

## Product datasheet for SC119638

### GRIA1 (NM\_000827) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GRIA1 (NM_000827) Human Untagged Clone
Tag:	Tag Free
Symbol:	GRIA1
Synonyms:	GluA1; GLUH1; GLUR1; GLURA; HBGR1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_000827 edited  
 GAATTCGGCACGAGGGGAAACAGACAAACCTCACGAAAGGAAGCAAGCAAGCAAGCAAG  
 GAAGGAAGTGCAGGAGGAAAAGAACAGGCAGAACAGCGAGAAGAATAAAGGGAAAGGGGG  
 GGAAACACCAAATCTATGATTGGACCTGGGCTTCTTTTTCGCCAATGCAAAAAGGAATAT  
 GCAGCACATTTTTGCCTTCTTGCACCGTTTTCTAGGCGCGGTAGTAGGTGCCAATTT  
 CCCCAACAATATCCAGATCGGGGATTATTTCAAACCAGCAGTCACAGGAACATGCTGC  
 TTTTAGATTTGCTTTGTGCGCAACTCACAGAGCCCCGAAGCTGCTCCCCAGATTGATAT  
 TGTGAACATCAGCGACAGCTTTGAGATGACCTATAGATTCTGTTCCAGTTCTCCAAAGG  
 AGTCTATGCCATCTTTGGGTTTTATGAACGTAGGACTGTCAACATGCTGACCTCCTTTTG  
 TGGGGCCCTCCACGTCTGCTTCATTACGCCGAGCTTTCCCGTTGATACATCCAATCAGTT  
 TGTCTTCAGCTGCGCCCTGAACTGCAGGATGCCCTCATCAGCATCATTGACCATTACAA  
 GTGGCAGAAATTTGTCTACATTTATGATGCCGACCGGGGCTTATCCGTCCTGCAGAAAGT  
 CCTGGATACAGCTGCTGAGAAGAACTGGCAGGTGACAGCAGTCAACATTTTGACAACCAC  
 AGAGGAGGGATACCGGATGCTCTTTCAGGACCTGGAGAAGAAAAGGAGCGGCTGGTGGT  
 GGTGGACTGTGAATCAGAACGCCTCAATGCTATCTTTGGCCAGATTATAAAGCTAGAGAA  
 GAATGGCATCGGCTACCACTACATTTCTGCAAATCTGGGCTTCATGGACATTGACTTAA  
 CAAATTCAGGAGAGTGGCGCAATGTGACAGGTTTCCAGCTGGTGAACACACAGACAC  
 TATTCGGCCAAGATCATGCAGCAGTGAAGAATAGTGATGCTCGAGACCACACACGGGT  
 GGACTGGAAGAGACCCAAGTACACCTCTGCGCTCACCTACGATGGGGTGAAGGTGATGGC  
 TGAGGCTTTCCAGAGCTGCGGAGGAGAGAAATTGATATATCTCGCCGGGGAATGCTGG  
 GGATTGTCTGGCTAACCCAGCTGTTCCCTGGGGCAAGGGATCGACATCCAGAGAGCTCT  
 GCAGCAGGTGCGATTTGAAGTTTAAACAGGAAACGTGCAGTTTAAAGAGAAGGACGCCG  
 GACCAACTACACGCTCCACGTGATTGAAATGAAACATGACGGCATCCGAAAGATTGGTTA  
 CTGGAATGAAGATGATAAGTTTGTCCCTGCAGCCACCGATGCCAAAGCTGGGGGCGATAA  
 TTCAAGTGTTCAGAACAGAACATACATCGTCACAACAATCCTAGAAGATCCTTATGTGAT  
 GCTCAAGAAGAACGCAATCAGTTTGGGGCAATGACCGTTACGAGGGCTACTGTGTAGA  
 GCTGGCGCAGAGATTGCCAAGCAGTGGGCTACTCCTACCGTCTGGAGATTGTCAGTGA



[View online »](#)

