

Product datasheet for **RC224695**

GRIK5 (NM_002088) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GRIK5 (NM_002088) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GRIK5
Synonyms:	EAA2; GluK5; GRIK2; KA2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC224695 representing NM_002088
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCGGCTGAGCTGCTGCTGCTGATTGTTGCCTTCGCCAGCCCAGCTGCCAGGTGCTCTCATCAC
 TGCATGCGCATGGCTGCAATCCTGGATGATCAGACAGTGTGGCCCGCGTGAGCGTCTGGCCTTGGCCTTGGC
 CCGGGAGCAGATCAACGGGATCATCGAGGTCCCAGCCAAGGCCCGAGTGGAAGTAGACATCTTTGAGCTG
 CAGCGGGACAGCCAGTACGAGACCACGGACACCATGTGTGATCTTACCCAAAGGGTTGTGTCTGTCC
 TTGGGCCCTCCTTAGCCAGCATCTGCCTCCACCGTGGAGCCATCTGTGGAGAGAAGGAGATCCCCCA
 CATCAAGGTGGTCCCAGGAGACACCCCGCTTCAGTACCTTCGCTTCGCTGTGTGAGCCTGTACCCC
 AGTAACGAGGACGTGAGTTCGGCGTCTCCGAATCCTCAAGTCTTCACTACCCCTCGGCCAGCCTCA
 TCTGCGCCAAGGCTGAGTGCCTGCTGCGATTGGAGGAAGTGGTGGTGGTTCCTCATCTCCAAGGAGAC
 GCTGTGAGTGGAGTGTGGACGACAGCCGGGACCCACACCCTGCTCAAGGAGATCCGTGATGACAAG
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 GAATGACCTCAGCGTTTACAAGTACATCCTCACCACCATGGACTTCCCCATCTGCATCTGGACGGTAT
 TGTGGAGGACTCCTCAACATCCTGGGCTTCTCCATGTTCAACACGTCCCACCCCTTCTACCCCTGAGTTT
 GTCCGACGCTCAACATGTCCTGGAGGGAGAAGTGTGAAGCCAGCACCTACCTGGGCCCTGCGCTGTGAG
 CCGCCCTGATGTTTGACGCCGTGACAGTGGTGGTGGAGCGTGTCCGAGAGCTGAACCGCAGCCAGGAGAT
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 ATCATCTCCTCTACACGGCCAACCTGGCCGCTTCTCACCGTGCAGCGCATGGAGGTGCCTGTGGAGT
 CGGCCGATGACCTGGCAGATCAGACCAACATCGAGTATGGACCATCCACGCCGGCTCCACCATGACCTT
 CTTCCAGAATCACGGTACCAAACGTACCAGCGCATGTGGAACATACATGCAGTCAAGCAGCCAGCGTG
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 CCATGAACGAATACCACGGCGCCTCACTGCAACCTCACCCAGATCGGGGACTCCTCGACACCAAGGG
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 GACGACCCGGGGCCCCAGCGGAGCCGACCCGCGCCCCACCCCTGCACCCAGTGCCTGCTGCTGCC
 AGGAGTCCGGCGCATCCAGGCGTGCGGGCTCGGGGGCCGGCGCGCTCCGCGTGGCTGGGCGTCCC
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC224695 representing NM_002088
 Red=Cloning site Green=Tags(s)

MPAELLLLLIVAFASPSCQVLSLRMAAILDDQTVCGRGERLALALAREQINGIIEVPAKARVEVDIFEL
 QRDSQYETDTMCQILPKGVSVLGPSSPASASTVSHICGEKEIPHIKVGPEETPRLQYLRFAVSLYP
 SNEDVSLAVSRILKSFNYPSASLICAKAECLLREELVRGFLISKETLSVRMLDDSRDPTLLKEIRDDK
 VSTIIIDANASISHLILRKASELGMTSAFYKYILTTMDFPILHLDGIVEDSSNILGFSMFNTSHPFYPEF
 VRSLNMSWRENCEASTYLGPAALMFDVAVHVVS AVRELNRSQEIGVKPLACTSANIWPHTSLMNYL
 RMVEYDGLTGRVEFNKQRTNYTLRILEKSRQGHREIGVWYSNRRLAMNATTLDNLSQTLANKTLVVT
 TILENPYVMRRPNFQALSGNERFEGFCVDMLRELAELLRFYRLRLVEDGLYGAPEPNGSWTGMVGLIN
 RKADLAVA AFTITAEREKVIDFSKPFMTLGISILYRVHMGRKPGYF SFLDPFSPA VWFMLLAYLAVSCV
 LFLAARLSPYEWYNPHPCRLRPHILENQYTLGNLWFPVGGFMQQGSEIMPRALSTRCVSGVWVAFTLI
 IISSTANLAFLTVQRMEVPVESADDLADQTNIEYGTIHAGSTM TFFQNSRYQTYQRMWNYMQSKQPSV
 FVKSTEEGIARVLNSRYAFLLESTMNEYHRRNCNL TQIGLLDTKGYGIGMPLGSPFRDEITLAILQLQ
 ENNRLEILKRKWE GGRCPKEEDHRAKGLGMENIGGIFIVLICGLIIAVFVAVMEFIWSTRRS AESEEV
 VCQEMQLRHAVSCRKTSR SRRRRRPGGSRALLSLRAVREMRLSNGKLYSAGAGGDAGSAHGGPQRLD
 DDPGPPSGARPAAPTCTHVRVCQECRRIQALRASGAGAPRGLGVP AEATSPRRPRPGAPRELAHE

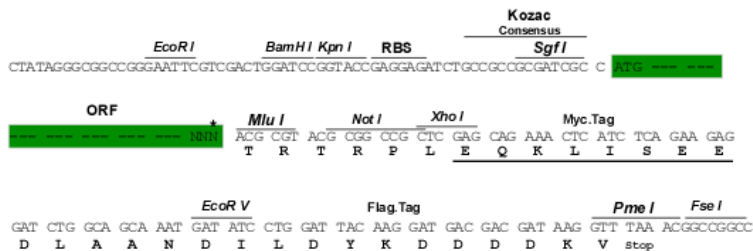
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8102_a07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_002088

ORF Size: 2940 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_002088.4](#), [NP_002079.3](#)

RefSeq Size: 3551 bp

RefSeq ORF: 2943 bp

Locus ID: 2901

UniProt ID: [Q16478](#)

Cytogenetics: 19q13.2

Domains: lig_chan, ANF_receptor

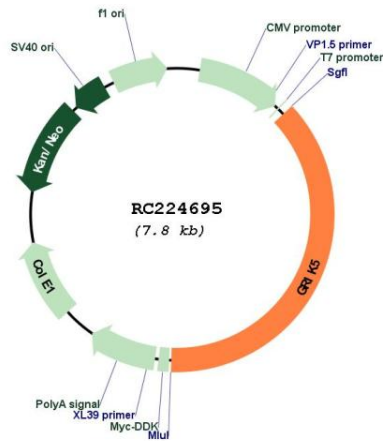
Protein Families: Druggable Genome, Ion Channels: Glutamate Receptors, Transmembrane

Protein Pathways: Neuroactive ligand-receptor interaction

MW: 109.3 kDa

Gene Summary:

This gene encodes a protein that belongs to the glutamate-gated ionic channel family. Glutamate functions as the major excitatory neurotransmitter in the central nervous system through activation of ligand-gated ion channels and G protein-coupled membrane receptors. The protein encoded by this gene forms functional heteromeric kainate-preferring ionic channels with the subunits encoded by related gene family members. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2014]

Product images:


Circular map for RC224695