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# Product datasheet for MC223627

## Grin3a (NM_001033351) Mouse Untagged Clone

### Product data:

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|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | Grin3a (NM_001033351) Mouse Untagged Clone |
| **Tag:** | Tag Free |
| **Symbol:** | Grin3a |
| **Synonyms:** | 6430537F04; A830097C19Rik; mKIAA1973; NMDAR-L; NR3A |
| **Vector:** | pCMV6-Entry (PS100001) |
| **E. coli Selection:** | Kanamycin (25 ug/mL) |
| **Cell Selection:** | Neomycin |

**Fully Sequenced ORF:**

>MC223627 representing NM_001033351
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAGGAGACTGAGTTTGTGGTGGCTGCTGAGCAGGGTCTGTCTGTTGCTGCCTCCGCCCTGTGCACTGG
TGCTGGCCGGGGTGCCCAGCTCCTCCTCGCACCCGCAACCCTGCCAGATCCTCAAGCGCATCGGACACGC
GGTGAGGGTGGGCGCGGTGCACTTGCAACCCTGGACCACGGCCCCACGCGCAGCCAGTCGCGCTCAGGAC
GGCGGCAGGGCGGGTGCCCAGAGGGATGAGCCAGAGTCGGGGACGTGGCGGCCACCGGCGCCCTCGCAAG
GCGCACGTTGGTTGGGGAGCGCCCTGCATGGCCGGGGTCCACCCGGCTCCCGCAAGCTCGGGGAGGGCGC
CGGGACCGAGACCCTGTGGCCGCGGGATGCCCTACTGTTCGCTGTGGAAAACCTGAACCGTGTGGAAGGG
CTCCTTCCCTACAACCTGTCTTTGGAAGTAGTGATGGCCATCGAGGCGGGCCTGGGCGACCTGCCACTTA
TGCCTTTCTCTTCCCCAAGCTCACCGTGGAGCAGTGACCCTTTCTCCTTTCTGCAGAGCGTGTGCCACAC
CGTAGTGGTACAAGGGGTTTCAGCGCTGCTGGCCTTCCCCCAGAGCCAGGGCGAAATGATGGAGCTGGAC
TTGGTCAGTTCTGTCCTGCACATCCCAGTGCTCAGCATAGTGCGCCACGAGTTTCCGCGGGAGAGTCAGA
ATCCCCTGCACCTACAGCTGAGTTTAGAAAATTCACTAAGTTCTGATGCTGATGTCACTGTCTCAATCCT
GACCATGAACAACTGGTACAATTTTAGCTTGTTGCTATGCCAGGAAGACTGGAATATCACCGACTTCCTA
CTCCTTACAGAGAATAACTCCAAGTTCCACCTCGAGTCTATCATCAACATCACTGCTAACCTGTCCTCCA
CAAAGGACCTTCTAAGTTTCCTGCAGGTCCAGCTGGAAAACATTAGGAACAGCACACCCACAATGGTGAT
GTTTGGCTGTGACATGGGGAGCATCCGGCAGATATTTGAAATGTCCACACAGTTTGGGCTATCACCTCCT
GATCTTCACTGGGTTTTAGGAGACTCACAGAATGTGGAGGAGCTGAGGACAGAAGGCCTGCCCTTAGGGC
TCATTGCTCATGGAAAAACCACACAGTCTGTCTTTGAGTACTATGTTCAGGATGCCATGGAGTTGGTTGC
AAGAGCTGTAGCCACAGCCACCATGATCCAGCCAGAACTTGCTCTCCTTCCCAGCACAATGAACTGCATG
GATGTGAAAACCACAAATCTCACTTCTGGACAATATTTATCAAGGTTTTTAGCCAACACCACTTTCAGAG
GTCTCAGTGGTTCCATCAAAGTAAAGGGATCCACCATCGTCAGCTCAGAAAACAACTTTTTCATCTGGAA
CTTGCAGTATGACCCTATGGGAAAGCCAATGTGGACTCGCCTGGGTAGCTGGCAAGGGGGAAGGATTGTC
ATGGACTCGGGAATATGGCCAGAGCAGGCCCAGAGGCACAAAACCCACTTCCATCACCCAAACAAGTTAC

