

## Product datasheet for **MR222519**

### **Grik1 (NM\_010348) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Grik1 (NM_010348) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Grik1
Synonyms:	A830007B11Rik; D16lum2; D16lum24; D16lum24e; Glu; GluK; GluK1; GluK5; Glur; Glur-5; Glur5; Glurbe; Glurbeta1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR222519 representing NM\_010348  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGAGCGCGGCACAGTCTTATCCAACCCGGGCTCTGGACCAGGGACACCAGCTGGACACTCTCTATT  
 TCCTGTGCTACATCCTTCTCAGACCTCCCTCAAGTGCTCAGGATCGGAGGGATTTTTGAAACTGTGGA  
 AAACGAACCTGTTAATGTTGAAGAATTAGCTTTCAAGTTGACAGTACCAGTATTAACCGAAACCGAACC  
 TTGATGCCAATACCACATTAACCTATGACATCCAGAGAATTAATCTTTTTGATAGTTTTGAAGCCTCCC  
 GAAGAGCATGCGACCAACTGGCTCTTGGGGTGGCCGCCCTCTTCGGTCTTCCCACAGCTCTCCGTCAG  
 TGCTGTACAGTCTATTTGCAATGCTCTGGAAGTCCACACATTACAGACTCGTGGAAACACCCTTCTGTG  
 GACAACAGAGACTTATTTACATCAACCTCTACCCAGATTATGCAGCTATCAGCAGGGCAGTCTGGATC  
 TGGTCTCTATTACAACGGAAAACAGTGACGGTGGTGTACGAAGACAGCACAGGTCTAATTCGTCTGCA  
 AGAGCTCATCAAAGCTCCCTCCAGATACAACATCAAATCAAATCCGCCAGCTTCCCTCTGGCAATAAG  
 GATGCCAAACCTCTGCTCAAGGAGATGAAGAAAGCAAGGAGTTCTATGTGATATTTGATTGTTCCGACG  
 AGACGGCTGCTGAAATCTTAAGCAGATTTTGTTCATGGGCATGATGACTGAATACTATCACTACTTCTT  
 CACAACCTGGACTTGTTTGGCTTGGATCTGGAACCTACAGGTACAGTGGTGAATAATGACTGGATTT  
 CGGTTGCTGAATATTGACAACCTCACGTGTATCCATCATTGAGAAGTGGTCCATGGAGAGATTGCAGG  
 CCCACCCAGACTGAGACTGGTCTCCTGGACGGCGTGATGACAACTGAAGCAGCTCTGATGTACGATGC  
 TGTGTACATGGTAGCCATCGCTCTCACCGTGCCTCTCAGCTGACCGTCAGTTCCTGCAGTGCCATCGA  
 CATAAGCCATGGCGCTAGGACCCAGATTTATGAACCTCATCAAAGAGGGCGGGTGGGATGGCTTGACGG  
 GGCGGATCACCTTCAATAAGACGGATGGCTTGAAGAAAGATTTGACCTGGACATTATCAGTCTCAAAGA  
 GGAAGGAACTGAAAAGATTGGGATTTGGAACCTCAAACAGTGGGCTGAACATGACGGATGGCAACAGAGAC  
 AGGTCAAACAATACACAGATTCGCTGGCTAACCGAACGCTCATTGTACCACACTTCTGGAAGAGCCCT  
 ACGTGATGTACAGGAAATCCGATAAACCACTGTACGGAAATGACAGATTTGAAGGATATTGCCTGGATCT  
 GCTGAAAGAACTGCAAAATATCCTAGGTTTCTTTATGATGTTAAACTGGTTCCTGACGGCAAAATGGA  
 GCCCAGAAATGACAAAGGGGAGTGAACGGGATGGTTAAGGAACTCATCGACCACAGAGCTGACCTAGCAG  
 TGGCCCTCTCACCATCACGTATGTACGGGAGAAAGTCAATGACTTCTCCAAGCCTTTCATGACTCTGGG  
 CATTAGCATCCTTACCAGGAGCCCAATGGAACCAACCCCGCGCTTCTCCTTCTCAACCCCTGTCT  
 CCAGACATTTGGATGTATGTGCTCCTCGCTAGGAGTCAAGTGTGTGCTTTTTGTGATTGCAAGGT  
 TCACACCTACGAGTGGTATAACCCCAACCCGTGCAACCTGACTCAGAGCTGGTGGAAAACAATTCAC  
 TTTGCTAAATAGTTTCTGGTTGGCGTTGGAGCTCTCATGCGGCAAGGATCGGAGCTGATGCCAAAGGT  
 CTATCGACCAGAAATAGTTGGAGGAATATGGTGGTTTTTACCCTAATCATCATCTCATCCTACACTGCCA  
 ACCTGGCTGCCTTCTTGACAGTAGAAAGGATGGAATCCCCATCGATTCCGCAGACGACCTGGCCAAACA  
 AACCAAGATAGAATACGGGGCAGTCAGAGATGGCTCGACAATGACCTTCTTCAAGAAATCAAAAATCTCC  
 ACGTATGAGAAAATGTGGGCTTTCATGAGCAGTAGACAGCAGAGCGCCCTGGTTAAAAACAGCGATGAGG  
 GGATCAAAGGGTGTACCACCGACTACGCCCTGCTGATGGAGTCCACCAGCATTGAGTATGTGACACA  
 GAGGAACTGCAACCTCACTCAGATCGGGGCTCATAGACTCAAAGGCTATGGAGTGGGGACACCTATC  
 GGCTCCCCTTACCAGGATAAAAATTACAATTGCTATTCTTCAACTACAAGAAGAAGGAAGCTTCATATGA  
 TGAAGAGAAATGGTGGAGGGAAATGGCTGCCCTGAAGAAGACAGTAAAGAAGCCAGTGTCTAGGAGT  
 GGAAAATATCGGGGGTATCTTATTGTTCTGGCTGCAGGACTCGTCTTCTGTGTTGTAGCCATTGGA  
 GAATTCATATACAAATCACGGAAGAACAATGACATTGAGCAGTGTCTCTTTCAATGCCATCATGGAAG  
 AGCTGGGAATCTCACTCAAGAATCAGAAAAAATTAAGAAAAAGTCAAGAATAAGGGCAATCTTCTTT  
 CACAAGTATCCTTACTTGTATCAGAGACGAACCTCAGAGAAAAGAGACTGTGGCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR222519 representing NM\_010348  
 Red=Cloning site Green=Tags(s)

