

## Product datasheet for **SC119642**

### **NMDAR2B (GRIN2B) (NM\_000834) Human Untagged Clone**

#### **Product data:**

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids   |
| Product Name:             | NMDAR2B (GRIN2B) (NM_000834) Human Untagged Clone   |
| Tag:                      | Tag Free  |
| Symbol:                   | NMDAR2B   |
| Synonyms:                 | DEE27; EIEE27; GluN2B; hNR3; MRD6; NMDAR2B; NR2B; NR3   |
| Mammalian Cell Selection: | None  |
| Vector:                   | <u>pCMV6-XL4</u>  |
| E. coli Selection:        | Ampicillin (100 ug/mL)  |
| Fully Sequenced ORF:      | >NCBI ORF sequence for NM_000834, the custom clone sequence may differ by one or more nucleotides |

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ATGAAGCCAGAGCGGAGTGCTGTTCTCCCAAGTCTGGTTGGTGTGGCCGTCCTGGCCGTGTCAGGCA
GCAGAGCTCGTTCTCAGAAGAGCCCCCAGCATTGGCATTGCTGTCATCCTCGTGGGCACTTCCGACGA
GGTGGCCATCAAGGATGCCACGAGAAAGATGATTTCCACCATCTCTCCGTGGTACCCCGGGTGGAACTG
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TCCAGGGGGTGGTGTGGTGTGACACAGACCAGGAAGCCATCGCCAGATCCTCGATTTCAATTCAGC
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TCCATGTTCTTCCAGTTTGGCCATCAATTGAACAGCAAGCTTCCGTAATGCTCAACATCATGGAAGAAT
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AGGAAGAAGCCACCTACATCTTTGAAGTGGCCAACTCAGTAGGGCTGACTGGCTATGGCTACACGTGGAT
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AATGGAACCTGGAATGGTATGATTGGAGAGGTGGTTCATGAAGAGGCCTACATGGCAGTGGGCTCACTCA
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GGTGTCACGCAGCAATGGGACTGTCTCACCTTCTGCCTTCTTAGAGCCATTCAGCGCTGACGTATGGGTG  
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CCTCAGTGCCTGCGGACATCACCAACAACAACCCCGCGGGGGTACATGCTCAGCAAGTCGCT  
CTACCTGACCGGGTACGCAAAACCTTTTATCCCCACTTTTGGGGACGACAGTGTGCTTCCATGGC  
AGCAAACTCTACTTTTACGGCAGCCACGGTGGCGGGGCGTCAAAGCCAGGCCGACTTCCGGGCC  
TTGTACCAACAAGCCGGTGGTCTCGGCCCTTATGGGGCCGTGCCAGCCGTTTCCAGAAGGACATCTG  
TATAGGGAACCAAGTCCAACCCCTGTGTGCTAACAACAAAAACCCAGGGCTTCAATGGCTCCAGCAAT  
GGGCATGTTTATGAGAACTTTCTAGTATTGAGTCTGATGTCTGA

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_000834 unedited  
 GCATTTGTATACGACTCACTATTAGGGCGGCCGGAATTCGCACGAGGTGGACATTCCCA  
 ACATGCTCACTCCCTAATCTGTCCGTCTAGAGTTTGGCTTCTACAAACCAAGGGAGTC  
 GACGAGTTGAAGATGAAGCCCAGAGCGGAGTGTCTTCTCCAAGTTCTGGTTGGTGTG  
 GCCGTCTGGCCGTGTCAGGCAGCAGAGCTCGTCTCAGAAGAGCCCCCAGCATTGGC  
 ATTGCTGTATCCTCGTGGGCATCTCCGACGAGGTGGCCATCAAGGATGCCACGAGAAA  
 GATGATTTCCACCATCTCTCCGTGGTACCCCGGGTGGAACTGGTAGCCATGAATGAGACC  
 GACCCAAAGAGCATCATACCCGCATCTGTGATCTCATGTCTGACCGGACGATCCAGGGG  
 GTGGTGTGTTGCTGATGACACAGACCAGGAAGCCATCGCCAGATCCTCGATTTCATTTCA  
 GCACAGACTCTACCCCGATCCTGGGCATCCACGGGGGCTCCTCTATGATAATGCTAGAT  
 AAGGATGAATCCTCCATGTTCTTCCAGTTTGGCCATCAATTGAACAGCAAGCTTTCGTA  
 ATGCTCAACATCATGGAAGAATATGACTGGTACATCTTTTCTATCGTCACCACCTATTTT  
 CCTGGCTACCAGGACTTTGTAACANGATCCGCAGCACCATTGAGAATAGCTTTGTGGG  
 CTGGAGCTAGAGGAGTCTCCTACTGGACATGTCCCTGGACGATGGAGATTCTAAGATC  
 CAGCATCAGCTCAAGAACTTCAAAGCCCATATTCTTCTTACTGTACCAGAGAAGAG  
 GCCCTTACTCTTTTGTAGTGGCCAACTCAGNAAGGCTGACTGGCTATTGCTACACGTGGA  
 TCGTGCCCATCTGGTGGCAGGGGAATCAGACCCGTTGCTGCGGAGTTCCTACTGGCTCAT  
 CTTGTTTCATTG

