

## Product datasheet for **RR200121**

### **Grik3 (NM\_00112716) Rat Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Grik3 (NM_00112716) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Grik3
Synonyms:	GluK3; gluR-7; GluR7
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>RR200121 representing NM\_00112716  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGACCGCTCCCTGGCGGCGCTCCGGAGTCTGGTTTGGGAATACTGGGCGGGTTCCTCGTGTGCGCT  
 TCTGGATCCCAGACTCGCGCGGATGCCCCACGTCATCCGGATCGCGGGAATCTTTGAGTACGCGGACGG  
 CCCCAACGCCAGGTCATGAACGCTGAGGAGCACGCTTTTCGGTTTTCTGCCAATATCATCAACAGGAAC  
 AGAACTCTGTGCCAACACGACCTGACTTACGACATTCAGAGGATCACTTCCATGACAGTTTTGAGG  
 CCACCAAGAAGGCTGTGACCAGTTGGCGCTCGGTGTGGTAGCCATCTTTGGGCCATCCCAGGGCTCCTG  
 CACCAATGCCGTCCAGTCCATCTGCAATGCCTGGAGGTTCTCACATCCAACGCGCTGGAAGCACCCAC  
 CCCCTGGACAACAAGGACACCTTCTACGTGAACCTTACCCCGACTACGCTCTCTCAGCCACGCCATCC  
 TCGACTTGGTCCAGTCCCTCAAGTGGCGGTGAGCCACCGTAGTCTATGATGACAGTACAGGTCTCATCCG  
 GCTGCAGGAGTCTCATGGCTCCATCTAGGTACAACATCCGCCGAAGATTCGCCAGCTCCCCATCGAC  
 TCCGATGACTCAGCCCCCTTGTCAAAGAGATGAAGCGGGGCGGGAGTTCGGTATCATCTTTGACTGCA  
 GTCACACCATGGCAGCCAGATCCTCAAGCAGGCCATGGCCATGGGCATGATGACGGAATACTACCACT  
 CATCTTACCACCTCTGGATCTCTATGCGTAGACCTGGAACCCTACCGCTACTCGGGAGTGAACCTGACT  
 GGGTTCGCATACTCAACGTGGACAACCCCATGTCTCAGCCATTGTGGAGAAGTGGTCCATGGAGCGGC  
 TACAGGACGCTCCCGGGCAGAGTCAGGCTGTGGATGGAGTGTGATGACCGATGCAGCCCTGCTCTA  
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 CAAGGAAGATGGCTCGAGAAGGTGCGGGTGTGGAGTCCAGCTGACGGTCTCAATATCACTGAGGTTGCC  
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 AGCCTTTTGTGATGTTCCGCAAGTCTGATAGGACCTTTACGGCAATGACCGGTTGAGGGCTACTGCAT  
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 TACGGGGCACAGGACGACAAGGGCCAGTGAACGGCATGGTCAAGGAACTCATTGACCACAAAGCAGATC  
 TGGCTGTGGCTCCCTGACCATACCCATGTCCGAGAGAAGGCCATTGACTTCTTAAGCCTTTTATGAC  
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 CTTACGCTGCTCAACAGCTTCTGGTTTGAATGGGCTCCCTGATGCAACAAGGATCTGAACTGATGCC  
 AAAGCTCTGTCTACCCGCATCATTGGCGGCATCTGGTGGTTCTTACCCTTATTATCATCTCCTCTACA  
 CGGCCAACCTGGCTGCCTTCTGACCGTGGAGCGCATGGAGTCAACCCATCGACTCTGCCGATGACCTGGC  
 CAAGCAGACCAAAATAGAGTACGGTGTGTCAAGGATGGGGCCACCATGACCTTCTTCAAGAAATCCAAG  
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 TCATGAAGGAGAAGTGGTGGCGAGGCAGCGGTGCCCGAGGAGGAGAACAAGGAGGCCAGCGCACTGGG  
 CATCCAGAAGATTGGCGGCATCTTCATCGTCTGGCTGCCGGCTTAGTCTGTCCGTGTTGGTGGCAGTG  
 GGCGAGTTTATATAAACTCCGCAAGACAGCGGAACGGGAGCAGCGCTCTTCTGCAGCACAGTGGCCG  
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 GACAGATGCGGTTATCAACATGCACACCTTTAATGACCGAAGGCTTCCAGGCAAGGACAGCATGAGCTGC  
 AGCACCTCGTAGCCCTGTCTTCCCT

