

**Datasheet for 600-401-D88****NMDA R1, Splice Variant N1 Antibody****Overview**

|                      |                                                                 |
|----------------------|-----------------------------------------------------------------|
| <b>Description:</b>  | Anti-NMDA R1, Splice Variant N1 (RABBIT) Antibody - 600-401-D88 |
| <b>Item No.:</b>     | 600-401-D88                                                     |
| <b>Size:</b>         | 25 µg                                                           |
| <b>Applications:</b> | IHC, WB                                                         |
| <b>Reactivity:</b>   | Mouse, Rat                                                      |
| <b>Host Species:</b> | Rabbit                                                          |

**Product Details**

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Background:</b>   | NMDA R1, Splice Variant N1 Antibody detects NMDA R1 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. There are a number of different splice variants of the NR1-Subunit. Differential splicing of three exons in the NR1-Subunit generates up to eight NR1-Subunit splice variants and 7 of these have been identified in cDNA libraries. These exons encode a 21 amino acid N-terminal domain (N1) and adjacent sequences in the C-terminus (C1 and C2). Splicing out the C2 cassette eliminates the first stop codon and produces a new reading frame that generates a new sequence of 22 amino acids (C2'). Considerable attention has been focused on the distribution and expression of these splice variants that may affect the functional properties and regulation of the NMDAR. Anti-NMDA R1, Splice Variant N1 Antibody is ideal for investigators involved in Neuroscience and Signal Transduction research. |
| <b>Synonyms:</b>     | Glutamate [NMDA] receptor subunit zeta-1, N-methyl-D-aspartate receptor subunit NR1, NMD-R1, Grin1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Host Species:</b> | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Clonality:</b>    | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Format:</b>       | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

**Target Details**

|                   |       |
|-------------------|-------|
| <b>Gene Name:</b> | Grin1 |
|-------------------|-------|

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reactivity:</b>         | Mouse, Rat                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Immunogen Type:</b>     | Conjugated Peptide                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Immunogen:</b>          | Anti-NMDA NR1 Subunit, Splice Variant N1 Antibody was produced by repeated immunizations with a synthetic peptide corresponding to amino acid residues specific to the NR1 subunit, N1 splice variant insert.                                                                                                                                                                                                                 |
| <b>Purity/Specificity:</b> | Anti-NMDA R1, Splice Variant N1 antibody is directed against NMDA R1 protein. The antibody was affinity purified from monospecific antiserum by immunoaffinity purification. This antibody does not recognize NR1 subunits of the NMDA receptor that do not contain the N1 insert. Reactivity is expected from the following species based on 100% sequence homology: canine, chicken, human, non-human primates and Xenopus. |
| <b>Relevant Links:</b>     | <ul style="list-style-type: none"><li>• <a href="#">UniProtKB - P35439</a></li><li>• <a href="#">GeneID - 24408</a></li><li>• <a href="#">NCBI - NP_058706.1</a></li></ul>                                                                                                                                                                                                                                                    |

## Application Details

|                             |                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tested Applications:</b> | IHC, WB                                                                                                                                                                                                                                                                                                                                                     |
| <b>Application Note:</b>    | Anti-NMDA R1, Splice Variant N1 (Rabbit) Antibody is tested for use in Western Blotting and IHC. Specific conditions for reactivity should be optimized by the end user. Expect a band of approximately 120 kDa in size corresponding to the NR1 subunit, NR1 splice variant insert protein of the NMDA receptor 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>                 | 1:1000                                                                                                                                                                                                                                                                                                                                                      |
| <b>WB:</b>                  | 1:1000                                                                                                                                                                                                                                                                                                                                                      |

## Formulation

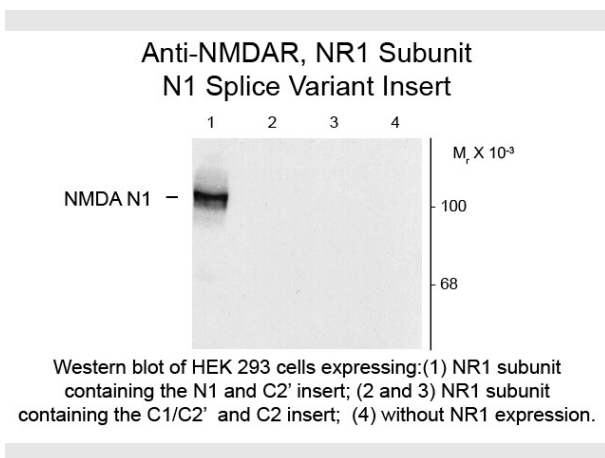
|                               |             |
|-------------------------------|-------------|
| <b>Physical State:</b>        | Lyophilized |
| <b>Reconstitution Volume:</b> | 50µL        |
| <b>Reconstitution Buffer:</b> | Neutral PBS |

## Shipping & Handling

|                            |         |
|----------------------------|---------|
| <b>Shipping Condition:</b> | Ambient |
|----------------------------|---------|

|                           |                                                                                                                                                                                                                                                                        |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Storage Condition:</b> | 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. |
| <b>Expiration:</b>        | Expiration date is one (1) year from date of receipt.                                                                                                                                                                                                                  |

## Images



### Western Blot

Western Blot of Rabbit anti-NMDA R1, Splice Variant N1 antibody. Lane 1: HEK 293 cells expressing NR1 subunit containing the N1 and C2' Insert. Lane 2: HEK 293 cells expressing NR1 subunit containing only the C2 Insert. Lane 3: HEK 293 cells expressing NR1 subunit containing the C1 and C2' Insert. Lane 4: HEK 293 cells without NR1 expression (Mock). Load: 10 µg per lane. Primary antibody: NMDA R1, Splice Variant N1 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 R1, Splice Variant N1. 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.