

## Product datasheet for **RR217331**

### Grin1 (NM\_001270603) Rat Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Grin1 (NM_001270603) 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:**

>RR217331 representing NM\_001270603  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAGCACCATGCACCTGCTGACATTGCGCCTGCTTTTTCTGCTCCTTCGCCCGCCGCTGCGACC  
 CCAAGATCGTCAACATCGGCGCGGTGCTGAGCACGCGCAAGCATGAACAGATGTTCCGCGAGGCAGTAAA  
 CCAGGCCAATAAGCGACACGGCTCTTGGAAAGATACAGCTCAACGCCACTTCTGTACCCACAAGCCCAAC  
 GCCATACAGATGGCCCTGTCAAGTGTGAGGACCTCATCTCTAGCCAGGTCTACGCTATCCTAGTTAGCC  
 ACCCGCTACTCCAACGACCCTTCACTCCCACCCTGTCTCCTACACAGCTGGCTTCTACAGAATCCC  
 TGTCTGGGACTGACTACCCGAATGTCCATCTACTCTGACAAGAGTATCCACCTGAGTTTCTTCGCACG  
 GTGCCGCCCTACTCCACCAGTCCAGCGTCTGGTTTGGATGATGCGAGTCTACAACCTGGAACCACATCA  
 TCCTGCTGGTCAAGGACGACCACGAGGGACGGCAGCGCAGAAGCGCTTGGAGACGTTGCTGGAGGAACG  
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 AAGGCAGAGAAGGTGCTGCAATTTGACCCAGGAACCAAGAATGTGACGGCTCTGCTGATGGAGGCCCGGG  
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 AATGCTGAACATGACGGGCTCTGGGTACGTGTGGCTGGTGGGGAACCGGAGATCTCTGGGAACGCCCTG  
 CGCTACGCTCCTGATGGCATCATCGGACTTCAGCTCATCAATGGCAAGAAATGAGTCAGCCACATCAGTG  
 ACGCCGTGGGCGTGGTGGCACAGGCAGTTCACGAACTCTAGAGAAGGAGAATATCACTGACCCACCGCG  
 GGGTTGCGTGGCAACACCAACATCTGGAAGACAGGACCATTGTTCAAGAGGGTCTGATGTCTTCTAAG  
 TATGCGGACGGAGTACTGGCCGTGTGGAATCAATGAGGATGGGACCGGAAGTTTCCCAACTATAGTA  
 TCAATGAACTGCAGAACCAGCTGGTGAAGTGGGCATCAATGGTACCCATGTCATCCCAATGA  
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 CCCACGCCACACAGTGGCCAGTGTCTATGGCTTCTGCATAGACCTGCTCATCAAGCTGGCGCGGACC  
 ATGAATTTTACCTATGAGGTGCACCTGGTGGCAGATGGCAAGTTTGGCACACAGGAGCGGGTAAACAACA  
 GCAACAAAAGGAGTGAACGGAATGATGGGCGAGCTACTCAGTGGCCAAGCGGACATGATTGTGGCACC  
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 TGGCCGATTCAAGGTGAACAGTGAAGGAGGAGGAAAGATGCACTGACCCCTGTCCTCTGCCATGTGGTTT  
 TCCTGGGGCGTCTGCTCAACTCCGGCATTGGGGAAGGTGCCCCCGGAGTTTCTCTGCACGTATCCTAG  
 GCATGGTGTGGGCTGGTTTCGCCATGATCATAGTGGCTTCTTACTGCAACTGGCAGCTTTCCTGGT  
 GCTGGATCGGCCCTGAGGAGCGCATCACGGGCATCAATGACCCAGGCTCAGAAACCCCTCAGACAAGTTC  
 ATCTACGCAACTGTAAGCAGAGCTCCGTGGACATCTACTCCGGAGGCAGGTGGAGTTGAGTACCATGT  
 ACCGGCACATGGAAAAACAATTACGAGAGCGCAGCTGAGGCCATCCAGGCTGTGCGGGACAACAAGCT  
 GCACGCCCTTATCTGGGACTCGGCCGTGGTGGAGTTTGGGCTTACAGAAGTGGCATCTGGTGACCACG  
 GGTGAGCTGTTCTCCGCTCAGGCTTTGGCATCGGCATGCGCAAGGACAGCCCTGGAAGCAGAAGCTTT  
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 GGAATGCGACTCCCGCAGCAATGCTCCTGCAACCCCTCACTTTTGGAAACATGGCAGGGGTCTTCATGCTG  
 GTGGCTGGAGGCATCGTAGCTGGGATTTTCTCATTTTTCATTGAGATCGCCTACAAGCGACACAAGGATG  
 CCCGTAGGAAGCAGATGCAGCTGGCTTTTGCAGCCGTGAACGTGTGGAGGAAGAACCTGCAGAGCACCGG  
 GGGTGGACCGCGCTTTGCAAAACCAAAAAGACACAGTCTGCCGCGACGCGCTATTGAGAGGGAGGAG  
 GGCCAGCTGCAGCTGTGTCCCGTCATAGGGAGAGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAAGTTTAA

