

Product datasheet for **SC310072**

GRIK2 (NM_175768) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GRIK2 (NM_175768) Human Untagged Clone
Tag:	Tag Free
Symbol:	GRIK2
Synonyms:	EAA4; GLR6; GluK2; GLUK6; GLUR6; MRT6
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF:

>OriGene sequence for NM_175768 edited
 ATTTCTCCCGGATGCTCTCCGACTAACATGGATGTCCCACCATTCTTGCAGTGGAAGGT
 TGTTCTTGGCGCAGTGAGTGAAGAACATGCAGCGATTGCTAATGGGTTTGGGAAGCGGA
 GACTCCTTCTCTCTATGACCATGCCGTGATCGTGTCTGCGGTCACTCGACGCAT
 CCTCATTCTACCCGAACCCAGGAGCCGAACGCTAGATCGGGGAAGTGGGTGCCGTGCGT
 GTGGGCACAGAAACACCATGAAGATTATTTCCCGATTCTAAGTAATCCAGTCTTCAGGC
 GCACCGTTAAACTCTGCTCTGTTTACTGTGGATTGGATTCTCAAGGAACACACATG
 TATTAAGATTTGGTGGTATTTTTGAATATGTGGAATCTGCCCAATGGGAGCTGAGGAAC
 TTGCATTCAGATTTGCTGTGAACACAATTAACAGAAACAGAACATTGCTACCCAATACTA
 CCCTTACCTATGATACCCAGAAGATAAACCTTTATGATAGTTTTGAAGCATCCAAGAAAG
 CCTGTGATCAGCTGTCTTGGGGTGGCTGCCATCTTCGGGCCTTACACAGCTCATCAG
 CAAACGCAGTGCAGTCCATCTGCAATGCTCTGGGAGTTCCCCACATACAGACCCGCTGGA
 AGCACCAGGTGCAGACAACAAAGATTCCTTCTATGTCAGTCTCTACCCAGACTTCTCTT
 CACTCAGCCGTGCCATTTAGACCTGGTGCAGTTTTTCAAGTGGAAAACCGTCACGGTTG
 TGTATGATGACAGCACTGGTCTCATTTCGTTTGAAGAGCTCATCAAAGCTCCATCAAGGT
 ATAATCTTCGACTCAAAATTCGTGAGTTACCTGCTGATACAAAGGATGCAAAACCTTAC
 TAAAAGAAATGAAAAGAGGCAAGGAGTTTCATGTAATCTTTGATTGTAGCCATGAAATGG
 CAGCAGGCATTTTAAAACAGGCATTAGCTATGGGAATGATGACAGAATACTATCATTATA
 TCTTTACCACTCTGGACCTCTTGTCTTGATGTTGAGCCCTACCGATACAGTGGTGTTA
 ACATGACAGGGTTCAGAAATTAATAACAGAAAATACCCAAGTCTCCTCCATCATTGAAA
 AGTGGTCGATGGAACGATTGCAGGCACCTCCGAAACCCGATTGAGTTTGGCTGGATGGAT
 TTATGACGACTGATGCTGCTAATGTATGATGCTGTGCATGTGGTGTCTGTGGCCGTTT
 AACAGTTTCCCCAGATGACAGTCAAGTTTCCCTTGCAGTGAATCGACATAAACCTTGGCGCT
 TCGGGACCCGCTTATGAGTCTAATTAAGAGGCACATTGGGAAGGCCTCACAGGCAGAA
 TAACCTTCAACAAAACCAATGGCTTGAAGACAGATTTTGATTTGGATGTGATCAGTCTGA
 AGGAAGAAGTCTAGAAAAGATTGGAACGTGGGATCCAGCCAGTGGCCTGAATATGACAG
 AAAGTCAAAAGGGAAAGCCAGCGAACATCACAGATTCCTTATCCAATCGTTCTTTGATTG
 TTACCACATTTTGAAGAGCCTTATGCCTTTTTAAGAAGTCTGACAAACCTCTCTATG
 GTAATGATCGATTTGAAGGCTATTGCATTGATCTCCTCAGAGATTATCTACAATCCTTG
 GCTTTACATATGAAATTAGACTTGTGGAAGATGGGAAATATGGAGCCAGGATGATGCCA
 ATGGACAATGGAATGGAATGGTTCGTGAACTAATTGATCATAAAGCTGACCTTGCAAGTTG
