

Product datasheet for **RN217297**

Gria2 (NM_001083811) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gria2 (NM_001083811) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Gria2
Synonyms:	GluA2; gluR-B; GluR-K2; GluR2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



[View online »](#)

Fully Sequenced ORF: >RN217297 representing NM_001083811
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCAAAAGATTATGCATATTTCTGTCCTCTTTCTCCTGTTTTATGGGGACTGATTTTTGGTGTCTCTT
 CTAACAGCATACAGATAGGGGGCTATTTCCAAGGGCGCTGATCAAGAATACAGTGCATTTCCGGTAGG
 GATGGTTCAGTTTTCCACTTCGGAGTTCAGACTGACACCCCATATCGACAATTTGGAGGTAGCCAACAGT
 TTCGCAGTCACCAATGCTTTCTGCTCCCAGTTTTCAAGAGGAGTCTACGCAATTTTGGATTTTATGACA
 AGAAGTCTGTAATACCATCACATCATTCTGTGGGACACTCCATGTGCTTTCATCACACCTAGCTTCCC
 AACAGATGGCACACATCCATTTGTCATCCAGATGCGACCTGACCTCAAAGGAGCACTCCTTAGCTTGATT
 GAGTACTACCAATGGGACAAGTTCGCATACCTCTATGACAGTACAGAGGCTTATCAACTGCAAGCTG
 TTCTGGATTCTGCTGCAGAGAAGAAGTGGCAGGTGACTGCTATCAATGTGGGAACATCAACAATGACAA
 GAAAGATGAGACCTACAGATCGCTCTTTCAAGATCTGGAGTTAAAAAAGAACGGCGTGAATCCTGGAC
 TGTGAAAGGGATAAAGTAAATGACATTGTGGACCAGGTTATTACCATTGAAAACATGTTAAAGGGTACC
 ATTATATCATTGCAAATCTGGGATTCAGTATGGGGACCTGCTGAAAATTCAGTTTGGAGGAGCAATGT
 CTCTGGATTTAGATTGTAGACTACGACGATTCCTGTTGCTAAATTTATAGAAAAGATGGTCAACACTG
 GAAGAGAAAAGAAATACCCTGGAGCACACAGCGACAATTAAGTATACTTCGGCCCTGACGTATGATGCTG
 TCCAAGTGATGACTGAAGCATTCCGTAACCTTCGGAAGCAGAGGATTGAAATATCCCGGAGAGGAAATGC
 AGGAGATTGTTTGGCCAACCCAGCTGTGCCCTGGGACAAGGGGTGCAATAGAAAAGGCCCTCAAGCAG
 GTTCAAGTTGAAGGCCTCTCTGAAAATAAAAGTTTGACCAGAATGAAAAACGAATAAATACACAATTA
 ACATCATGGAGCTCAAAACAAATGGACCCCGAAGATTGGGTACTGGAGTGAAGTGGATAAAATGGTTGT
 CACCCTAACTGAGCTCCCATCAGGAAATGACACGCTCTGGGCTTAAAAACAAGACTGTGGTGGTACCACA
 ATATTGGAATCTCCATATGTTATGATGAAGAAAAATCATGAAATGCTTGAAGGGAATGAGCGTTACGAGG
 GCTACTGTGTTGACTTAGCTGCAGAAAATGCTAAACACTGTGGTTCAAGTACAAGCTGACTATTGTTGG
 GGATGGCAAGTATGGGGCCAGGGATGCCGACACCAAAATTTGGAATGGTATGGTTGGAGAGCTTGTCTAC
 GGGAAAGCTGACATTGCAATTGCTCCATTAACATCACTCTCGTGAAGAGAGGTTGATTGACTTCTCCA
 AGCCCTTCATGAGTCTTGAATCTCTATCATGATCAAGAAGCCTCAGAAGTCAAACCAGGAGTGTTCCT
 CTTTCTTGATCCTTAGCCTATGAGATCTGGATGTGCATTGTGTTTGCCTACATTGGGGTCAAGTGTAGTT
 TTATTCCTGGTCAAGCAGATTTAGCCCTACGAGTGGCACACTGAGGAATTTGAAGATGGAAGAGAAACAC
 AAAGTAGTGAATCAACTAATGAATTTGGGATTTTAAATAGTCTCTGGTTTTCCTTGGGTGCCTTTATGCG
 GCAAGGATGCGATATTTGCGCAAGATCCCTCTCTGGGCGCATTGTTGGAGGTGTGTGGTGGTTCTTTACC
 CTGATCATAATCTCCTCTACACGGCTAACTTAGCTGCCTTCTGACTGTAGAGAGGATGGTGTCTCCCA
 TCGAAAGTGTGAGGATCTGTCTAAGCAAAACAGAAATGCTTATGGAACATTAGACTCTGGCTCCACTAA
 AGAGTTTTTTCAGGAGATCTAAAAATCGCAGTGTGATAAAATGTGGACTTATATGAGGAGTGCAGAGCCC
 TCTGTGTTTGTGAGGACTACCGCAGAAGGAGTAGCCAGAGTCCGAAATCCAAAGGAAAGTATGCCTACT
 TGCTGGAGTCCACAATGAACGAGTACATCGAGCAGAGGAAGCCTTGTGACACCATGAAAGTGGGAGGAAA
 CTTGGATTCCAAAGGCTACGGCATCGCCACACCTAAAGGATCCTCATTAGGAAATGCGGTTAACCTCGCA
 GTACTAAAATGAATGAACAAGGCTGTTGGACAAATGAAAAACAATGGTGGTACGACAAAGGAGAGT
 GCGGCAGCGGGGAGGTGATTCCAAGGAAAAGACCAGTGCCTCAGTCTGAGCAACGTTGCTGGAGTATT
 CTACATCCTTGTGCGGGGCTTGGTTTGGCAATGCTGGTGGCTTTGATTGAGTTCTGTTACAAGTCAAGG
 GCCGAGGCGAAACGAATGAAGGTGGCAAGAATCCACAGAATATTAACCCATCTTCTCGCAGAATTCCC
 AGAATTTTGAACCTATAAGGAAGGTTACAACGTATATGGCATCGAGAGTGTAAATTTAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-MluI
ACCN: NM_001083811

Insert Size:	2652 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
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:	<u>NM_001083811.1</u> , <u>NP_001077280.1</u>
RefSeq Size:	6745 bp
RefSeq ORF:	2652 bp
Locus ID:	29627
UniProt ID:	<u>P19491</u>
Cytogenetics:	2q33
Gene Summary:	<p>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 (Q/R and R/G), which is thought to render the channels impermeable to Ca(2+), and to affect the kinetic aspects of these channels in rat brain. Alternative splicing, resulting in transcript variants encoding different isoforms (flip and flop), has been noted for this gene. [provided by RefSeq, Jul 2008]</p> <p>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 changes Gln607Arg (CAG->CGG) and Arg764Gly (AGA->GGA). Sequence Note: This RefSeq record was created from transcript and genomic sequence data because no single transcript was available for the full length of the gene. The extent of this transcript is supported by transcript alignments.</p>