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 MC224542

Grin2b (NM_008171) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Grin2b (NM_008171) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Grin2b
Synonyms:	AW490526; GluN2B; Nmdar2b; NR2B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry2 (PS100063)
E. coli Selection:	Kanamycin (25 ug/mL)

Fully Sequenced ORF:

>MC224542 representing NM_008171
Red=Cloning site Blue=ORF

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAAGCCCAGCGCAGAGTGCTGTTCTCCCAAGTTCTGGTTGGTGTTGGCCGTCTTGGCCGTATCGGGCA
GCAAAGCTCGTTCCCAAAAGAGCGCCCCCAGCATCGGCATCGCTGTCATCCTCGTGGGCACTTCCGACGA
AGTGGCCATAAAAGATGCCCACGAGAAAGATGACTTCCATCATCTCTCAGTAGTTCCCCGGGTGGAGCTG
GTAGCCATGAACGAGACTGACCCAAAGAGCATAATCACCCGCATCTGCGATCTTATGTCTGACCGGAAGA
TCCAGGGGGTGGTGTTCGCGGATGACACGGACCAGGAAGCCATCGCCCAGATCCTCGATTTCATTTCTGC
TCAGACTCTCACCCCCATCCTGGGCATCCATGGGGGCTCATCTATGATAATGGCAGATAAGGATGAGTCC
TCCATGTTCTTCCAGTTTGGCCCATCCATTGAACAGCAAGCTTCTGTCATGCTCAACATCATGGAAGAAT
ACGACTGGTACATCTTCTCCATCGTCACCACCTACTTCCCCGGCTACCAGGACTTCGTGAACAAGATCCG
CAGCACTATTGAGAACAGCTTTGTGGGCTGGGAGCTCGAGGAAGTCCTCCTGCTAGACATGTCTCTAGAC
GATGGCGACTCTAAGATCCAGAATCAGCTGAAGAAGCTGCAGAGCCCCATCATTCTCCTCTACTGCACAA
AGGAAGAAGCCACCTACATCTTCGAAGTAGCTAACTCAGTTGGGCTGACTGGCTACGGCTACACATGGAT
CGTGCCGAGTCTGGTGGCGGGGGATACGGACACGGTGCCTTCAGAGTTCCCCACGGGGCTCATCTCTGTG
TCATATGACGAATGGGACTATGGCCTTCCTGCCAGAGTGAGAGATGGGATTGCCATCATCACCACTGCTG
CCTCGGACATGCTGTCCGAACACAGTTTCATCCCTGAGCCCAAGAGCAGTTGCTACAACACCCACGAGAA
GAGGATCTACCAGTCTAACATGCTGAATAGGTATCTGATCAACGTCACTTTTGAAGGGAGAAACCTGTCC
TTCAGTGAAGATGGCTACCAGATGCATCCGAAGCTGGTGATAATCCTTCTGAACAAGGAGAGGAAGTGGG
AGAGGGTGGGAAAATGGAAAGACAAGTCCCTGCAGATGAAATACTATGTGTGGCCTCGAATGTGTCCTGA
GACTGAAGAACAGGAAGATGACCATCTGAGCATCGTTACCTTGGAGGAGGCACCGTTTGTCATTGTGGAA
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AATTTCTAAGTCTGTGAAGTTCACCTATGACCTTTACCTGGTGACCAATGGCAAGCATGGAAAGAAAATC

