

Product datasheet for **RG228609**

GRIK2 (NM_001166247) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GRIK2 (NM_001166247) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GRIK2
Synonyms:	EAA4; GLR6; GluK2; GLUK6; GLUR6; MRT6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide
Sequence:**

>RG228609 representing NM_001166247
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAAGATTATTTTCCCGATTCTAAGTAATCCAGTCTTCAGGCGCACCGTTAAACTCCTGCTCTGTTTAC
 TGTGGATTGGATATTCTCAAGGAACCACACATGTATTAAGATTTGGTGGTATTTTGAATATGTGGAATC
 TGGCCCAATGGGAGCTGAGGAACTTGCATTGATTTGCTGTGAACACAATTAACAGAAAACAGAATTG
 CTACCCAATACTACCTTACCTATGATACCCAGAAGATAAACCTTTATGATAGTTTTGAAGCATCCAAGA
 AAGCCTGTGATCAGTGTCTCTTGGGGTGGCTGCCATCTTCGGGCCTTCACACAGCTCATCAGCAAACGC
 AGTGCAGTCCATCTGCAATGCTCTGGGAGTTCACACATACAGACCCGCTGGAAGCACCAGGTGTCAGAC
 AACAAAGATTCTTCTATGTCAGTCTCTACCCAGACTTCTTCACTCAGCCGTGCCATTTTAGACCTGG
 TGCAGTTTTTCAAGTGGAAAACCGTCACGGTTGTGTATGATGACAGCACTGGTCTCATTCTGTTTGAAGA
 GCTCATCAAAGCTCCATCAAGGTATAATCTTCGACTCAAATTCGTCAGTTACCTGCTGATACAAAGGAT
 GCAAAACCTTACTAAAAGAAATGAAAAGAGGCAAGGAGTTTCATGTAATCTTTGATTGTAGCCATGAAA
 TGGCAGCAGGCATTTTAAAACAGGCATTAGCTATGGGAATGATGACAGAATACTATCATTATATCTTTAC
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 CTCCGAAACCCGATTCAAGTTTGTCTGGATGGATTTATGACGACTGATGCTGCTCTAATGTATGATGCTGT
 GCATGTGGTGTCTGTGGCCGTTCAACAGTTTCCCAGATGACAGTCAAGTTCCTTGCAGTGTAAATCGACAT
 AAACCTTGGCGCTTCGGGACCCGCTTTATGAGTCTAATTAAGAGGCACATTGGGAAGCCCTCACAGGCA
 GAATAACTTTCAACAAAACCAATGGCTTGAGAACAGATTTTGTATTTGGATGTGATCAGTCAAGGAAGA
 AGGTCTAGAAAAGATTGGAACGTGGGATCCAGCCAGTGGCCTGAATATGACAGAAAAGTCAAAGGGAAAG
 CCAGCGAACATCACAGATTCTTATCCAATCGTCTTTGATTGTTACCACCATTTTGAAGAGCCTTATG
 TCCTTTTTAAGAAGTCTGACAAACCTCTCTATGGTAATGATCGATTTGAAGGCTATTGCATTGATCTCCT
 CAGAGAGTTATCTACAATCCTTGGCTTTACATATGAAATTAGACTTGTGGAAGATGGGAAATATGGAGCC
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 TTGCTCCACTGGCTATTACCTATGTTGAGAGAAAGTTCATCGACTTTTCCAAGCCCTTTATGACACTTGG
 AATAAGTATTTTGTACCGCAAGCCCAATGGTACAACCCAGGCGTCTTCTCTTCTGAATCCTCTCTCC
 CCTGATATCTGGATGTATATTCTGCTGGCTTACTTGGGTGTCAGTTGTGTGCTCTTTGTCATAGCCAGGT
 TTAGTCTTATGAGTGGTATAATCCACACCCCTTGAACCCCTGACTCAGAGCGTGGTGGAAAACAATTTTAC
 CTTGCTAAATAGTTTCTGGTTTGGAGTTGGAGCTCTCATGCAGCAAGGTTCTGAGCTCATGCCAAAGCA
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 ACGTATGACAAAATGTGGCCCTTTATGAGTAGCAGAAGGCAGTCAAGTGGTCAAAGTAAATGAAGAAG
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 GCGGAACCTGTAACTGACACAGATTGGCGCCTTATAGACTCTAAAGGTTATGGCGTTGGCACTCCCATG
 GGTTCTCCATATCGAGACAAAATTACCATAGCAATTCCTCAGCTGCAAGAGGAAGGCAAACTGCATATGA
 TGAAGGAGAAAATGGTGGAGGGCAATGGTTGCCAGAAGAGGAGAGCAAAGAGGCCAGTGCCTGGGGGT
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 GAATTTTTATACAAATCCAAAAAACGCTCAATTGGAAAAGAGAGCCAAGACTAAGTTACCTCAAGACT
 ATGATTCCTCCCTATTTTGGAGTCAGTTTCCATTTCTACAGTGTGTCATCACCATCTTCATCATC
 ATTATCATCATGTTCT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG228609 representing NM_001166247
 Red=Cloning site Green=Tags(s)

