

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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ATGAAGCCCAGAGCGGAGTGCTGTTCTCCCAAGTTCTGGTTGGTGTGGCCGTCTGGCCGTGTCAGGCA
GCAGAGCTCGTTCTCAGAAGAGCCCCCAGCATTGGCATTGCTGTCATCCTCGTGGGCACTTCCGACGA
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GGTGTCACGCAGCAATGGGACTGTCTCACCTTCTGCCTTCTAGAGCCATTACAGCGCTGACGTATGGGTG
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 GGGCATGTTTATGAGAACTTTCTAGTATTGAGTCTGATGTCTGA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000834 unedited
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 ACATGCTCACTCCCTTAATCTGTCCGTCTAGAGGTTTGGCTTCTACAAACCAAGGGAGTC
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 GCCCTTACTCTTTTGTAGTGGCCAACTCAGNAAGGCTGACTGGCTATTGCTACACGTGGA
 TCGTGCCCATCTGGTGGCAGGGGAATCAGACCCGTTGCTGCGGAGTTCCTACTGGCTCAT
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3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000834 unedited
 ATGGACCGGCGGCCGAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTATTCCTCATGGT
 ACAATCTGAGAGGGAAACAAGGTGTTGCAGGAAGGTAGAAGGGCTTCTACCAAGAGTGTT
 CACTCTGGGCTCAAGTCACATTCACAGGAGCCAGGCCAAAGAGGTGGTGGAGGGTCCC
 TCTCTGCCCCGTCTCCCATTTCCAAGTCTTCCCCCTTTTTCGTACCTCCAGAGCTGC
 ACTCATGGAGTGCAGCTCATTTCTTAAATGTCAAGCTCATTTCTTAACTGTCTGCT
 CTGTAGCAGTTGTAATCAGTTTTGGGGGAAGAAGCCTGCTCGTCTAGCTTCAGGTTAAG
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 TCCTTACTTCTTCAAAGGTGGCTTCGTTCTTCCCAAACCTTGGCCAGTCGAGAGTCTAA
 ATGCTCAAAGAGCTTTGTAGAATCTTTTGTCCCAAGTGTGGGCAAAAGAATCATGGCT
 GTGAAAATTTCGGCTTCCCTTTAGCCTTCTGGAAGTTCTTGGTTCAAAGTGGTTGAAAC
 AATTGCCAACCCTGAGGACTTGTTTATGTACCTTGCTCTTGCAGGATTGCTCACCAGCT
 TTTTTTGTGTTAGACCACAGAATCTTCTTATCAAGAATTCTATTCTCTTATTTACAA
 GATGAACGGAGACCCAGCCAAAATTCAGGCAATACATGGCCATCTCTGTCTGTATACTAG
 CCAACAATCACACCTGCTTGGGATTTCAAAGAACCATCCACAGAGCCAGGGTTGCC
 CTCTTCTTGAGGCACCTGGATAACACATGCGCCAAGTCCGCATGAACCCACATGCCC
 GCCAAAATTCACCTGCTCTTGGNCCCAGGACCGGGGAACACTTACAACCGCACCTTTC
 ACGCGGCCACAGACCCACCTGTCCACCAGCGACTCTGTGTTT

Restriction Sites:

NotI-NotI

ACCN:

NM_000834

Insert Size:

4455 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_000834.2](#), [NP_000825.1](#)

RefSeq Size: 6240 bp

RefSeq ORF: 4455 bp

Locus ID: 2904

UniProt ID: [Q13224](#)

Cytogenetics: 12p13.1

Domains: lig_chan

Protein Families: Druggable Genome, Ion Channels: Glutamate Receptors, Transmembrane

Protein Pathways: Alzheimer's disease, Amyotrophic lateral sclerosis (ALS), Huntington's disease, Long-term potentiation, Neuroactive ligand-receptor interaction, Systemic lupus erythematosus

Gene Summary:

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]