

## Product datasheet for **MR231235**

### **Gria1 (NM\_001252403) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Gria1 (NM_001252403) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gria1
Synonyms:	2900051M01Rik; Glr-1; Glr1; GluA1; Glur-1; GluR-A; gluR-K1; Glur1; GluRA; HIPA1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>MR231235 representing NM\_001252403  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGACTTACCGATTCTGTTCCAGTTCTCCAAAGGAGTGTACGCCATCTTTGGATTTTATGAACGAAGGA  
 CTGTCAACATGCTGACCTCCTTCTGTGGGGCCCTCCATGTGTGCTTCATCACTCCAAGTTTTCCCGTTGA  
 CACATCCAATCAGTTTGTCTTACGCTGCGCCCGAACTACAGGAAGCTCTCATTAGCATTATCGACCAT  
 TACAAGTGGCAGACTTTTGTCTACATTTATGATGCTGACCGGGCCTGTGAGTCTGCAGAGAGTCTTGG  
 ATACAGCCCGGAGAAGAACTGGCAGGTGACGGCTGTCAACATTCTAACCAACCAGGAGGAAGGATACCG  
 GATGCTCTTTAGGACCTGGAGAAGAAAAGGAGAGGCTGGTGGTGGTGGACTGTGAATCAGAACGCCTC  
 AACGCCATCTGGGCCAGATTGTGAAGCTAGAAAAGAACGGCATCGGGTACCACTACATCCTCGCCAACC  
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 TTCAGTCTTATGAATGGCACAGTGAAGAGTTTGAAGAAGGACGAGATCAGACAACCAGTGACCAGTCAA  
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 TAAAATCGCTGTGTTTGAAGAAGTGTGGACATACATGAAGTCTGCAGAACCCTGTGTGTTTGTTCGGACC  
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 CGGGGGCAGGAGCCAGCGGAGGAAGTGGCAGTGGAGAGAATGGCAGAGTGGTCAGCCAGGACTTCCCAA  
 GTCATGCAATCCATTCCCTGCATGAGCCACAGTTCAGGGATGCCCTTGGGAGCCACAGGATTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

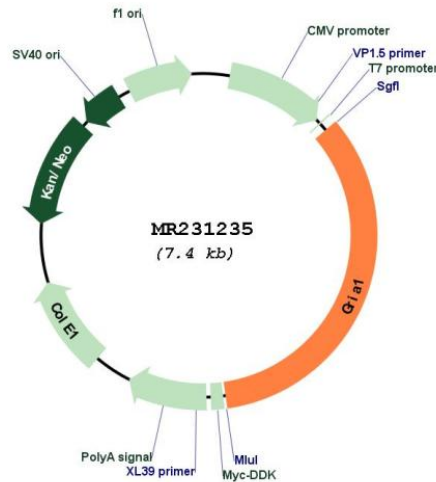
**Protein Sequence:** >MR231235 representing NM\_001252403  
Red=Cloning site Green=Tags(s)

MTYRFCSQFSKGVYAIKGFYERRTVNMLTSFCGALHVCFITPSFPVDTSNQFVLQLRPELQEALISIIDH  
YKWQTFVYIYDADRGLSVLQRVLDTAAEKNWQVTAVNILLTTEEGYRMLFQDLEKKKERLVVVDCESE  
NAILGQIVKLEKNGIGYHYILANLGFMDIDLNFKESGANVTGFQLVNYTDTIPARIMQQWRTSDARDHT  
RVDWKRPKYTSALTYDGVKVMAEAFQSLRRQRIDISRRGNAGDCLANPAVPWGQGIDIQRALQQVRFEGL  
TGNVQFNEKGRRTNYTLHVIEMKHDGIRKIGYWNEDDKFVPAATDAQAGDNSSVQNRTYIVTTILEDPY  
VMLKKNANQFEGNDRYEGYCVELAAEIAKHVGYSYRLEIVSDGKYGARDPDTKAWNGMVGELVYGRADVA  
VAPLTITLVREEVIDFSKPFMSLGISIMIKKPQKSKPGVFSFLDPLAYEIWMCIVFAYIGVSVVFLVSR  
FSPYEWHSSEEFEEGRDQTTSDQSNEFGIFNSLWFSLGAFMQQGCISPRSLSGRIVGGVWFFTLIIISS  
YTANLAAFLTVERMVSPIESAEDLAKQTEIAYGTLEAGSTKEFFRRSKIAVFEMWMTYMKSAEPSVVRT  
TEEGMIRVRKSKGKYAYLLESTMNEYIEQRKPCDTMKVGGNLDKGYGIATPKGSALRGPVNLAVLKLSE  
QGVLDKLSKWWYDKGECGSKDSGSKDTSALSLSNVAGVFYIILIGGLGLAMLVALIEFCYKSRSESKRM  
KGFCLIPQQSINEAIRTSTLPRNSGAGASGGSGSGENGRVVSQDFPKSMQSIPCMSSHSSGMPLGATGL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** Sgfl-MluI



**Plasmid Map:**


**ACCN:** NM\_001252403

**ORF Size:** 2514 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\\_001252403.1](#), [NP\\_001239332.1](#)

**RefSeq Size:** 5382 bp

**RefSeq ORF:** 2517 bp

**Locus ID:** 14799

**Cytogenetics:** 11 34.51 cM

MW: 94.4 kDa

**Gene Summary:** Ionotropic glutamate receptor. L-glutamate acts as an excitatory neurotransmitter at many synapses in the central nervous system. Binding of the excitatory neurotransmitter L-glutamate induces a conformation change, leading to the opening of the cation channel, and thereby converts the chemical signal to an electrical impulse. The receptor then desensitizes rapidly and enters a transient inactive state, characterized by the presence of bound agonist. In the presence of CACNG4 or CACNG7 or CACNG8, shows resensitization which is characterized by a delayed accumulation of current flux upon continued application of glutamate.[UniProtKB/Swiss-Prot Function]