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

NMDA Receptor, NR2A Subunit N-terminus Antibody

Affinity purified rabbit polyclonal antibody
Catalog # AN1150

Specification

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

Application	**WB, IHC**
Primary Accession	Q00959
Reactivity	**Rat**
Predicted	**Bovine, Mouse**
Host	**Rabbit**
Clonality	**polyclonal**
Calculated MW	**180 KDa**

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

Gene ID	**24409**
Gene Name	**GRIN2A**

Other Names
Glutamate receptor ionotropic, NMDA 2A, GluN2A, Glutamate [NMDA] receptor subunit epsilon-1, N-methyl D-aspartate receptor subtype 2A, NMDAR2A, NR2A, Grin2a

Target/Specificity
Synthetic peptide corresponding to amino acid residues from the N-terminal region of the NR2A subunit conjugated to KLH.

Dilution
WB~~ 1:1000
IHC~~ 1:500

Format
Prepared from rabbit serum by affinity purification using a column to which the peptide immunogen was coupled.

Antibody Specificity
Specific for the ~180k NR2A 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, NR2A Subunit N-terminus Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping
Blue Ice

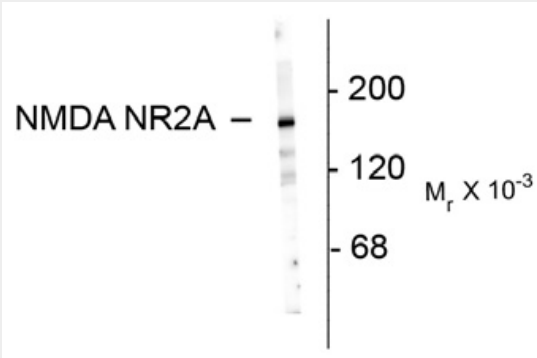
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NMDA Receptor, NR2A Subunit N-terminus Antibody - Protocols

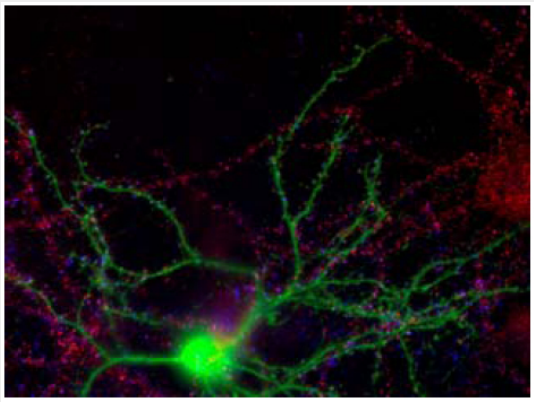
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

NMDA Receptor, NR2A Subunit N-terminus Antibody - Images



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



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

NMDA Receptor, 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.

NMDA Receptor, NR2A Subunit N-terminus Antibody - References

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