

Product datasheet for **MR225707**

Grin1 (NM_001177656) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Grin1 (NM_001177656) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Grin1
Synonyms:	GluN1; GluRdelta1; GluRzeta1; M100174; NMD-R1; Nmdar; NMDAR1; NR1; Rgsc174
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR225707 representing NM_001177656
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGCACCATGCACCTGCTGACATTGCCTGCTTTTCTCCTGCTCCTTCGCCCGCTGCCTGCGACC
 CCAAGATTGTCAACATCGGCGCGGTGCTGAGCACGCGCAAGCACGAGCAGATGTTCCGCGAGGCAGTAAA
 CCAGGCCAATAAGCGACACGGCTCTTGGAAAGATACAGCTCAACGCCACTTCTGTACCCACAAGCCCAAC
 GCCATACAGATGGCCCTGTCAAGTGTGAGGACCTCATCTCTAGCCAGGTCTACGCTATCCTAGTTAGTC
 ACCCGCTACTCCAACGACCCTTCACTCCCACCCTGTCTCCTACACAGCTGGCTTCTACAGAATCCC
 CGTCTGGGGTACTACCCGAATGTCCATCTACTCTGACAAGAGCATCCACCTGAGCTTCTTCGCACC
 GTACCACCCTACTCCCACGATCCAGCGTCTGGTTTGAGATGATGCGCGTCTACAACCTGGAACCATATCA
 TCCTGCTGGTCAAGGATGACACGAGGGCCGGCAGCGCAGAAGCGCCTGGAGACGTTGCTGGAGGAGCG
 TGAGTCCAAGAGTAAAAAAGGAACTATGAAAACCTCGACCAACTGTCCTATGACAACAAGCGCGGACCC
 AAGGCAGAGAAGGTGCTGCAATTTGACCCAGGAACCAAGAATGTGACGGCTCTGCTGATGGAAGCCCGGG
 ACCTGGAAGCCCGGTATCATCTTTCTGCAAGCGAGGACGACGCTGCCACCGTATACCGCGCAGCCGC
 GATGCTGAACATGACTGGCTCTGGGTACGTGTGGCTCGTCGGGGAGCGCGAGATCTTGGGAATGCCCTG
 CGCTACGCTCCTGACGGCATCATCGGACTTCAGCTAATCAACGGCAAGAACGAGTCGGCCACATCAGTG
 ACGCTGTGGGCGTGGTGGCACAGGCAGTCCACGAGCTCTAGAAAAGGAGAACATCACTGATCCACCGCG
 GGGTTGCGTGGCAACACCAACATCTGGAAGACAGGACCACTGTTCAAGAGGGTCTGATGTCTTCCAAG
 TATGCAGATGGAGTACTGGCCGTGTGGAATCAATGAGGATGGGACCGGAAGTTTCCAACTATAGTA
 TCATGAACCTGCAGAACCGAAGCTGGTCAAGTGGGCACTACAATGGTACCCATGTCATCCCAATGA
 CAGGAAGATCATCTGGCCAGGAGGAGACAGAGAAGCCTCGAGGATACCAAGATGTCACCCAGACTAAAG
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 CCCACGTACACAGTGGCCAGTGTGTTATGGCTTCTGCGTTGACCTGCTCATCAAGCTGGCACGGACC
 ATGAATTTTACCTACGAGGTGCACCTTGTGGCAGATGGCAAGTTTGGCACACAGGAGCGGGTAAACAACA
 GCAACAAAAGGAGTGGAAACGAATGATGGGAGAGCTGCTCAGTGGTCAAGCAGACATGATCGTGGCTCC
 ACTGACCATTAAACATGAGCGTGGCAGTACATAGAGTTCTCAAGCCCTTCAAGTACCAGGGCCTGACC
 ATCTGGTCAAGAAGGAGATCCCTCGGAGCACACTGGACTCATTATGCAGCCCTTTCAGAGCACACTGT
 GGCTGCTGGTGGGCTGTCAATTCATGTGGTGGCCGTGATGCTGTACCTGCTGGACCGCTTCAGTCCCTT
 TGGCCGATTTAAGGTGAACAGCGAGGAGGAGGAGGATGCACTGACCCCTGTCCTGCCATGTGGTTT
 TCCTGGGGCGTCTGCTCAACTCTGGCATTGGGAAGGTGCCCCCGGAGTTTCTGCTCGTATCCTAG
 GCATGGTGTGGGCTGGTTTTGCCATGATCATCGTGGCTTCTTACTGCAACCTGGCAGCCTTCTGGT
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 ACCGGCACATGGAGAAGCACAATTATGAGAGTGCAGCTGAGGCCATCCAGGCTGTGCGGGACAACAAGCT
 CCATGCCCTCATCTGGGACTCAGCTGTGGTGGAGTTTGGGCTTACAGAAAGTGGCATCTGGTGACCAG
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 CCCTGTCCATACTCAAGTCCCATGAGAATGGCTTTCATGGAAGACCTGGATAAGACATGGGTTTCGGTATCA
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 GTGGCTGGAGGCATCGTAGCTGGGATCTTCTCATTTTTCATCGAGATCGCCTACAAGCGACACAAGGATG
 CCCGTAGGAAGCAGATGCAGCTGGCTTTTGCAGCCGTGAACGTGTGGAGGAAGAACCTGCAGCAGTACCA
 TCCCACTGATATACGGGCCCGCTCAACCTCTCAGATCCCTCGGTGACGACCGTGGTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR225707 representing NM_001177656
 Red=Cloning site Green=Tags(s)

