

Datasheet for 612-401-D91**NMDA 2B Antibody****Overview**

Description:	Anti-NMDA R2B (RABBIT) Antibody - 612-401-D91
Item No.:	612-401-D91
Size:	100 µL
Applications:	IHC, WB
Reactivity:	Rat
Host Species:	Rabbit

Product Details

Background: NMDA R2B antibody detects NMDA 2B receptor protein. 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. The NMDA receptor is also one of the principal molecular targets for alcohol in the CNS. 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. The NMDAR is also potentiated by protein phosphorylation. Anti-NMDA-R2B antibody is ideal for investigators involved in Cell Signaling, Neuroscience, and Signal Transduction research.

Synonyms:	Glutamate [NMDA] receptor subunit epsilon-2, N-methyl D-aspartate receptor subtype 2B, NMDAR2B, NR2B, Grin2b, NR3
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name: Grin2b

Reactivity:	Rat
Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-NMDA R2B Antibody was produced by repeated immunizations with a synthetic peptide corresponding to amino acid residues from the N-terminal region of the rat NR2B subunit.
Purity/Specificity:	Anti-NMDA R2B antibody is directed against NMDA receptor protein. The antibody was affinity purified from monospecific antiserum by immunoaffinity purification. Reactivity is expected from the following species based on 100% sequence homology: bovine, canine, chicken, human, mouse and non-human primate. Cross reactivity with NMDA receptor from other species has not been determined.
Relevant Links:	• UniProtKB - Q00960 • GeneID - 24410 • UniProtKB - Q00960.1

Application Details

Tested Applications:	IHC, WB
Application Note:	Anti-NMDA R2B (Rabbit) antibody is tested for use in Western Blotting, ICC, 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 NR2B subunit or the NMDA receptor in the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
IHC:	1:500
WB:	1:1000

Formulation

Physical State:	Liquid
Buffer:	0.01 M HEPES, 0.15 M Sodium Chloride, pH 7.5
Stabilizer:	0.1 mg/ml Bovine Serum Albumin (BSA) - IgG and Protease free, 50% (v/v) Glycerol

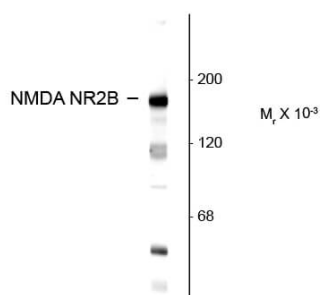
Shipping & Handling

Shipping Condition:	Dry Ice
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Storage Condition:	Store vial at -20° C prior to opening. This product is stable at 4° C as an undiluted liquid. For extended storage, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images

Anti-NMDA Receptor, NR2B subunit



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

Western Blot

Western Blot of Rabbit anti-NMDA 2B antibody. Lane 1: rat hippocampal lysate. Lane 2: none. Load: 10 µg per lane. Primary antibody: NMDA 2B 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: 180 kDa for NMDA 2B. Other band(s): NMDA 2B 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.