

## Product datasheet for **RR217311**

### Grin1 (NM\_001270608) Rat Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Grin1 (NM_001270608) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Grin1
Synonyms:	GluN1; NMDAR1; NR1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>RR217311 representing NM\_001270608  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAGCACCATGCACCTGCTGACATTGCGCCTGCTTTTTCTGCTCCTTCGCCCCGCCGCGCTGCGACC  
 CCAAGATCGTCAACATCGGCGCGGTGCTGAGCACGCGCAAGCATGAACAGATGTTCCGCGAGGCAGTAAA  
 CCAGGCCAATAAGCGACACGGCTCTTGGGAAGATACAGCTCAACGCCACTTCTGTACCCACAAGCCCAAC  
 GCCATACAGATGGCCCTGTCAAGTGTGAGGACCTCATCTCTAGCCAGGTCTACGCTATCCTAGTTAGCC  
 ACCCGCTACTCCAACGACCCTTCACTCCCACCCTGTCTCCTACACAGCTGGCTTCTACAGAATCCC  
 TGTCTGGGACTGACTACCCGAATGTCCATCTACTCTGACAAGAGTATCCACCTGAGTTTCTTCGCACG  
 GTGCCGCCCTACTCCACCAGTCCAGCGTCTGGTTTGAGATGATGCGAGTCTACAACCTGGAACCACATCA  
 TCCTGCTGGTCAAGGACACCACGAGGGACGGGACGCGAGAAGCGCTTGGAGACGTTGCTGGAGGAACG  
 GGAGTCCAAGAGTAAAAAAGGAACTATGAAAACCTCGACCAACTGTCCTATGACAACAAGCGCGGACCC  
 AAGGCAGAGAAGGTGCTGCAATTTGACCCAGGAACCAAGAATGTGACGGCTCTGCTGATGGAGGCCCGGG  
 AACTGGAGGCCCGGGTCAATCATCTTTCTGCAAGCGAGGACGACGCTGCCACAGTGTACCGCGACGCCG  
 AATGCTGAACATGACGGGCTCTGGGTACGTGTGGCTGGTGGGGAACGCGAGATCTCTGGGAACGCCCTG  
 CGCTACGCTCCTGATGGCATCATCGGACTTCAGCTCATCAATGGCAAGAATGAGTCAGCCACATCAGTG  
 ACGCCGTGGGCGTGGTGGCACAGGCAGTTCACGAACTCTAGAGAAGGAGAATATCACTGACCCACCGCG  
 GGGTTGCGTGGCAACACCAACATCTGGAAGACAGGACCATTGTTCAAGAGGGTCTGATGTCTTCTAAG  
 TATGCGGACGGAGTACTGGCCGTGTGGAATCAATGAGGATGGGACCGGAAGTTTGCCAACTATAGTA  
 TCATGAACCTGCAGAACCGCAAGCTGGTCAAGTGGGCATCAACATGGTACCCATGTCATCCCAATGA  
 CAGGAAGATCATCTGGCCAGGAGGAGACAGAGAAACCTCGAGGATACAGATGTCCACCAGACTAAAG  
 ATAGTGACAATCCACCAAGAGCCCTTCGTGTACGTCAAGCCACAAATGAGTGTGGGACATGCAAGAGG  
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 CCCACGCCACACAGTGGCCAGTGTGCTATGGCTTCTGCATAGACCTGCTCATCAAGCTGGCGCGGACC  
 ATGAATTTTACCTATGAGGTGCACCTGGTGGCAGATGGCAAGTTTGGCACACAGGAGCGGGTAAACAACA  
 GCAACAAAAGGAGTGAACGGAATGATGGGCGAGCTACTCAGTGGCCAAGCGGACATGATTGTGGCACC  
 ACTGACCATCAACAATGAGCGTGGCAGTACATAGAGTTCTCAAGCCCTTCAAGTACCAGGGCCTGACC  
 ATTTTGGTCAAGAAGGAGATTCCAGGAGCACACTGGACTCATTATGACGCTTTTCAGAGCACACTGT  
 GGTGCTAGTAGGACTGTCAATTCATGTGGTGGCTGTGATGCTGTACCTGCTGGACCGCTTCAGTCCCTT  
 TGGCCGATTCAAGGTGAACAGTGAAGGAGGAGGAGGAAGATGCACTGACCCCTGTCCTCTGCCATGTGGTTT  
 TCCTGGGGCGTCTGCTCAACTCCGGCATTGGGGAAGGTGCCCCCGGAGTTTCTCTGCACGTATCCTAG  
 GCATGGTGTGGGCTGGTTTCGCCATGATCATAGTGGCTTCTTACTGCAACTGGCAGCTTTCCTGGT  
 GCTGGATCGGCCCTGAGGAGCGCATCACGGGCATCAATGACCCAGGCTCAGAAACCCCTCAGACAAGTTC  
 ATCTACGCAACTGTAAAGCAGAGCTCCGTGGACATCTACTCCGGAGGCAGGTGGAGTTGAGTACCATGT  
 ACCGGCACATGGAAAAACAATTACGAGAGCGCAGCTGAGGCCATCCAGGCTGTGCGGGACAACAAGCT  
 GCACGCCCTTATCTGGGACTCGGCCGTGGTGGAGTTTGGGCTTACAGAAGTGGCATCTGGTGACCACG  
 GGTGAGCTGTTCTCCGCTCAGGCTTTGGCATCGGCATGCGCAAGGACAGCCCTGGAAGCAGAAGCTTT  
 CCCTGTCCATACTCAAGTCCCATGAGAATGGCTTTCATGGAAGATCTGGATAAGACATGGGTTTCGGTATCA  
 GGAATGCGACTCCCGCAGCAATGCTCCTGCAACCCCTCACTTTTGAACAATGGCAGGGGTCTTCATGCTG  
 GTGGCTGGAGGCATCGTAGCTGGGATTTTCTCATTTTTCATTGAGATCGCCTACAAGCGACACAAGGATG  
 CCCGTAGGAAGCAGATGCAGCTGGCTTTTGCAGCCGTGAACGTGTGGAGGAAGAACCTGCAGCAGTACCA  
 TCCCACTGATATACGGGCCCGCTCAACCTCTCAGATCCCTCGGTGACGACCGTGGTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RR217311 representing NM\_001270608  
 Red=Cloning site Green=Tags(s)

