

## Product datasheet for **MC222255**

### Grik2 (NM\_010349) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Grik2 (NM_010349) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Grik2
Synonyms:	AW124492; C130030K03Rik; Glu; GluK2; Glur; Glur-6; Glur6; Glurbe; Glurbeta2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >MC222255 representing NM\_010349  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAAGATTATTTCCCCAGTTTTAAGTAATCTAGTCTTCAGTCGCTCCATTAAAGTCCTGCTCTGCTTGT  
 TGTGGATCGGATATTCGCAAGGAACCACACATGTGTTAAGATTCCGGTGGTATATTTGAATATGTGGAATC  
 TGGCCCTATGGGAGCTGAAGAACTTGCATTTCAGATTTGCTGTGAATACAATCAACAGGAACAGGACTCTG  
 CTACCCAATACCACGTTAACATATGATACACAGAAGATCAATCTCTATGACAGTTTTGAAGCATCTAAGA  
 AAGCTTGTGATCAGCTGTCTCTTGGGGTGGCTGCCATCTTCGGTCTTCACACAGTTCATCAGCAAATGC  
 TGTTTCAGTCCATCTGCAATGCTCTGGGGTTCCTCACATACAGACCCGCTGGAAGCACCAGGTGTCAGAC  
 AATAAGGATTCCTTCTATGTCAGTCTCTACCCAGACTTCTTCCCTCAGCCGTGCCATCTTGGATTTGG  
 TGCAGTTTTTAAAGTGGAAAACGTGACAGTTGTGTATGACGACAGCACTGGTCTCATTTCGCTTGAAGA  
 GCTCATCAAAGCTCCATCAAGGTACAATCTTCGACTTAAAATTCGTGAGTCCAGCTGATACAAAAGAT  
 GCAAAGCCTTTGCTGAAAGAGATGAAGAGGGGCAAGGAGTCCACGTGATCTTCGACTGCAGCCATGAAA  
 TGGCAGCAGGCATTTAAAGCAGGCATTAGCTATGGGAATGATGACAGAATACTACCACTATATATTTAC  
 GACTCTGGACCTCTTCGCTCTTGATGTGGAGCCCTACAGATACAGTGGCGTAAAATGACAGGGTTCAGA  
 ATACTAAATACAGAGAATACCCAAGTCTCCTCCATCATCGAGAAGTGGTCGATGGAACGGTTACAGGCAC  
 CTCCAAAACCTGACTCAGGTTTGGCTGGATGATTTATGACGACTGATGCTGCTCTGATGTATGATGCAGT  
 GCACGTTGTGTCTGTAGCTGTCCAACAGTTTCCCAGATGACAGTCAGCTCCTTGAATGCAATCGACAC  
 AAACCCGGCGCTTTGGGACTCGCTTTCATGAGCCTAATTAAGAGGCTCATTGGGAAGGTCTTACAGGCA  
 GAATTACATTTAAACAAAACCAATGGATTGCGAACAGATTTTGTATTGGATGTGATCAGTCTAAGGAAGA  
 AGGTCTGGAGAAGATTGGGACTTGGGATCCATCCAGTGGCCTGAATATGACAGAAAAGTCAGAAAAGGGAAG  
 CCAGCAAATATTACAGATTCATTGTCTAATCGTCTTTGATTGTTACCACCATTTTGAAGAACCATATG  
 TCCTGTTTAAAGAAGTCTGACAAACCTCTCTATGGGAATGATCGATTTGAAGGCTACTGTATTGATCTTCT  
 ACGAGAGTTATCTACAATCCTTGGCTTTACATATGAAATAGGCTTGTGGAGGATGGGAAAATGAGGCC  
 CAGGATGATGTGAATGGACAATGGAATGGAATGGTTCGTGAGCTAATTGATCATAAAGCTGACCTTGACG  
 TTGCTCCACTGGCTATTACCTATGTTCTGTGAGAAGGTCATCGACTTTTCAAAGCCGTTTATGACTCTTGG  
 AATAAGTATTTGTACCGCAAGCCCAATGGTACAACCCAGGCGTCTTCTCCTTCTGAATCCTCTCTCC  
 CCTGATATCTGGATGTATGTTCTGCTGGCTTGGTGGGTGTCAGTTGTGTGCTCTTGTGCATAGCCAGGT  
 TTAGTCCCTATGAGTGGTATAATCCACACCCTTGAACCCCTGACTCAGAGGTGGTGGAAAACAATTTTAC  
 CTTGCTAAATAGTTTCTGGTTTGGAGTTGGAGCTCTCATGCGGCAAGGTTCTGAGCTCATGCCAAAGCA  
 CTCTCCACCAGGATAGTGGGAGGCATTTGGTGGTTTTTACACCTTATCATATTTCTTTCGTATACCGCTA  
 ACCTAGCCGCCTTTCTGACCGTGGAAACGCATGGAGTCGCCTATTGACTCTGCTGACGATTTAGCTAAGCA  
 AACCAAGATAGAATATGGAGCAGTAGAGGACGGCGCAACCATGACGTTTTTCAAGAAAATCAAAAATCTCA  
 ACGTATGATAAAAATGTGGCATTATGAGCAGCAGGAGACAGTCTGTGCTTGTCAAAGCAATGAGGAAG  
 GGATTCACAGTGTCTCACCTCCGATTATGCTTTCTTAATGGAGTCAACGACCATCGAGTTTGTACCCA  
 GCGGAACCTGTAACCTCACGCAGATTGGTGGCCTTATAGACTCAAAGGCTATGGTGTGGCACTCCCATG  
 GGTCTCCATATCGAGACAAAATCACCATAGCCATTCTTCAGCTGCAAGGAGGAAGCAAGCTGCACATGA  
 TGAAGGAGAAGTGGTGGGAGGCAATGGCTGCCAGAGGAGGAGAGCAAAGAGGCCAGTGTCTAGGGGT  
 GCAGAATATTGGTGGTATCTTCATTGCTCTGGCAGCCGGCTTGGTGTCTCAGTTTTTGTGGCAGTGGGA  
 GAGTTTTTATACAAATCCAAAAAAAACGCTCAATTGGAAAAGGAATCTTCTATTTGGTTAGTGCCACCAT  
 ACCATCCAGACTGTT**TAG**

**ACGCGT**ACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI  
**ACCN:** NM\_010349  
**Insert Size:** 2610 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>	<a href="#">NM_010349.2</a> , <a href="#">NP_034479.2</a>
<b>RefSeq Size:</b>	4872 bp
<b>RefSeq ORF:</b>	2610 bp
<b>Locus ID:</b>	14806
<b>Cytogenetics:</b>	10 24.87 cM
<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 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]</p> <p>Transcript Variant: This variant (2) contains an additional exon at the 3' end compared to transcript variant 1, causing a frame-shift and early translation termination. The resulting isoform (2) is shorter and has a distinct C-terminus compared to isoform 1. RNA editing changes Ile567Val, Tyr571Cys and Gln621Arg. Sequence Note: This RefSeq record was created from transcript and genomic sequence data because no transcript from the reference strain was available to represent this splice pattern. The extent of this transcript is supported by transcript alignments and orthologous human data.</p>