

Datasheet for 600-401-C86**NMDA NR2A Subunit Antibody****Overview**

Description:	Anti-NMDA NR2A Subunit (RABBIT) Antibody - 600-401-C86
Item No.:	600-401-C86
Size:	10 µg
Applications:	WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background: NMDA NR2A Subunit antibody detects NMDA NR2A protein. 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. The NMDA receptor is also one of the principal molecular targets for alcohol in the CNS. The NMDAR is also potentiated by protein phosphorylation. 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. Anti-NMDA NR2A Subunit Antibody is ideal for investigators involved in Neuroscience and Signal Transduction research.

Synonyms:	Glutamate [NMDA] receptor subunit epsilon-1, N-methyl D-aspartate receptor subtype 2A, NMDAR2A, NR2A, Grin2a
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name: Grin2a

Reactivity:	Human, Mouse, Rat
Immunogen Type:	Recombinant Protein
Immunogen:	Anti-NMDA NR2A subunit Antibody was produced by repeated immunizations with a fusion protein from the C-terminal region of the NR2A subunit.
Purity/Specificity:	Anti-NMDA NR2A Subunit antibody is directed against NMDA NR2A protein. The antibody was affinity purified from monospecific antiserum by immunoaffinity purification. NMDA NR2A antibody recognizes human, mouse and rat forms of the NR2A subunit of NMDAR. The antibody does not cross react towards NR2B and NR2C subunits. Immunolabeling is blocked by pre-adsorption of antibody with the fusion protein used to generate the antibody.
Relevant Links:	• NCBI - NP_036705.3 • UniProtKB - Q00959 • GeneID - 24409

Application Details

Tested Applications:	WB
Application Note:	Anti-NMDA NR2A Subunit (Rabbit) Antibody is tested for use in Western Blotting, Immunoprecipitation and IHC. Specific conditions for reactivity should be optimized by the end user. Expect a band of approximately 180 kDa in size corresponding to the NR2A subunit of the NMDA receptor. This antibody is lyophilized from 5 mM ammonium bicarbonate.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
IHC:	1:1000-1:2000
IP:	3µl per 200µg lysate
WB:	1:1000

Formulation

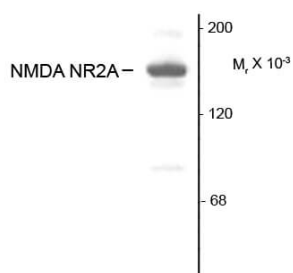
Physical State:	Lyophilized
Concentration:	Titred value sufficient to run approximately 10 mini blots.
Reconstitution Volume:	50µL
Reconstitution Buffer:	Neutral PBS

Shipping & Handling

Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images

Anti-NMDA Receptor, NR2A Subunit



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

Western Blot

Western Blot of Rabbit anti-NMDA NR2A Subunit antibody.
 Lane 1: rat hippocampal (Hipp) lysate. Lane 2: none.
 Load: 10 µg per lane. Primary antibody: NMDA NR2A Subunit antibody at 1:1,000 for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C.
 Predicted/Observed size: 120 kDa for NMDA NR2A Subunit.
 Other band(s): NMDA NR2A Subunit splice variants and isoforms.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.