10320 Camino Santa Fe, Suite A
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-NMDA NR2A Subunit, N-terminus Antibody

Our Anti-NMDA NR2A Subunit, N-terminus rabbit polyclonal primary antibody from PhosphoSolutions is p

Catalog # AN1482

Specification

Anti-NMDA NR2A Subunit, N-terminus Antibody - Product Information

Application	**WB**
Primary Accession	Q00959
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**165469**

Anti-NMDA NR2A Subunit, N-terminus Antibody - Additional Information

Gene ID	**24409**

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 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/AMPAR). 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

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 NR2A Subunit, N-terminus Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

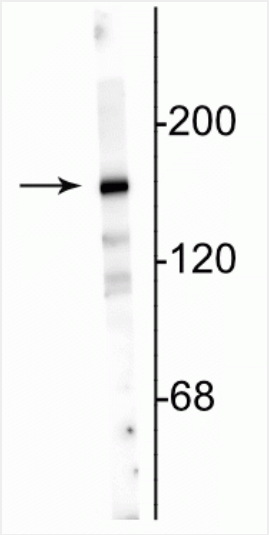
Shipping
Blue Ice

Anti-NMDA NR2A 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 Cytomety
- Cell Culture

Anti-NMDA NR2A Subunit, N-terminus Antibody - Images



Western blot of 10 µg of rat hippocampal lysate showing specific immunolabeling of the ~180 kDa NR2A subunit.

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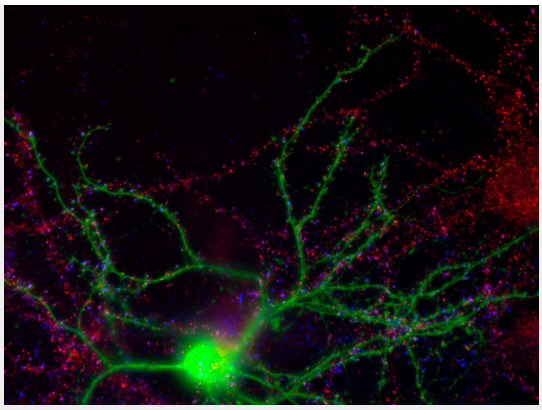

Immunostaining of 21 DIV nucleofected mouse striatal neuron (green) co-cultured with cortical neurons showing nice punctate labeling of the N-terminal NR2A subunit (red, 1:500) in both the medium spiny neurons and the large pyramidal cell in the upper right. Photo courtesy of Dr. A.J. Milnerwood, Dr. Lynn Raymond Lab, University of British Columbia.

Anti-NMDA NR2A Subunit, N-terminus 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/AMPAR). 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.