

## Product datasheet for **MC222731**

### Grin1 (NM\_008169) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Grin1 (NM_008169) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Grin1
Synonyms:	GluN1; GluRdelta1; GluRzeta1; M100174; NMD-R1; Nmdar; NMDAR1; NR1; Rgsc174
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >MC222731 representing NM\_008169  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGAGCACCATGCACCTGCTGACATTGCGCCTGCTTTTCTCCTGCTCCTTCGCCCGCTGCTGCGACC  
 CCAAGATTGTCAACATCGGCGCGGTGCTGAGCAGCGCAAGCACGAGCAGATGTTCCGCGAGGCAGTAAA  
 CCAGGCCAATAAGCGACACGGCTCTTGGGAAGATACAGCTCAACGCCACTTCTGTACCCACAAGCCAAAC  
 GCCATACAGATGGCCCTGTCAAGTGTGAGGACCTCATCTCTAGCCAGGTCTACGCTATCCTAGTTAGTC  
 ACCCGCTACTCCCAACGACCCTTCACTCCCACCCTGTCTCCTACACAGCTGGCTTCTACAGAATCCC  
 CGTCTGGGGTACTACCCGAATGTCCATCTACTCTGACAAGAGCATCCACCTGAGCTTCTTCGCACC  
 GTACCACCCTACTCCCACAGTCCAGCGTCTGGTTTGGATGATGCGCGTCTACAACCTGGAACCATATCA  
 TCCTGCTGGTCAAGGATGACCACGAGGGCCGGCAGCGCAGAAGCGCCTGGAGACGTTGCTGGAGGAGCG  
 TGAGTCCAAGGCAGAGAAGGTGCTGCAGTTTGACCCAGGAACCAAGAATGTGACGGCTCTGCTGATGGAA  
 GCCCGGGACCTGGAAGCCCGGTATCATCTTTCTGCAAGCGAGGACGAGCTGCCACCGTATACCGCG  
 CAGCCCGATGCTGAACATGACTGGCTCTGGGTACGTGTGGCTCGTCGGGAGCGCGAGATCTCTGGGAA  
 TGCCCTGCGCTACGCTCCTGACGGCATCATCGACTTCAGCTAATCAACGGCAAGAACGAGTCGGCCAC  
 ATCAGTGACGCTGTGGCGTGGTGGCACAGGCAGTCCACGAGCTCCTAGAAAAGGAGAACATCACTGATC  
 CACCGCGGGTGGTGGCAACACCAACATCTGGAAGACAGGACCCTGTTCAAGAGGGTGTGATGTC  
 TTCCAAGTATGCAGATGGAGTACTGGCCGTGTGGAATCAATGAGGATGGGACCGGAAGTTTGCCAAC  
 TATAGTATCATGAACCTGCAGAACCAGCTGGTCAAGTGGCATCTACAATGGTACCCATGTCATCC  
 CAATATGACAGGAAGATCATCTGGCCAGGAGGAGAGACAGAGAAGCCTCGAGGATACCAGATGTCCACCAG  
 ACTAAAGATAGTACAATCCACCAAGAACCCTTGTGTATGTCAAGCCCAATGAGTGTGGCACATGC  
 AAAGAGGAGTTCACAGTCAATGGTGACCCTGTCAAGAAGGTGATCTGTACGGGGCCTAATGACACATCCC  
 CAGGAAGCCACGTCACACAGTCCCCAGTGTGTATGGCTTCTGCGTTGACCTGCTCATCAAGCTGGC  
 ACGGACCATGAATTTTACCTACGAGGTGCACCTTGTGGCAGATGGCAAGTTTGGCACACAGGAGCGGGTA  
 AACACAGCAACAAAAGGAGTGGAAACGGAATGATGGGAGAGTGTGCTCAGTGGTCAAGCAGACATGATCG  
 TGGCTCCACTGACCATTAACAATGAGCGTGGCAGTACATAGAGTTCTCCAAGCCCTTCAAGTACCAGGG  
 CCTGACCATTCTGGTCAAGAAGGAGATCCCTCGGAGCACACTGGACTCATTATGCAGCCCTTTCAGAGC  
 ACTGTGGCTGTGGTGGGGTGTGAGTTCATGTGGTGGCCGTGATGCTGTACCTGCTGGACCGCTTCA  
