

## Product datasheet for MC224027

### Grin2c (NM\_010350) Mouse Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Grin2c (NM\_010350) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Grin2c  
**Synonyms:** GluN2C; NMDAR2C; NR2C  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >MC224027 representing NM\_010350  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGC**C

ATGGGTGGAGCCCTGGGGCCCGCCCTGCTTCTCACTTCACTCCTTGGTGCCTGGGCAGGGCTGGGCGCAG  
 GGCAGGGAGAACAGGCCGTGACCGTGGCGGTGGTGTGGCAGCTCTGGGCCACTGCAGGCCAGGCCCG  
 GACTCGTCTCACCCCGCAGAACTTCTGGACTTGCTCTGGAGATCCAGCCACTCACCATCGGGGTCAAC  
 AATACCAACCCAGCAGCATCCTCACCAAATCTGTGGGCTCCTGGGTGCCGCCGAGTCCACGGATCG  
 TCTTTGAGGACAACGTGGACACTGAGGCCGTGGCTCAGCTGCTGGATTCGTCCTCTCAGACCCACGT  
 GCCCATCCTCAGCATCAGTGGAGGTTTCTGCTGTGGTCTCACCCCAAGGAGCCAGGCTCCGCCTTTCTA  
 CAGCTGGGCGTGTCCCTGGAGCAGCAGCTGCAGGTGCTGTTCAAGGTGCTGGAGGAATACGACTGGAGCG  
 CGTTCGCTGTATCACCAGCCTGCACCCGGGCCACGCGCTTCTCCTCGAGGGCGTGCAGCCGCTCGCCGA  
 CGCCAGCTACCTGAGCTGGCGGCTGCTGGACGTGCTCACGCTGGAGCTGGGCCCGGTGGCCCGCAGCG  
 CGCACTCAGCGCTTACTGCGCCAGGTGCACAGGCTGGCTGGTGGGACCCGGTCAAGTGTAGTACCTAATCT  
 AGGTGCTCTTCGCGGAGGCTGCACAGGCTGGCTGGTGGGACCCGGTCAAGTGTAGTACCTAATCT  
 GGCCTGGGAAGCACCGACGCTCCCTGCAGCCTTCCAGTGGGCTCATCAGTGTGGTACCGAGAGT  
 TGGCGCCTTAGCCTACGCCAGAAAGTCCCGCAGGCTGTAGCCATTCTGGCCCTCGGTGCCACAGCTACC  
 GACGCCAGTACGGTACCTTCCAGCCCGGCTGGAGACTGCCAAGCCACCCAGGACCCGTGAGCCCTGC  
 CAGGGAGGCTTTCTACAGGCATCTGCTGAATGTACCTGGGAAGGCCGAGACTTCTTTTAGCCCTGGT  
 GGTACCTGGTCCAGCCACAATGGTTGTGATCGCTCTCAACCGCATCGCCTCTGGGAGATGGTGGGAC  
 GGTGGGATCATGGGTCTGTACATGAAGTATCCAGTATGGCCTCGTACAGCACTTCTCTGAGCCTGT  
 GGTGGACAGCCGGCACCTGACAGTGGCCACACTGGAAGAAAGGCCTTTTGTATTGTGGAGGCCCTGAC  
 CCTGGCACAGGTGGCTGTGTTCCCAACTGTGCCCTGCCGTAGACAGAGCAACCACACCTTTCAGCAGCG  
 GGGATATAACCCCTACACCAAGCTCTGTGTAAGGGCTTCTGCATCGACATCCTCAAGAAGCTGGCCAA  
 GGTGGTCAAGTCTCCTACGACTTGTACCTGGTACCAACGGCAAGCAGCGCAAGAGGGTTCGTGGTGTG  
 TGGAAATGGTATGATCGGTGAGGTATACTACAAGCGGCAGACATGGCCATCGGCTCCCTCACCATCAATG



[View online >](#)

