OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC308819

NMDAR1 (GRIN1) (NM_000832) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NMDAR1 (GRIN1) (NM_000832) Human Untagged Clone
Tag:	Tag Free
Symbol:	NMDAR1
Synonyms:	GluN1; MRD8; NDHMSD; NDHMSR; NMD-R1; NMDA1; NMDAR1; NR1
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

```
>OriGene sequence for NM_000832 edited
AGGACGGCCCGGAAGCCCCGCGGGGGATGCGCCGAGGGCCCCGCGTTCGCGCCGCGCAGA
GCCAGGCCCGCGGCCCGAGCCCATGAGCACCATGCGCCTGCTGACGCTCGCCCTGCTGTT
CTCCTGCTCCGTCGCCCGTGCCGCGTGCGACCCCAAGATCGTCAACATTGGCGCGGTGCT
GAGCACGCGGAAGCACGAGCAGATGTTCCGCGAGGCCGTGAACCAGGCCAACAAGCGGCA
CGGCTCCTGGAAGATTCAGCTCAATGCCACCTCCGTCACGCACAAGCCCAACGCCATCCA
GATGGCTCTGTCGGTGTGCGAGGACCTCATCTCCAGCCAGGTCTACGCCATCCTAGTTAG
CCATCCACCTACCCCCAACGACCACTTCACTCCCACCCCTGTCTCCTACACAGCCGGCTT
CTACCGCATACCCGTGCTGGGGCTGACCACCCGCATGTCCATCTACTCGGACAAGAGCAT
CCACCTGAGCTTCCTGCGCACCGTGCCGCCCTACTCCCACCAGTCCAGCGTGTGGTTTGA
GATGATGCGTGTCTACAGCTGGAACCACATCATCCTGCTGGTCAGCGACGACCACGAGGG
CCGGGCGGCTCAGAAACGCCTGGAGACGCTGCTGGAGGAGCGTGAGTCCAAGGCAGAGAA
GGTGCTGCAGTTTGACCCAGGGACCAAGAACGTGACGGCCCTGCTGATGGAGGCGAAAGA
GCTGGAGGCCCGGGTCATCATCCTTTCTGCCAGCGAGGACGATGCTGCCACTGTATACCG
CGCAGCCGCGATGCTGAACATGACGGGCTCCGGGTACGTGTGGCTGGTCGGCGAGCGCGA
GATCTCGGGGAACGCCCTGCGCTACGCCCCAGACGGCATCCTCGGGCTGCAGCTCATCAA
CGGCAAGAACGAGTCGGCCCACATCAGCGACGCCGTGGGCGTGGTGGCCCAGGCCGTGCA
CGAGCTCCTCGAGAAGGAGAACATCACCGACCCGCCGCGGGGCTGCGTGGGCAACACCAA
CATCTGGAAGACCGGGCCGCTCTTCAAGAGAGTGCTGATGTCTTCCAAGTATGCGGATGG
GGTGACTGGTCGCGTGGAGTTCAATGAGGATGGGGACCGGAAGTTCGCCAACTACAGCAT
CATGAACCTGCAGAACCGCAAGCTGGTGCAAGTGGGCATCTACAATGGCACCCACGTCAT
CCCTAATGACAGGAAGATCATCTGGCCAGGCGGAGAGACAGAGAAGCCTCGAGGGTACCA
GATGTCCACCAGACTGAAGATTGTGACGATCCACCAGGAGCCCTTCGTGTACGTCAAGCC
CACGCTGAGTGATGGGACATGCAAGGAGGAGTTCACAGTCAACGGCGACCCAGTCAAGAA
GGTGATCTGCACCGGGCCCAACGACACGTCGCCGGGCAGCCCCCGCCACACGGTGCCTCA
GTGTTGCTACGGCTTTTGCATCGACCTGCTCATCAAGCTGGCACGGACCATGAACTTCAC
CTACGAGGTGCACCTGGTGGCAGATGGCAAGTTCGGCACACAGGAGCGGGTGAACAACAG
```


View online »

