

Product datasheet for **SC122079**

GRIK1 (NM_000830) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GRIK1 (NM_000830) Human Untagged Clone
Tag:	Tag Free
Symbol:	GRIK1
Synonyms:	EAA3; EEA3; GLR5; GluK1; gluR-5; GLUR5
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

Fully Sequenced ORF: >NCBI ORF sequence for NM_000830, the custom clone sequence may differ by one or more nucleotides

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ATGGAGCACGGCACACTCCTCGCCAGCCCGGCTCTGGACCAGGGACACCAGCTGGGCACTCCTCTATT
TCCTCTGCTATATCCTCCCTCAGACCGCCCGCAAGTACTCAGGATCGGAGGGATTTTTGAACAGTGGA
AAATGAGCCTGTTAATGTTGAAGAATTAGCTTTCAAGTTTGCAGTACCAGCATTAAACAGAAACCGAAC
CTGATGCCCTAACACCACATTAACCTATGACATCCAGAGAATTAACCTTTTTGATAGTTTTGAAGCCTCGC
GGAGAGCATGTGACCAGCTGGCTCTTGTTGGCTGCTCTCTTTGGCCCTTCCCATAGCTCCTCCGTCAG
TGCTGTGCAGTCTATTTGCAATGCTCTCGAAGTCCACACATACAGACCCGCTGGAACACCCCTCGGTG
GACAACAAAGATTTGTTTTACATCAACCTTTACCCAGATTATGCAGTATCAGCAGGGCGATCCTGGATC
TGGTCTCTATTACAACGGAAAACAGTGACAGTGGTGTATGAAGACAGCACAGGTCTAATTCGTCTACA
AGAGCTCATCAAAGCTCCCTCCAGATAAATATAAAATCAAAATCCGCCAGCTGCCCTCTGGGAATAAA
GATGCCAAGCCTTACTCAAGGAGATGAAGAAAGCAAGGAGTCTATGTGATATTTGATTGTTCCATG
AAACAGCCGCTGAAATCCTTAAGCAGATTCTGTTTATGGGCATGATGACCAGTACTATCACTACTTTTT
CACAACCTGGACTTATTTGCTTTGGATCTGGAACCTATAGGTACAGTGGCGTAAACATGACCCGGTTT
CGGCTGCTTAACATTGACAACCTCACGTGTCATCCATCATTGAGAAGTGGTCCATGGAGAGACTGCAGG
CCCCACCCAGGCCGAGACTGGCCTTTTGGATGGCATGATGACAACTGAAGCGGCTCTGATGTACGATGC
TGTGTACATGGTGGCCATTGCCTCGCACCAGGATCCCAGCTGACCGTACAGTCCCTGCAGTGCCATAGA
CATAAGCCATGGCGCCTCGGACCCAGATTTATGAACCTGATCAAAGAGGCCCGGTGGGATGGCTTGACTG
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TGGCCAACAGAACTCATTGTACCACCTTCTGGAAGAACCCTATGTTATGTACAGGAAATCTGATAA
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GGTTTCATTTATGATGTTAAACTAGTTCCTCGATGGCAAATATGGGGCCAGAATGACAAAGGGGAGTGGA
ACGGGATGGTTAAAGAACTCATAGATCACAGGGCTGACCTGGCAGTGGCTCCTTACCATCACCTACGT
GCGGGAGAAAGTCATTGACTTCTCAAACCTTCCATGACCCTAGGCATCAGCATTCTCTACCGGAAGCCC
AATGGTACCAATCCAGGCGTTTTCTCCTCCTCAACCCCTGTCTCCAGATATTTGGATGTATGTGCTCT
TAGCCTGCTTGGGAGTCAGCTGTGACTCTTTGTGATTGCAAGGTTTACACCCTACGAGTGGTATAACCC
CCACCCATGCAACCTGACTCAGACGTGGTGGAAAACAATTTACTTTACTAAATAGTTTCTGGTTTGGG
GTTGGAGCTCTCATGCAGCAAGGATCAGAGCTGATGCCCAAAGCTCTATCGACCAGAATAGTTGGAGGGA
TATGGTGGTTTTTACCCTAATCATCTTTCATCTACACGGCCAATCTGGCTGCCTTCTTGACAGTAGA
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GGGGCCCTATTGACTCCAAAGTTACGGAGTGGGAACACCTATTGGTTCTCCTTACCGGGATAAAATTA
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CACTTCTGGAACACTTTATCTACGGATTTAGAATGTGGTAAATTAATTCGAGAGGAGAGAGGGATTCTGA
AAACAGTCCTCAGTTCATACTGTGTA
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000830 unedited
 TAAAGTCAGAATTTGTATACGACTCACTATAGGCGGCCGGAATCGGCACGAGGCGTCCG
 GCAGCGGCTGTATCTCGGCATGAATTAAGAAGCTAGGAAGATGGAGCACGGCACACTCCT
 CGCCCAGCCCGGGCTCTGGACCAGGGACACCAGCTGGGCACTCCTCTATTTCTCTGCTA
 TATCCTCCCTCAGACCGCCCCGAAGTACTCAGGATCGGAGGGATTTTGAACAGTGGA
 AAATGAGCCTGTTAATGTTGAAGAATTAGCTTTCAAGTTTGCAGTCACCAGCATTAAACAG
 AAACCGAACCCCTGATGCCTAACACCACATTAACCTATGACATCCAGAGAATTAACCTTTT
 TGATAGTTTTGAAGCCTCGCGGAGAGCATGTGACCAGCTGGCTCTTGGTGTGGCTGCTCT
 CTTTGGCCCTTCCCATAGCTCCTCCGTCAGTGCTGTGCAGTCTATTTGCAATGCTCTCGA
 AGTTCCACACATACAGACCCGCTGGAAACACCCCTCGGTGGACAACAAAGATTTGTTTTA
 CATCAACCTTTACCCAGATTATGCAGCTATCAGCAGGGCGATCCTGGATCTGGTCTCTA
 TTACAAC TGAAAAACAGTGACAGTGGTGTATGAAGACAGCACAGGTCTAATTCGTCTACA
 AGAGCTCATCAAAGCTCCCTCCAGATATAATATTAATAAATAAAATCCGCCAGCTGCCCTC
 TGGGAATAAAGATGCCAAGCCTTACTCAAGGAGATGAAGAAGGCAAGGAGTTCTATGTG
 ATATTTGATTGTTACATGAAACAGCCGCTGAAATCCTTAGCAGATTCTGTTTCATGGGCA
 TGATGACCGAGTCTATCACTACTTTTTTACAACCCCTGGACTTATTTGN

