

## Product datasheet for **SC300139**

### Glutamate receptor ionotropic, NMDA 2D (GRIN2D) (NM\_000836) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Glutamate receptor ionotropic, NMDA 2D (GRIN2D) (NM_000836) Human Untagged Clone
Tag:	Tag Free
Symbol:	Glutamate receptor ionotropic, NMDA 2D
Synonyms:	DEE46; EB11; EIEE46; GluN2D; NMDAR2D; NR2D
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM\_000836 edited  
 ATGCGCGCGCCGGTGGCCCCCGCGGCCCTCGGGGCCCGCTAAGATGCTGCTGCTGCTG  
 GCCTGGCCTGCGCCAGCCCGTTCCCGGAGGAGCGCCGGGGCGGGCGGGCCGGTGGG  
 CCCGGCGCGGCCCTCGGGGGGGCGCGCCGCTCAACGTGGCGCTCGTGTCTCGGGGCC  
 GCGTACGCGGCCGAGGCGGCACGCCTGGGCCCGCCGTGGCGGCGCGGTGCGCAGCCCCG  
 GGCTAGACGTGCGGCCCGTGGCGCTGGTCTCAACGGCTCGGACCCGCGCAGCCTCGTG  
 CTGCAGCTCTGCGACCTGCTGTGGGGTTGCGCGTGCACGGCGTGGTCTTGAAGACGAC  
 TCGCGCGGCCCGCCGTGCGGCCATCCTCGACTTCTGTGCGCGCAGACCTCGTGCCC  
 ATCGTGGCCGTGCACGGCGGCCGCGCTCGTGTCTCACGCCAAGGAGAAGGGCTCCACC  
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 GAGTATGACTGGACGTCCTTTGTAGCCGTGACCACTCGTGCCCTGGCCACCGGGCCTTC  
 CTGTCTACATTGAGGTGCTGACTGACGGTAGTCTGGTGGGCTGGGAGCACCGCGGAGCG  
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 GCGCAGATCCGCCTGCTCTTCTGCGCCCCGAGAGGAGGCCGAGCCCGTGTCCGCGCAGCT  
 GAGGAGGCTGGCCTCACTGGATCTGGCTACGTCTGGTTCATGGTGGGGCCCCAGCTGGCT  
 GGAGGGCGGGGCTCTGGGGCCCCTGGTGGAGCCCCCTTCTGCCAGGAGGCGCCCCCTG  
 CCTGCCGGGCTGTTTGCAGTGCCTCGGCTGGCTGGCGGGATGACCTGGCTCGGCGAGTG  
 GCAGCTGGCGTGGCCGTAGTGGCCAGAGGTGCCAGGCCCTGCTGCGTGATTATGGTTTC  
 TTCCTGAGCTCGGCCACGACTGTCGCGCCCAGAACCACCCAGCCCGGGCGAGAGTCTG  
 CATAGGTACTTCAATGAACATCACGTGGGATAACCGGGATTACTCCTTCAATGAGGACGGC  
 TTCCTAGTGAACCCCTCCCTGGTGGTTCATCTCCCTCACCAGAGACAGGACGTGGGAGGTG  
 GTGGGAGCTGGGAGCAGCAGACGCTCCGCCTCAAGTACCCGCTGTGGTCCCGCTATGGT  
 CGCTTCTGCAGCCAGTGGACGACACGACACCTCACGGTGGCCACGCTGGAGGAAAGG  
 CCGTTTGTATCGTGGAGCCTGCAGACCCTATCAGCGCACCTGCATCCGAGACTCCGTC  
 CCCTGCCGGAGCCAGCTCAACCGAACCCACAGCCCTCCACCGGATGCCCCCGCCGGAA  
 AAGCGCTGCTGCAAGGGTTTCTGCATCGACATTCTGAAGCGGCTGGCGCATACCATCGGC  
 TTCAGCTACGACCTCTACCTGGTACCAATGGCAAGCACGAAAGAAGATCGATGGCGTC



