

## Product datasheet for **MR225914**

### Grm2 (NM\_001160353) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Grm2 (NM_001160353) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Grm2
Synonyms:	4930441L02Rik; Gprc1b; mGluR2; mGluR7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR225914 representing NM\_001160353  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGAATCCCTGCTTAGGTTCTGGCACTGCTGCTGCTGCGGGTGTGTGGCCAGGGCCCGCCAAGA  
 AGGTGCTGACCCCTGGAGGGGACCTGGTCTGGGTGGGCTGTTCCAGTGCACCAGAAGGTGGCCAGC  
 AGAGGAGTGTGGACCTGTTAATGAGCACCGTGGCATAACAGCGCCTAGAGGCCATGCTTTTGCAGCTGGAC  
 CGCATCAACCGGACCCCATCTGCTGCCTGGGTGCGTTTGGCGCGCACATCTCGACAGCTGCTCCA  
 AGGATACACAGCCCTGGAGCAGGCCCTGGACTTTGTGCGTGCCTCACTCAGCCGTGGGGCTGATGGCTC  
 ACGCCACATCTGCTGACGGCTCCTATGCTACTCTCAGTGATGCTCCCACAGCTATCACCGGTGCATT  
 GGGCGCTCCTACAGTGATGTCTCCATCCAGGTGGCCAATCTCCTGCGGCTGTTCCAGATCCACAGATCA  
 GCTATGCCTCCACCAGCGCAAGCTGAGCGACAAGTCCCGTTATGATTACTTTGCTCGCACCGTGCCCC  
 AGACTTCTTCCAAGCCAAGGCCATGGCTGAGATTCTCCGTTTTTCAACTGGACGTATGTGTCTACGGTG  
 GCATCTGAGGGTACTATGGAGAGACAGGCATTGAGGCCTTCGAGCTCGAGGCTCGGGCAGCAACATCT  
 GCGTGGCCACTTCGGAGAAGGTGGGCCGTGCCATGAGCCGCGCAGCCTTCGAGGGTGTGGTGCAGCCCT  
 GTTGACAGAAGCCAGCGCCCGTGTGGCTGTGCTTTCACCGGTGAGAGGATGCCCGTGGCTGCTTGA  
 GCCACCCAGCGTCTCAACGCCAGCTTCACTGGGTAGCCAGCGACGGCTGGGGGGCCCTAGAGAGCGTGG  
 TGGCAGGCAGTGAAAGGGCTGCCAGGGCGCCATCACCATTGAGCTGGCTCCTACCCCATCAGTGACTT  
 TGCCCTCTACTCCAGAACTTGGATCCCTGGAACAACAGCAGGAACCCTTGGTCCGTGAGTTCTGGGAG  
 GAGAGGTTCCGTTGCAGCTTCCGGCAGCGAGACTGCGCCGCCACTCTCTGCGGGCCGTACCCCTTGAAC  
 AGGAGTCAAAGATCATGTTTGGTCAATGCCGTGTATGCCATGGCCACGCTCTGCACAACATCACCCG  
 TGCCCTCTGTCCCAACACCACCCGCTCTGCGATGCCATGAGACCTGTCAATGGGCGCCGCTCTACAAG  
 GACTTCGTGCTCAATGTCAAGTTTGTGCCCCCTTCCGCCAGCAGATACCGACGACGAGGTCCGCTTTG  
 ACCGCTTTGGAGATGGTATTGGCCGCTACAACATCTTACCTATCTGCGGGCAGGCAATGGGCGCTATCG  
 CTACCAGAAGGTAGGCTACTGGGAGAAGGTCTGACTCTGGATACTAGCATATCCCATGGGCTCCCCA  
 TCAGCTGGCACCCCTCCCTGCCTCTCGTGTAGCGAGCCCTGCCTCAGAATGAGGTGAAGAGCGTGACG  
 CCGGGAGGTCTGCTGCTGGCTCTGCATCCCTGTGAGCCCTATGAGTACAGGCTGGATGAGTTCACCTG  
 TGCTGACTGTGGCTGGGCTACTGGCCTAATGCCAGTCTGACTGGATGCTTTGAGCTGCCCAGGAGTAC  
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 TTGTGTTGGGTGTCTTCGTGCGGCATAACGCCACACCCGTGGTCAAGGCCTCGGGCGGGAGCTTTGCTA  
 CATTCTGCTGGGAGGCGTCTTCCCTGCTACTGCATGACCTTCATCTTATCGCCAAGCCCTCCACGGCC  
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 CCAATCGCATCGCTCGCATCTTTGGCGGGCCCGGGAGGGTGCCAGCGGCCGCGCTTATCAGTCCCGC  
 CTCACAGGTGGCCATCTGCCTGGCACTTATCTCGGGCAGCTGCTCATTGTTGCTGCCTGGCTGGTGGTG  
 GAGGCACCTGGCATAGGCAAGGAGACAGCCCTGAGCGGGCGGAAGTGGTACCTTGCCTGTAACCACC  
 GTGACGCAAGCATGCTTGGCTCGCTGGCCTACAACGTGCTCCTCATCGCTCTCTGCACGCTCTATGCCT  
 CAAGACCCGCAAGTGCCCGGAGAACTTCAACGAGGCCAAGTTATCGGCTTTACCATGTACACCACCTGT  
 ATCATCTGGCTGGCTTTCCCTCCCATCTTCTACGTACCTCCAGTGATTATCGGGTGCAGACCACTACGA  
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 CCTCTTCCAGCCACAGAAGAAGTGGTGGAGCCACCGGGCACCTACCAGCCGCTTTGGCAGTGTGCCCC  
 AGGGCCAGCGCAACCTTGGTCAAGGTCTGGATCCAGCTTGTCTACTGTTTGAATGGCCGTGAGG  
 TGGTAGACTCAACAACATCGTCGCTT

