

## Product datasheet for SC115601

### NMDAR1 (GRIN1) (NM\_007327) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	NMDAR1 (GRIN1) (NM_007327) Human Untagged Clone
Tag:	Tag Free
Symbol:	NMDAR1
Synonyms:	GluN1; MRD8; NDHMSD; NDHMSR; NMD-R1; NMDA1; NMDAR1; NR1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL6</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC115601 sequence for NM_007327 edited (data generated by NextGen Sequencing)

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ATGAGCACCATGCGCCTGCTGACGCTCGCCCTGCTGTTCTCCTGCTCCGTCGCCCCGTGCC
GGGTGCGACCCCAAGATCGTCAACATTGCGCGGTGCTGAGCACGCGGAAGCACGAGCAG
ATGTTCCGCGAGGCCGTGAACCAGGCCAACAAGCGGCACGGCTCCTGGAAGATTCAGCTC
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GTGCCGCCCTACTCCCACAGTCCAGCGTGTGGTTTGAGATGATGCGTGTCTACAGCTGG
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Clone variation with respect to NM\_007327.3  
953 g=>n;954 g=>n;955 c=>n;956 c=>n;957 g=>n;958 c=>n;959 t=>n;960 c=>n;961 t=>n;962  
t=>n;963 c=>n;964 a=>n

**5' Read Nucleotide  
Sequence:**

>OriGene 5' read for NM\_007327 unedited  
AAAAGGTACCGGCGCCGTTCCCTTAAAGGGCGGTAGGCGTGCACGGTGGGAGGTCTATA  
TAAGCAGAGCTCATTTAGGTGACACTATAGAATACAAGCTACTTGTCTTTTTGCAGCGG  
CCGCGAATTCGGCACGAGGACGGCCCGAAGCCCGCGGGGATGCGCCGAGGGCCCGC  
GTTTCGCGCCGCGCAGAGCCAGGCCCGCGCCTGATCCCATGAGCACCATGCGCCTGCTGA  
CGCTCGCCCTGCTGTTCTCCTGCTCCGTCGCCCCTGCCGCGTGCACCCCAAGATCGTCA  
ACATTGGCGCGGTGCTGAGCACGCGGAAGCACGAGCAGATGTTCCGCGAGGCCGTGAACC  
AGGCCAACAAAGCGGCACGGCTCCTGGAAGATTCAGCTCAATGCCACCTCCGTACGCACA  
AGCCCAACGCCATCCAGATGGCTCTGTCGGTGTGCGAGGACCTCATCTCCAGCCAGGTCT  
ACGCCATCCTAGTTAGCCATCCACCTACCCCAACGACCCTTCACTCCCACCCCTGTCT  
CCTACACAGCCGGCTTCTACCGCATACCCGTGCTGGGGCTGACCACCCGATGTCCATCT  
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GCGACGACCACGAGGGCCGGCGGCTCAGAAACGCTGGAGACGCTGCTGGAGGAGCGTG  
AGTCCCAAGCAGAGAAAGTGTGCGATTTGACCCAGGGACAAAACGTGNACGCCCTGCT  
GATGGAGCGAAAGAGCTGGNAGCCGGTTCATCATCCTTTCTGCCAGCGAGGCGATGCTGC  
CN

<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_007327 unedited NCTACTATGTACCGTGGCCGCGCTCNAAGATCGGTTTTTTTTTTTTTTTTTGGCGTGACA TTCCTTTAGGCATCACCCTGCATACACCGGGAGGTGGGGGTGGGCGGTGCGCGCCTGC ACCCTGGGGACGGAGGGGAGAGCGCGGCTGCGCACGGGCGCACGGGGAAGGCACGCGC TCGGGCCCTGGGAGTGTGGTTCTGTACAAGGTGGCGGGCCGGTACGCACCCGGATCGA GGGCGGGGGCGGGCGGGTGGCGCTCTCCCGTGCCCAAGGTGCAGGGCAGGGTTGAAGACA GTCCCGAGCCAGCGTCCGGGGACCCCGGGGAGGCCCGTTCTGGGCTGCAGGCCGGACGA GGAGAGGAGGGGCTCAGCCCTCTCGAGTCTGGAGGATGCGGCCGAGCGCGGGAGGCG CTGCCAGCTGGGAAGTCAGGGACGGCCGTGGGGATGGCAGGGCCAGCCCGCGCTGTGG GGTCAAGGGGCATACGGGTGTGGGTGGGCGGTGCCGAAGAAGAGGGGAGGGTGGAGCT CAAGCTGCAGAGGAGCGCATGCGCCGATGAGGGGCGACCCAGCCAGCTGGTGCCATGGG CCCCACTGTGGCTCATGCTGGTGTGCGGGAATGATGGGGGCTGCCGTCTCTGTTCCA GCCCTTCGGCTGGGGCCAGTTAGCCCCGCTCCCACTGCTTATAGACCATAAGGCCCT GCCTCTGGCGGGAGCGCCCTGGGGCCTTGCCAGCCGACTCAACTTTGGCCGTTCTTA ACCGTTTCGGGTGGGACCTTGGTTCCACAAGGGCTGCCCGCCGGCATCGGGTGGGCGG GCCGGCGACGGGAGGCCAGGTGGGCAGTCTTCTGGGGCGTGGGGCTCCCCAGCGCT
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_007327
<b>Insert Size:</b>	4700 bp
<b>OTI Disclaimer:</b>	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>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>	<a href="#">NM_007327.1</a> , <a href="#">NP_015566.1</a>
<b>RefSeq Size:</b>	5137 bp
<b>RefSeq ORF:</b>	2817 bp
<b>Locus ID:</b>	2902
<b>UniProt ID:</b>	<a href="#">Q05586</a>
<b>Cytogenetics:</b>	9q34.3
<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, Huntington's disease, Long-term potentiation, Neuroactive ligand-receptor interaction

**Gene Summary:**

The protein encoded by this gene is a critical subunit of N-methyl-D-aspartate receptors, members of the glutamate receptor channel superfamily which are heteromeric protein complexes with multiple subunits arranged to form a ligand-gated ion channel. These subunits play a key role in the plasticity of synapses, which is believed to underlie memory and learning. Cell-specific factors are thought to control expression of different isoforms, possibly contributing to the functional diversity of the subunits. Alternatively spliced transcript variants have been described. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (GluN1-1a, also known as NR1-3) represents the longest transcript and encodes protein isoform GluN1-1a (also known as isoform NR1-3). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.