MKIIIFPILSNPVFRRTVKLLLCLLWIGYSQGTTHVLRFGGIFEFYVESGPMGAEELAFRFVNTINRNRTL
 LPNTTLTYDTQKINLYDSFEASKACDQLSLGVAATFGPSSHSSANAVQSI CNALGVPHIQTRWKHQVSD
 NKDSFYVSLYPDFSSLRAILDLVQFFKWKTVTVVYDDSTGLIRLQELIKAPSRYNLRKIRQLPADTKD
 AKPLLKEMKRGKEFHVIFDCSHEMAAGILKQALAMGMMTEYYHYIFTTLDLFDLVEPYRYSGVNMTGFR
 ILNTEQVSSIIIEKWSMERLQAPPKPDSDLDFMTTDAALMYDAHVHVSVAVQQFPQMTVSSLQCNRH
 KPWRFGTRFMSLIKEAHWEGLTGRITFNKTNGLRTDFDLDVISLKEEGLEKIGTWDPASGLNMTE SQK GK
 PANITDSLNRSLIVTTILEEPYVLFKKS DKPLYGNDRFEGYCIDLLRELSTILGFTYEIRLVEDGKYGA
 QDDANGQWNGMVRELIDHKADLAVAPLAITYVREKVIDFSKPFMTLGISILYRKPNGTNPGVFSFLNPLS
 PDIWMIYLLAYLGVSCVLFVIARFSPYEWYNPHPCNPDSVVENNFTLLNSFWFGV GALMQQGSELMPKA
 LSTRIVGGIWWFFTLIIISSYANLAAFLTVERMESPIDSAADLAKQTKIEYGAVEDGATMTFFKSKIS
 TYDKMWFMSRRQSVLVKSNEEIQRVLTSDYAFLMESTTIEFVTQRNCNLQIGGLIDSKGYGVGTMP
 GSPYRDKITIAILQLQEEGKLHMMKEKWWRGNGCPEEESKEASALGVQNI GGIFIVLAAGLVLSV FVAVG
 EFLYKSKNAQLEKRAKTKLPQDYVFLPILESVISTVLSSSPSSSLSSCS

TRTRPLE - GFP Tag - V

Restriction Sites:

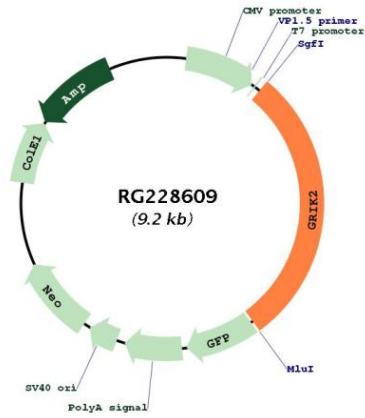
Sgfl-MluI

Cloning Scheme:



ACCN:	NM_001166247
ORF Size:	2676 bp
OTI Disclaimer:	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
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
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_001166247.1 , NP_001159719.1
RefSeq Size:	4724 bp
RefSeq ORF:	2679 bp
Locus ID:	2898
UniProt ID:	Q13002
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]

Product images:



Circular map for RG228609