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# Product datasheet for RN200378

## Grik1 (NM_017241) Rat Untagged Clone

### Product data:

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|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | Grik1 (NM_017241) 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:**

>RN200378 representing NM_017241
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGCGCAGCACAGTCCTTATCCAACCCGGGCTCTGGACCAGGGACACCAGCTGGACACTCCTCTATT
TCCTGTGCTACATCCTCCCTCAGACCTCCCCTCAAGTGCTCAGGATCGGAGGGATTTTTGAAACTGTGGA
AAATGAACCTGTTAATGTTGAAGAATTAGCTTTCAAGTTTGCAGTCACCAGTATTAACCGAAACCGAACC
TTGATGCCCAATACCACATTAACCTATGACATCCAGAGAATTAATCTTTTTGATAGTTTTGAAGCCTCCC
GAAGAGCATGCGACCAGCTGGCTCTCGGGGTGGCCGCACTCTTCGGCCCTTCCCACAGCTCCTCCGTCAG
TGCTGTACAGTCTATTTGCAATGCTCTGGAAGTTCCACACATTCAGACTCGCTGGAAACACCCTTCCGTG
GACAGCAGAGACCTATTTTATATCAACCTCTACCCGGACTATGCGGCTATCAGCAGGGCGGTCCTGGATT
TGGTCCTCTATTACAACTGGAAAACAGTGACGGTGGTGTATGAAGACAGCACAGGTCTAATTCGTCTGCA
AGAGCTCATCAAAGCTCCCTCCAGATACAACATTAAAATCAAAATCCGCCAGCTTCCCCCTGCGAATAAA
GACGCCAAACCTCTGCTCAAGGAGATGAAGAAAAGCAAAGAGTTCTATGTGATATTTGATTGTTCGCACG
AAACAGCTGCGGAAATTCTTAAGCAGATTTTGTTCATGGGCATGATGACTGAATATTATCACTACTTCTT
CACAACCCTGGACTTGTTTGCTTTAGATCTGGAACTCTATAGGTACAGCGGTGTAAATATGACTGGATTT
CGGTTGCTGAATATTGACAACCCTCACGTGTCATCCATCATTGAGAAGTGGTCCATGGAGAGGTTGCAGG
CCCCGCCCAGACCCGAGACTGGTCTTCTGGATGGCATGATGACAACTGAAGCAGCGCTGATGTACGATGC
TGTGTACATGGTAGCCATTGCGTCCCACCGTGCCTCTCAGCTGACCGTCAGCTCCCTGCAGTGCCATCGA
CATAAGCCATGGCGCCTTGGACCCAGATTTATGAACCTCATCAAAGAGGCTCGGTGGGACGGCTTGACTG
GGCGGATCACCTTCAATAAGACCGATGGCTTGAGAAAGGATTTTGACCTGGACATTATCAGTCTCAAAGA
GGAAGGAACTGAAAAGGCCTCTGGTGAAGTGTCTAAACACTTGTATAAAGTGTGGAAGAAGATTGGGATT
TGGAACTCCAACAGTGGGCTGAACATGACGGATGGCAACAGAGACAGGTCCAACAATATCACGGACTCGC
TGGCTAACCGCACACTCATTGTCACCACTATTCTGGAAGAGCCCTACGTGATGTACAGGAAATCCGATAA
GCCCTTGTATGGAAACGACAGGTTTGAAGGATATTGCCTGGATCTGCTGAAAGAACTGTCCAATATCCTG
GGTTTTCTTTACGATGTTAAACTGGTTCCTGATGGCAAATATGGAGCACAGAATGACAAAGGGGAATGGA
ATGGGATGGTAAAAGAACTCATCGACCACAGAGCTGACCTGGCAGTGGCCCCTCTCACCATCACATACGT
ACGGGAGAAAGTCATTGACTTCTCCAAGCCCTTCATGACCCTGGGCATTAGCATCCTTTACCGGAAGCCC
AATGGAACCAACCCGGGTGTCTTCTCCTTCCTCAACCCCCTATCTCCGGACATTTGGATGTACGTGCTGC
TCGCCTGCCTAGGAGTCAGTTGTGTACTGTTTGTGATTGCGAGGTTCACACCCTACGAGTGGTATAACCC
CCACCCATGCAACCCCGACTCAGACGTGGTGGAAAACAATTTCACTTTGCTAAATAGTTTCTGGTTTGGA
GTTGGAGCTCTCATGCAGCAAGGATCAGAGCTGATGCCCAAGGCTCTATCGACCAGAATAGTTGGAGGAA
TATGGTGGTTTTTCACCCTAATCATCATTTCATCCTACACGGCCAACCTGGCTGCCTTCTTGACGGTAGA
AAGAATGGAATCCCCCATCGATTCCGCAGACGATCTGGCCAAACAAACCAAGATAGAATATGGGGCAGTC
AGAGATGGCTCGACGATGACCTTCTTCAAGAAATCAAAGATCTCCACCTATGAGAAAATGTGGGCTTTCA
TGAGCAGTAGACAGCAGAGCGCACTGGTTAAAAACAGTGACGAGGGGATCCAAAGGGTGCTCACCACCGA
CTACGCACTGCTGATGGAGTCCACCAGCATTGAGTATGTGACGCAGAGGAACTGCAACCTCACTCAGATC
GGGGGCCTCATAGACTCCAAAGGCTATGGAGTGGGGACGCCTATCGGCTCCCCTTACCGGGATAAAATTA
CGATTGCCATTCTTCAACTGCAAGAAGAAGGGAAGCTTCATATGATGAAAGAGAAGTGGTGGAGGGGGAA
TGGCTGCCCTGAAGAAGACAGTAAGGAAGCCAGTGCTCTGGGAGTGGAAAATATCGGCGGCATCTTCATT
GTTCTGGCTGCAGGACTCGTGCTTTCTGTGTTTGTAGCCATTGGAGAATTTTTATACAAATCACGGAAGA
ACAATGACGTTGAGCAGTGTCTCTCTTTCAATGCCATCATGGAAGAGCTGGGAATATCCCTCAAGAATCA
GAAAAAATTAAAGAAAAAGTCAAGAACTAAGGGCAAATCTTCTTTCACAAGTATCCTTACTTGTCACCAG
AGACGAACTCAGAGAAAAGAGACAGTGGCGTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI

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| | |
|---|---|
| **ACCN:** | NM_017241 |
| **Insert Size:** | 2763 bp |
| **OTI Disclaimer:** | 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). |
| **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.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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_017241.2, NP_058937.1 |
| **RefSeq Size:** | 3244 bp |
| **RefSeq ORF:** | 2763 bp |
| **Locus ID:** | 29559 |
| **UniProt ID:** | P22756 |
| **Cytogenetics:** | 11q11 |
| **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. 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]<br>Transcript Variant: This variant (2) is missing an in-frame coding exon at the 3' end compared to transcript variant 1, resulting in a shorter isoform (2) lacking a 29 aa segment, compared to isoform 1. RNA editing (CAG->CGG) changes Gln636Arg. |

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