

## Product datasheet for **RR217299**

### Grin1 (NM\_001270610) Rat Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Grin1 (NM_001270610) 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:**

>RR217299 representing NM\_001270610  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGAGCACCATGCACCTGCTGACATTGCGCCTGCTTTTTCTGCTCCTTCGCCCGCCGCGCTGCGACC  
 CCAAGATCGTCAACATCGGCGCGGTGCTGAGCAGCGCAAGCATGAACAGATGTTCCGCGAGGCAGTAAA  
 CCAGGCCAATAAGCGACACGGCTCTTGGGAAGATACAGCTCAACGCCACTTCTGTACCCACAAGCCAAAC  
 GCCATACAGATGGCCCTGTCAAGTGTGAGGACCTCATCTCTAGCCAGGTCTACGCTATCCTAGTTAGCC  
 ACCCGCTACTCCAACGACCCTTCACTCCCACCCTGTCTCCTACACAGCTGGCTTCTACAGAATCCC  
 TGTCTGGGACTGACTACCCGAATGTCCATCTACTCTGACAAGAGTATCCACCTGAGTTTCTTCGCACG  
 GTGCCGCCCTACTCCCACAGTCCAGCGTCTGGTTTGAGATGATGCGAGTCTACAACCTGGAACCACATCA  
 TCCTGCTGGTCAAGGACGACCACGAGGGACGGCAGCGCAGAAGCGCTTGGAGACGTTGCTGGAGGAACG  
 GGAGTCCAAGGCAGAGAAGGTGCTGCAGTTTGACCCAGGAACCAAGAATGTGACGGCTCTGCTGATGGAG  
 GCCCGGGAACCTGGAGGCCCGGGTCATCCTTTCTGCAAGCGAGGACGAGCTGCCACAGTGTACCGCG  
 CAGCCGCAATGCTGAACATGACGGGCTCTGGGTACGTGTGGCTGGTGGGGAACGCGAGATCTCTGGGAA  
 CGCCCTGCGCTACGCTCCTGATGGCATCATCGACTTCAGCTCATCAATGGCAAGAATGAGTCAGCCAC  
 ATCAGTGACGCGGTGGCGTGGTGGCACAGGCAGTTCACGAACCTCTAGAGAAGGAGAATATCACTGACC  
 CACCGCGGGTTGCGTGGGAACACCAACATCTGGAAGACAGGACCATTGTTCAAGAGGGTGTGATGTC  
 TTCTAAGTATGCGGACGGAGTACTGGCCGTGTGGAATCAATGAGGATGGGACCGGAAGTTTGCCAAC  
 TATAGTATCATGAACCTGCAGAACCGAAGTGGTCAAGTGGCATCTACAATGGTACCCATGTCATCC  
 CAAATGACAGGAAGATCATCTGGCCAGGAGGAGACAGAGAACTCGAGGATACCAGATGTCACCAG  
 ACTAAAGATAGTGACAATCCACCAAGAGCCCTTGGTGTACGTCAAGCCCAATGAGTGTGGGACATGC  
 AAAGAGGAGTTCACAGTCAATGGTGACCCAGTGAAGAAGGTGATCTGTACGGGGCCTAATGACACGTC  
 CAGGCAGCCACGCCACAGTGGCCAGTGTGCTATGGCTTCTGCATAGACCTGCTCATCAAGCTGGC  
 GCGGACCATGAATTTTACCTATGAGGTGCACCTGGTGGCAGATGGCAAGTTTGGCACACAGGAGCGGGTA  
 AACACAGCAACAAAAAGGAGTGGAAACGGAATGATGGGCGAGCTACTCAGTGGCAAGCGGACATGATTG  
 TGGCACCCTGACCATCAACAATGAGCGTGCAGTACATAGAGTTCTCCAAGCCCTTCAAGTACCAGGG  
 CCTGACCATTTTGGTCAAGAAGGAGATCCAGGAGCACACTGGACTCATTTATGCAGCCTTTTCAGAGC  
 AACTGTGGTTGCTAGTAGGACTGTGAGTTCATGTGGTGGCTGTGATGCTGTACCTGCTGGACCGCTTCA  
 GTCCCTTTGGCCGATTCAAGGTGAACAGTGAGGAGGAGGAGGAAGATGCACTGACCCTGTCTCTGCCAT  
 GTGGTTTTCTGGGGCGTCTGCTCAACTCCGGCATTGGGGAAGGTGCCCGGGAGTTTCTCTGCACGT  
 ATCCTAGGCATGGTGTGGGCTGGTTTCGCCATGATCATAGTGGCTTCTACACTGCCAAGTTGGCAGCTT  
 TCCTGGTGTGGATCGGCCTGAGGAGCGCATCACGGGCATCAATGACCCAGGCTCAGAAACCCCTCAGA  
 CAAGTTCATCTACGCAACTGTAAGCAGAGCTCCGTGGACATCTACTCCGGAGGCAGGTGGAGTTGAGT  
 ACCATGTACCGGCACATGGAAAAACACAATTACGAGAGCGCAGCTGAGGCCATCCAGGCTGTGCGGGACA  
 ACAAGCTGCACGCCTTTATCTGGGACTCGGCCGTGGAGTTTGAGGCTTACAGAAAGTGGGATCTGGT  
 GACCACGGGTGAGCTGTTCTCCGCTCAGGCTTTGGCATCGGCATGCGCAAGGACAGCCCTGGAAGCAG  
 AACGTTTTCCCTGTCCATACTCAAGTCCCATGAGAATGGCTTCATGGAAGATCTGGATAAGACATGGGTT  
 GGTATCAGGAATGCGACTCCCGCAGCAATGCTCCTGCAACCCCTCACTTTTGAACAATGGCAGGGTCTT  
 CATGCTGGTGGCTGGAGGCATCGTAGTGGGATTTTCTCATTTTCATTGAGATCGCCTACAAGCGACAC  
 AAGGATGCCCGTAGGAAGCAGATGCAGCTGGCTTTTGCAGCCGTGAACGTGTGGAGGAAGAACCTGCAGC  
 AGTACCATCCCCTGATATCACGGGCCCTCAACCTCTCAGATCCCTCGGTGAGCAGCGTGGT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RR217299 representing NM\_001270610  
 Red=Cloning site Green=Tags(s)

