

Product datasheet for SC121951

GRIK2 (NM_021956) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GRIK2 (NM_021956) 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)

Fully Sequenced ORF: >OriGene ORF sequence for NM_021956 edited
 GGGCGGCCGCGAATTCGGCAGCAGCCTCGTGCCGAATTCGGCAGGAGCTTTCCGCCCC
 ACCTCCTCCGGCTGCTCCTCCCGAGGACCACCCACCCCTCCCGCCACCTCACCCC
 TAGCTCCAGGCTCGCGCGCCGGACATTGTGGGTGTGCGTGCTGGATTTCTCCCGATGC
 TCTCCGACTAACATGGATGTCCCACCATTCCTTGCAAGTGAAGGTTGTTCCCTGGCGCAG
 TGAGTGAAGAACATGCAGCGATTGCTAATGGGTTTGGGAAGCGGAGACTCCTTCCTCTCT
 CTATGACCATGCCGTGATCGTGTCTGCGGTCACTCGACGCATCCTCATTTCTACCCG
 AACCCAGGAGCCGAACGCTAGATCGGGGAAGTGGGTGCCGTGCGTGTGGGCACAGAAACA
 CCATGAAGATTATTTCCCGATTCTAAGTAATCCAGTCTTCAGGCGCACCGTTAACTCC
 TGCTCTGTTACTGTGGATTGGATATTCTCAAGGAACACACATGTATTAAGATTTGGTG
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AGAATAACTTTCAACAAAACCAATGGCTTGAGAACAGATTTTGATTTGGATGTGATCAGT
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TAACATGCGCATTTTGTGGCTGATTTCAAATGCAGTCCAGTGAGAAATTACAGGTTCCCT
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5' Read Nucleotide Sequence:

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>OriGene 5' read for NM_021956 unedited
AGTCAAAATTTGTATACGACTCACTATAGGGCGGCCGGAATTCGCACGAGCCTCGTGCC
GAATTCGGCACGAGGCTTTTCCGCCGACCTCCTCCGGCTGCTCCTCCCCGAGGACCACC
CCACCCCTCCCCGCCACCTCACCCCTAGCTCCAGGCTCGCGCGCCGGACATTGTGGG
TGTGCGTGTGGATTTCTCCCGGATGCTCTCCGACTAACATGGATGTCCCACCATTCCCTT
GCAGTGGAAAGGTTGTTCTTGGCCAGTGAGTGAAGAATGCAGCGATTGCTAATGGGT
TTGGGAAGCGGAGACTCCTTCTCTCTATGACCATGCCGTGATCGTGTCTGCGGTAC
CACTCGACGCATCCTCATTTCTACCCGAACCCAGGAGCCGAACGCTAGATCGGGGAAGTG
GGTGCCGTGCGTGTGGGCACAGAAACACCATGAAGATTATTTCCCGATTCTAAGTAATC
CAGTCTTCAGGCGCACCGTTAAACTCCTGCTCTGTTTACTGTGGATTGGATATTCTCAAG
GAACCACACATGTATTAAGATTTGGTGGTATTTTTGAATATGTGGAATCTGGCCCAATGN
GAGCTGAGGAACCTGCATTTCAGATTTGCTGTGAACACAATTAACAGAAAACAGAACATTGC
TACCCAATACTACCCTTACCTATGATACCCAGAAGATAAACCTTTATGATAGTTTTGAAG
CATCCAAGAAAGCCTGTGATCAGCTGTCTTGGGGTGGCTGCCATCTTTCGGGCCCTTCA
CCAGCTCATCAGCAAACGCAGTGCAGTCCATCTGCAATGCTCTGGGAGTTTCCCACATAC
AGACCCGCTGGAAACACCAAGTGTAGACAACAAAGATTCTCTATAGTAGGTTTTACCA
GAACTTTTTTCATCAGCCGGGCCATTTT

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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_021956 unedited TTAAAAGGGTTTACTACTTGNACCGCAGACCGCAATCNANGATCGATTTTTTTTTCTTTTT TTTTATATTCTTAGTGACACTTTTATTGGTTGCCCTGTTGGGCATTGATATTCCATCTCC TGGCAACAGTTGAGCTTCAAAGGAACCTGTAATTTCTCACTGGACTGCATTTGAAATCA GCCACAAAATGCGCATGTTAACATTCACCTCAGAAGAAAGGAGGAACCCATGATTTTCAGT GTAACCCCGTGTAACCTGGTTGATCCATGATGCTTGTAATCAAGTCTGATCATTGCAAC TGCTTAGATCACAGAGTCTCTAGTTTCATAGACACAGCGGCATGAAGTAACCTATTTTATT TTGCACAGGGTGATATTTCCACAGGAAACATTCTGGCTAAATTGTTGGAAAAAGAGAC AGTTTGTGCTTGGGTGTTTGCCTCCAGCTTATGCCTGGTTTCTTTACCTGGCAACCTTT GTCGTAAAGGTGGCCATGTGAAACTTCTTCTGGTTTCAAAAACCTGGCCCTGGGCTTAA GTTTAACCGACCTGGACCTTAAGGAACTCTAATTTTTTACCATGGCCTCAAAGGACCC TTTTTCATTGACCTTTTTTTGGATTTGATAAAAATCCCCGGCCCCAACTGAAACCC CAGCCGGGTGCAAAAATGAAAGCCCCATTTTTGAACCCAGGGCCTGGCTTTTTGTTT CTTTTTGAAAACCTTTCCTTTCTTTTAAATAGGAGTGCTTCTTTCCCTAAAA AATCCGGGAATTTTGCCTTTGGAACCCGGGGGGCCCTTTCCCTTTAGTTAAGGCCCA ATTGGGAGGGCAACCCCGGGAAACCTGGGGTGGCCCTTTGAAAAATTCAGGGGGGAA CGGGACTCTTTTTTTTTTGAACCCAA
Restriction Sites:	NotI-NotI
ACCN:	NM_021956
Insert Size:	3460 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).
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:	NM_021956.2 , NP_068775.1
RefSeq Size:	3322 bp
RefSeq ORF:	2727 bp
Locus ID:	2898
UniProt ID:	Q13002
Cytogenetics:	6q16.3
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 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 (1) encodes the longer 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.