Protein Sequence: >RR217331 representing NM\_001270603  
 Red=Cloning site Green=Tags(s)

MSTMHLLTFALLFSCSFARAACDPKIVNIGAVLSTRKHEQMFREAVNQANKRHGSKWIQLNATSVTHKPN  
 AIQMALSVCEDLISSQVYAILVSHPTPNDFHTPTPVSYTAGFYRIPVGLTTRMSIYSDKSIHLSFLRT  
 VPPYSHQSSVWFEMMRVYNWNHIIILLVSDDEHGRAAQKRLLEETLLEERESKSKRNYENLDQLSYDNKRG  
 KAEKVLQFDPGTKNVTALLMEARELEARVIIISASEDDAATVYRAAAMLNMTGSGYVWL VGEREISGNAL  
 RYAPDGIIGLQLINGKNESAHI SDAVGVAQAVHELLEKENITDPPRGCVGNTNIWKTGPLFKRVLMSK  
 YADGVTGRVEFNEDGDRKFANYSIMNLQNRKLVQVGIYNGTHVIPNDRKI IWPGGETEKPRGYQMSTRLK  
 IVTIHQEPFVYVYKPTMSDGTCKEFTVNGDPVKKVICTGPNDS PGSPRHTVPQCCYGFCIDLLIKLART  
 MNFTYEVHLVADGKFGTQERVNNSNKEWNGMMGELL SGQADMI VAPLT INNERAQYIEFSKPFKYQGLT  
 ILVKKEIPRSTLDSFMQPFQSTLWLLVGLSVHVAVMLYLLDRFSPFGRFKVNSEEEEDALTLSSAMWF  
 SWGVLLNSGIGEGAPRSFSARILGMVWAGFAMIIVASYANLAFLVDRPEERITGINDPRLRNP SDKF  
 IYATVKQSSVDIYFRRQVELSTMYRHMEKHNYESAAEAIQAVRDNKLHAFIWDSAVLEFEASQKCDLVTT  
 GELFFRSGFGIGMRKDSPWKQNVSL SILKSHENGFMEDLDKTTWVRYQECDSRSNAPATLTFENMAGVFM  
 VAGGIVAGIFLIFIEIAYKRHKDARRKQMLAF AAVNVWRKNLQSTGGGRGALQNQKDTVLPRAIEREE  
 GQLQLCSRHRES

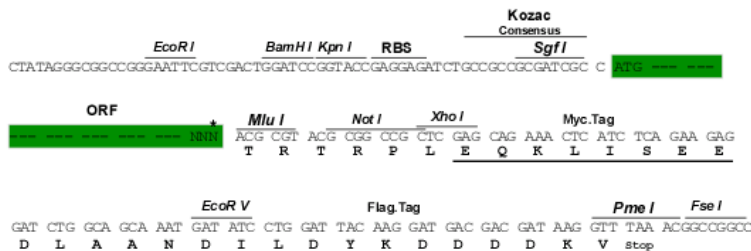
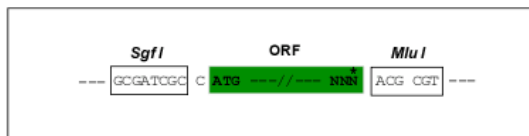
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

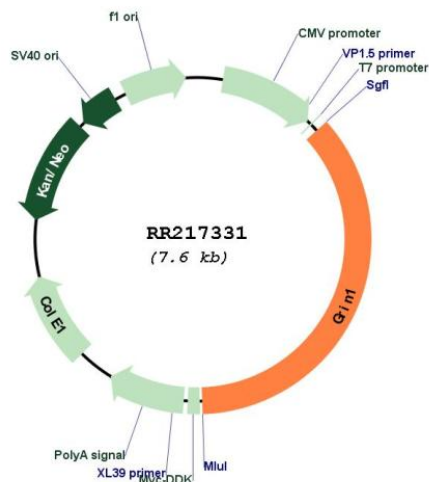
Cloning Scheme:

Cloning sites used for ORF Shutting:



\* The last codon before the Stop codon of the ORF

## Plasmid Map:



ACCN: NM\_001270603

ORF Size: 2766 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\\_001270603.1](#), [NP\\_001257532.1](#)

RefSeq Size: 4232 bp

RefSeq ORF: 2769 bp

Locus ID: 24408

UniProt ID: [P35439](#)

Cytogenetics: 3p13

**MW:** 103.9 kDa

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