TGGAAAATACGGAGCCCCGAGACCCTGACACGAAGGCCTGGAATGGCATGGTGGGAGAGCT  
 GGTCTATGGAAGAGCAGATGTGGCTGTGGCTCCCTTAACATCACTTTGGTCCGGGAAGA  
 AGTTATAGATTTCTCAAACCATTTATGAGTTTGGGGATCTCCATCATGATTAATAAAC  
 ACAGAAATCCAAGCCGGGTGTCTTCTCCTTCTTGATCCTTTGGCTTATGAGATTTGGAT  
 GTGCATTGTTTTGCCTACATTGGAGTGAGTGTGTCTCTTCTGGTCAGCCGCTTCAG  
 TCCCTATGAATGGCACAGTGAAGAGTTTGGGAAGGACGGGACCAGACAACCAAGTGACCA  
 GTCCAATGAGTTGGGATATTCACACAGTTTGTGGTTCTCCTGGGAGCCTTCATGCAGCA  
 AGGATGTGACATTTCTCCAGGTCCTGTCTGGTCGCATCGTTGGTGGCGTCTGGTGGTT  
 CTTACCTTAATCATCATCTCCTCATATACAGCCAATCTGGCCGCTTCTGACCGTGG  
 GAGGATGGTGTCTCCATTGAGAGTGCAGAGGACCTAGCGAAGCAGACAGAAATGCCTA  
 CGGGACGCTGGAAGCAGGATCTACTAAGGAGTTCTCAGGAGGTCTAAAATTGCTGTGTT  
 TGAGAAGATGTGGACATACATGAAGTCAGCAGAGCCATCAGTTTTTGTGCGGACCACAGA  
 GGGAGGGATGATTCGAGTGAGGAAATCCAAAGGCAAATATGCCTACCTCCTGGAGTCCAC  
 CATGAATGAGTACATTGAGCAGCGGAAACCTGTGACACCATGAAGGTGGGAGGTAACCT  
 GGATCCAAAGGCTATGGCATTGCAACACCCAAGGGGTCTGCCCTGAGAAATCCAGTAAA  
 CCTGGCAGTGTTAAAACGAACGAGCAGGGGCTTTTGGACAAATTGAAAAACAAATGGTG  
 GTACGACAAGGGCGAGTGCAGGACGCGGGGAGGTGATTCCAAGGACAAGACAAGCGCTCT  
 GAGCCTCAGCAATGTGGCAGGCGTGTCTACATCCTGATCGGAGGACTTGGACTAGCCAT  
 GCTGGTTGCCTTAATCGAGTTCTGCTACAAATCCCGTAGTGAATCCAAGCGGATGAAGGG  
 TTTTTGTTGATCCCACAGCAATCCATCAACGAAGCCATACGGACATCGACCTCCCCCG  
 CAACAGCGGGGACAGGACGACGCGCGGCGAGTGGAGAGAATGGTCGGGTGGTCAGCCA  
 TGACTTCCCCAAGTCCATGCAATCGATTCTTGCATGAGCCACAGTTTCAAGGATGCCCT  
 GGGAGCCACGGGATTGTAACCTGGAGCAGATGGAGACCCCTTGGGGAGCAGGCTCGGGCTC  
 CCCAGCCCATCCAAACCTTTCAGTGCCAAAAACAACAACAAATGAAACGCAACACC  
 ACCAACCACTGCGACCACAAGAAGGATGATTCAACAGTTTTTCTGAAAGATTGAAAAAC  
 CATTTTGTGTCCCTTTCTTTTTTGTGTTCTTTACCCCTTTCTGTTTGTAAAGTGA  
 GGATGAAAAATAAAGCTGACTGCAATAAGGGGAGAGTAACCTGTCTAATGAAACCTG  
 TGTCTCTGAGAGTAGAGTCACTGGAACACTAAAAAAAAAAAAAAAAAACTCGAC

