

Product datasheet for **MG221618**

Gria4 (NM_001113180) Mouse Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | Gria4 (NM_001113180) Mouse Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | Gria4 |
| Synonyms: | Glu; GluA4; Glur; Glur-4; GluR-D; Glur4; Gluralpha4; spk; spkw1 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |



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ORF Nucleotide Sequence:

>MG221618 representing NM_001113180
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAGGATTATTTGCAGGCAGATTGCTCTTGTGTTTTCTGGATTTGGGGACTCGCCATGGGAGCCTTTC
 CGAGCAGCGTTCAAATAGGTGGTCTCTTTATCCGAAACACAGACCAGGAATACACTGCTTTTCGGCTAGC
 TATCTTTCTTCATAACACCAGCCCAATGCATCTGAAGCCCTTTCAATTTGGTACCTCATGTGGACAAC
 ATTGAGACTGCCAACAGTTTTGTGTGACAAATGCATTCTGTTCCAGTATTCTAGAGGGGTGTTTGCCA
 TTTTGGACTCTATGACAAGAGGTCAGTGCATACCTTGACCTCCTTCTGCAGTGCCTGCACATCTCTCT
 CATCACACCAAGCTTCCCCTGAAGGAGAGAGCCAGTTCGTGCTTCAGCTAAGACCTTCATTGAGAGGT
 GCACTCCTGAGCCTCCTGGATCACTATGAATGGAATTGTTTTGTCTTCTGTATGATACAGACAGGGGT
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 AAATTTAACGATGTCAGCTACAGGCACTACTAGAAGAGCTTGACAGAAGACAAGAGAAGAAATTTGTA
 ATAGATTGTGAGATAGAAAGGCTTCAAACATATTAGAACAATTTGTGAGTGTGGGAAGCACGTCAAAG
 GCTACCATTATATCATCGCAATTTGGGTTTCAAAGATATTTCTCTTGAGAGATTATACATGGAGGAGC
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 CTAAGCCTTTTATGAGTTTAGGCATCTCTATCATGATCAAAAAACCTCAGAAATCTAAACCAGGAGTGT
 TTCCTTCTTGACCCTCTGGCCTATGAGATCTGGATGTGCATAGTGTTCATACATTGGTGTGAGCGTG
 GTCTTGTCTTAGTCAAGTTTAGCCATATGAGTGGCACACAGAAGGCCTGAGGATGGAAAAGAAG
 GACCCAGTGACCAACCTCCAATGAGTTTGGCATCTTAAACAGCCTCTGGTTTTCCCTGGGTGCCTTTAT
 GCAACAAGGATGTGACATTTACCCAGATCCCTGTCCGGTCCGATTGTTGGAGGCGTATGGTGGTTCTTC
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 CTGGGAGTGTGGGAGAAAACGGCCGTGTGCTGACCCCGACTGCCCAAGGCGTACACACAGGAACTGC
 GATTAGACAGAGCTCGGGATTGGCTGTCATTGCATCGGACCTACCA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – **GTTTAA**

Protein Sequence: >MG221618 representing NM_001113180
 Red=Cloning site Green=Tags(s)

MRIICRQIVLLFSGFWGLAMGAFSSVQIGGLFIRNTDQEYAFRLAIFLHNTSPNASEAPFNLVPHVDN
 IETANSFAVTNAFCSQYSRGVFAIFGLYDKRSVHTLTSFCSALHISLITPSFPTEGESQFVLQLRPSLRG
 ALLSLLDHYEWNCVFVLYDTRGYSILQAIMEKAGQNGWHVSAICVENFNDVSYRQLLEELDRRQEKFKV
 IDCEIERLQNIHQIVSVGKHVKGHYHIIANLGFKDISLERFIHGNAVTFGFQLVDFNTPMVTKLMDRWK
 KLDQREYPGSETPPKYTSALTYDGVLVMAETFRSLRRQKIDISRRGNAGDCLANPAAPWQGQIDMERTLK
 QVRIQGLTGNVQFDHYGRRVNYTMDVFEKSTGPRKVGWYNDMDKLVLIQDAPTLGNDTAAIENRTVVVT
 TIMESPYVMYKKNHEMFEGNDKYEYGCVDLASEIAKHIGIKYKIAIVPDGKYGARDADTKIWNMGVDELV
 YGKAEIAIAPLTITLVREEVIDFSKPFMSLGISIMIKKPKQSKPGVFSFLDPLAYEIMWCIVFAYIGVSV
 VLFLVSRFSPYEWHTTEPEDGKEGSDQPPNEFGIFNSLWFLGAFMQQGCDSRSLSGRIVGGVWVWF
 TLIIISSYANLAAFLTVERMVSPIESAEDLAKQTEIAYGTLDSGSTKEFFRRSKIAVYEKMWTYMRSAE
 PSVFTRTTAEGVARVRKSKGKFAFLLESTMNEYIEQRKPCDTMKVGGNLDKGYGVATPKGSSLGNAVNL
 AVLKLNQGLLDKLNKWWYDKGECGSGGSDKDKTSALSLSNVAGVFYILVGGGLAMLVALIEFCYKS
 RAEAKRMKLTNSEAIRNKARLSITGSGVGENRVLTPDCPKAVHTGTAIRQSSGLAVIASDLP

TRTRPLE - GFP Tag - V

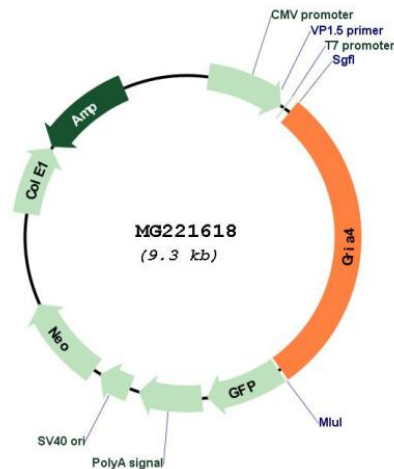
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001113180

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_001113180.1](#), [NP_001106651.1](#)

RefSeq Size: 5458 bp

RefSeq ORF: 2709 bp

Locus ID: 14802

UniProt ID: [Q9Z2W8](#)

Cytogenetics: 9 2.46 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. 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]