

## Product datasheet for **RC221195**

### Metabotropic Glutamate Receptor 6 (GRM6) (NM\_000843) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Metabotropic Glutamate Receptor 6 (GRM6) (NM_000843) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Metabotropic Glutamate Receptor 6
Synonyms:	CSNB1B; GPRC1F; mGlu6; MGLUR6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC221195 representing NM\_000843  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCGCGGCCCGGAGAGCCCGGAGCCGCTGCTCGTGGCGCTGCTGCCGCTGGCGTGGCTGGCGCAGG  
 CGGGCCTGGCGCGCGCGCGGGCTCTGTGCGCCTGGCGGGCGCCGACGCTGGCGGGCCTGTTCCCGGT  
 GCACGCGCGGGCGCGCGGGCCGGCGTGCGGGACGCTGAAGAAGGAGCAGGGCGTGCACCGGCTGGAG  
 GCCATGCTGTACGCGCTGGACCGCTCAACGCCGACCCGAGCTGCTGCCCGGCGTGCAGCTGGCGCGC  
 GGCTGCTGGACACCTGCTCGCGGACACCTACGCGCTGGAGCAGGCGCTGAGCTTCGTGCAGGCGCTGAT  
 CCGCGGCCCGCGGACGGCGACGAGGTGGGCGTGCCTGCCCGGAGGCGTCCCTCCGCTGCGCCCCGCG  
 CCCCCGAGCGCGTCTGGCCGTCTGGCGCCTCGGCCAGCTCCGTCTCCATCATGGTCGCCAACGTGC  
 TGCCTGTTTGGGATACCCAGATCAGCTATGCCTCCACAGCCCCGGAGCTCAGCGACTCCACACGCTA  
 TGACTTCTTCCCGGGTGGTGCACCCGACTCCTACCAGGCGCAGGCCATGGTGGACATCGTGAGGGCA  
 CTGGGATGGAACATATGTCTCACGCTGGCTCCGAGGGCAACTATGGCGAAAGTGGGGTTGAGGCCCTTCG  
 TTCAGATCTCCCGAGAGGCTGGGGGGTCTGTATTGCCAGTCTATCAAGATTCACAGGGAACCAAGCC  
 AGGAGAGTTTACGAAGGTGATCAGGAGACTCATGGAGACGCCAACGCCCGGGGATCATCATCTTTGCC  
 AATGAGGATGACATCAGGCGGGTCTGGAGGACGCTCGCCAGGCCAACCTGACCGGCCACTTCTGTGGG  
 TCGGCTCAGACAGCTGGGAGCCAAAGACCTCACCCATCTTGAGCCTGGAGGACGTGGCCGTTGGGGCCAT  
 CACCATCTGCCAAAAGGGCTCCATCGACGGATTTGACCAGTACTTCATGACTCGATCCCTGGAGAAC  
 AACCGCAGGAACATCTGGTTCGCGGAGTCTGGGAAGAGAATTTAACTGCAAACTGACCAGCTCAGGTA  
 CCAGTACAGCGATTCCACCCGAAAATGCACAGGCGAGGAACGCATCGGCCGGGACTCACCTACGAGCA  
 GGAGGGCAAGGTGCAGTTTGTGATTGATGCGGTGTACGCCATTGCCACGCCCTCCACAGCATGCACCAG  
 GGCTCTGCCCTGGGCACACAGGCTGTGCCCGCGATGGAACCCACTGATGGGCGGATGCTTCTGCAGT  
 ACATTCGAGCTGTCCGCTTCAATGGCAGCGCAGGAACCCCTGTGATGTTCAACGAGAACGGAGATGCGCC  
 CGGGCGGTACGACATCTTCCAGTACCAGGCGACCAATGGCAGTGCACGAGTGGCGGGTACCAGGACGTG  
 GGCCAGTGGCAGAGACCCTCAGACTGGATGTGGAGGCCCTGCAGTGGTCTGGCGACCCACGAGGTGC  
 CCTCGTCTGTGCAGCCTGCCCTGCGGGCCGGGGAGCGGAAGAAGATGGTGAAGGGCGTCCCCTGCTG  
 TTGGCACTGCGAGGCTGTGACGGTACCCTTCCAGGTGGACGAGTTACATGCGAGGCTGTCCCTGGG  
 GACATGAGGCCACGCCAACACAGGGCTGCCGCCACACCTGTGGTGCCTGAGCTGGTCCCTCCC  
 CCTGGGCAGCCCCGCGCTCCTCCTGGCGTGTGGGCATCGTGGCCACTACCACGGTGGTGGCCACCTT  
 CGTGCGGTACAACAACACGCCCATCGTCCGGGCCCTCGGGCCGAGAGCTCAGCTACGCTCCTCACCGGC  
 ATCTTCTCATCTACGCCATCACCTTCTCATGGTGGTGGAGCCTGGGGCCGCGGTCTGTGCCGCCCGCA  
 GGCTCTTCTGGGCTGGGCACGACCCTCAGTACTCTGCCCTGCTCACCAAGACCAACCGTATCTACCG  
 CATCTTTGAGCAGGGCAAGCGCTCGGTACACCCCTCCCTTTCATCAGCCCCACCTCACAGCTGGTCATC  
 ACCTTCAGCCTCACCTCCCTGCAGGTGGTGGGGATGATAGCATGGCTGGGGGCCCGGCCCCACACAGCG  
 TGATTGACTATGAGGAACAGCGGACGGTGGATCCCGAGCAGGCCAGAGGGGTGCTCAAGTGGCAGATGTC  
 GGATCTGTCTCATCGGCTGCCTGGGCTACAGCCTCCTGCTCATGGTACGTCACAGTGCACAGTACGCCATC  
 AAGGCCCGTGGCGTGGCGAGACCTTCAACGAGGCCAAGGCCATCGGCTTACCATGTACACCACCTGCA  
 TCATCTGGCTGGCATTCTGCCCCATCTTTGGCACTGCCAGTACAGTGAAGAAGTCTACATCCAGAC  
 AACACGCTAACCGTGTCTTGGCCTGAGTGCCTCGGTGCCCTCGGCATGCTCTACGTACCCAAAACC  
 TACGTATCTCTTCCATCCAGAGCAGAATGTGCAGAAGCGAAAGCGGAGCCTCAAGGCCACCTCCACGG  
 TGGCAGCCCCACCAAGGGCGAGGATGCAGAGGCCACAAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC221195 representing NM\_000843  
 Red=Cloning site Green=Tags(s)

