

Product datasheet for **RR200374**

Gria2 (NM_017261) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gria2 (NM_017261) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gria2
Synonyms:	GluA2; gluR-B; GluR-K2; GluR2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RR200374 representing NM_017261
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCAAAAGATTATGCATATTTCTGTCCTCTTTCTCCTGTTTTATGGGACTGATTTTTGGTGTCTCTT
 CTAACAGCATACAGATAGGGGGCTATTTCCAAGGGCGCTGATCAAGAATACAGTGCATTTCCGGTAGG
 GATGGTTCAGTTTTCCACTTCGGAGTTCAGACTGACACCCCATATCGACAATTTGGAGGTAGCCAACAGT
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 CTGATCATAATCTCCTCTACACGGCTAACTTAGCTGCCTTCTGACTGTAGAGAGGATGGTGTCTCCCA
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR200374 representing NM_017261
 Red=Cloning site Green=Tags(s)

MQKIMHISVLLSPVLWGLIFGVSSNSIQIGGLFPRGADQEYSAFRVGMVQFSTSEFRLTPHIDNLEVANS
 FAVTNAFCSQFSRGVYAIFGFYDKKSVNTITSFCGTLHVSFITPSFPTDGTTHPFVIQMRPDLKGALLSLI
 EYYQWDFAYLYDSDRGLSTLQAVLDSAAEKWQVTAINVGNINNDKKDETYRSLFQDLELKKERRVILD
 CERDKVNDIVDQVITIGKHVKGYHYIIANLGFDTGDLKIQFGGANVSGFQIVDYDDSLVSKFIERWSTL
 EEKEYPGAHTATIKYTSALTYDAVQVMTEAFRNLRKQRIEISRRGNAGDCLANPAVPWGQGVIEERALKQ
 VQVEGLSGNIKFDQNGKRINYTIMELKTNGPRKIGYWEVDKMMVVTLELPSGNDTSGLENKTVVVT
 ILESPYMMKKNHEMLEGNEREYEGYCVDLAAEIAKHCGFKYKLTIVGDGKYGARDADTKIWNMGVGLVY
 GKADIAIAPLTITLVREEVIDFSKPFMSLGISIMIKKPKQKSKPGVFSFLDPLAYEIWMCIVFAYIGVSVV
 LFLVSRFSPYEWHTTEFEDGRETQSSESTNEFGIFNSLWFSLGAFMRQGCDSRSLSGRIVGGVWVFF
 LIIISSYANLAAFLTVERMVSPIESAEDLSKQTEIAYGTLDSGSTKEFFRRSKIAVFDKMWTYMRSAEP
 SVFVRTTAEGVARVRKSKGYAYLLESTMNEYIEQRKPCDTMKVGGNLDKSGYGIATPKGSSLGTPVNL
 VLKLESEQVLDKLNKWWYDKGECGAKDSGSKEKTSALSLSNVAGVFYILVGGGLGLAMLVALIEFCYKSR
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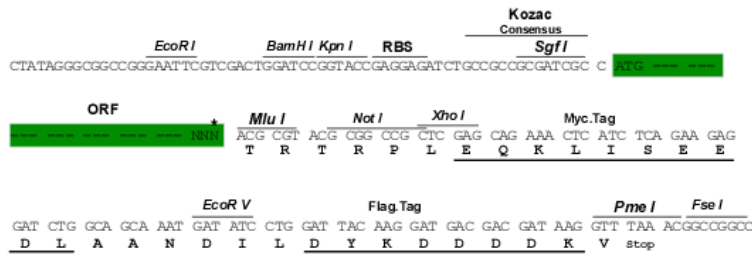
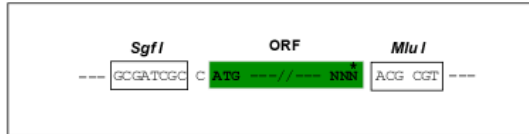
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/ja2203_c09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:

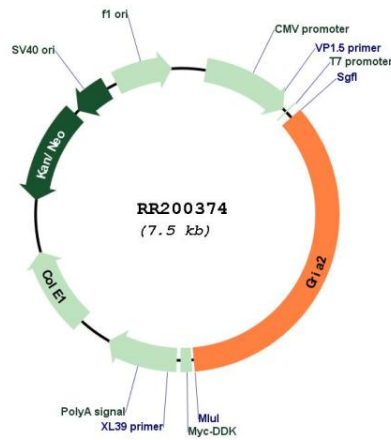


* The last codon before the Stop codon of the ORF

ACCN:	NM_017261
ORF Size:	2649 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>
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:	<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
MW:	99.2 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 (Q/R and R/G), which is thought to render the channels impermeable to Ca²⁺, 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]

Product images:


Circular map for RR200374