

## Product datasheet for **RR217310**

### **Gria4 (NM\_001113184) Rat Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Gria4 (NM_001113184) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gria4
Synonyms:	GluA4; GluR-D; GluR4
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>RR217310 representing NM\_001113184  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAGGATTATTTGCAGGCAGATTGTCTTGTGTTTTCTGGATTTGGGGACTCGCCATGGGAGCCTTTC  
 CAAGCAGCGTTCAAATAGGTGGTCTCTTCATCCGAAACACAGACCAGGAATACACTGCTTTTAGACTGGC  
 AATCTTTCTTCATAACACCAGCCCAATGCATCGGAAGCTCCTTTCAATTTGGTACCTCATGTGGACAAC  
 ATTGAGACTGCCAACAGTTTTGTGTGACAAACGCCTTCTGTTCCAGTATTCTAGAGGGGTGTTTGCCA  
 TTTTGGACTCTATGACAAGAGATCCGTGCATACCTTGACCTCGTTCTGCAGTGTCTGCACATCTCTCT  
 CATCACACCAAGCTTTCCACTGAAGGGGAGAGCCAGTTTGTGCTGCAGCTAAGACCTTCACTGAGAGGT  
 GCACTCCTGAGCCTCTGGATCACTATGAGTGGAACTGTTTCGTCTTCTGTATGATACAGACAGGGGT  
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 AAATTTAATGATGTCAGCTACAGGCAACTGCTAGAAGAGCTTGACAGAAGACAAGAGAAGAAATTTGTG  
 ATAGATTGTGAGATAGAGAGGCTTCAAACATTTTAGAACAATTTGTGAGTGTGGGAAGCATGTCAAAG  
 GCTACCATTATATCATCGCAAATTTGGGTTTCAAGGATATTTCTCTTGAGAGATTATACATGGAGGAGC  
 AAATGTAACAGGATTCAGTTGGTAGATTTAATACCCCATGGTAACCAAATAATGGATCGGTGGGAAG  
 AAAGTAGATCAGAGAGAAATCCAGGTTCTGAAACACCTCCAAAGTACACCTCTGCTCTCACTTATGATG  
 GAGTCTGGTGATGGCTGAAACTTTCCGAAGTCTCAGAAGACAGAAAATTGATATTTCAAGGAGAGGAAA  
 TGCTGGGACTGTCTGGCAAACCTGCTGCTCCCTGGGGCCAGGGAATTGACATGGAGAGGACACTGAAG  
 CAGGTTCAAGTTCAGGGCTGACTGGGAATGTTCAATTTGACCATTATGGACGTAGAGTTAATTACAAA  
 TGGATGTGTTGAACTGAAAAGCACAGGACCTCGAAAGTTGGCTACTGGAATGATATGGATAAAATAGT  
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 CTAAGCCTTTTATGAGTTTAGGCATCTCTATCATGATCAAAAAACCTCAGAAATCAAACCAGGAGTCTT  
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 GTCTTGTCTTAGTCAAGTGTGAGTTTGGCCATATGAGTGGCACACAGAAGAACCTGAGGATGGGAAGGAA  
 GACCCAGTGACCGCCTCCAATGAATTTGGCATCTTAAACAGCCTTTGGTTTTCCCTGGGTGCCTTTAT  
 GCAACAAGGATGTGACATTTACCCAGATCCCTGTGAGGTCGGATTGTTGGAGGCGTGTGGTGGTCTTC  
 ACACTCATCATTATATCGTCTACACTGCTAATCTGGCTGCATTCCTTACTGTGGAGAGAATGGTCTCCC  
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 CTTCTACATTCTGGTTGGCGCCTGGGCTTGGCAATGCTGGTGGCTTTGATAGAGTTCTGTTACAAGTCC  
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 CTGGGAGTGTGGGAGAAAACGGCCGTGTGCTGACCCTGACTGCCCAAGGCCGTACACACAGGAACTGC  
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**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RR217310 representing NM\_001113184  
 Red=Cloning site Green=Tags(s)

