

**Anti-NMDA NR2B Subunit, N-terminus Antibody**  
Our Anti-NMDA NR2B Subunit, N-terminus rabbit polyclonal primary antibody from PhosphoSolutions is p  
Catalog # AN1487

## Specification

### Anti-NMDA NR2B Subunit, N-terminus Antibody - Product Information

Application	WB, IHC
Primary Accession	<a href="#">Q00960</a>
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	166071

### Anti-NMDA NR2B Subunit, N-terminus Antibody - Additional Information

Gene ID **24410**

#### Other Names

EPND antibody, FESD antibody, GluN2A antibody, Glutamate [NMDA] receptor subunit epsilon-1 antibody, Glutamate receptor antibody, Glutamate receptor ionotropic N methyl D aspartate 2A antibody, GRIN 2A antibody, GRIN2A antibody, hNR2A antibody, LKS antibody, N methyl D aspartate receptor channel subunit epsilon 1 antibody, N Methyl D Aspartate Receptor Subtype 2A antibody, N methyl D aspartate receptor subunit 2A antibody, N-methyl D-aspartate receptor subtype 2A antibody, NMDA receptor subtype 2A antibody, NMDAR 2A antibody, NMDAR2A antibody, NMDE1\_HUMAN antibody, NR2A antibody, OTTHUMP00000160135 antibody, OTTHUMP00000174531 antibody

#### Target/Specificity

The ion channels activated by glutamate 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 rat NMDAR1 (NR1) was the first subunit of the NMDAR to be cloned and it 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. Overexpression of the NR2B-subunit of the NMDA receptor has been associated with increases in learning and memory while aged, memory impaired animals have deficiencies in NR2B expression (Clayton et al., 2002a; Clayton et al., 2002b). The NMDAR is also potentiated by protein phosphorylation (Lu et al., 1999).

#### Dilution

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

#### Format

Antigen Affinity Purified from Pooled Serum

**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 NR2B Subunit, N-terminus Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

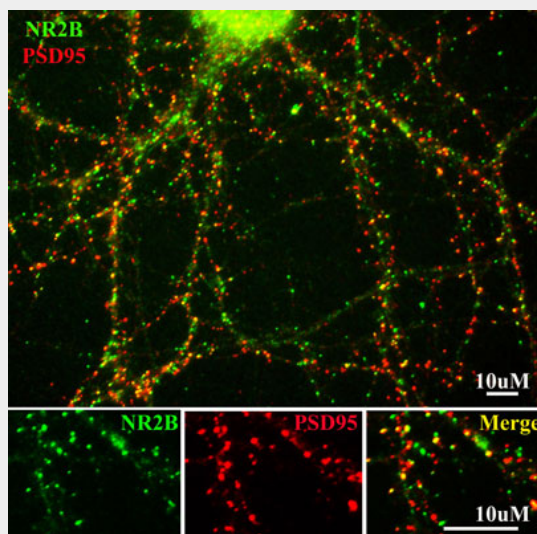
**Shipping**

Blue Ice

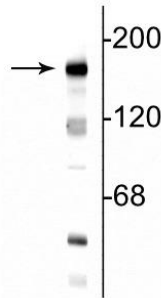
**Anti-NMDA NR2B Subunit, N-terminus Antibody - Protocols**

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 NR2B Subunit, N-terminus Antibody - Images**

Immunostaining of 14 DIV rat cortical neurons showing NR2B (green, 1:400) and PSD95(red). Photo courtesy of Gang Liu.



Western blot of 10 µg of rat hippocampal lysate showing specific immunolabeling of the ~180 kDa NR2B subunit of the NMDA receptor.

#### **Anti-NMDA NR2B Subunit, N-terminus Antibody - Background**

The ion channels activated by glutamate 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 rat NMDAR1 (NR1) was the first subunit of the NMDAR to be cloned and it 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. Overexpression of the NR2B-subunit of the NMDA receptor has been associated with increases in learning and memory while aged, memory impaired animals have deficiencies in NR2B expression (Clayton et al., 2002a; Clayton et al., 2002b). The NMDAR is also potentiated by protein phosphorylation (Lu et al., 1999).