MSTMHLLTFALLFSCSFARAACDPKIVNIGAVLSTRKHEQMFREAVNQANKRHGSKWIKQLNATSVTHKPN
 AIQMALSVCEDLISSQVYAILVSHPTPNDFHTPTPVSYTAGFYRIPVLGLTTRMSIYSDKSIHLSFLRT
 VPPYSHQSSVWFEMMRVYNWNHIIILLVSDDEHGRAAQKRLLEETLLEERESKSKKRNYENLDQLSYDNKRG
 KAEKVLQFDPGTKNVTALLMEARDLEARVIIISASEDDAATVYRAAAMLNMTGSGYVWL VGEREISGNAL
 RYAPDGIIGLQLINGKNESAHSIDAVGVVAQAVHELLEKENITDPPRGCVGNTNIWKTGPLFKRVLMSK
 YADGVTGRVEFNEDGDRKFNYSIMNLQNRKLVQVGIYNGTHVIPNDRKI IWPGGETEKPRGYQMSTRLK
 IVTIHQEPFVYVYKPTMSDGTCKEFTVNGDPVKKVICTGPNDSFGSPRHTVPQCCYGFCVDLLIKLART
 MNFTYEVHLVADGKFGTQERVNNSNKEWNGMMGELL SGQADMI VAPLTINNERAQYIEFSKPFKYQGLT
 ILVKKEIPRSTLDSFMQPFQSTLWLLVGLSVHVAVMLYLLDRFSPFGRFKVNSEEEEEEDALTLSSAMWF
 SWGVLLNSGIGEGAPRSFSARILGMVWAGFAMIIVASYANLAAFLVDRPEERITGINDPRLRNP SDKF
 IYATVKQSSVDIYFRRQVELSTMYRHMEKHNYESAAEAIQAVRDNKLFHAFIWDSAVLEFEASQKCDLVTT
 GELFFRSGFGIGMRKDSPPKQNVSL SILKSHENGFMEDLDKTTWVRYQECDSRSNAPATLTFENMAGVFM
 VAGGIVAGIFLIFIEIAYKRHKDARRKQMLAF AAVNVWRKNLQQYHPTDITGPLNLS D P S V S T V V

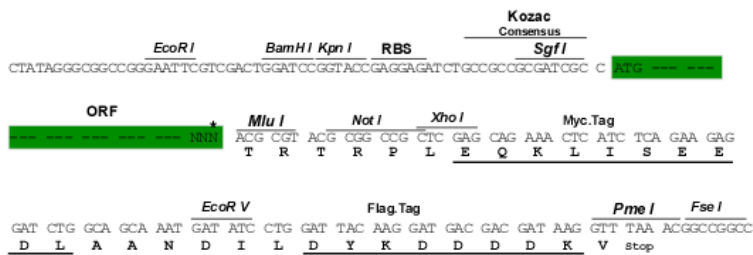
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9003_c03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:

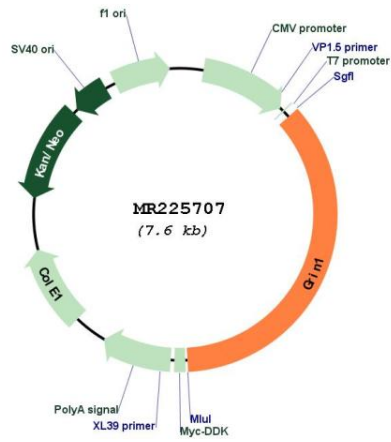


* The last codon before the Stop codon of the ORF

ACCN: NM_001177656

ORF Size:	2718 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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:	<ol style="list-style-type: none"> 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_001177656.2 , NP_001171127.1
RefSeq Size:	3898 bp
RefSeq ORF:	2721 bp
Locus ID:	14810
UniProt ID:	P35438
Cytogenetics:	2 17.14 cM
MW:	102.4 kDa
Gene Summary:	<p>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:1532151, PubMed:8060614, PubMed:12008020). Sensitivity to glutamate and channel kinetics depend on the subunit composition (PubMed:12008020). [UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for MR225707