CAACAAGAAGGAGTGGAATGGGATGATGGGCGAGCTGCTCAGCGGGCAGGCAGACATGAT
CGTGGCGCCGCTAACCATAAACAACGAGCGCGCGCAGTACATCGAGTTTTCCAAGCCCTT
CAAGTACCAGGGCCTGACTATTCTGGTCAAGAAGGAGATTCCCCGGAGCACGCTGGACTC
GTTCATGCAGCCGTTCCAGAGCACACTGTGGCTGCTGGTGGGGCTGTCGGTGCACGTGGT
GGCCGTGATGCTGTACCTGCTGGACCGCTTCAGCCCCTTCGGCCGGTTCAAGGTGAACAG
CGAGGAGGAGGAGGAGGACGCACTGACCCTGTCCTCGGCCATGTGGTTCTCCTGGGGCGT
CCTGCTCAACTCCGGCATCGGGGAAGGCGCCCCCAGAAGCTTCTCAGCGCGCATCCTGGG
CATGGTGTGGGCCGGCTTTGCCATGATCATCGTGGCCTCCTACACCGCCAACCTGGCGGC
CTTCCTGGTGCTGGACCGGCCGGAGGAGCGCATCACGGGCATCAACGACCCTCGGCTGAG
GAACCCCTCGGACAAGTTTATCTACGCCACGGTGAAGCAGAGCTCCGTGGATATCTACTT
CCGGCGCCAGGTGGAGCTGAGCACCATGTACCGGCATATGGAGAAGCACAACTACGAGAG
TGCGGCGGAGGCCATCCAGGCCGTGAGAGACAACAAGCTGCATGCCTTCATCTGGGACTC
GGCGGTGCTGGAGTTCGAGGCCTCGCAGAAGTGCGACCTGGTGACGACTGGAGAGCTGTT
TTTCCGCTCGGGCTTCGGCATAGGCATGCGCAAAGACAGCCCCTGGAAGCAGAACGTCTC
CCTGTCCATCCTCAAGTCCCACGAGAATGGCTTCATGGAAGACCTGGACAAGACGTGGGT
TCGGTATCAGGAATGTGACTCGCGCAGCAACGCCCCTGCGACCCTTACTTTTGAGAACAT
GGCCGGGGTCTTCATGCTGGTAGCTGGGGGCATCGTGGCCGGGATCTTCCTGATTTTCAT
CGAGATTGCCTACAAGCGGCACAAGGATGCTCGCCGGAAGCAGATGCAGCTGGCCTTTGC
CGCCGTTAACGTGTGGCGGAAGAACCTGCAGCAGTACCATCCCACTGATATCACGGGCCC
GCTCAACCTCTCAGATCCCTCGGTCAGCACCGTGGTGTGAGGCCCCCGGAGGCGCCCACC
TGCCCAGTTAGCCCGGCCAAGGACACTGATGGGTCCTGCTGCTCGGGAAGGCCTGAGGGA
AGCCCACCCGCCCCAGAGACTGCCCACCCTGGGCCTCCCGTCCGTCCGCCCGCCCACCCC
GCTGCCTGGCGGGCAGCCCCTGCTGGACCAAGGTGCGGACCGGAGCGGCTGAGGACGGGG
CAGAGCTGAGTCGGCTGGGCAGGGCCGCAGGGCGCTCCGGCAGAGGCAGGGCCCTGGGGT
CTCTGAGCAGTGGGGAGCGGGGGCTAACTGGCCCCAGGCGGAGGGGCTTGGAGCAGAGAC
GGCAGCCCCATCCTTCCCGCAGCACCAGCCTGAGCCACAGTGGGGCCCATGGCCCCAGCT
GGCTGGGTCGCCCCTCCTCGGGCGCCTGCGCTCCTCTGCAGCCTGAGCTCCACCCTCCCC
TCTTCTTGCGGCACCGCCCACCCACACCCCGTCTGCCCCTTGACCCCACACGCCGGGGCT
GGCCCTGCCCTCCCCCACGGCCGTCCCTGACTTCCCAGCTGGCAGCGCCTCCCGCCGCCT
CGGGCCGCCTCCTCCAGACTCGAGAGGGCTGAGCCCCTCCTCTCCTCGTCCGGCCTGCAG
CCCAGAACGGGCCTCCCCGGGGGTCCCCGGACGCTGGCTCGGGACTGTCTTCAACCCTGC
CCTGCACCTTGGGCACGGGAGAGCGCCACCCGCCCGCCCCCGCCCTCGCTCCGGGTGCGT
GACCGGCCCGCCACCTTGTACAGAACCAGCACTCCCAGGGCCCGAGCGCGTGCCTTCCCC
GTGCGGCCCGTGCGCAGCCGCGCTCTGCCCCTCCGTCCCCAGGGTGCAGGCGCGCACCGC
CCAACCCCCACCTCCCGGTGTATGCAGTGGTGATGCCTAAAGGAATGTCACGCAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000832 unedited
NTCAAACACCCGCCCGTTGNCGCAAAGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATA
AGCAGAGCTCATTTAGGTGACACTATAGAATACAAGCTACTTGTTCTTTTTGCAGCGGCC
GCGAATTCGGCACGAGGACGGCCCGGAAGCCCCGCGGGGGATGCGCCGAGGGCCCCGCGT
TCGCGCCGCGCAGAGCCAGGCCCGCGGCCCGAGCCCATGAGCACCATGCGCCTGCTGACG
