

Product datasheet for **MC222367**

Gria2 (NM_013540) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gria2 (NM_013540) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Gria2
Synonyms:	Glu; GluA2; GluR; Glur-2; GluR-B; gluR-K2; Glur2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >MC222367 representing NM_013540
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCAAAAGATTATGCATATTTCTGTCCTCTTTCTCCTGTTTTATGGGACTGATTTTTGGTGTCTCTT
 CTAACAGCATACAGATAGGGGGCTATTTCCAAGGGCGCTGATCAAGAATACAGTGCATTTCCGGTAGG
 GATGGTTCAGTTTTCCACTTCGGAGTTCAGACTGACACCCCATATCGACAATTTGGAGGTAGCCAACAGT
 TTCGCAGTCACCAATGCTTTCTGCTCCCAGTTTTCAAGAGGCGTCTATGCGATTTTTGGTTTTACGACA
 AGAAGTCTGTAATACCATCACATCATTCTGTGGGACTGCATGTATCCTTCATCACACCAAGCTTCCC
 AACAGATGGCAGCATCCATTTGTCATCCAGATGCGACCTGACCTCAAAGGAGCACTCCTTAGCTTGATT
 GAGTACTACCAATGGGATAAGTTCGCATACCTCTATGACAGTACAGAGGCTTATCAACTGCAAGCTG
 TGCTGGATTCTGCTCGGAGAAGAAGTGGCAGGTGACTGCTATCAATGTGGGAACATTAACAATGACAA
 GAAAGATGAGACCTACAGATCACTTTCAAGATCTGGAGTTAAAAAAGAACGGCGTGAATCCTTGAC
 TGGCAAAGGGATAAAGTCAATGACATTGTGGACAGGTTATTACCATTTGAAAGCATGTTAAAGGGTACC
 ATTATATCATTGCAAATCTGGGATTTACTGATGGAGACCTGCTGAAAATTCAGTTTGGAGGAGCAATGT
 CTCTGGATTTAGATTGTAGACTACGACGACTCCCTGGTGTCTAAATTTATAGAAAGATGGTCAACACTC
 GAAGAGAAAGAATACCCTGGAGCACACACAGCGACAATTAAGTATACTTCGGCCCTGACTTATGATGCTG
 TCCAAGTGATGACTGAAGCATTCCGCAATCTTCGGAAGCAGAGGATTGAAATCTCCAGGAGAGGAAATGC
 AGGAGATTGTTGGCCAACCCAGCTGTGCCTTGGGACAAGGCGTGAAATAGAAAGGCCCTCAAGCAG
 GTTCAAGTTGAAGTCTCTCTGAAATATAAAATTTGACCAGAACGAAAAACGAATAAATACACAATTA
 ACATCATGGAGCTCAAAACAAATGGACCCCGAAGATTGGGTACTGGAGTGAAGTGGATAAAATGGTTGT
 CACCCTAACCGAGCTCCCTCTGGAAATGACACATCTGGGCTTGAAAAACAAAATGTGGTTGTACCACA
 ATATTGGAATCTCCATATGTTATGATGAAGAAAAATCATGAAATGCTTGAAGGGAATGAGCGTTATGAGG
 GCTACTGTGTTGACTTAGCTGCAGAAATGGCAAACTTGTGGATTCAAGTACAAGCTGACTATTGTTGG
 GGATGGCAAGTATGGGGCCAGGGATGCAGACACCAAAATTTGGAATGGTATGGTTGGAGAACTTGTATAT
 GGGAAAGCTGATATTGCCATTGCTCCATTAACATCACTCTCGTGAGAGAAGAGGTGATTGACTTCTCGA
 AGCCATTCATGAGCCTTGAATCTCTATCATGATCAAGAAGCCTCAGAAGTCAAACCAGGAGTGTTC
 CTTTCTTGATCCTTAGCCTATGAGATCTGGATGTGCATTGTGTTTGCCTACATTGGGGTCACTGTAGTT
 TTATTCCTGGTCAGCAGATTTAGCCCTACGAGTGGCACACTGAGGAATTTGAAGATGGAAGAGAAACAC
 AAAGTAGTGAATCAACTAATGAATTTGGGATTTTTAATAGTCTCTGGTTTTCTTGGGTGCCTTTATGCG
 GCAAGGATGCGATATTTGCAAGATCTCTCTCTGGGCGCATTGTTGGAGGTGTGTGGTGGTTCTTTACC
 CTCATCATCATCTCCTCTACACGGCTAACTTAGCTGCCTTCTGACTGTAGAGAGGATGGTGTGCCCCA
 TCGAAAGTGTGAGGATCTGTCTAAGCAACAGAAATGCTTATGGAACATTAGACTCTGGCTCCACTAA
 AGAGTTTTTTCAGGAGATCAAAATTCAGTGTGTTGATAAAATGTGGACTTATATGAGGAGTGCAGAGCCC
 TCTGTGTTGTGAGGACTACGGCAGAAGGAGTAGCCAGAGTCAGGAAATCCAAAGGGAAGTATGCCTACT
 TGCTGGAGTCCACAATGAATGAGTACATCGAGCAGAGGAAGCCTTGGCACACCATGAAAGTGGGCGGCAA
 CCTGGATTTCAAAGGCTACGGCATCGCCACACCTAAAGGATCCTCATTAAAGAAATGCGGTTAACCTCGCA
 GTACTAAAATGAATGAACAAGGCTGTTGGACAAATGAAAAACAAATGGTGGTACGACAAAGGAGAGT
 GCGGCAGCGGGGAGGTGATTCCAAGGAAAAGACCAGTGCCTCAGTCTGAGCAACGTTGCTGGAGTATT
 CTACATCCTTGTGCGGGGCCCTGGTTGGCAATGCTGGTGGCTTTGATTGAGTTCTGTTACAAGTCAAGG
 GCCGAGGCGAAACGAATGAAGGTGGCAAAGAATGCACAGAATATTAACCCATCTTCTCGCAGAATTCCC
 AGAATTTTGAACCTATAAGGAAGGTTACAACGTATATGGCATCGAGAGTGTAAATTTAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Chromatograms: https://cdn.origene.com/chromatograms/ja1994_e03.zip

Restriction Sites: SgfI-MluI

ACCN: NM_013540

Insert Size:	2652 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>
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_013540.2 , NP_038568.2
RefSeq Size:	6841 bp
RefSeq ORF:	2652 bp
Locus ID:	14800
Cytogenetics:	3 35.5 cM

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]

Transcript Variant: This variant (2) uses an alternate exon in the 3' coding region compared to transcript variant 1, and encodes an isoform (2, also known as the flop isoform) that is the same length as isoform 1, but with few amino acid differences. RNA editing (CAG->CGG) changes Gln607Arg. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.