

## Product datasheet for **MG227420**

### Gria2 (NM\_001083806) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Gria2 (NM_001083806) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Gria2
Synonyms:	Glu; GluA2; GluR; Glur-2; GluR-B; gluR-K2; Glur2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG227420 representing NM\_001083806  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGCAAAAGATTATGCATATTTCTGTCCTCTTTCTCCTGTTTTATGGGACTGATTTTTGGTGTCTCTT  
 CTAACAGCATACAGATAGGGGGCTATTTCCAAGGGCGCTGATCAAGAATACAGTGCATTTCCGGTAGG  
 GATGGTTCAGTTTTCCACTTCGGAGTTCAGACTGACACCCCATATCGACAATTTGGAGGTAGCCAACAGT  
 TTCGCAGTCACCAATGCTTTCTGCTCCCAGTTTTCAAGAGGCGTCTATGCGATTTTTGGTTTTACGACA  
 AGAAGTCTGTAATACCATCACATCATTCTGTGGGACTGCATGTATCCTTCATCACACCAAGCTTCCC  
 AACAGATGGCAGCATCCATTTGTCATCCAGATGCGACCTGACCTCAAAGGAGCACTCCTTAGCTTGATT  
 GAGTACTACCAATGGGATAAGTTCGCATACCTCTATGACAGTACAGAGGCTTATCAACTGCAAGCTG  
 TGCTGGATTCTGCTCGGAGAAGAAGTGGCAGGTGACTGCTATCAATGTGGGAACATTAACAATGACAA  
 GAAAGATGAGACCTACAGATCACTTTCAAGATCTGGAGTTAAAAAAGAACGGCGTGAATCCTTGAC  
 TGGCAAAGGGATAAAGTCAATGACATTTGTGACCAGGTTATTACCATTTGAAAGCATGTTAAAGGGTACC  
 ATTATATCATTGCAAATCTGGGATTTACTGATGGAGACCTGCTGAAAATTCAGTTTGGAGGAGCAAATGT  
 CTCTGGATTTAGATTGTAGACTACGACGACTCCCTGGTGTCTAAATTTATAGAAAGATGGTCAACACTC  
 GAAGAGAAAGAATACCCTGGAGCACACACAGCGACAATTAAGTATACTTCGGCCCTGACTTATGATGCTG  
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 AGGAGATTGTTGGCCAACCCAGCTGTGCCTTGGGACAAGGCGTGGAAATAGAAAGGGCCCTCAAGCAG  
 GTTCAAGTTGAAGTCTCTCTGAAATATAAAATTTGACCAGAACGAAAAACGAATAAATACACAATTA  
 ACATCATGGAGCTCAAAACAAATGGACCCCGAAGATTGGGTACTGGAGTGAAGTGGATAAAATGCTTGT  
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 GGATGGCAAGTATGGGGCCAGGGATGCAGACACCAAAATTTGGAATGGTATGGTTGGAGAAGCTTGTATAT  
 GGGAAAGCTGATATTGCCATTGCTCCATTAATCACTCTCGTGAGAGAAGAGGTGATTGACTTCTCGA  
 AGCCATTCATGAGCCTTGAATCTCTATCATGATCAAGAAGCCTCAGAAGTCAAACCAGGAGTGTTC  
 CTTTCTTGATCCTTAGCCTATGAGATCTGGATGTGCATTGTGTTTGCCTACATTGGGGTCAAGTGTAGTT  
 TTATTCCTGGTCAAGCAGATTTAGCCCTACGAGTGGCACACTGAGGAATTTGAAGATGGAAGAGAAACAC  
 AAAGTAGTGAATCAACTAATGAATTTGGGATTTTAAATAGTCTCTGGTTTTCTTGGGTGCCTTTATGCG  
 GCAAGGATGCGATATTTGCGCAAGATCTCTCTCTGGGCGCATTGTTGGAGGTGTGTGGTGGTTCTTTACC  
 CTCATCATCATCTCCTCTACACGGCTAACTTAGCTGCCTTCTGACTGTAGAGAGGATGGTGTGCGCCA  
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 CCTGGATTCCAAAGGCTACGGCATCGCCACACCTAAAGGATCCTCATTAAAGAACCCAGTAAATCTTGCA  
 GTATTGAAACTCAGTGAAGCAAGGCGTCTTAGACAAGCTGAAAAACAAATGGTGGTACGATAAAGGTGAAT  
 GTGGAGCCAAGGACTCGGGAAGTAAAGAAAAGACCAGTGCCTCAGTCTGAGCAACGTTGCTGGAGTATT  
 CTACATCCTTGTGCGGGCCTTGGTTTGGCAATGCTGGTGGCTTTGATTGAGTTCTGTTACAAGTCAAGG  
 GCCGAGGCGAAACGAATGAAGGTGGCAAAGAATGCACAGAATATAACCCATCTTCTCGCAGAATTCCC  
 AGAATTTTGAACCTATAAGGAAGGTTACAACGTATATGGCATCGAGAGTGTAAAAAT

