

Product datasheet for **MG219234**

Grik2 (NM_00111268) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Grik2 (NM_00111268) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Grik2
Synonyms:	AW124492; C130030K03Rik; Glu; GluK2; Glur; Glur-6; Glur6; Glurbe; Glurbeta2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG219234 representing NM_001111268
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAGATTATTTCCCCAGTTTTAAGTAATCTAGTCTTCAGTCGCTCCATTAAAGTCCTGCTCTGCTTGT
 TGTGGATCGGATATTCGCAAGGAACACACATGTGTTAAGATTCGGTGGTATATTTGAATATGTGGAATC
 TGGCCCTATGGGAGCTGAAGAACTTGCATTTCAGATTTGCTGTGAATACAATCAACAGGAACAGGACTCTG
 CTACCCAATACCACGTTAACATATGATACACAGAAGATCAATCTCTATGACAGTTTTGAAGCATCTAAGA
 AAGCTTGTGATCAGCTGTCTCTGGGGTGGCTGCCATCTTCGGTCTTCACACAGTTCATCAGCAAATGC
 TGTTTCAGTCCATCTGCAATGCTCTGGGGTTCCTCACATACAGACCCGCTGGAAGCACCAGGTGTCAGAC
 AATAAGGATTCCTCTATGTCAGTCTCTACCCAGACTTCTCTCCCTCAGCCGTGCCATCTTGGATTTGG
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 GCTCATCAAAGCTCCATCAAGGTACAATCTTCGACTTAAAATTCGTGAGTCCAGCTGATACAAAAGAT
 GCAAAGCCTTTGCTGAAAGAGATGAAGAGGGGCAAGGAGTCCACGTGATCTTCGACTGCAGCCATGAAA
 TGGCAGCAGGCATTTAAAGCAGGCATTAGCTATGGGAATGATGACAGAATACTACCACTATATATTTAC
 GACTCTGGACCTCTTCGCTCTTGATGTGGAGCCCTACAGATACAGTGGCGTAAAATGACAGGGTTCAGA
 ATACTAAATACAGAGAATACCCAAGTCTCCTCCATCATCGAGAAGTGGTCGATGGAACGGTTACAGGCAC
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 AAACCTGGCGCTTTGGGACTCGCTTATGAGCCTAATTAAGAGGCTCATTGGGAAGGTCTTACAGGCA
 GAATTACATTTAACAAAACCAATGGATTGCGAACAGATTTTGAATTTGGATGTGATCAGTCTCAAGGAAG
 AGGTCTGGAAGAAGATTGGGACTTGGGATCCATCCAGTGGCCTGAATATGACAGAAAAGTCAGAAAAGGGAAG
 CCAGCAAATATTACAGATTCATTGTCTAATCGTCTTTGATTGTTACCACCATTTTGAAGAACCATATG
 TCCTGTTTAAAGAAGTCTGACAAACCTCTCTATGGGAATGATCGATTTGAAGGCTACTGTATTGATCTTCT
 ACGAGAGTTATCTACAATCCTTGGCTTTACATATGAAATTAGGCTTGTGGAGGATGGGAAATATGGAGCC
 CAGGATGATGTGAATGGACAATGGAATGGAATGGTTCGTGAGCTAATTGATCATAAAGCTGACCTTGCAG
 TTGCTCCACTGGCTATTACCTATGTTCTGTGAGAAGGTATCGACTTTTCAAAGCCGTTTATGACTCTTGG
 AATAAGTATTTGTACCGCAAGCCCAATGGTACAACCCAGGCGTCTTCTCCTTCTGAATCCTCTCTCC
 CCTGATATCTGGATGTATGTTCTGCTGGCTTGGTGGGTGTCAGTTGTGTGCTCTTGTGCATAGCCAGGT
 TTAGTCCCTATGAGTGGTATAATCCACACCCTTGAACCCCTGACTCAGAGGTGGTGGAAAACAATTTTAC
 CTTGCTAAATAGTTTCTGGTTTGGAGTTGGAGCTCTCATGCGGCAAGGTTCTGAGCTCATGCCCAAAGCA
 CTCTCCACCAGGATAGTGGGAGGCATTTGGTGGTTTTTACACCTTATCATATTTCTTCGTATACCGCTA
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 AACCAAGATAGAATATGGAGCAGTAGAGGACGGCGCAACCATGACGTTTTTCAAGAAATCAAAAATCTCA
 ACGTATGATAAAATGTGGCATTATGAGCAGCAGGAGACAGTCTGTGCTTGTCAAAGCAATGAGGAAG
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 GAGTTTTTATACAAATCCAAAAAAACGCTCAATTGGAAAAGAGGTCTTCTGTAGCGCCATGGTGGAAAG
 AACTGAGAATGTCTCTGAAGTGCCAGCGTCGGCTCAAACATAAGCCACAGGCCCCAGTTATTGTGAAAAC
 AGAAGAAGTTATCAACATGCACACATTTAACGACAGAAGGTTGCCAGGTAAGAAAACCATGGCA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – **GTTTAA**