 CTCCTACTGGCTATTACCTATGTTGAGAGAAGGTCATCGACTTTTCCAAGCCCTTATGA
 CACTTGAATAAGTATTTGTACCGCAAGCCCAATGGTACAAACCCAGGCGTCTTCTCCT
 TCCTGAATCCTCTCTCCCTGATATCTGGATGTATATTCTGCTGGCTTACTTGGGTGTCA
 GTTGTGTGCTCTTTGTATAGCCAGGTTTAGTCCTTATGAGTGGTATAATCCACACCCCTT
 GCAACCTGACTCAGACGTGGTGGAAAACAATTTACCTTGCTAAATAGTTTCTGGTTTG
 GAGTTGGAGCTCTCATGCAGCAAGGTTCTGAGCTCATGCCAAAGCACTGCCACCAGGA
 TAGTGGGAGGCATTTGGTGGTTTTTACACTTATCATCATTTCTTCGTATACTGCTAACT
 TAGCCGCTTTCTGACAGTGAACGCATGGAATCCCCTATTGACTCTGCTGATGATTTAG
 CTAACAAAACCAAGATAGAATATGGAGCAGTAGAGGATGGTGAACCATGACTTTTTTCA
 AGAAATCAAAAATCTCCAGTATGACAAAATGTGGGCCTTTATGAGTAGCAGAAGGCAGT
 CAGTGTGGTCAAAAGTAATGAAGAAGGAATCCAGCGAGTCTCACCTCTGATTATGCTT
 TCCTAATGGAGTCAACAACCATCGAGTTTGTACCCAGCGGAACTGTAACCTGACACAGA
 TTGGCGGCCTTATAGACTCTAAAGGTTATGGCGTTGGCACTCCCATGGGTTCTCCATATC
 GAGACAAAATTACCATAGCAATCTTCAGCTGCAAGAGGAAGGCAAACTGCATATGATGA
 AGGAGAAATGGTGGAGGGCAATGGTTGCCAGAAGAGGAGCAAAAGAGCCAGTGCCC
 TGGGGGTTTCAAGATTTGGTGGCATCTTATTGTTCTGGCAGCCGCTTGGTGTCTTCAG
 TTTTGTGGCAGTGGGAGAATTTTATACAATCCAAAAAACGCTCAATTGAAAAAGG
 AATCTTCTATTTGGTTAGTGCCACCATACCATCCAGACTGTTTAGT

5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_175768 unedited CGTCACAATTTGTATACGACTCACTATAGGCGGCCGNAATTCGCACGAGGGATTTCTC CCGGATGCTCTCCGACTAACATGGATGTCCCACCATTCCTTGCAGTGGAAGGTTGTTCT TGGCGCAGTGAGTGAAGAACATGCAGCGATTGCTAATGGGTTTGGGAAGCGGAGACTCCT TCCTCTCTATGACCATGCCGTGATCGTGTCTGCGGTCACTCGACGCATCCTCATT TCTACCCGAACCCAGGAGCCGAACGCTAGATCGGGGAAGTGGGTGCCGTGCGTGTGGCA CAGAAACACCATGAAGATTATTTTCCCGATTCTAAGTAATCCAGTCTTCAGGCCACCGT TAAACTCCTGCTCTGTTTACTGTGGATTGGATATTCTCAAGGAACCACACATGTATTAAG ATTTGGTGGTATTTTGAATATGTGGAATCTGGCCCAATGGGAGCTGAGGAACTGCATT CAGATTTGCTGTGAACACAATTAACAGAAACAGAACATTGCTACCCAATACTACCCTTAC CTATGATACCCAGAAGATAAACCTTTATGATAGTTTTGAAGCATCCAAGAAAGCCTGTGA TCAGCTGTCTCTGGGGTGGCTGCCATCTTNCGGCCTTCACACAGCTCATCAGCAAACGC AGTGCAGTCCATGCAATGCTCTGGGAGTTCCCCACATACAGACCCGCTGGAAGCACCA GGTGTCAGACAACAAAAGATCCTTCTATGTCAGTCTCTACCCAGACTTTTTTCACTCAG CCGTGCCATTTTGAAGTGGTGCAGTTTTTTCAAGTGAAAACCGTACGGTTGGGTATG</p>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_175768 unedited NCCCTGGGTGATGGCACTTCCAGNCCAGNAAAGCACTGGGGNAGGGTCCACAGGATGCCA CCCGGGATCTGTTAGGAAACAGCTATGACCGCGCCGCAATCTAGAGTCGACTAAACAG TGTCTGGATGGTATGGTGGCACTAACCAATAGAAGATTCCTTTTCCAATTGAGCGTTTT