

Product datasheet for **SC327244**

GRIK2 (NM_001166247) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GRIK2 (NM_001166247) Human Untagged Clone
Tag:	Tag Free
Symbol:	GRIK2
Synonyms:	EAA4; GLR6; GluK2; GLUK6; GLUR6; MRT6
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >NCBI ORF sequence for NM_001166247, the custom clone sequence may differ by one or more nucleotides

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ATGAAGATTATTTTCCCGATTCTAAGTAATCCAGTCTTCAGGCGCACCGTTAAACTCCTG
CTCTGTTTACTGTGGATTGGATATTCTCAAGGAACACACATGTATTAAGATTTGGTGGT
ATTTTTGAATATGTGGAATCTGGCCCAATGGGAGCTGAGGAACCTGCATTGAGTTTGGT
GTGAACACAATTAACAGAAACAGAACATTGCTACCCAATACTACCCTTACCTATGATACC
CAGAAGATAAACCTTTATGATAGTTTTGAAGCATCCAAGAAAGCCTGTGATCAGCTGTCT
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ATCTGCAATGCTCTGGGAGTTCCCCACATACAGACCCGCTGGAAGCACCAGGTGTGACAG
AACAAAGATTCTTCTATGTGAGTCTCTACCCAGACTTCTCTTCACTCAGCCGTGCCATT
TTAGACCTGGTGCAGTTTTTCAAGTGGAAAACCGTCACGGTTGTGTATGATGACAGCACT
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ATTCGTGAGTTACCTGCTGATACAAAGGATGCAAAACCCCTTACTAAAAGAAATGAAAAGA
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CAGCAAGGTTCTGAGTCTATGCCAAAAGCACTGTCCACCAGGATAGTGGGAGGCATTTGG
TGGTTTTTCACTTATCATCATTTTCTCGTATACTGCTAACTTAGCCGCTTTCTGACA
GTGGAACGCATGGAATCCCCTATTGACTCTGCTGATGATTTAGCTAAACAAACCAAGATA
GAATATGGAGCAGTAGAGGATGGTGAACCATGACTTTTTTCAAGAAATCAAAAATCTCC
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AATGAAGAAGGAATCCAGCGAGTCTCACCTCTGATTATGCTTTTCTAATGGAGTCAACA
ACCATCGAGTTTGTACCAGCGGAAGTAACTGACACAGATTGGCGGCCTTATAGAC
TCTAAAGGTTATGGCGTTGGCACTCCCATGGGTTCTCCATATCGAGACAAAATTACCATA
GCAATTCTTCAAGTCAAGAGGAAGGCAAACTGCATATGATGAAGGAGAAATGGTGGAGG
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GGTGGCATCTTCAATGTTCTGGCAGCCGGCTTGGTGTCTTTCAGTTTTTGTGGCAGTGGGA
GAATTTTTATACAAATCCAAAAAACGCTCAATTGAAAAGAGAGCCAAGACTAAGTTA
CCTCAAGACTATGATTCCTCCCTATTTTGGAGTCAGTTTCCATTTCTACAGTGTGTGCA
TCATCACCATCTTCATCATCATTATCATCATGTTCT

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Restriction Sites: Please inquire

ACCN: NM_001166247

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:	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:	<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_001166247.1, NP_001159719.1</u>
RefSeq Size:	4724 bp
RefSeq ORF:	2679 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:

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]

Transcript Variant: This variant (3) contains an additional exon in the 3' coding region, compared to transcript variant 1. The resulting isoform (3) is shorter and has a distinct C-terminus compared to isoform 1. RNA editing changes Ile567Val, Tyr571Cys and Gln621Arg. 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.