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TGGAACGGCATGATCGGGGAGGTGTTCTACCAGCGCGCAGACATGGCCATCGGCTCCCTC  
 ACCATCAACGAGGAGCGCTCCGAGATCGTGGACTTCTCCGTCCCCTTCGTGGAGACCGGC  
 ATCAGCGTCATGGTGGCGCGCAGCAATGGCAGGTGTCCCCTCGGCCTTCTCGAGCCC  
 TACAGCCCCGCGTGTGGGTGATGATGTTGTCATGTGCCTCACTGTGGTCGCCGTCAC  
 GTTTTCATCTTCGAGTACCTCAGTCCTGTTGGTTACAACCGCAGCCTGGCCACGGGCAAG  
 CGCCCTGGCGGTTCAACCTTCACCATTGGGAAATCCATCTGGCTGCTCTGGGCCCTGGTG  
 TTCAATAATTTCGGTGCCTGGAGAACCCCGGGGAACCACAGCAAAATCATGGTGTG  
 GTGTGGGCTTCTTCGCGTCATCTTCTCGCCAGCTACACAGCCAACCTGGCCGCTTC  
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 AACATCCGAGCAACTATCCCGACATGCACAGCTACATGGTGGCTACAACCGCCCGC  
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 GCAGTGTCAATTACATGGCCGCAAGGACGAGGGCTGCAAGCTTGTACCATCGGCTCC  
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 CGGCTGTGGCTCTCTGGGATCTGCCACAATGACAAAATCGAGGTGATGAGCAGAAAGCTG  
 GACATCGACAACATGGCGGGCGTCTTACATGCTCCTGGTGGCCATGGGCTGTCCCTG  
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 GCCGCCACCGCCGCCAAGCCCCCGCCGCCACAGCCCCTGCCAGCCCCGCGTAC  
 CCCGCGCCGGGGCGGCTCCCGGCCCGCACCTTTCGTGCCCGCGAGCGCGCCTCAGTG  
 GACCGCTGGCGCGGACCAAGGGCGCGGGCCCGGGGGCGCGGGCTGGCCGACGGC  
 TTCCACCGCTACTACGGCCCCATCGAGCCGACAGGCTAGGCTCGGCTGGCGGAAGCG  
 CGCGCGGACCGCGGGGCGCAGCCGGGCGCCGCTGTCCCGCGCCGCTCAGCCCCCG  
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 GCCGGCGCTTCCCGGCTTCCCGTCCCGCGCCCGCCCGCCCGCGCGGCCACCGCC  
 GTCGGGCCCGCACTCTGCCGCTTGGCTTCGAGGACGAGAGCCCGCGCGCCCGCGCGG  
 TGGCCGCGCTCGGACCCCGAGAGCAACCCTGCTGGGGCAGGCGGGCGGGCGGGG  
 GGCACGGGGGCGCAGGCGGAGGAGCCCCGGCCGCTCCGCCCGTGTGCGCGCGCCG  
 CCCCCGTGCCCTTACCTCGATCTCGAGCCGTCGCCGTCGGACTCGGAGGACTCGGAGAGC  
 CTGGGCGCGCGTCTGGCGGCTGGATCCCTGGTGGTTCGCGGACTTCCCTTACCCG  
 TATGCCGAGCGCTCGGGCCGCCCGCCGCGCTACTGGTCCGGTGGACAAGCTCGGGGGC  
 TGGCGCGCGGAGCTGGGACTACCTGCCCCCGCGCAGCGGTCCGGCCGCTGGCACTGT  
 CGGCACTGCGCCAGCCTGGAGTGTGCGCGCCCGCGCCATCTCAGTGTGTCGACGAT  
 GGCTGGACGGCGGCTGGTGGGCGCCACCGCTCCACCCTGGGCGCGCGGGCCCCTGCC  
 CGACCGCGGGCCCGTGCGGGTGCCCGCGGTGCAACCGCACCGCCCGCGGGCTCGCAC  
 CGCACGCCCGCGCTGCCCGCCCCACCAACAGGACCGGCGCGCGCTGGGGCTGG  
 GACCTCCCGCGCCCGCCACCTCGCGCTCGCTCGAGGACTCAGCTCGTGCCTCGC  
 GCCGCCCTGGCGCAGGCTTACCGGGCCCTCCCGCCACGCTCGCAGGTGTCCGACGCC  
 GCGCACTGGGGGCGCCGCTGCCACAGCTTCCACCGGAGACCGGGGCGGGGACCTG  
 GGCACCCGAGGGCTCGGCGCACTTCTTAGCCTCGAGTCCGAGGTATGA

- Restriction Sites:** Please inquire
- ACCN:** NM\_000836
- Insert Size:** 4011 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).

<b>OTI Annotation:</b>	The ORF of this clone has been fully sequenced and found to be a perfect match to NM_000836.1.
<b>Components:</b>	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>	<u>NM_000836.1</u> , <u>NP_000827.1</u>
<b>RefSeq Size:</b>	4299 bp
<b>RefSeq ORF:</b>	4011 bp
<b>Locus ID:</b>	2906
<b>UniProt ID:</b>	<u>O15399</u>
<b>Cytogenetics:</b>	19q13.33
<b>Protein Families:</b>	Druggable Genome, Ion Channels: Glutamate Receptors, Transmembrane
<b>Protein Pathways:</b>	Alzheimer's disease, Amyotrophic lateral sclerosis (ALS), Calcium signaling pathway, Long-term potentiation, Neuroactive ligand-receptor interaction
<b>Gene Summary:</b>	N-methyl-D-aspartate (NMDA) receptors are a class of ionotropic glutamate receptors. NMDA channel has been shown to be involved in long-term potentiation, an activity-dependent increase in the efficiency of synaptic transmission thought to underlie certain kinds of memory and learning. NMDA receptor channels are heteromers composed of the key receptor subunit NMDAR1 (GRIN1) and 1 or more of the 4 NMDAR2 subunits: NMDAR2A (GRIN2A), NMDAR2B (GRIN2B), NMDAR2C (GRIN2C), and NMDAR2D (GRIN2D). [provided by RefSeq, Mar 2010]