MSTMHLLTFALLFSCSFARAACDPKIVNIGAVLSTRKHEQMFREAVNQANKRHGSKWIQLNATSVTHKPN  
 AIQMALSVCEDLISSQVYAILVSHPTPNDFHTPTPVSYTAGFYRIPVLGLTTRMSIYSDKSIHLSFLRT  
 VPPYSHQSSVWFEMMRVYNWNHIIILLVSDDEHGRAAQKRLLEERESKSKKRNVENLDQLSYDNKRGPK  
 KAEKVLQFDPGTKNVTALLMEARELEARVILSASEDDAATVYRAAAMLNMTGSGYVWL VGEREISGNAL  
 RYAPDGIIGLQLINGKNESAHSIDAVGVVAQAVHELLEKENITDPPRGCVGNTNIWKTGPLFKRVLMSK  
 YADGVTGRVEFNEDGDRKFANYSIMNLQNRKLVQVGIYNGTHVIPNDRKI IWPGGETEKPRGYQMSTRLK  
 IVTIHQEPFVYVKPTMSDGTCKEFTVNGDPVKKVICTGPNDTSPGSPRHVTPQCCYGFCDLLIKLART  
 MNFTYEVHLVADGKFGTQERVNNSNKKEWNGMMGELL SGQADMI VAPLTINNERAQYIEFSKPFKYGLT  
 ILVKKEIPRSTLDSFMQPFQSTLWLLVGLSVHVAVMLYLLDRFSPFGRFKVNSEEEEDALTLSSAMWF  
 SWGVLLNSGIGEGAPRSFSARILGMVWAGFAMIIVASYANLAAFLVDRPEERITGINDPRLRNP SDKF  
 IYATVKQSSVDIYFRRQVELSTMYRHMEKHNYESAAEAIQAVRDNKLHAFIWDSAVLEFEASQKCDLVTT  
 GELFFRSGFGIGMRKDSPWKQNVSL SILKSHENGFMEDLDKTTWVRYQECDSRSNAPATLTFENMAGVFM L  
 VAGGIVAGIFLIFIEIAYKRHKDARRKQMLAF AAVNVWRKNLQQYHPTDITGPLNLSDPSYSTVV

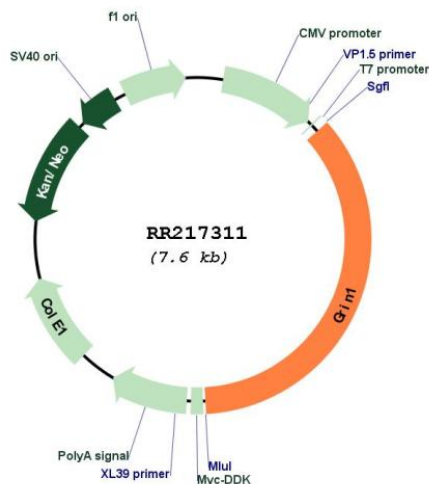
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**


**ACCN:** NM\_001270608

**ORF Size:** 2718 bp

**OTI Disclaimer:** 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](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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\\_001270608.1](#), [NP\\_001257537.1](#)

**RefSeq Size:** 3876 bp

**RefSeq ORF:** 2721 bp

**Locus ID:** 24408

**UniProt ID:** [P35439](#)

**Cytogenetics:** 3p13

**MW:** 102 kDa

**Gene Summary:** subunit of NMDA-preferring ionotropic glutamate receptors; may play a role in long term potentiation [RGD, Feb 2006]