

Product datasheet for **MG225707**

Grin1 (NM_001177656) Mouse Tagged ORF Clone

Product data:

| | |
|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | Grin1 (NM_001177656) Mouse Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | Grin1 |
| Synonyms: | GluN1; GluRdelta1; GluRzeta1; M100174; NMD-R1; Nmdar; NMDAR1; NR1; Rgsc174 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |



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ORF Nucleotide Sequence:

>MG225707 representing NM_001177656
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAGCACCATGCACCTGCTGACATTGCGCCTGCTTTTCTCCTGCTCCTTCGCCCCGCGTGCCTGCGACC
 CCAAGATTGTCAACATCGGCGCGGTGCTGAGCACGCGCAAGCACGAGCAGATGTTCCGCGAGGCAGTAAA
 CCAGGCCAATAAGCGACACGGCTCTTGGGAAGATACAGCTCAACGCCACTTCTGTACCCACAAGCCCAAC
 GCCATACAGATGGCCCTGTCAGTGTGTGAGGACCTCATCTCTAGCCAGGTCTACGCTATCCTAGTTAGTC
 ACCCGCTACTCCAACGACCACCTTCACTCCCACCCTGTCTCCTACACAGCTGGCTTCTACAGAATCCC
 CGTCTGGGGTACTACCCGAATGTCCATCTACTCTGACAAGAGCATCCACCTGAGCTTCTTCGCACC
 GTACCACCCTACTCCCACGAGTCCAGCGTCTGGTTTGGATGATGCGCGTCTACAACCTGGAACCATATCA
 TCCTGCTGGTCAAGGATGACCACGAGGGCCGGCAGCGCAGAAGCGCCTGGAGACGTTGCTGGAGGAGCG
 TGAGTCCAAGAGTAAAAAAGGAACTATGAAAACCTCGACCAACTGTCCTATGACAACAAGCGCGGACCC
 AAGGCAGAGAAGGTGCTGCAATTTGACCCAGGAACCAAGAATGTGACGGCTCTGCTGATGGAAGCCCGGG
 ACCTGGAAGCCCGGTATCATCTTTCTGCAAGCGAGGACGACGCTGCCACCGTATACCGCGCAGCCGC
 GATGCTGAACATGACTGGCTCTGGGTACGTGTGGCTCGTCGGGGAGCGCGAGATCTTGGGAATGCCCTG
 CGCTACGCTCCTGACGGCATCATCGGACTTCAGCTAATCAACGGCAAGAACGAGTCGGCCACATCAGTG
 ACGCTGTGGGCGTGGTGGCACAGGCAGTCCACGAGCTCTAGAAAAGGAGAACATCACTGATCCACCGCG
 GGGTTGCGTGGCAACACCAACATCTGGAAGACAGGACCACTGTTCAAGAGGGTCTGATGTCTTCCAAG
 TATGCAGATGGAGTACTGGCCGTGTGGAATCAATGAGGATGGGACCGGAAGTTTGCCAACTATAGTA
 TCATGAACCTGCAGAACCGAAGCTGGTCAAGTGGGCATCAACATGGTACCCATGTCATCCCAATGA
 CAGGAAGATCATCTGGCCAGGAGGAGACAGAGAAGCCTCGAGGATACAGATGTCACCAGACTAAAG
 ATAGTGACAATCCACCAAGAACCCTTCGTGTATGTCAAGCCACAAATGAGTGATGGCACATGCAAGAGG
 AGTTCACAGTCAATGGTGACCCTGTCAAGAAGGTGATCTGTACGGGGCCTAATGACACATCCCCAGGAAG
 CCCACGTACACAGTGGCCAGTGTGTTATGGCTTCTGCGTTGACCTGCTCATCAAGCTGGCACGGACC
 ATGAATTTTACCTACGAGGTGCACCTTGTGGCAGATGGCAAGTTTGGCACACAGGAGCGGGTAAACAACA
 GCAACAAAAGGAGTGGAAACGAATGATGGGAGAGCTGCTCAGTGGTCAAGCAGACATGATCGTGGCTCC
 ACTGACCATTAACAATGAGCGTGGCAGTACATAGAGTTCTCAAGCCCTTCAAGTACCAGGGCCTGACC
 ATCTGTGTCAAGAAGGAGATCCCTCGGAGCACACTGGACTCATTATGCAGCCCTTTCAGAGCACACTGT
 GGCTGCTGGTGGGCTGTCAATTCATGTGGTGGCCGTGATGCTGTACCTGCTGGACCGCTTCAGTCCCTT
 TGGCCGATTTAAGGTGAACAGCGAGGAGGAGGAGGATGCACTGACCCCTGTCCTGCCATGTGGTTT
 TCCTGGGGCGTCTGCTCAACTCTGGCATTGGGAAGGTGCCCCCGGAGTTTCTGCTCGTATCCTAG
 GCATGGTGTGGGCTGGTTTTGCCATGATCATCGTGGCTTCTTACTGCAACCTGGCAGCCTTCTGGT
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 ACCGGCACATGGAGAAGCACAATTATGAGAGTGCAGCTGAGGCCATCCAGGCTGTGCGGGACAACAAGCT
 CCATGCCCTTCACTGGGACTCAGCTGTGGTGGAGTTTGGGCTTACAGAAGTGGCATCTGGTGACCAG
 GGTGAGCTGTTCTCCGCTCCGGCTTTGGCATCGGCATGCGCAAGGACAGCCCTGGAAGCAAAATGTGT
 CCCTGTCCATACTCAAGTCCCATGAGAATGGCTTTCATGGAAGACCTGGATAAGACATGGGTTTCGGTATCA
 AGAATGTGACTCCCGCAGCAATGCCCTGCCACCCTCACTTTTGGAGAATGGCAGGGGTCTTCATGCTG
 GTGGCTGGAGGCATCGTAGCTGGGATCTTCTCATTTTTCATCGAGATCGCCTACAAGCGACACAAGGATG
 CCCGTAGGAAGCAGATGCAGCTGGCTTTTGCAGCCGTGAACGTGTGGAGGAAGAACCTGCAGCAGTACCA
 TCCCACTGATATACGGGCCCGCTCAACCTCTCAGATCCCTCGGTGAGCACCGTGGTG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – **GTTTAA**

