Antibody - Additional Information

Gene ID	24408
Gene Name	GRIN1

Other Names

Glutamate receptor ionotropic, NMDA 1, GluN1, Glutamate [NMDA] receptor subunit zeta-1, N-methyl-D-aspartate receptor subunit NR1, NMD-R1, Grin1, Nmdar1

Target/Specificity

Fusion protein containing amino acids 1-564 of the NR1 subunit.

Dilution

WB~~ 1:1000

Format

Culture supernatant

Antibody Specificity

Specific for the ~120k NR1 subunit of the NMDA receptor.

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

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

Shipping

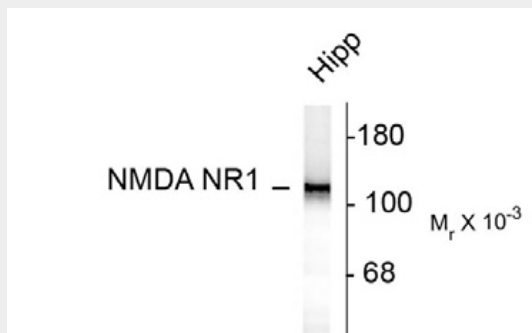
Blue Ice

NMDA Receptor, 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](#)

NMDA Receptor, NR1 Subunit Antibody - Images



Western blot of 10 ug of rat hippocampal (Hipp) lysate showing specific immunolabeling of the ~120k NR1 subunit of the NMDA receptor.

NMDA Receptor, 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 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.

NMDA Receptor, NR1 Subunit Antibody - References

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Note: Dr. Michael Browning, a co-author of four of the cited papers, is President and founder of PhosphoSolutions.

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