**ACGCGT**ACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR225914 representing NM\_001160353  
 Red=Cloning site Green=Tags(s)

MESLLRFLALLLLRGAVAEGPAKKVLTLEGLVLGGLFPVHQKGGPAEECGPVNEHRGIQRLEAMLFALD  
 RINRDPHLLPGVRLGAHILDSCSKDTHALEQALDFVRASLSRGADGSRHICPDGSYATLSDAPTAITGVI  
 GGSYSDVSIQVANLLRLFQIPQISYASTSAKLSKDSRYDYFARTVPPDFQAKAMAEILRFFNWTYVSTV  
 ASEG DYGETGIEAFELEARARNICVATSEKVGSRAMSRAAFEGVVRALLQKPSARVAVLFTRSEDARELLA  
 ATQRLNASFTWVASDVGWGALESVVAGSERAAEGAITIELASYPISDFASYFQNLDPWNNSRNPWFREFWE  
 ERFRCFSFRQDCAAHSLRAVPFEQESKIMFVVNAVYAMAHALHNMHRALCPNNTTRLCDAMPVNGRRLYK  
 DFVNLVKFDAPFRPADTDEVRFDVDFGDI GRYNIFTYLRAGNGRYRYQKVG YWAEGLTLDTSIIPWASP  
 SAGTLPASRCSEPLQNEVKSVPQGEVCCWLCIPCQPYEYRLDEFTCADCGLGYWPNASLTGCFELPQEY  
 IRWGDAAVGPVTIACL GALATL FVLGVFVRHNATPVVKASGRELCYILLGGVFLCYCMTFIFIAPKSTA  
 VCTLRRLGLGTAFSVCYSALLTKTNRIARIFGGAREGAQRPRFISPASQVAICLALISGQLLIVA AWLVV  
 EAPGIGKETAPERREVVTLRCNHRDASMLGSLAYNVLLIALCTL YAFKTRKCPENFNEAKFIGFTMYTTC  
 I IWLAF LPIFYVTSSDYRVQTTTMCVSVLSGSVVLGCLFAPKLH IILFQPQKNV VSHRAPTSRFGSAAP  
 RASANLQGSGSQLVPTVCNGREVVDSTTSSL

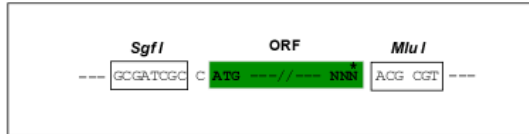
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mm9091\\_e07.zip](https://cdn.origene.com/chromatograms/mm9091_e07.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

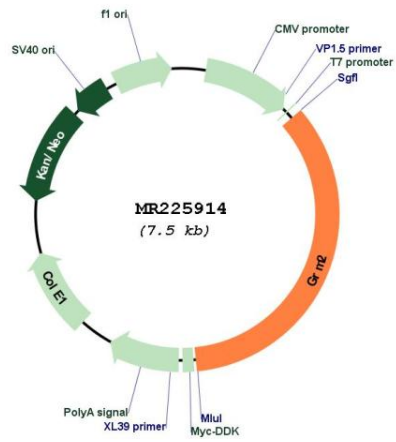
Cloning sites used for ORF Shuttling:



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

<b>ACCN:</b>	NM_001160353
<b>ORF Size:</b>	2616 bp
<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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></p>
<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>	<u><a href="#">NM_001160353.1</a></u> , <u><a href="#">NP_001153825.1</a></u>
<b>RefSeq Size:</b>	3338 bp
<b>RefSeq ORF:</b>	2619 bp
<b>Locus ID:</b>	108068
<b>UniProt ID:</b>	<u><a href="#">Q14BI2</a></u>
<b>Cytogenetics:</b>	9 F1
<b>MW:</b>	95.9 kDa
<b>Gene Summary:</b>	G-protein coupled receptor for glutamate. Ligand binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of down-stream effectors. Signaling inhibits adenylate cyclase activity. May mediate suppression of neurotransmission or may be involved in synaptogenesis or synaptic stabilization.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR225914