

## Product datasheet for **SC308824**

### **NMDAR1 (GRIN1) (NM\_021569) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	NMDAR1 (GRIN1) (NM_021569) Human Untagged Clone
Tag:	Tag Free
Symbol:	NMDAR1
Synonyms:	GluN1; MRD8; NDHMSD; NDHMSR; NMD-R1; NMDA1; NMDAR1; NR1
Vector:	<u>pCMV6 series</u>



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**Fully Sequenced ORF:** >NCBI ORF sequence for NM\_021569, the custom clone sequence may differ by one or more nucleotides

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ATGAGCACCATGCGCCTGCTGACGCTCGCCCTGCTGTTCTCTGCTCCGTCGCCCGTGCC
GCGTGCGACCCCAAGATCGTCAACATTGGCGCGGTGCTGAGCACGCGGAAGCAGCAGCAG
ATGTTCCGCGAGGCCGTGAACCAGGCCAACAAGCGGCACGGCTCCTGGAAGATTCAGCTC
AATGCCACCTCCGTACGCACAAGCCCAACGCCATCCAGATGGCTCTGTGCGTGTGCGAG
GACCTCATCTCCAGCCAGGTCTACGCCATCCTAGTTAGCCATCCACCTACCCCAACGAC
CACTTCACTCCCACCCCTGTCTCTACACAGCCGGCTTCTACCGCATAACCGTGCTGGGG
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AACCACATCATCTGCTGGTCAGCGACGACCACGAGGGCCGGGCGGCTCAGAAACGCTG
GAGACGCTGCTGGAGGAGCGTGAGTCCAAGGCAGAGAAGGTGCTGCAGTTTGACCCAGGG
ACCAAGAACGTGACGGCCCTGCTGATGGAGGCGAAAGAGCTGGAGGCCGGGTATCATC
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ACGGGCTCCGGGTACGTGTGGCTGGTCGGCGAGCGGAGATCTCGGGGAACGCCCTGCGC
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ATCAGCGACGCCGTGGGCGTGGTGGCCAGGCCGTGCACGAGCTCCTCGAGAAGGAGAAC
ATCACCGACCCGCGCGGGGCTGCGTGGGCAACACCAACATCTGGAAGACCGGGCCGCTC
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CTGGTGAAGTGGGCATCTACAATGGCACCCACGTCATCCCTAATGACAGGAAGATCATC
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GTGACGATCCACCAGGACCCCTTCGTGTACGTCAAGCCACGCTGAGTGTGGGACATGC
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GAAGGCGCCCCAGAAGCTTCTCAGCGGCATCCTGGGCATGGTGTGGGCCGGCTTTGCC
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GAGGAGCGCATCACGGGCATCAACGACCCTCGGCTGAGGAACCCCTCGGACAAGTTTATC
TACGCCACGGTGAAGCAGAGCTCCGTGGATATCTACTTCCGGCGCCAGGTGGAGCTGAGC
ACCATGTACCGGCATATGGAGAAGCACAACTACGAGAGTGGCGGAGGCCATCCAGGCC
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TCGCAGAAGTGCGACCTGGTGCAGACTGGAGAGCTGTTTTTCCGCTCGGGCTTCGGCATA
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AAGGATGCTCGCCGAAGCAGATGCAGCTGGCCTTTCGCCCGTTAACGTGTGGCGGAAG
AACCTGCAGAGCACCGGGGGTGGACGCGCGCTTTGCAAAACAAAAAGACACAGTGCTG
CCGCGACGCGCTATTGAGAGGGAGGAGGCCAGCTGCAGCTGTGTCCCCTCATAGGGAG
AGCTGA

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**Restriction Sites:** Please inquire  
**ACCN:** NM\_021569

<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>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<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><a href="#">NM_021569.1</a></u> , <u><a href="#">NP_067544.1</a></u>
<b>RefSeq Size:</b>	5025 bp
<b>RefSeq ORF:</b>	2706 bp
<b>Locus ID:</b>	2902
<b>UniProt ID:</b>	<u><a href="#">Q05586</a></u>
<b>Cytogenetics:</b>	9q34.3
<b>Domains:</b>	lig_chan, ANF_receptor
<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 (GluN1-2a, also known as NR1-2) lacks an alternate in-frame exon in the 3' coding region, compared to variant GluN1-1a, resulting in a shorter protein (isoform GluN1-2a, also known as isoform NR1-2), compared to isoform GluN1-1a. 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.