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ACTTGAGAGTGGTGACACTGATTGAACATCCATTTGTTTTCACGAGAGAAGTAGATGATGAAGGCTTATG
CCCTGCTGGACAACTCTGTCTAGACCCTATGACTAATGACTCTTCCATACTGGATAGCCTGTTTAGCAGC
CTACATAGCAGTAATGATACAGTGCCAATCAAGTTCAAGAAGTGCTGCTATGGGTATTGCATTGATCTAC
TGGAACAGTTAGCAGAAGACATGAACTTTGACTTTGACCTCTATATTGTAGGGGATGGAAAGTATGGAGC
TTGGAAAAATGGTCACTGGACTGGGCTGGTTGGTGATCTCCTGAGTGGAACAGCCAACATGGCAGTCACT
TCTTTCAGCATCAATACTGCAAGAAGCCAAGTGATAGATTTCACCAGCCCTTTCTTCTCAACCAGTTTGG
GCATCTTAGTGAGGACTCGAGACACAGCAGCTCCCATTGGAGCCTTCATGTGGCCACTCCACTGGACCAT
GTGGCTGGGGATTTTCGTGGCTCTACATATCACTGCCATCTTCCTCACTCTGTATGAATGGAAGAGCCCC
TTTGGTATGACTCCTAAAGGGAGGAACAGAAACAAAGTCTTCTCCTTCTCCTCAGCCTTGAATGTCTGCT
ATGCCCTTCTGTTTGGCAGAACAGCAGCCATCAAACCCCCTAAATGCTGGACTGGAAGATTTCTGATGAA
TCTTTGGGCCATTTTCTGTATGTTTTGCCTTTCTACATACACAGCGAACTTGGCTGCTGTCATGGTAGGT
GAGAAGATCTATGAAGAACTTTCTGGAATCCATGACCCTAAGCTTCATCATCCTTCTCAAGGTTTTCGTT
TTGGAACTGTCCGGGAAAGCAGTGCTGAGGACTATGTACGGCAGAGCTTCCCAGAGATGCATGAGTACAT
GAGAAGGTACAATGTACCAGCCACCCCTGATGGAGTGCAGTACCTGAAGAATGATCCAGAGAAACTAGAT
GCCTTCATCATGGACAAAGCCCTTCTGGATTATGAAGTGTCAATAGATGCTGACTGCAAGCTTCTGACCG
TAGGAAAGCCATTTGCCATTGAAGGCTATGGCATTGGTCTCCCTCCCAACTCTCCGTTGACCTCTAACAT
ATCTGAGCTCATCAGTCAGTACAAGTCTCATGGGTTTATGGATGTGCTTCATGACAAGTGGTACAAGGTG
GTTCCCTGCGGAAAGAGAAGCTTTGCTGTCACTGAGACTTTGCAAATGGGCATCAAGCATTTCTCTGGAC
TCTTCGTGCTGCTGTGCATAGGATTCGGTCTCTCCATCCTGACAACCATTGGTGAACACATAGTGTACAG
ACTGCTGCTACCACGAATCAAAAACAAATCCAAGCTGCAGTACTGGCTGCACACCAGTCAGAGGTTTCAC
AGAGCATTAAACACATCATTTGTAGAAGAAAAGCAGCCATGTTCCAAGACAAAACGTGTGGAAAAGAGGT
CCAACATGGGACCCCAGCAGCTCATGGTATGGAATACTTCCAATCTGAGTCACGACAACCAACGAAAATA
CATCTTTAATGATGAGGAAGGACAAAACCAGCTGGGTACCCAGACCCATCAGGACATCCCTCTCCCTCCA
AGGAGAAGAGAGCTCCCTGCTTCACTGACCACCAATGGGAAAGCAGACTCCCTCAATGTAGCTCGGAACT
CCGTGATGCAGGAACTCTCCGAGTTGGAGAAGCAGATCCAAGTGATCCGCCAGGAGCTGCAGTTGGCCGT
AAGCAGGAAGACAGAGCTTGAGGAGTATCAAAGGACGAACCGGACTTGTGAATCCTAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI

**ACCN:** NM_001033351

**Insert Size:** 3348 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_001033351.2, NP_001028523.1

| | |
|---|---|
| **RefSeq Size:** | 7667 bp |
| **RefSeq ORF:** | 3348 bp |
| **Locus ID:** | 242443 |
| **UniProt ID:** | A2AIR4 |
| **Cytogenetics:** | 4 B1 |
| **Gene Summary:** | NMDA receptor subtype of glutamate-gated ion channels with reduced single-channel conductance, low calcium permeability and low voltage-dependent sensitivity to magnesium. Mediated by glycine. During the development of neural circuits, plays a role in the synaptic refinement period, restricting spine maturation and growth (By similarity). By competing with GIT1 interaction with ARHGEF7/beta-PIX, may reduce GIT1/ARHGEF7-regulated local activation of RAC1, hence affecting signaling and limiting the maturation and growth of inactive synapses (PubMed:24297929). May also play a role in PPP2CB-NMDAR mediated signaling mechanism (By similarity).[UniProtKB/Swiss-Prot Function]<br>Transcript Variant: This variant (2) uses an alternate in-frame splice site in the 3' coding region, compared to variant 1. This results in a shorter protein (isoform 2), compared to isoform 1. 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. |