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Datasheet for 600-401-C87

NMDA NR2B Subunit Antibody

Overview

Description:	Anti-NMDA NR2B Subunit (RABBIT) Antibody - 600-401-C87
Item No.:	600-401-C87
Size:	10 µg
Applications:	WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	NMDA 2B 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 2B 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
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	Grin2b

Reactivity:	Human, Mouse, Rat
Immunogen Type:	Recombinant Protein
Immunogen:	Anti-NMDA NR2B Antibody was produced by repeated immunizations with a fusion protein from the C-terminal region NR2B subunit.
Purity/Specificity:	Anti-NMDA 2B antibody is directed against NMDA receptor protein. The antibody was affinity purified from monospecific antiserum by immunoaffinity purification. The antibody recognizes human, mouse and rat forms of the NR2B subunits of NMDAR. Immunolabeling is blocked by pre-adsorption of antibody with the fusion protein used to generate the antibody. No reactivity towards the NR2A and NR2C subunits was seen. This antibody is lyophilized from 5 mM ammonium bicarbonate.
Relevant Links:	• NCBI - NP_036706.1 • UniProtKB - Q00960 • GeneID - 24410

Application Details

Tested Applications:	WB
Application Note:	Anti-NMDA NR2B 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 or approximately 180 kDa in size corresponding to the NR2B subunit of 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:	1:1000-1:2000
IP:	3µl per 200µg lysate
WB:	1:1000

Formulation

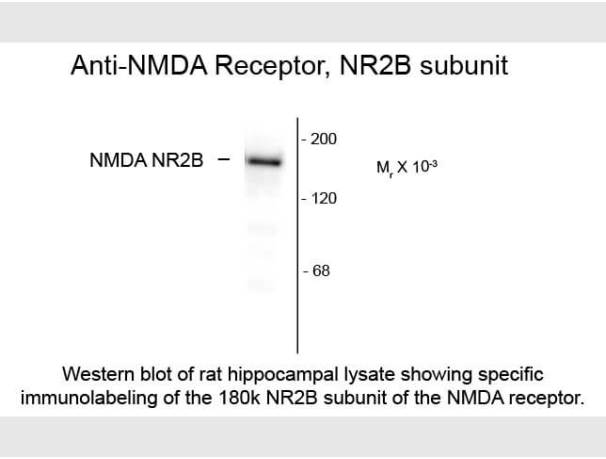
Physical State:	Lyophilized
Reconstitution Volume:	50µL
Reconstitution Buffer:	Neutral PBS

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



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 NR2B Subunit antibody. Lane 1: rat hippocampal (Hipp) lysate. Lane 2: none. Load: 10 µg per lane. Primary antibody: NMDA NR2B 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: 180 kDa for NMDA NR2B Subunit. Other band(s): None.

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.