

Product datasheet for **RN200374**

Gria2 (NM_017261) Rat Untagged Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | Gria2 (NM_017261) 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 |



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Fully Sequenced ORF: >RN200374 representing NM_017261
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCAAAAGATTATGCATATTTCTGTCCTCTTTCTCCTGTTTTATGGGACTGATTTTTGGTGTCTCTT
 CTAACAGCATACAGATAGGGGGCTATTTCCAAGGGCGCTGATCAAGAATACAGTGCATTTCCGGTAGG
 GATGGTTCAGTTTTCCACTTCGGAGTTCAGACTGACACCCCATATCGACAATTTGGAGGTAGCCAACAGT
 TTCGCAGTCACCAATGCTTTCTGCTCCCAGTTTTCAAGAGGAGTCTACGCAATTTTGGATTTTATGACA
 AGAAGTCTGTAATACCATCACATCATTCTGTGGGACACTCCATGTGTCCTTCATCACACCTAGCTTCCC
 AACAGATGGCACACATCCATTTGTCATCCAGATGCGACCTGACCTCAAAGGAGCACTCCTTAGCTTGATT
 GAGTACTACCAATGGGACAAGTTCGCATACCTCTATGACAGTACAGAGGCTTATCAACTGCAAGCTG
 TTCTGGATTCTGCTGCAGAGAAGAAGTGGCAGGTGACTGCTATCAATGTGGGAACATCAACAATGACAA
 GAAAGATGAGACCTACAGATCGCTCTTTCAAGATCTGGAGTTAAAAAAGAACGGCGTGAATCCTGGAC
 TGTGAAAGGGATAAAGTAAATGACATTGTGGACCAAGTTATTACCATTTGAAAACATGTTAAAGGGTACC
 ATTATATCATTGCAAATCTGGGATTCAGTATGGGGACCTGCTGAAAATTCAGTTTGGAGGAGCAATGT
 CTCTGGATTTAGATTGTAGACTACGACGATTCCTTGGTGTCTAAATTTATAGAAAAGATGGTCAACACTG
 GAAGAGAAAAGAAATACCCTGGAGCACACACAGCGACAATTAAGTATACTTCGGCCCTGACGTATGATGCTG
 TCCAAGTGATGACTGAAGCATTCCGTAACCTTCGGAAGCAGAGGATTGAAATATCCCGGAGAGGAAATGC
 AGGAGATTGTTTGGCCAACCCAGCTGTGCCCTGGGACAAGGGGTGCAATAGAAAAGGCCCTCAAGCAG
 GTTCAAGTTGAAGGCCTCTCTGAAAATAAAAGTTTGACCAGAATGAAAAACGAATAAATACACAATTA
 ACATCATGGAGCTCAAAACAAATGGACCCCGAAGATTGGGTACTGGAGTGAAGTGGATAAAATGTTGT
 CACCCTAACTGAGCTCCCATCAGGAAATGACACGTCTGGGCTTAAAAACAAGACTGTGGTGGTACCACAA
 ATATTGGAATCTCCATATGTTATGATGAAGAAAAATCATGAAATGCTTGAAGGGAATGAGCGTTACGAGG
 GCTACTGTGTTGACTTAGCTGCAGAAAATGCTAAACACTGTGGGTCAAGTACAAGCTGACTATTGTTGG
 GGATGGCAAGTATGGGGCCAGGGATGCCGACACCAAAAATTTGGAATGGTATGGTTGGAGAGCTTGTCTAC
 GGGAAAGCTGACATTGCAATTGCTCCATTAACATCACTCTCGTGAGAGAAGAGGTGATTGACTTCTCCA
 AGCCCTTCATGAGTCTTGAATCTCTATCATGATCAAGAAGCCTCAGAAGTCAAACCAGGAGTGTTCCT
 CTTTCTTGATCCTTAGCCTATGAGATCTGGATGTGCATTGTGTTTGCCTACATTGGGGTCAAGTGTAGTT
 TTATTCCTGGTCAAGCAGATTTAGCCCTACGAGTGGCACACTGAGGAATTTGAAGATGGAAGAGAAACAC
 AAAGTAGTGAATCAACTAATGAATTTGGGATTTTTAATAGTCTCTGGTTTTCTTGGGTGCCTTTATGCG
 GCAAGGATGCGATATTTGCGCAAGATCCCTCTCTGGGCGCATTGTTGGAGGTGTGTGGTGGTCTTTACC
 CTGATCATAATCTCCTCTACACGGCTAACTTAGCTGCCTTCTGACTGTAGAGAGGATGGTGTCTCCCA
 TCGAAAGTGTGAGGATCTGTCTAAGCAAAACAGAAATGCTTATGGAACATTAGACTCTGGCTCCACTAA
 AGAGTTTTTTCAGGAGATCTAAAAATCGCAGTGTGATAAAATGTGGACTTATATGAGGAGTGCAGAGCCC
 TCTGTGTTTGTGAGGACTACCGCAGAAGGAGTAGCCAGAGTCCGAAATCCAAAGGAAAGTATGCCTACT
 TGCTGGAGTCCACAATGAACGAGTACATCGAGCAGAGGAAGCCTTGTGACACCATGAAAGTGGGAGGAAA
 CTTGGATTCCAAAGGCTACGGCATCGCCACACCTAAAGGATCCTATTAGGAACCCCAAGTAAATCTTGCA
 GTATTGAAACTCAGTGAAGCAAGGCGTCTTAGACAAGCTGAAAAACAATGGTGGTACGATAAAGGTGAAT
 GTGGAGCCAAGGACTCGGGAAGTAAAGAAAAGACCAGTGCCTCAGTCTGAGCAACGTTGCTGGAGTATT
 CTACATCCTTGTGCGGGGCCCTGGTTTGGCAATGCTGGTGGCTTTGATTGAGTTCTGTTACAAGTCAAGG
 GCCGAGGCGAAACGAATGAAGGTGGCAAGAATCCACAGAATATTAACCCATCTTCTCGCAGAATTCCC
 AGAATTTTGAACCTATAAGGAAGGTTACAACGTATATGGCATCGAGAGTGTAAATTTAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-Mlul
ACCN: NM_017261

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| 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_017261.2 , NP_058957.1 |
| RefSeq Size: | 6745 bp |
| RefSeq ORF: | 2652 bp |
| Locus ID: | 29627 |
| UniProt ID: | P19491 |
| Cytogenetics: | 2q33 |

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 (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]

Transcript Variant: This variant (1) encodes isoform 1 (also known as the flip isoform). 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.