AAGAGCGCTCAGAGATTATAGACTTCTCTGTGCCTTTTGTGGAGACCGGCATCAGTGTGATGGTGGCAAG  
 GAGCAACGGCACCCTCTCCCTCGGCTTTTCTGGAGCCCTACAGCCCTGCCGTGTGGGTGATGATGTTT  
 GTAATGTGCCTCACGGTGGTTGCCATCACTGTCTTCATGTTTCGAGTATTTTCAGCCCTGTCAGCTACAACC  
 AGAATCTCACCAAGGGCAAGAAGTCAGGTGGACCATCCTTACCATTGGCAAGTCCGTGTGGTTGCTGTG  
 GGCAGTGGTCTTCAACAACCTCTGTTCCCATCGAGAACCCCGGGGACCACCAGCAAGATCATGGTCCTG  
 GTGTGGGCCTTCTTCGTGTCTCTTCTCGCTAGCTACACGGCCAATCTGGCAGCCTTCATGATCCAGG  
 AACATACATCGACACTGTGTGGGCTTAGTGACAAGAAGTTTCAGCGGCTCAAGACCAATACCCACC  
 CTTCGGTTTTGGCACGGTACCTAATGGCAGCACAGAGAGGAACATTCGTAGCAACTATCGTGACATGCAC  
 ACTCACATGGTCAAGTTCAACCAGCGCTCGGTGGAGGATGCTCTCACAAGCCTGAAGATGGGAAGCTGG  
 ACGCCTTCATCTATGATGCCCGCTCTCAACTACATGGCGGCAAGGACGAAGGCTGCAAGCTGGTAC  
 CATTGGGTCTGGCAAAGTCTTGGCCACCCTGGCTATGGCATTGCCATGCAGAAAGACTCCCACTGGAAG  
 CGGGCCATAGACCTGGCCTCCTGCAGTTCCTGGGGATGGGGAGACACAGAAGTTGGAGACAGTGTGGC  
 TCTCAGGGATCTGCCATAACGAGAAGAACGAGGTGATGAGCAGCAAGCTGGACATTGACAACATGGCGG  
 CGTCTTCTACATGCTGTTGGTGGCCATGGGGCTGGCCCTTCTGGTCTTTCCTGGGAGCACCTGGTCTAC  
 TGGAAACTTCGACACTCAGTGCAGCTCATCCCAGCTGGACTTCTGCTGGCTTTCAGCAGGGGCATCT  
 ACAGCTGCTTCAACGGGTACAGAGCCTTCCGAGCCCTGCGCGGCCGCCAGCCCGGACCTTACAGCAGG  
 CTCAGCCAGGCCAATGTGCTGAAGATGCTGCAGGCGGCTCGAGACATGGTGAGCACAGCGGACGTGAGC  
 GGCTCTTTGGACCGGCCACTCGTACCATCGAGAACTGGGGCAACAATCGCCGCGCGCTGCTCCCACCA  
 CCTCCGGCCCGGGTCAATGCACCCCGGGTCTCCGGGACAACCGAGTCCCAGCGGCTGGCGGCTCCCGG  
 TGGGGCCCGCACCCCGTAGCGCGCCGGGCCCCGAGCCTCCCGCTCGCCCCGCGACCTGCGCAGGGTGC  
 CCTCAGCCGACGTGTCCCGAGCATCCTGCAGGCACGCTTGGGATGCGCGGTGGCCAGTGCAGTGGGGC  
 ATCAGGGATCGCACCTCTCGGCTCCGAGCGGCGCGCTCCCGAGCGCTCCCTGTTGCACGCGCACTG  
 CCACTACAGTTCCTTCCCTCGAGCAGAGAGGTGAGGGCGCCATTCTCCCGCTATTCGCGAGCCCCG  
 GAGCCCCGACGACCTGCCGCTGCTCGGGCCGGAACAGCTGGCTCGGCGGGAGGCTCTGCTGCGCGCGGCT  
 GGGCCAGGGGCCCGCCCTCGGCACGCTTCCCTGCCAGCTCCGTGGCAGAAGCCTTACTCGATCCAA  
 CCCTCTGCCTGCCAGGTGTACCGGTACGCCTGCGCTTGCCATGTCCCCAAAGCCGGCCATCTGCCGG  
 CACGTGGCTCAAACACAGTCTGTGGGCTGCCATCCTACCGGGAGGCTGTGTGGAGGGCTGCCAGCAG  
 GGGTGGCCGCCACCTGGCAGCCAGACAGCATGTCTGCCTGCACACCCATACCCACTGCCGTTCTGCTG  
 GGGACTGTCTGCCGTACCCTCCACCCTGTTCCAGCCACAGTCCCTGGCTCATTGGAATTGGGAGCCT  
 CCATCACACAGAGGCAGGACCCTGGGGTACAGTACAGGCTACAGGGACAGTGGGGTCTAGAAGAGGTCA  
 GCAGGGAAGCTTGTGGGACACAAGGGTTCCAAGTCTGCACCTGGAGGCGGATCTCCAGCCTGGAATC  
 AGAAGTGTA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:**

Sgfl-MluI

**ACCN:**

NM\_010350

**Insert Size:**

3720 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).

**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\\_010350.2](#), [NP\\_034480.2](#)

**RefSeq Size:** 4895 bp

**RefSeq ORF:** 3720 bp

**Locus ID:** 14813

**UniProt ID:** [Q01098](#)

**Cytogenetics:** 11 80.8 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:1377365). Sensitivity to glutamate and channel kinetics depend on the subunit composition (PubMed:1377365). Plays a role in regulating the balance between excitatory and inhibitory activity of pyramidal neurons in the prefrontal cortex (PubMed:27922130). Contributes to the slow phase of excitatory postsynaptic current, long-term synaptic potentiation, and learning (PubMed:8987814).[UniProtKB/Swiss-Prot Function]