**ACGCGT**ACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR200121 representing NM\_001112716  
 Red=Cloning site Green=Tags(s)

MTAPWRRRLRSLVWEYWAGFLVCAFWIPDSRGMPhVIRIGGIFeYADGPNAQVMNAEEHAFRFSANIINRN  
 RTLLPNTTLTYDIQRIHFHDSFEATKKACDQLALGVVAIFGPSQGSCTNAVQSICNALEVPHIQLRWKHH  
 PLDNKDTFYVNLYPDYASLSHAIDLVLQSLKWRSATVVYDDSTGLIRLQELIMAPSRYNIRLKIRQLPID  
 SDDSRPLLKEMKRGREFRIIFDCSHTMAAQILKQAMAMGMMTEYYHFIFTTLDLYALDLEPYRYSGVNL  
 GFRILNVDPHVSAlVEKWSMERLQAAPRAESGLLDGVMMDAALLYDAVHIVSVCYQRAPQMTVNSLQC  
 HRHKAWRFGGRFMNFIKEAQWELTGRIVFNKTSGLRTDFDLDIISLKEDGLEKVGWSPADGLNITEVA  
 KGRGPNVDLSLNRSLIVTTLLEEFVVMFRKSDRTL YGNDRFEGYCIDLLKELAHILGFSYEIRLVEDGK  
 YGAQDDKQWNGMVKELIDHKADLAVAPLTIHVREKAIDFSKPFMTLGVSYLYRKPNGTNPVFSFLNP  
 LSPDIWMYVLLAYLGVSCVLFVIARFSPYEWYDAHPCNPGEVVENNFTLLNSFWFGMGSMLMQQSELMP  
 KALSTRIGGIWFFTLIISSYTANLAAFLTVERMESPIDSADDLAKQTKIEYGAVKDGATMTFFKKS  
 ISTFEKMWAFMSSKPSALVKNNEEGIQRTLADYALLMESTTIEYITQRNCNLTIQIGGLIDSKGYGIGTP  
 MGSPYRDKITIAILQLQEEDKLHIMKEKWWRGSGCPEEENKEASALGIQIGGIFIVLAAGLVLSVLVAV  
 GEFIYKLRKTAEREQRSFCSTVADEIRFSLTCQRRLKHKPQPPMMVKTDVINMHTFNDRRLPGKDSMSC  
 STSLAPVFP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

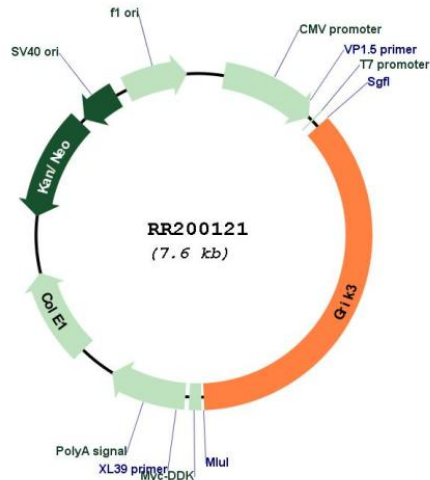
Restriction Sites:

SgfI-MluI

Cloning Scheme:



## Plasmid Map:



ACCN: NM\_001112716

ORF Size: 2757 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:**

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\\_001112716.1](#), [NP\\_001106187.1](#)

RefSeq Size: 3594 bp

RefSeq ORF: 2760 bp

Locus ID: 298521

UniProt ID: [P42264](#)

Cytogenetics: 5q36

**MW:** 104.1 kDa

**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. Compared to other kainate or AMPA receptors, this subunit exhibits a lower sensitivity to glutamate, and thus may play a unique role in neurotransmission in the brain. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Jul 2008]