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_000827 unedited  
 ACTCACTATAGGGCGCCGCGAATTCGGCACGAGGGNGAAACAGACAAACCTCACGAAA  
 GGAAGGAAGCAAGCAAGCAAGGAAGGAAGTGCAGGAGGAAAAGAACAGGCAGAACAGCGA  
 GAAGAATAAAGGGAAAGGGGGGAAACACCAAATCTATGATTGGACCTGGGCTTCTTTTT  
 CGCCAATGCAAAAAGGAATATGCAGCACATTTTTGCCTTCTTCTGCACCGGTTTCTTAGG  
 CGCGGTAGTAGGTGCCAATTTCCCAACAATATCCAGATCGGGGGATTATTTCAAACCA  
 GCAGTCACAGGAACATGCTGCTTTTAGATTTGCTTTGTCGCAACTCACAGAGCCCCGAA  
 GCTGCTCCCCAGATTGATATTGTAACATCAGCGACAGCTTTGAGATGACCTATAGATT  
 CTGTTCCAGTTCTCAAAGGAGTCTATGCCATCTTTGGTTTTATGAACGTAGGACTGT  
 CAACATGCTGACCTCCTTTTGTGGGGCCCTCCAGTCTGCTTATTACGCCGAGCTTTCC  
 CGTTGATACATCCAATCAGTTTGTCTTCAAGTGCAGGATGCCCTCAT  
 CAGCATCATTGACCATTACAAGTGGCAGAAATTTGTCTACATTTATGATGCCGACCGNG  
 CTTATCCGTCCTGCAGAAAGTCTGNATACAGCTGCTGAGAAGACTGGCANGTGACAGCA  
 GTCAACATTTTGACAACCACAGAGGANGGATACCGNATGCTCTTTCANGACCTGNAGAAA  
 AAAAGAGCANNCTGTGGTGGTGGACTGTGAATCAAACGCCCTCATGCTATCTGGGCCAGA  
 TATAAGCTAGAGAGAATGGCATCGCTACACTACATTCTGCAAATCTGGCTCATGGACATT  
 GACTAACAAANTCANGAAGTGCCGCATGTGGAAGNTNCAGCTNTGAACTAACAGACTATT  
 NCGNCAATCATGCACATGAAAATATGAGCTCA

<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_000827 unedited GACCGCGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTAGTGTCCAGTGACTC TACTCTCAGAGAACAGGTTTCATTAGACAGGGTACTCTCCCCTATTGCAGTACAGTGT TATTTTTTCATCCTCACTTAGCAAACAGAAAAGGGTAAAAGAATCAAAAAAGGAAAAG GGACAGCAAAATGGTTTTCAATTCTTCAGGAAAACCTGTTGAATCATCCTTCTGTGGT CGCAGTGGTTGGTGGTGGTTGCGTTTTCATTTTGTTGTTTTTGGCACTGAAGGTTTTG GGATGGGGCTGGGAGCCCGAGCCTGCTCCCAAGGGGTCTCCATCTGCTCCAGTTACAA TCCCGTGGCTCCCAAGGGCATCCCTGAACTGTGGCTCATGCAAGGAATCGATTGCATGGA CTTGGGGAAGTCATGGCTGACCACCCGACCATTCTCTCCACTGCCGCGCTGCTGGCTCC TGCCCCGCTGTTGCGGGGGAGGGTTCGATGTCCGTATGGCTTCGTTGATGGATTGCTGTGG GATCAAACAAAAACCTTCATCCGCTTGGATTCACTACGGGATTTGTAGCAGAACTCGAT TAAGGCAACCAGCATGGCTAGTCCAAGTCTCCGATCAGGATGTAGAACACGCCTGCCAC ATTGCTGAGGCTCAGAGCGCTTGTCTTGTCTTGGGATCACCTNCCCCGCTGCCGACTC GCCCTTGTGACACCATTGTTTTCAATTTGCCAAAAGCCCCTGCTCGTTCAGTTA ACACTGCCAGTTACTGGATTCTCAGGCAGACCCCTTGNGTGTGCAATGCATAGCCTTT GGAATCCAGTTACCTNCCACCTTCATGTGTCAAGGTTTCCGCTGCTCATGTACTCATC ATGGNGN
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_000827
<b>Insert Size:</b>	3510 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">NM_000827.2</a></u> , <u><a href="#">NP_000818.1</a></u>
<b>RefSeq Size:</b>	3242 bp
<b>RefSeq ORF:</b>	2721 bp
<b>Locus ID:</b>	2890
<b>UniProt ID:</b>	<u><a href="#">P42261</a></u>
<b>Cytogenetics:</b>	5q33.2
<b>Domains:</b>	lig_chan, ANF_receptor
<b>Protein Families:</b>	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 (1) encodes isoform 1.