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_000834 unedited  
 ATGGACCGGCGGCCGAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTATTCCTCATGGT  
 ACAATCTGAGAGGGAAACAAGGTGTTGCAGGAAGGTAGAAGGGCTTCTACCAAGAGTGTT  
 CACTCTGGGCTCAAGTCACATCCCAGGGAGCCAGGCCAAAGAGGTGGTGGAGGGTCCC  
 TCTCTGCCCCGCTCCCATTTCCAAGTCTTCCCTCTTTTTCGTACCTCCAGAGCTGC  
 ACTCATGGAGTGCAGCTCATTTCTTAAATGTCAAGCTCATTTCTTAACTGTCTGCT  
 CTGTAGCAGTTGTAATCAGTTTTGGGGGAAGAAGCCTGCTCGCTAGCTTCAGGTTAAG  
 TAAGAAGGATCAAAGCATTGGAACATCCCCCTCTCTCACTTACCCTACCATAACAGCAG  
 TCCTTACTTCTTCAAAGGTGGCTTCGTTCTTCCCAAACCTTGGCCAGTCGAGAGTCTAA  
 ATGCTCAAAGAGCTTTGTAGAATCTTTTGTCCCAAGTGTGGGCAAAGAATCATGGCT  
 GTGAAAATTCGGCTTCCCTTTAGCCTTCTGAAAGTTCTTGGTTCAAACCTGGTTGAAAC  
 AATTGCCAACCACTGAGGACTTGTATGTACCTTGTCTTGCAGGATTGCTCACCGCT  
 TTTTTGTTTAGACCACAGAATCTTCTTATCAAGAATTCTATTCTCTTATTTTCAAA  
 GATGAACGGAGACCCAGCCAAAATTCAGGCAATACATGGCCATCTGTCTGTATACTAG  
 CCAAACAATCACCTGCTTGGGATTTCAAAGAACCATCCACAGAGCCAGGGTTGCC  
 CTCTTCTTGGAGCACCTGGATAACACATGCGCCCAAGTCCGCATGAACCCACATGCC  
 GCCAAAATTCACCTGCTCTTGGNCCCAGGACCGGGGAACACTTACAACCGCACCTTTC  
 ACGCGGCCACAGACCCACCTGTCCACCAGCGACTCTGTGTTT

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_000834

**Insert Size:**

6250 bp

**OTI Disclaimer:**

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**Components:**

The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

|                               |   |
|-------------------------------|---|
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>   |
| <b>RefSeq:</b>                | <a href="#">NM_000834.2</a> , <a href="#">NP_000825.1</a>   |
| <b>RefSeq Size:</b>           | 6240 bp   |
| <b>RefSeq ORF:</b>            | 4455 bp   |
| <b>Locus ID:</b>              | 2904  |
| <b>UniProt ID:</b>            | <a href="#">Q13224</a>  |
| <b>Cytogenetics:</b>          | 12p13.1   |
| <b>Domains:</b>               | lig_chan  |
| <b>Protein Families:</b>      | Druggable Genome, Ion Channels: Glutamate Receptors, Transmembrane  |
| <b>Protein Pathways:</b>      | Alzheimer's disease, Amyotrophic lateral sclerosis (ALS), Huntington's disease, Long-term potentiation, Neuroactive ligand-receptor interaction, Systemic lupus erythematosus   |
| <b>Gene Summary:</b>          | <p>This gene encodes a member of the N-methyl-D-aspartate (NMDA) receptor family within the ionotropic glutamate receptor superfamily. The encoded protein is a subunit of the NMDA receptor ion channel which acts as an agonist binding site for glutamate. The NMDA receptors mediate a slow calcium-permeable component of excitatory synaptic transmission in the central nervous system. The NMDA receptors are heterotetramers of seven genetically encoded, differentially expressed subunits including NR1 (GRIN1), NR2 (GRIN2A, GRIN2B, GRIN2C, or GRIN2D) and NR3 (GRIN3A or GRIN3B). The early expression of this gene in development suggests a role in brain development, circuit formation, synaptic plasticity, and cellular migration and differentiation. Naturally occurring mutations within this gene are associated with neurodevelopmental disorders including autism spectrum disorder, attention deficit hyperactivity disorder, epilepsy, and schizophrenia. [provided by RefSeq, Aug 2017]</p> |