MSTMHLLTFALLFSCSFARAACDPKIVNIGAVLSTRKHEQMFREAVNQANKRHGSKWIQLNATSVTHKPN  
 AIQMALSVCEDLISSQVYAILVSHPTPNDFHTPTPVSYTAGFYRIPVLGLTTRMSIYSDKSIHLSFLRT  
 VPPYSHQSSVWFEMMRVYNWNHIIILLVSDDEHGRAAQKRLLEERESKAQKVLQFDPGTKNVTALLME  
 ARELEARVIIISASEDDAATVYRAAAMLNMTGSGYVWL VGEREISGNALRYAPDGIIGLQLINGKNESA  
 ISDAVGVAQAVHELLEKENITDPPRGCVGNTNIWKTGPLFKRVLMSKYADGVTGRVEFNEDGDRKFAN  
 YSIMNLQNRKLVQVGIYNGTHVIPNDRKIIWPGGETEKPRGYQMSTRLKIVTIHQEPFVYVKPTMSDGT  
 CKEEFTVNGDPVKKVICTGPNDTSPGSPRHTVPQCCYGFCIDLLIKLARTMNFYEVHLVADGKFGTQERV  
 NNSNKKEWNGMMGELLSGQADMIVAPLTINNERAQYIEFSKPFKYQGLTILVKKEIPRSTLDSFMQPFQ  
 TLWLLVGLSVHVVAVMLYLLDRFSPFGRFKVNSEEEEDALTLSSAMWFSWGLLNSGIGEGAPRSFSAR  
 ILMVMWAGFAMIIVASYANLAFLVDRPEERITGINDPRLRNPDKFIYATVKQSSVDIYFRQVELS  
 TMYRHMEKHNYESAEEAIQAVRDNKLHAFIWDSAVLEFEASQKCDLVTTGELFFRSFGFGIGMRKDS  
 PWKQ NVSLSILKSHENGFMEDLKTWVRYQECDSRSNAPATLTFENMAGVFMLVAGGIVAGIFLIFIEI  
 YKRHKDARRKQMLAF AAVNVWRKNLQQYHPTDITGPLNLSDPVSSTVV

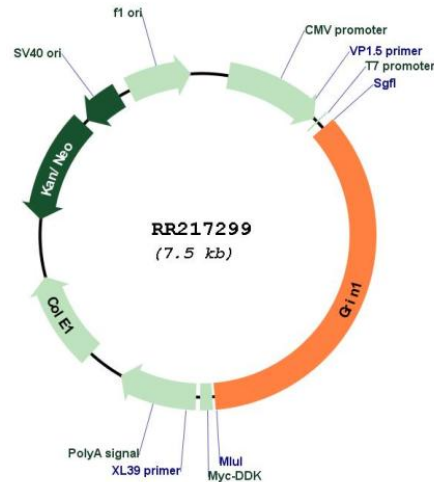
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**



**Plasmid Map:**


**ACCN:** NM\_001270610

**ORF Size:** 2655 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\\_001270610.1](#), [NP\\_001257539.1](#)

**RefSeq Size:** 3813 bp

**RefSeq ORF:** 2658 bp

**Locus ID:** 24408

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

**Cytogenetics:** 3p13

**MW:** 99.5 kDa

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