 GTCCTTTTGGCCGATTTAAGGTGAACAGCGAGGAGGAGGAGGATGCACTGACCTGTCTCTGCCAT  
 GTGGTTTTCTGGGGCTCCTGCTCAACTCTGGCATTGGGGAAGGTGCCCCCGGAGTTTCTCTGCTCGT  
 ATCCTAGGCATGGTGTGGGCTGGTTTTGCCATGATCATCGTGGCTTCTACACTGCCAACCTGGCAGCCT  
 TCCTGGTGTGGATAGGCCTGAGGAGCGCATCACAGGCATCAATGACCCAGGCTCAGAAACCCCTCAGA  
 CAAGTTCATCTATGCAACTGTAAAACAGAGCTCTGTGGATATCTACTCCGGAGGCGAGTGGAGTTGAGC  
 ACCATGTACCGGCACATGGAGAAGCACAATTATGAGAGTGCAGCTGAGGCCATCCAGGCTGTGCGGGACA  
 ACAAGCTCCATGCCTTCTCTGGGACTCAGCTGTGCTGGAGTTTGGAGCTTACAGAAAGTGGGATCTGGT  
 GACCACGGGTGAGCTGTTCTTCCGCTCCGGCTTGGCATCGGCATGCGCAAGGACAGCCCTGGAAGCAA  
 AATGTGTCCCTGTCCATACTCAAGTCCCATGAGAATGGCTTCAAGGAAGCCTGGATAAGACATGGGTTT  
 GGTATCAAGAATGTGACTCCCGCAGCAATGCCCTGCCACCCTCACTTTTGAAGACATGGCAGGGTCTT  
 CATGCTGGTGGTGGAGGCATCGTAGTGGGATCTTCTCATTTCATCGAGATCGCCTACAAGCGACAC  
 AAGGATGCCCGTAGGAAGCAGATGCAGCTGGCTTTTGCAGCCGTGAACGTGTGGAGGAAGAACCCTGCAGG  
 ATAGAAAGAGTGGTAGAGCAGAGCCGACCCTAAAAGAAAGCCACATTTAGGGCTATCACCTCCACCCT  
 GGCCTCCAGCTTCAAGAGACGTAGTCTCCAAGACACGAGCACCAGGGGTGGACGCGGCTTTGCAA  
 AACCAAAAAGACACAGTGTGCCGCGACGCTATTGAGAGGGAGGAGGCCAGCTGCAGCTGTGTTCC  
 GCATAGGGAGAGCTGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja2647\\_c11.zip](https://cdn.origene.com/chromatograms/ja2647_c11.zip)

**Restriction Sites:** Sgfl-Mlul

**ACCN:** NM\_008169

**Insert Size:** 2817 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](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**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\\_008169.2](#), [NP\\_032195.1](#)

**RefSeq Size:** 4326 bp

**RefSeq ORF:** 2817 bp

**Locus ID:** 14810

**UniProt ID:** [P35438](#)

**Cytogenetics:** 2 17.14 cM

**Gene Summary:** Component of NMDA receptor complexes that function as heterotetrameric, ligand-gated ion channels with high calcium permeability and voltage-dependent sensitivity to magnesium. Channel activation requires binding of the neurotransmitter glutamate to the epsilon subunit, glycine binding to the zeta subunit, plus membrane depolarization to eliminate channel inhibition by Mg(2+) (PubMed:1532151, PubMed:8060614, PubMed:12008020). Sensitivity to glutamate and channel kinetics depend on the subunit composition (PubMed:12008020). [UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) encodes the longest isoform (1).