

**Datasheet for 900-301-C85****NMDA NR1 Subunit Antibody****Overview**

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|----------------------|------------------------------------------------------|
| <b>Description:</b>  | Anti-NMDA NR1 Subunit (MOUSE) Antibody - 900-301-C85 |
| <b>Item No.:</b>     | 900-301-C85                                          |
| <b>Size:</b>         | 15 µg                                                |
| <b>Applications:</b> | IHC, WB                                              |
| <b>Reactivity:</b>   | Mouse, Rat                                           |
| <b>Host Species:</b> | Mouse                                                |

**Product Details**

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| <b>Background:</b>   | NMDA NR1 Subunit antibody detects NMDA NR1 receptor protein. The ion channels activated by glutamate are typically divided into two classes. Glutamate receptors that are activated by kainate and $\alpha$ -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 <i>Xenopus</i> 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 NR1 Subunit antibody is ideal for investigators involved in Cell Signaling, Neuroscience, and Signal Transduction research. |
| <b>Synonyms:</b>     | mouse anti-NMDA NR1 Antibody, Glutamate [NMDA] receptor subunit zeta-1, N-methyl-D-aspartate receptor subunit NR1, NMD-R1, Grin1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Host Species:</b> | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Clonality:</b>    | Monoclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Clone ID:</b>     | R1JHL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Format:</b>       | CCS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

## Target Details

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| <b>Gene Name:</b>          | Grin1                                                                                                                                                                                                                                                                     |
| <b>Reactivity:</b>         | Mouse, Rat                                                                                                                                                                                                                                                                |
| <b>Immunogen Type:</b>     | Recombinant Protein                                                                                                                                                                                                                                                       |
| <b>Immunogen:</b>          | Anti-NMDA NR1 Subunit Antibody was produced by repeated immunizations with a fusion proteins containing amino acids 1-564 of the rat NR1 subunit of the NMDA receptor.                                                                                                    |
| <b>Purity/Specificity:</b> | Anti-NMDA NR1 Subunit antibody is directed against rat NMDA NR1 subunit protein. The antibody was clarified from tissue culture supernatant. Reactivity is expected in rat and mouse. Cross reactivity with NMDA NR1 receptor from other species has not been determined. |
| <b>Relevant Links:</b>     | <ul style="list-style-type: none"><li>• <a href="#">NCBI - NP_058706.1</a></li><li>• <a href="#">UniProtKB - P35439</a></li><li>• <a href="#">GeneID - 24408</a></li></ul>                                                                                                |

## Application Details

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| <b>Tested Applications:</b> | IHC, WB                                                                                                                                                                                                                                                                                                                                                    |
| <b>Application Note:</b>    | Anti-NMDA NR1 Subunit (Mouse) antibody is tested for use in Western Blotting, Immunohistochemistry-P, and Immunocytochemistry. Specific conditions for reactivity should be optimized by the end user. Expect a band of approximately 120 kDa in size corresponding to NR1 subunit of the NMDa receptor protein in the appropriate cell lysate or extract. |
| <b>Assay Dilutions:</b>     | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.                                                                                                                                                                                                                                                            |
| <b>IHC:</b>                 | 1µg/ml                                                                                                                                                                                                                                                                                                                                                     |
| <b>IP:</b>                  | 3µg per 200µg lysate                                                                                                                                                                                                                                                                                                                                       |
| <b>WB:</b>                  | 1:1000                                                                                                                                                                                                                                                                                                                                                     |

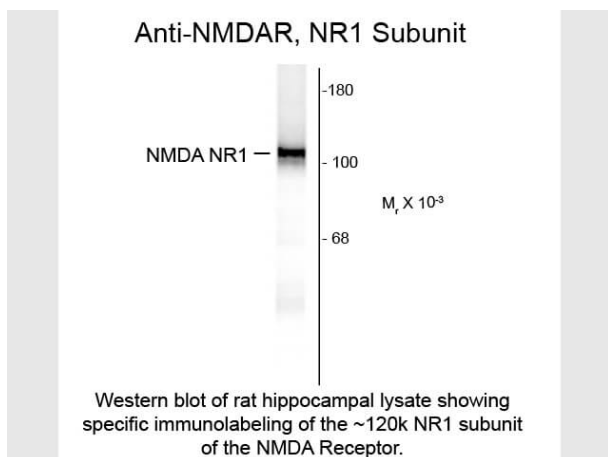
## Formulation

|                               |                                                             |
|-------------------------------|-------------------------------------------------------------|
| <b>Physical State:</b>        | Lyophilized                                                 |
| <b>Concentration:</b>         | Titred value sufficient to run approximately 10 mini blots. |
| <b>Reconstitution Volume:</b> | 50µL                                                        |
| <b>Reconstitution Buffer:</b> | Neutral PBS                                                 |

## Shipping & Handling

|                            |                                                                                                                                                                                                                                                                          |
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| <b>Shipping Condition:</b> | Ambient                                                                                                                                                                                                                                                                  |
| <b>Storage Condition:</b>  | Store vial at -20° 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. |
| <b>Expiration:</b>         | Expiration date is one (1) year from date of receipt.                                                                                                                                                                                                                    |

## Images



### Western Blot

Western Blot of Mouse anti-NMDA NR1 Subunit antibody.  
 Lane 1: rat hippocampal (Hipp) lysate. Lane 2: none.  
 Load: 10 µg per lane. Primary antibody: NMDA NR1 Subunit antibody at 1:1,000 for overnight at 4°C. Secondary antibody: IRDye800™ mouse 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 NR1 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.