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >MG227420 representing NM\_001083806  
 Red=Cloning site Green=Tags(s)

MQKIMHISVLLSPVLWGLIFGVSSNSIQIGGLFPRGADQEYSAFRVGMVQFSTSEFRLTPHIDNLEVANS  
 FAVTNAFCSQFSRGVYAIFGFYDKKSVNTITSFCGTLHVSFITPSFPTDGTTHPFVIQMRPDLKGALLSLI  
 EYYQWDFAYLYDSDRGLSTLQAVLDSAAEKWQVTAINVGNINNDKKDETYRSLFQDLELKKERRVILD  
 CERDKVNDIVDQVITIGKHVKGYHYIIANLGFDTGDLLKIQFGGANVSGFQIVDYDDSLVSKFIERWSTL  
 EEKEYPGAHTATIKYTSALTYDAVQVMTEAFRNLRKQRIEISRRGNAGDCLANPAVPWGQGVIEERALKQ  
 VQVEGLSGNIKFQNGKRINYTIMELKTNGPRKIGYWEVDKMMVVTLELPSGNDTSGLENKTVVVT  
 ILESPYMMKKNHEMLEGNEREYEGYCVDLAAEIAKHCGFKYKLTIVGDGKYGARDADTKIWNMGVGLVY  
 GKADIAIAPLTITLVREEVIDFSKPFMSLGISIMIKKPKQSKPGVFSFLDPLAYEIWMCIVFAYIGVS  
 VV LFLVSRFSPYEWHTTEFDGRETQSSESTNEFGIFNSLWFSLGAFMRQGCDSRSLSGRIVGGVWFFFT  
 LIISSYANLAAFLTVERMVSPIESAEDLSKQTEIAYGTLDSGSTKEFFRRSKIAVFDKMWTYMRSAEP  
 SVFVRTTAEGVARVRKSKGKYAYLLESTMNEYIEQRKPCDTMKVGGNLDKSGYGIATPKGSSLRTPVNL  
 A VLKLSAQGVLDKLNKWWYDKGECGAKDSGSKEKTSALSLSNVAGVFYILVGGGLGLAMLVALIEFCYKSR  
 AEAKRMKVAKNAQNINPSSSQNSQNFATYKEGYNVYGIESVKI

TRTRPLE - GFP Tag - V

**Restriction Sites:**

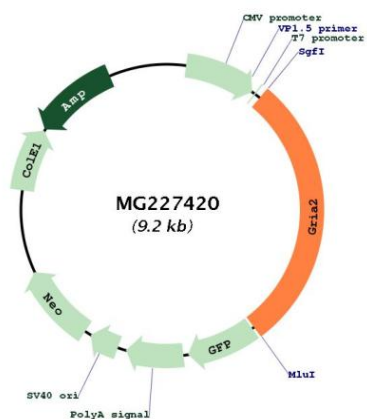
SgfI-MluI

**Cloning Scheme:**



<b>ACCN:</b>	NM_001083806
<b>ORF Size:</b>	2649 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001083806.2</a>
<b>RefSeq Size:</b>	6841 bp
<b>RefSeq ORF:</b>	2652 bp
<b>Locus ID:</b>	14800
<b>Cytogenetics:</b>	3 35.5 cM
<b>Gene Summary:</b>	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 MG227420