MRIICRQIVLLFSGFWGLAMGAFSSVQIGGLFIRNTDQEYAFRLAIFLHNTSPNASEAPFNLVPHVDN  
 IETANSFAVTNAFCSQYSRGVFAIFGLYDKRSVHTLTSFCSALHISLITPSFPTEGESQFVLQLRPSLRG  
 ALLSLLDHYEWNCVFVLYDTRGYSILQAIMEKAGQNGWHVSAICVENFNDVSYRQLLEELDRRQEKKFV  
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 KLDQREYPGSETPPKYTSALTYDGLVMAETFRSLRQKIDISRRGNAGDCLANPAAPWQGGIDMERTLK  
 QVRIQGLTGNVQFDHYGRRVNYTMDVFLKSTGPRKVGWYNDMDKLVLIQDMPGLGNDTAAIENRTVVVT  
 TIMESPYVMYKKNHEMFEGNDKYEGYCVLASEIAKHIGIKYKIAIVPDGKYGARDADTKIWNMGVDELV  
 YGKAEIAIAPLTITLVREEVIDFSKPFMSLGISIMIKPKQSKPGVFSFLDPLAYEIMWCIVFAYIGVSV  
 VLFLVSRFSPYEWHTTEPEDGKEGSDQPPNEFGIFNSLWFLGAFMQQGCISPRSLSGRIVGGVWVWF  
 TLIIISSYANLAAFLTVERMVSPIESAEDLAKQTEIAYGTLDSGSTKEFFRRSKIAVYEKMWTYMRSAE  
 PSVFTRTTAEGVARVRKSKGKFAFLLESTMNEYIEQRKPCDTMKVGGNLDKGYGVATPKGSSLRNAVNL  
 AVLKLNQGLLDKLNKWWYDKGEGSGGGDSKDKTSALSLSNVAGVFYILVGGGLAMLVALIEFCYKS  
 RAEAKRMKLTSEAIRNKARLSITGSGVGENRVLTPDCPKAVHTGTAIRQSSGLAVIASDLP

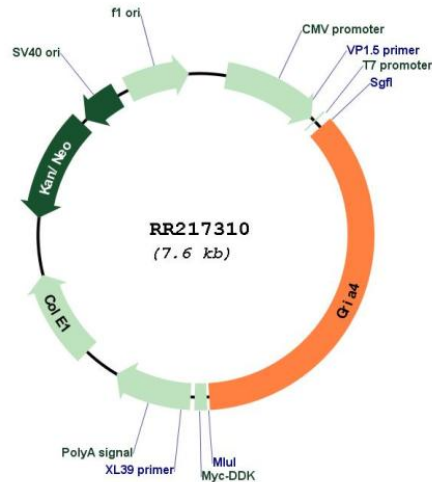
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**


**ACCN:** NM\_001113184

**ORF Size:** 2706 bp

**OTI Disclaimer:** 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](#)

**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:**

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\\_001113184.1](#), [NP\\_001106655.1](#)

**RefSeq Size:** 4141 bp

**RefSeq ORF:** 2709 bp

**Locus ID:** 29629

**UniProt ID:** [P19493](#)

**Cytogenetics:** 8q11

**MW:** 100.9 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. These receptors are heteromeric protein complexes composed of multiple subunits, arranged to form ligand-gated ion channels. The classification of glutamate receptors is based on their activation by different pharmacologic agonists. The subunit encoded by this gene belongs to a family of AMPA (alpha-amino-3-hydroxy-5-methyl-4-isoxazole propionate)-sensitive glutamate receptors, and is subject to RNA editing (AGA->GGA; R->G). Alternative splicing of this gene results in transcript variants encoding different isoforms, which may vary in their signal transduction properties. [provided by RefSeq, Jul 2008]