

## Product datasheet for **RN200379**

### **Grik1 (NM\_001111114) Rat Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Grik1 (NM_001111114) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Grik1
Synonyms:	GluK1; GluR5
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**Fully Sequenced ORF:** >RN200379 representing NM\_001111114  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGAGCGCAGCACAGTCTTATCCAACCCGGGCTCTGGACCAGGGACACCAGCTGGACACTCCTCTATT  
 TCCTGTGCTACATCCTCCCTCAGACCTCCCTCAAGTGCTCAGGATCGGAGGGATTTTTGAAACTGTGGA  
 AAATGAACCTGTTAATGTTGAAGAATTAGCTTTCAAGTTTGCAGTACCAGTATTAACCGAAACCGAACC  
 TTGATGCCAATACCACATTAACCTATGACATCCAGAGAATTAATCTTTTTGATAGTTTTGAAGCCTCCC  
 GAAGAGCATGCGACCAGCTGGCTCTCGGGTGGCCGACTCTTCGGCCCTCCCACAGCTCCTCCGTCAG  
 TGCTGTACAGTCTATTTGCAATGCTCTGGAAGTCCACACATTACAGTCTCGTGGAAACACCCTCCGTCG  
 GACAGCAGAGACCTATTTATATCAACCTCTACCCGGACTATGCGGCTATCAGCAGGGCGGTCTGGATT  
 TGGTCTCTATTACAACGGAAAACAGTGACGGTGGTGTATGAAGACAGCACAGGTCTAATTCGTCGCA  
 AGAGCTCATCAAAGCTCCCTCCAGATACAACATTAATAAATCAAAATCCGCCAGCTTCCCCCTGCGAATAAA  
 GACGCCAAACCTCTGCTCAAGGAGATGAAGAAAAGCAAAGAGTTCTATGTGATATTTGATTGTTCCGACG  
 AAACAGCTGCGGAAATCTTAAGCAGATTTTGTTCATGGGCATGATGACTGAATATTACTACTTCTT  
 CACAACCTGGACTTGTTTGGCTTAGATCTGGAACCTATAGGTACAGCGGTGTAATAATGACTGGATTT  
 CGGTTGCTGAATATTGACAACCTCACGTGTATCCATCATTGAGAAGTGGTCCATGGAGAGGTTGCAGG  
 CCCCAGCCAGACCCGAGACTGGTCTTCTGGATGGCATGATGACAACCTGAAGCAGCGCTGATGTACGATGC  
 TGTGTACATGGTAGCCATTGCGTCCCACCGTGCCTCTCAGCTGACCGTCAGCTCCCTGCAGTGCCATCGA  
 CATAAGCCATGGCGCTTGGACCCAGATTTATGAACCTCATCAAAGAGGCTCGGTGGGACGGCTTGACTG  
 GGCGGATCACCTTCAATAAGACCGATGGCTTGGAAAAGGATTTGACCTGGACATTATCAGTCTCAAAGA  
 GGAAGGAACTGAAAAGATTGGGATTTGGAACTCCAACAGTGGGCTGAACATGACGGATGGCAACAGAGAC  
 AGGTCCAACAATATCACGGACTCGCTGGCTAACCGCACACTCATTGTACCACCTATTCTGGAAGGCCCT  
 ACGTGTGTACAGGAAATCCGATAAGCCCTTGTATGGAACGACAGGTTTGAAGGATATTGCCTGGATCT  
 GCTGAAAGAACTGCTCAATATCTGGGTTTTCTTACGATGTTAAACTGGTTCCTGATGGCAAATATGGA  
 GCACAGAATGACAAGGGGAATGGAATGGGATGGTAAAAGAACTCATCGACCACAGAGCTGACCTGGCAG  
 TGGCCCTCTCACCATCACATACGTACGGGAGAAAGTCAATGACTTCTCCAAGCCCTTCATGACCCTGGG  
 CATTAGCATCCTTACCAGGAGCCCAATGGAACCAACCCGGGTGTCTTCTCTTCAACCCCTATCT  
 CCGGACATTTGGATGTACGTGCTGCTCGCTGCCTAGGAGTCAGTTGTGTACTGTTGTGATTGCGAGGT  
 TCACACCTACGAGTGGTATAACCCCAACCCATGCAACCCGACTCAGAGCTGGTGGAAAACAATTCAC  
 TTTGCTAAATAGTTTCTGGTTGGAGTTGGAGCTCTCATGCAGCAAGGATCAGAGCTGATGCCAAAGGCT  
 CTATCGACCAGAAATAGTTGGAGGAATATGGTGGTTTTTACCCTAATCATATTTTCATCCTACACGGCCA  
 ACCTGGCTGCCTTCTGACGGTAGAAAAGATGGAATCCCCATCGATTCCGCAGACGATCTGGCCAAACA  
 AACCAAGATAGAATATGGGGCAGTCAGAGATGGCTCGACGATGACCTTCTCAAGAAATCAAAGATCTCC  
 ACCTATGAGAAAATGTGGGCTTTCATGAGCAGTAGACAGCAGAGCGCACTGGTTAAAAACAGTGACGAGG  
 GGATCAAAGGGTGTCCACCACCGACTACGCACTGCTGATGGAGTCCACCAGCATTGAGTATGTGACGCA  
 GAGGAACTGCAACCTCACTCAGATCGGGGCTCATAGACTCAAAGGCTATGGAGTGGGACGCCTATC  
 GGCTCCCCTTACCAGGATAAAAATTACGATTGCCATTCTTCAACTGCAAGAAGAAGGGAAGCTTCATATGA  
 TGAAGAGAAGTGGTGGAGGGGAATGGCTGCCCTGAAGAAGACAGTAAGGAAGCCAGTGTCTGGGAGT  
 GGAAAATATCGGCGGCATCTTATTGTTCTGGCTGCAGGACTCGTCTTCTGTGTTGTAGCCATTGGA  
 GAATTTTTATACAAATCACGGAAGAACAATGACGTTGAGCAGTGTCTCTCTTCAATGCCATCATGGAAG  
 AGCTGGGAATATCCCTCAAGAATCAGAAAAAATTAAGAAAAAGTCAAGAATAAGGGCAAATCTTCTTT  
 CACAAGTATCCTTACTTGTACCAGAGACGAACCTCAGAGAAAAGACAGTGGCG**TGA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** Sgfl-Mlul  
**ACCN:** NM\_001111114

<b>Insert Size:</b>	2718 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<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>	<u><a href="#">NM_001111114.1</a></u> , <u><a href="#">NP_001104584.1</a></u>
<b>RefSeq Size:</b>	3199 bp
<b>RefSeq ORF:</b>	2718 bp
<b>Locus ID:</b>	29559
<b>UniProt ID:</b>	<u><a href="#">P22756</a></u>
<b>Cytogenetics:</b>	11q11
<b>Gene Summary:</b>	<p>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-&gt;CGG; Q-&gt;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]</p> <p>Transcript Variant: This variant (3) is missing two in-frame coding exons compared to transcript variant 1, resulting in a shorter isoform (3) lacking two protein segments of 15 aa and 29 aa, compared to isoform 1. RNA editing (CAG-&gt;CGG) changes Gln621Arg.</p>