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000830 unedited
 AGAACCTAAGNGAACCGTTGCTGTCTTATTATTTAGGAAGCACACACAACAATTTATTGG
 GTGAAAAATAAAAAATGCAAAAATAATTGAGCATACAAATTTATTTTAAAAGAACTGGCTG
 TCACTCTCCCAAGTCATATCTATGTGAGCTTTTTAACTTTTGTATTTCTTATATCTGTA
 TTCATAATCAGAGTTATGGATATAGATATATGGAAACACATCACACACTCCTCAGAAATC
 CTTTCTCCAAAAATCTGTAGGGAATGCATCCTTTTTCTTCTACAGGCGTTTCCTTGGAT
 CACGCCACAGTCTCTTTCTCTGAGTTCGTCTCTGATGACAAGTAAGGATACTTGTGAAG
 GAAGATTTCCCTTAGTCTTGACTTTTTCTTTATTTTTTTCTGATTCTTCAGTGAGATT
 CCCAGTCTTCCATGATAGCGTTGAAAGAGAGACACTGTTCAATATCATTATTCTTCCGT
 GATTTGTATATGAATTCTCCAATAGCTACAAAACAGAAAGGACCAGTCCGGCAGCCAGA
 ACAATGAAGATGCCTCCAATATTTTCCACTCCCAGGGCACTGGCTTCTTTGTTGTCTTCC
 TCGGGGCAGCCATTCCCACGCCACCCTCTCTTTCATCATATGCAGCTTCCCTTCTTCT
 TGGAGTTGAAGAATAGCAATAGTAATTTTATCCCGGTCAGGAGAACCAATAGGTGTTCCC
 ACTCCGTAACCTTTGGAGTCAATGATGCCCCGATCTGAGTGATGTTGCAGTTACTCTGC
 GTCACATACTCGATGCTGGTGGACTCCATCAGCAGCGCGTATTCTGTGGTGGACTCTC
 TGGATCCCTCATCACTGTTTTCTTACAAGGTCGGTCTGCTGCCTGCTGCTCATGAAAGC
 CCACATCTGCTATAAAGTGAAA

Restriction Sites:

NotI-NotI

ACCN:

NM_000830

Insert Size:

3000 bp

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](#)

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_000830.3](#), [NP_000821.1](#)

RefSeq Size: 3231 bp

RefSeq ORF: 2757 bp

Locus ID: 2897

UniProt ID: [P39086](#)

Cytogenetics: 21q21.3

Domains: lig_chan, ANF_receptor

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

Protein Pathways: 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. This gene product belongs to the kainate family of glutamate receptors, which are composed of four subunits and function as ligand-activated ion channels. The subunit encoded by this gene is subject to RNA editing (CAG->CGG; Q->R) within the second transmembrane domain, which is thought to alter the properties of ion flow. Alternative splicing, resulting in transcript variants encoding different isoforms, has been noted for this gene. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (1), also known as GluR5-1D, contains an alternate 3' terminal exon compared to variant 3. It encodes isoform 1, which is shorter than and has a distinct C-terminus compared to isoform 3. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.