TTTTGGATTTGTAAAAAATTCTCCCACTGCCACAAAACTGAAAGCACCAAGCCGGCTG CCAGAACAATGAAGATGCCACCAATATTCTGAACCCCAAGGGCACTGGCCTCTTTGCTCT CCTCTTCTGGGCAACCATTGCCCTCCACATTTCTCCTTCATCATATGCAGTTTGCCTT CCTCTTGCACTGAAGAATTGCTATGGTAATTTTGTCTCGATATGGAGAACCATGGGAG TGCCAACGCCATAACCTTTAGAGTCTATAAGGCCGCAATCTGTGTCAGGTTACAGTTCC GCTGGGTAACAACTCGATGGTTGTTGACTCCATTAGGAAAGCATAATCAGAGGTGAGGA CTCGCTGGATTCTTCTTACTTTTACCAGCACTGACTGCCTTCTGCTACTCATAA AGGCCACATTTTGTACATCGTGAGATTTTTGATTTCTTGAAAAAGTCATGGTTGCAC CATCCTTACTGCTCCATATTCTATCTTGGTTTGTAGCTAAATCATCAGCAGAGTCAA TAGGGGATTCATGCGTCCATGTGTCAGAAAAGCGCTAAGTTAGCAGTATACGAAGAAA TGATGATNAGTGTGAAAACACAAATGCCTCCNACTATNCTGNTGNACAGTGCTTTTGG CATGAGCTCAGAACCTTGCTGCATGAGAGCTCCCACTCCCAACCAGAACTATTTAGCAAG</p>
Restriction Sites:	Please inquire
ACCN:	NM_175768
Insert Size:	2900 bp
OTI Disclaimer:	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).
OTI Annotation:	The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.
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:	<ol style="list-style-type: none">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:	<u>NM_175768.1</u> , <u>NP_786944.1</u>
RefSeq Size:	3409 bp
RefSeq ORF:	2610 bp
Locus ID:	2898
UniProt ID:	<u>Q13002</u>
Cytogenetics:	6q16.3
Protein Families:	Druggable Genome, Ion Channels: Glutamate Receptors, Transmembrane
Protein Pathways:	Neuroactive ligand-receptor interaction
Gene Summary:	<p>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 at multiple sites within the first and second transmembrane domains, which is thought to alter the structure and function of the receptor complex. Alternatively spliced transcript variants encoding different isoforms have also been described for this gene. Mutations in this gene have been associated with autosomal recessive cognitive disability. [provided by RefSeq, Jul 2008]</p> <p>Transcript Variant: This variant (2) contains an additional exon in the 3' coding region, compared to transcript variant 1. The resulting isoform (2) is shorter and has a distinct C-terminus compared to isoform 1. RNA editing changes Ile567Val, Tyr571Cys and Gln621Arg.</p> <p>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.</p>