

Product datasheet for **SC319003**

GRIA1 (NM_001114183) Human Untagged Clone

Product data:

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|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | GRIA1 (NM_001114183) Human Untagged Clone |
| Tag: | Tag Free |
| Symbol: | GRIA1 |
| Synonyms: | GluA1; GLUH1; GLUR1; GLURA; HBGR1 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |



[View online »](#)

Fully Sequenced ORF: >NCBI ORF sequence for NM_001114183, the custom clone sequence may differ by one or more nucleotides

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ATGCAGCACATTTTTGCCTTCTTCTGCACCGGTTTCCTAGGCGCGGTAGTAGGTGCCAAT
TTCCCCAACAAATATCCAGATCGGGGATTATTTCCAAACCAGCAGTCACAGGAACATGCT
GCTTTTAGATTTGCTTTGTCGAACTCACAGAGCCCCGAAGCTGCTCCCCAGATTGAT
ATTGTGAACATCAGCGACAGCTTTGAGATGACCTATAGATTCTGTTCCCAGTTCTCCAAA
GGAGCTATGCCATCTTTGGGTTTTATGAACGTAGGACTGTCAACATGCTGACCTCCTTT
TGTGGGGCCCTCCACGTCTGCTTATTACGCCGAGCTTTCCCGTTGATACATCCAATCAG
TTTGTCTTCAGCTGCGCCCTGAACTGCAGGATGCCCTCATCAGCATCATTGACCATTAC
AAGTGGCAGAAAATTTGTCTACATTTATGATGCCGACCGGGGCTTATCCGTCTGCAGAAA
GTCCTGGATACAGCTGCTGAGAAGAACTGGCAGGTGACAGCAGTCAACATTTTGACAACC
ACAGAGGAGGGATACCGGATGCTCTTTCAGGACCTGGAGAAGAAAAAGGAGCGGTGGTG
GTGGTGGACTGTGAATCAGAACGCCTCAATGCTATCTTGGGCCAGATTATAAAGCTAGAG
AAGAATGGCATCGCTACCACTACATTCTTGCAAATCTGGGCTTCATGGACATTGACTTA
AACAAATTC AAGGAGAGTGGCGCAATGTGACAGGTTTCCAGCTGGTGAACACTACACAGAC
ACTATTCGGCCAAGATCATGCAGCAGTGAAGAATAGTGATGCTCGAGACCACACACGG
GTGGACTGGAAGAGACCAAGTACACCTCTGCGCTCACCTACGATGGGGTGAAGGTGATG
GCTGAGGCTTTCCAGAGCCTGCGGAGGCAGAGAATTGATATATCTCGCCGGGGGAATGCT
GGGGATTGTCTGGCTAACCCAGCTGTTCCCTGGGGCCAAGGGATCGACATCCAGAGAGCT
CTGCAGCAGGTGCGATTTGAAGTTTTAACAGGAAACGTGCAGTTTAAATGAGAAAGGACGC
CGGACCAACTACACGCTCCACGTGATTGAAATGAAACATGACGGCATCCGAAAGATTGGT
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AATTCAAGTGTTCAAGACAGAACATACATCGTCACAACAATCCTAGAAGATCCTTATGTG
ATGCTCAAGAAGAACGCCAATCAGTTTTGAGGGCAATGACCGTTACGAGGGCTACTGTGTA
GAGCTGGCGGCAGAGATTGCCAAGCACGTGGGCTACTCCTACCGTCTGGAGATTGTCAGT
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CTGGTCTATGGAAGAGCAGATGTGGCTGTGGCTCCCTTAACTATCACTTTGGTCCGGGAA
GAAGTTATAGATTTCTCCAAACCATTTATGAGTTTGGGGATCTCCATCATGATTAATAAAA
CCACAGAAATCCAAGCCGGGTGCTTCTCCTTCCCTTGATCCTTTGGCTTATGAGATTTGG
ATGTGCATTGTTTTGCCTACATTGGAGTGAGTGTGCTCTTCTGGTCAGCCGCTTC
AGTCCCTATGAATGGCACAGTGAAGAGTTTGAAGGAGGACGGGACCAGACAACCAGTGAC
CAGTCCAATGAGTTTGGGATTTCAACAGTTTGTGGTTCTCCCTGGGAGCCTTCATGCAG
CAAGGATGTGACATTTCTCCAGGTCCTGTCTGGTCCGATCGTTGGTGGCGTCTGGTGG
TTCTTACCTTAATCATCATCTCCTCATATACAGCCAATCTGGCCGCTTCTGACCGTG
GAGAGGATGGTGTCTCCATTGAGAGTGACAGAGGACCTAGCGAAGCAGACAGAAATTGCC
TACGGGACGCTGGAAGCAGGATCTACTAAGGAGTTCTTCCAGGAGGTCTAAAATTGCTGTG
TTTGAGAAGATGTGGACATACATGAAGTCAGCAGAGCCATCAGTTTTTTGTGCGGACCACA
GAGGAGGGGATGATTGAGTGAGGAAATCCAAAGGCAAATATGCCTACCTCCTGGAGTCC
ACCATGAATGAGTACATTGAGCAGCGGAAACCTGTGACACCATGAAGGTGGGAGGTAAC
TTGGATTCCAAAGGCTATGGCATTGCAACACCCAAGGGTCTGCCCTGAGAGGTCCCGTA
AACCTAGCGGTTTTGAAACTCAGTGAGCAAGGCGTCTTAGACAAGCTGAAAAGCAAATGG
TGGTACGATAAAGGGGAATGTGGAAGCAAGGACTCCGGAAGTAAGGACAAGACAAGCGCT
CTGAGCCTCAGCAATGTGGCAGGCGTGTCTACATCCTGATCGGAGGACTTGGACTAGCC
ATGCTGGTTGCCTTAATCGAGTTCTGCTACAAATCCCGTAGTGAATCCAAGCGGATGAAG
GGTTTTTGTGTTGATCCCACAGCAATCCATCAACGAAGCCATACGGACATCGACCTCCCC
CGCAACAGCGGGCAGGAGCCAGCAGCGGCGGCGAGTGGAGAGAATGGTGGGTGGTCAGC
CATGACTTCCCCAAGTCCATGCAATCGATTCTTGCATGAGCCACAGTTCAGGGATGCC
TTGGGAGCCACGGGATTG

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Restriction Sites: Please inquire
ACCN: NM_001114183

OTI Disclaimer: 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.

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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_001114183.1](#), [NP_001107655.1](#)

RefSeq Size: 5747 bp

RefSeq ORF: 2721 bp

Locus ID: 2890

UniProt ID: [P42261](#)

Cytogenetics: 5q33.2

Protein Families: Druggable Genome, Ion Channels: Glutamate Receptors, Transmembrane

Protein Pathways: Amyotrophic lateral sclerosis (ALS), Long-term depression, Long-term potentiation, Neuroactive ligand-receptor interaction

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 with multiple subunits, each possessing transmembrane regions, and all arranged to form a ligand-gated ion channel. The classification of glutamate receptors is based on their activation by different pharmacologic agonists. This gene belongs to a family of alpha-amino-3-hydroxy-5-methyl-4-isoxazole propionate (AMPA) receptors. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (2) has a different coding exon in the 3' region, as compared to variant 1. The resulting isoform (2) is the same length but has a different internal segment, as compared to isoform 1.