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AACGGGACCTGGAACGGCATGATTGGTGAGGTGGTCATGAAGAGGGCCTATATGGCAGTGGGATCACTAA
CTATCAATGAAGAACGGTCAGAGGTGGTTGACTTCTCTGTGCCCTTCATAGAGACTGGCATCAGTGTCAT
GGTATCACGCAGCAATGGGACTGTGTCACCTTCTGCCTTCTTAGAGCCATTCAGTGCTGACGTGTGGGTG
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GTTACAACCGGTGCCTAGCTGATGGCAGAGAGCCAGGCGGCCCATCTTTCACCATCGGCAAAGCGATTTG
GTTACTCTGGGGTCTGGTGTTTAACAACTCCGTACCTGTGCAGAACCCAAAGGGGACCACCTCCAAGATC
ATGGTGTCAGTGTGGGCCTTCTTTGCTGTCATTTTCCTGGCCAGCTACACTGCCAACTTAGCCGCCTTCA
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GGTTGGAAACGCCAGGTGGACCTTGCTATCCTGCAGCTGTTTGGAGATGGGGAGATGGAAGAACTGGAAG
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TCAGCAGAGGTATCTACAGCTGTATCCACGGAGTAGCTATAGAGGAGCGCCAATCCGTGATGAACTCCCC
CACTGCCACCATGAACAACACACACTCCAATATCCTACGCTTGCTCCGAACGGCCAAAAACATGGCCAAC
CTGTCTGGAGTCAACGGCTCCCCCCAGAGTGCCCTGGACTTCATCCGCCGTGAGTCCTCTGTCTATGACA
TCTCTGAGCATCGCCGCAGCTTCACGCATTCAGACTGCAAGTCGTACAATAACCCACCCTGTGAGGAAAA
CCTGTTCAGTGACTACATTAGTGAGGTAGAGAGAACATTTGGCAACCTGCAGCTGAAGGACAGCAATGTG
TACCAAGACCACTATCACCATCACCACCGGCCCCACAGCATCGGCAGCACCAGCTCCATTGATGGGCTCT
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GCCCTCCTCCAAACACAGCCAGCTCAGCGACCTGTACGGCAAGTTCTCTTTCAAGAGTGACCGCTACAGT
GGCCATGATGACTTGATTCGATCAGATGTCTCAGACATCTCCACGCATACTGTCACCTATGGCAACATCG
AGGGCAACGCAGCCAAGAGGAGGAAGCAGCAATATAAGGACAGTCTAAAGAAGCGGCCAGCCTCGGCCAA
ATCTAGGAGGGAGTTTGATGAAATCGAGCTGGCCTACCGTCGCCGACCACCCCGCTCCCCAGACCACAAG
CGCTACTTCAGGGACAAAGAAGGGCTCCGAGACTTCTACCTGGACCAGTTCCGAACAAAGGAGAACTCGC
CTCACTGGGAGCACGTGGACTTGACTGACATTTACAAAGAACGTAGTGATGACTTCAAGCGAGATTCGGT
CAGTGGAGGCGGGCCCTGTACCAACAGGTCTCACCTTAAACACGGAACAGGCGATAAGCACGGAGTGGTA
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TCTGCCGCAGCTGTCCCTCCAAGCTGCACAATTACTCCTCTACGGTGGCAGGGCAAAACTCGGGCCGGCA
GGCCTGCATCAGGTGTGAGGCCTGCAAGAAGGCTGGCAACCTGTATGACATCAGCGAGGACAACTCCCTG
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GCCCGACTAATTCCAAGGCCCAGAAGAAGAATCGGAACAAACTGCGCCGGCAGCACTCCTACGACACCTT
CGTGGACCTGCAGAAGGAGGAGGCCGCCTTGGCCCCACGCAGCGTGAGCCTGAAAGACAAGGGCCGATTC
ATGGATGGGAGCCCCTACGCCCATATGTTTGAGATGCCAGCTGGTGAGAGCTCCTTTGCCAACAAGTCCT
CAGTGACCACTGCCGGACACCATCACAACAATCCCGGCAGCGGCTACATGCTCAGCAAGTCGCTCTACCC
TGACCGGGTCACGCAAAACCCTTTCATCCCCACTTTTGGGGATGATCAGTGCTTGCTTCACGGCAGCAAA
TCCTACTTCTTCAGGCAGCCCACGGTGGCAGGGGCGTCGAAAACAAGGCCGGACTTCCGGGCCCTTGTCA
CCAATAAGCCAGTGGTGTCAGCCCTTCATGGGGCTGTGCCAGGTCGTTTCCAGAAGGACATTTGTATAGG
GAACCAGTCCAACCCCTGTGTGCCTAACAACAAAAACCCCAGGGCTTTCAATGGCTCCAGCAATGGACAT
GTTTATGAGAAACTTTCTAGTATTGAGTCTGATGTCTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Chromatograms: https://cdn.origene.com/chromatograms/jc1569_h12.zip

Restriction Sites: SgfI-MluI

ACCN: NM_008171

Insert Size: 4449 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_008171.3, NP_032197.3
RefSeq Size:	7515 bp
RefSeq ORF:	4449 bp
Locus ID:	14812
UniProt ID:	Q01097
Cytogenetics:	6 66.38 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, PubMed:26912815). Sensitivity to glutamate and channel kinetics depend on the subunit composition (PubMed:1377365). In concert with DAPK1 at extrasynaptic sites, acts as a central mediator for stroke damage. Its phosphorylation at Ser-1303 by DAPK1 enhances synaptic NMDA receptor channel activity inducing injurious Ca2+ influx through them, resulting in an irreversible neuronal death (PubMed:20141836). Contributes to neural pattern formation in the developing brain (PubMed:8789948). Plays a role in long-term depression (LTD) of hippocampus membrane currents and in synaptic plasticity (PubMed:8789948).[UniProtKB/Swiss-Prot Function]