Protein Sequence: >MG225707 representing NM_001177656
 Red=Cloning site Green=Tags(s)

MSTMHLLTFALLFSCSFARAACDPKIVNIGAVLSTRKHEQMFREAVNQANKRHGSKWIKLNATSVTHKPN
 AIQMALSVCEDLISSQVYAILVSHPTPNDFHTPTPVSYTAGFYRIPVLGLTTRMSIYSDKSIHLSFLRT
 VPPYSHQSSVWFEMMRVYNWNHIIILLVSDDEHGRAAQKRLLEERESKSKRNYENLDQLSYDNKRG
 KAEKVLQFDPGTKNVTALLMEARDLEARVILSASEDDAATVYRAAAMLNMTGSGYVWLVGEREISGNAL
 RYAPDGIIGLQLINGKNESAHSIDAVGVVAQAVHELLEKENITDPPRGCVGNTNIWKTGPLFKRVLMSK
 YADGVTGRVEFNEDGDRKFANYSIMNLQNRKLVQVGIYNGTHVIPNDRKIWPGETEKPRGYQMSTRLK
 IVTIHQEPFVYVYKPTMSDGTCKEFTVNGDPVKKVICTGPNDTSPGSPRHVTPQCCYGFCVDLLIKLART
 MNFTYEVHLVADGKFGTQERVNNSNKKEWNGMGMGELLSGQADMI VAPLTINNERAQYIEFSKPFKYGLT
 ILVKKEIPRSTLDSFMQPFQSTLWLLVGLSVHVAVMLYLLDRFSPFGRFKVNSEEEEDALTLSSAMWF
 SWGVLLNSGIGEGAPRSFSARILGMVWAGFAMIIVASYTANLAAFLVDRPEERITGINDPRLRNP SDKF
 IYATVKQSSVDIYFRRQVELSTMYRHMEKHNYESAAEAIQAVRDNKLHAFIWDSAVLEFEASQKCDLVTT
 GELFFRSGFGIGMRKDSPWKQNVSLSILKSHENGFMEDLDKTWVRYQECDSRSNAPATLTFENMAGVFM
 VAGGIVAGIFLIFIEIAYKRHKDARRKQMLAF AAVNVWRKNLQQYHPTDITGPLNLSDPVSSTVV

TRTRPLE - GFP Tag - V

Restriction Sites:

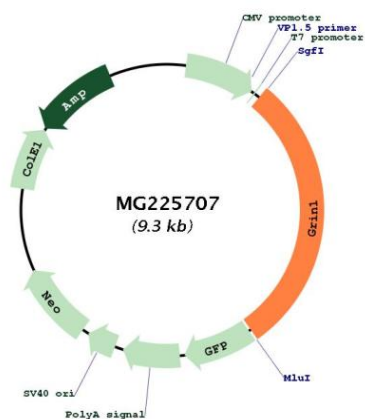
Sgfl-MluI

Cloning Scheme:



| | |
|-------------------------------|--|
| 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 |
| 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 MG225707