

## Product datasheet for **MR207939**

### **Gria2 (BC048248) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Gria2 (BC048248) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gria2
Synonyms:	GluR-B, short form
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR207939 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCAAAAGATTATGCATATTTCTGTCCTCTTTCTCCTGTTTTATGGGACTGATTTTTGGTGTCTCTT  
 CTAACAGCATACAGATAGGGGGCTATTTCCAAGGGCGCTGATCAAGAATACAGTGCATTTCCGGTAGG  
 GATGGTTCAGTTTTCCACTTCGGAGTTCAGACTGACACCCCATATCGACAATTTGGAGGTAGCCAACAGT  
 TTCGCAGTCACCAATGCTTTCTGCTCCCAGTTTTCAAGAGGCGTCTATGCGATTTTTGGTTTTACGACA  
 AGAAGTCTGTAATACCATCACATCATTCTGTGGGACTGCATGTATCCTTCATCACACCAAGCTTCCC  
 AACAGATGGCAGCATCCATTTGTCATCCAGATGCGACCTGACCTCAAAGGAGCACTCCTTAGCTTGATT  
 GAGTACTACCAATGGGATAAGTTCGCATACCTCTATGACAGTACAGAGGCTTATCAACTGCAAGCTG  
 TGCTGGATTCTGCTGCGGAGAAGAAGTGGCAGGTACTGCTATCAATGTGGGAACATTAACAATGACAA  
 GAAAGATGAGACCTACAGATCACTTTCAAGATCTGGAGTTAAAAAAGAACGGCGTGAATCCTTGAC  
 TGGCAAAGGGATAAAGTCAATGACATTGTGGACAGGTTATTACCATTGGAAGCATGTTAAAGGGTACC  
 ATTATATCATTGCAAATCTGGGATTTACTGATGGAGACCTGCTGAAAATTCAGTTTGGAGGAGCAAATGT  
 CTCTGGATTTAGATTGTAGACTACGACGACTCCCTGGTGTCTAAATTTATAGAAAGATGGTCAACACTC  
 GAAGAGAAAGAATACCCTGGAGCACACACAGCGACAATTAAGTATACTTCGGCCCTGACTTATGATGCTG  
 TCCAAGTGATGACTGAAGCATCCGCAATCTTCGGAAGCAGAGGATTGAAATCTCCAGGAGAGGAAATGC  
 AGGAGATTGTTGGCCAACCCAGCTGTGCCTTGGGACAAGGCGTGAAATAGAAAGGCCCTCAAGCAG  
 GTTCAAGTTGAAGTCTCTCTGGAATATAAAATTTGACCAGAACGAAAAACGAATAAACTACACAATTA  
 ACATCTGGAGCTCAAAACAAATGGACCCCGAAGATTGGTACTGGAGTGAAGTGGATAAAATGGTTGT  
 CACCCTAACCGAGCTCCCTCTGGAATGACACATCTGGGCTTGAACAAAACTGTGGTTGTACCACA  
 ATATTGGAATCTCCATATGTTATGATGAAGAAAAATCATGAAATGCTTGAAGGGAATGAGCGTTATGAGG  
 GCTACTGTGTTGACTTAGCTGCAGAAATGGCCAAACATTGTGGATTCAAGTACAAGCTGACTATTGTTGG  
 GGATGGCAAGTATGGGGCCAGGGATGCAGACACCAAAATTTGGAATGGTATGGTTGGAGAACTTGTATAT  
 GGGTAAGTTTT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR207939 protein sequence  
 Red=Cloning site Green=Tags(s)

MQKIMHISVLLSPVLWGLIFGVSSNSIQIGGLFPRGADQEYSAFRVGMVQFSTSEFRLTPHIDNLEVANS  
 FAVTNAFCSQFSRGVYVIFGFYDKKSVNTITSFCGTLHVSFITPSFPTDGTTHPFVIQMRPDLKALLSLI  
 EYYQWDFAYLYSDRGLSTLQAVLDSAAEKKWQVTAINVGNINNDKDETYRSLFQDLELKKERRVILD  
 CERDKVNDIVDQVITIGKHVKGYHYIIANLGFDTGDLKIQFGGANVSGFQIVDYDDSLVSKFIERWSTL  
 EEKEYPGAHTATIKYTSALTYDAVQVMTEAFRNLKQRIEISRRGNAGDCLANPAVPWQGVIEERALKQ  
 VQVEGLSGNIKFDQNGKRINYTIMELKTNGPRKIGYWSEVDKMMVTLTELPNGDTSLENKTVVVT  
 ILESPYVMMKNHEMLEGNERYEGYCVDLAAEIAKHCGFYKLTIVGDGKYGARDADTKIWNMGVGLVY  
 GVSF

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** BC048248

**ORF Size:** 1482 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:** [BC048248](#), [AAH48248](#)

**RefSeq Size:** 4799 bp

**RefSeq ORF:** 1484 bp

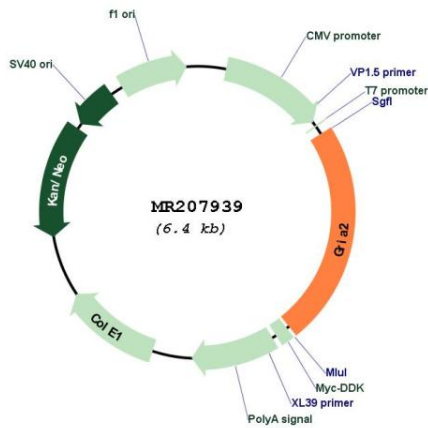
**Locus ID:** 14800

**Cytogenetics:** 3 35.5 cM

**MW:** 55.5 kDa

**Gene Summary:**

Glutamate receptors are the predominant excitatory neurotransmitter receptors in the mammalian brain and are activated in a variety of normal neurophysiologic processes. This gene product belongs to a family of glutamate receptors that are sensitive to alpha-amino-3-hydroxy-5-methyl-4-isoxazole propionate (AMPA), and function as ligand-activated cation channels. These channels are assembled from 4 related subunits, Gria1-4. The subunit encoded by this gene (Gria2) is subject to RNA editing (CAG->CGG; Q->R) within the second transmembrane domain, which is thought to render the channel impermeable to Ca(2+). Alternative splicing, resulting in transcript variants encoding different isoforms, (including the flip and flop isoforms that vary in their signal transduction properties), has been noted for this gene. [provided by RefSeq, Jul 2008]

**Product images:**


Circular map for MR207939