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MERGTVLIQPGLWTRDTSWTLLYFLCYILPQTSPQVLRIGGIFETVENEPVNVEELAFKFAVTSINRNRT
LMPNTTLYDIQRINLFDSEARRACDQLALGVAALFGPSHSSVSVAVQSIcNALEVPHIQTRWKHPSV
DNRDLFYINLYPDYAAISRVLDLVLYNWKTVT VYEDSTGLIRLQELIKAPSRYNIKIKIRQLPSGNK
DAKPLLKEMKKGKEFYVIFDCSHETA AEILKQILFMGMMTEYYHYFFTTLDLFDLDELRYRSGVNMTGF
RLLNIDNPHVSSII EKWSMERLQAPRPETGLLDGVMTEAALMYDAVYMAIASHRASQLTVSSSLQCHR
HKPWRLGPRFMNLKEARWDGLTGRITFNKTDGLRKDFDLDIISLKEEGTEKIGIWNNSGLNMTDGNRD
RSNNITDSLARNRTLIVTTILEEPPYVMYRKSDKPLYGNDRFEGYCLDLLKELSNILGFLYDVKLVDPGKYG
AQNDKGEWNGMVKELIDHRADLAVAPLTITYVREKVIDFSKPFMTLGISILYRKPNGTNPGVFSFLNPLS
PDIWMYVLLACLGVSCVLFVIARFTPYEWYNPHPCNPDSVVENNFTLLNSFWFGVGMALMRQGSSELMPKA
LSTRIVGGIWWFFTLIISSYANLAAFLTVERMESPIDSAADLAKQTKIEYGAVRDGSTMFFKKSKIS
TYEKMWAFMSSRQQSALVKNSDEGIQRLTDDYALLMESTSIEYVTQRNCNLQIGGLIDSKGYGVGTPI
GSPYRDKITIAILQLQEEGKLHMMKEKWWRGNGCPEEDSKEASALGVENIGGIFIVLAAGLVLSVFVAIG
EFYIKSRKNNDIEQLSfNAIMEELGISLKNQKLLKKKSRTKGKSFSILTCHQRRTQRKETVA
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mm9029\\_h04.zip](https://cdn.origene.com/chromatograms/mm9029_h04.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



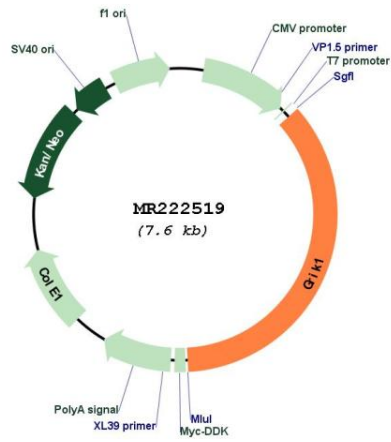
\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_010348

**ORF Size:** 2715 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_010348.3</a> , <a href="#">NP_034478.1</a>
<b>RefSeq Size:</b>	3573 bp
<b>RefSeq ORF:</b>	2718 bp
<b>Locus ID:</b>	14805
<b>Cytogenetics:</b>	16 50.23 cM
<b>MW:</b>	103.2 kDa
<b>Gene Summary:</b>	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 (CAG->CGG; Q->R) within the second transmembrane domain, which is thought to alter the properties of ion flow. Alternative splicing, resulting in transcript variants encoding different isoforms, has been noted for this gene. [provided by RefSeq, Jul 2008]

Product images:



Circular map for MR222519