CTCGCCCTGCTGTTCTCCTGCTCCGTCGCCCGTGCCGCGTGCGACCCCAAGATCGTCAAC
ATTGGCGCGGTGCTGAGCACGCGGAAGCACGAGCAGATGTTCCGCGAGGCCGTGAACCAG
GCCAACAAGCGGCACGGCTCCTGGAAGATTCAGCTCAATGCCACCTCCGTCACGCACAAG
CCCAACGCCATCCAGATGGCTCTGTCGGTGTGCGAGGACCTCATCTCCAGCCAGGTCTAC
GCCATCCTAGTTAGCCATCCACCTACCCCCAACGACCACTTCACTCCCACCCCTGTCTCC
TACACAGCCGGCTTCTACCGCATACCCGTGCTGGGGCTGACCACCCGCATGTCCATCTAC
TCGGACAAGAGCATCCACCTGAGCTTCCTGCGCACCGTGCCGCCCTACTCCCACCAGTCC
AGCGTGTGGTTTGAGATGATGCGTGTCTACAGCTGGAACCACATCATCCTGCTGGTCAGC
GACGACCACGAGGGCCGGGCGGCTCANAAACGCCTGGAGACGCTGCTGGAGGAGCGTGAG
TCCAAGGCAGAGAAGGTGCTGCAGTTTGACCCCAGGGACCAGAACGTGACGGCCCTGCTG
ATGGNAGCAAAAGAACTGGAGCCCGGGTCATCATTCTT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000832 unedited
AATAGGACGATGGCACTTGCCAGGTCCAGNAAAGCACTGGGGAAGGGTCACAGGGNAGCC
ACCCGGGNNATCTGTTCAGGAAAACAGCTATGACCGCGGCCGCAATCTAGAGTCGAGTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTTTTGGGGGACAATCCTTTAAGCCTCACCACTGGATACCCCCGGAGGGGGGGGTTGGG
CGGGGCCCCCCCGCCCCCCGGGGACGGGGGGGCAAAACGCGGCTTCCCACGGGCCCAAAG
GGGAAAGGACCCCCCCGGGCCCCGGGAAGGCTGGTTCTGTAAAAGGGGGGGGGCCCGCCA
CCCCCCCCGAACAAAGGCGGGGGCCGGCGGGTGGCCCCCTCCCCTGCCCAAAGGGCCGGG
GAGGGGTGAAAACAATCCCCAACCCACGTTCGGGGACCCCCGGGGGAGCCCCTTCTGGGC
TTGCGGCCCGAAAAAAAAAAGAAGGGCTCAACCCCTTTCAAATCTGGGAGAAGCCCCCCC
AAACCGAAGGAAGCGCTCCCCACTGGGAAAACAAGGACCCCCCCGGGGGAAGGCAAGGCC
CCCCCCCGGCTGGGGGGGGTAAGGGGCCCAACAGGGATTGGGGTGGGCCGGCCCCCCCTG
AAAAAAGGGAGGGGGGAACCTCAACCTCCAAAAAGACAAAAGGACCCCCAAGGGGGGGAA
AACCCACCCAGTGGGGCCAGGGACCCCACGGAGACATAAAATAGTCCCACGCAAAAAGAA
GGGCCCCCCACTATTAATAAAAAAACCATCTCAGGGGGCCAATTAACCCCCCCTGCCCCG
AGGAAAAAAAACCG

Restriction Sites: Please inquire

ACCN: NM_000832

Insert Size: 2658 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).

OTI Annotation: The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.

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.
RefSeq:	NM_000832.5, NP_000823.4
RefSeq Size:	3902 bp
RefSeq ORF:	2658 bp
Locus ID:	2902
UniProt ID:	Q05586
Cytogenetics:	9q34.3
Protein Families:	Druggable Genome, Ion Channels: Glutamate Receptors, Transmembrane
Protein Pathways:	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 (GluN1-4a, also known as NR1-1) lacks an alternate in-frame exon and uses an alternate splice site in the 3' coding region, compared to variant GluN1-1a. The resulting protein (isoform GluN1-4a, also known as isoform NR1-1) is shorter and has a different C-terminus, 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.