Protein Sequence: >MG219234 representing NM_001111268
 Red=Cloning site Green=Tags(s)

MKIISPVLNLFVSRSIKVLCLLWIGYSQGTTHVLRFGGIFEFYVESGPMGAEELAFRFVNTINRNRTL
 LPNTTLTYDTQKINLYDSFEASKACDQLSLGVAATFGPSSHSSANAVQSI CNALGVPHIQTRWKHQVSD
 NKDSFYVSLYPDFSSLRAILDLVQFFKWKTVTVVYDDSTGLIRLQELIKAPSRYNLRLKIRQLPADTKD
 AKPLLKEMKRGKEFHVIFDCSHEMAAGILKQALAMGMMTEYYHYIFTTLDLFDLVEPYRYSGVNMTGFR
 ILNTEQVSSIIIEKWSMERLQAPPKPDSDLDFMTTDAALMYDAHVHVSVAVQFPQMTVSSLQCNRH
 KPWRFGTRFMSLIKEAHWEGLTGRITFNKTNGLRTDFDLDVISLKEEGLEKIGTWPSSGLNMTE SQK GK
 PANITDSLNRSLIVTTILEEPPVLFKKS DKPLYGNDRFEGYCIDLLRELSTILGFTYEIRLVEDGKYGA
 QDDVNGQWNGMVRELIDHKADLAVAPLAITYVREKVIDFSKPFMTLGISILYRKPNGTNPGVFSFLNPLS
 PDIWMYVLLACLGVSCVLFVIARFSPYEWYNPHPCNPDSVVENNFTLLNSFWFGV GALMRQGS ELM PKA
 LSTRIVGGIWWFFTLIIISSYANLAAFLTVERMESPID SADDLAKQTKIEYGAVEDGATMTFFKSKIS
 TYDKMWFMSRRQSVLVKSNEEGIQRVLTSDYAFLMESTTIEFVTQRNCNLQIGGLIDSKGYGVGTPM
 GSPYRDKITIAILQLQEEGKLHMMKEKWWRGNGCPEEESKEASALGVQNI GGIFIVLAAGLVLSV FVAVG
 EFLYKSKNAQLEKRSFCSAMVEELRMSLKCQRRLKHKPQAPVIVKTEEVINMHTFNDRRLP GKETMA

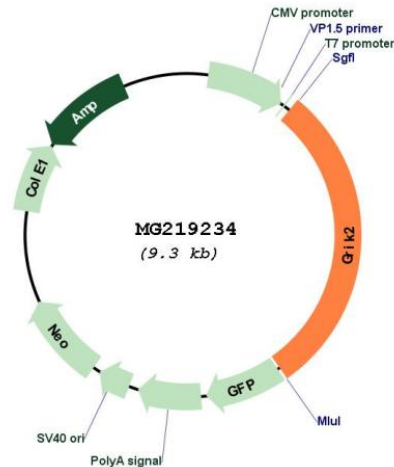
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001111268

ORF Size: 2724 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](#)

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:

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_001111268.2](#)

RefSeq Size: 4785 bp

RefSeq ORF: 2727 bp

Locus ID: 14806

Cytogenetics: 10 24.87 cM

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 found for this gene. [provided by RefSeq, Jul 2008]