MARPRRAREPLL VALLPLAWLAQAGLARAAGSVRLAGGL TLGGLFPVHARGAAGRACGQLKKEQGVHRLE  
 AMLYALDRVNADPELLPGVRLGARLLDTCSDTYALEQALSFVQALIRGRGDGDEVGVRCPPGGVPLRPA  
 PPERVVAVVGASASSVSIMVANVLR LFAIPQISYASTAPELSDSTRYDFFSRVVPPDSYQAQAMVDIVRA  
 LGWNYVSTLASEGNYGESGVEAFVQISREAGGVCIASIKIPREP KGEFSKVIRRLMETPNARGIIFA  
 NEDDIRRVLEAARQANLTGHFLWVGSDSWGAKTSPILSLEDVAVG AITILPKRASIDGFDQYFMTRSLEN  
 NRRNIWF AEFWEENFNCKLTSSGTQSDSTRKCTGEERIGRDSTYEQEGKVQFVIDAVYAI AHALHSMHQ  
 ALCPGHTGLCPAMEPTDGRMLLQYIRAVRFNGSAGTPVMFNENG DAPGRYDIFQYQATNGSASSGGYQAV  
 GQWAETLR LDVEALQWSGDPHEVPSSLSLPCGPGERKKMVKGPCCWHCEACDGYRFQVDEFTCEACPG  
 DMRPTPNHTGCRPTPVVRLSWSSPWAAPPLLLAVLGIVATTTVVATFVRYNNTPIVRASGREL SYVLLTG  
 IFLIYAITFLMVAEPGAAVCAARRLFLGLGTTLSYSALLTKTNRIYRIFEQGRSVTPPPFISPTSQLVI  
 TFSLTSLQVVGMIAWLGARPPHSVIDYEEQRTVDPEQARGV LKCDMSDL SIGCLGYSLLLMTCTVYAI  
 KARGVPETFNEAKPIGFTMYTTTCIIWLA FVPIFFGTAQSAEKIYIQTTTLLTVSLSASVSLGMLVYPKT  
 YVILFHPEQNVQKRKRSLKATSTVAAPPKGEDAEAHK

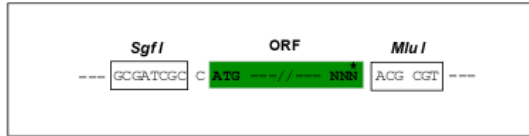
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6818\\_c05.zip](https://cdn.origene.com/chromatograms/mk6818_c05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

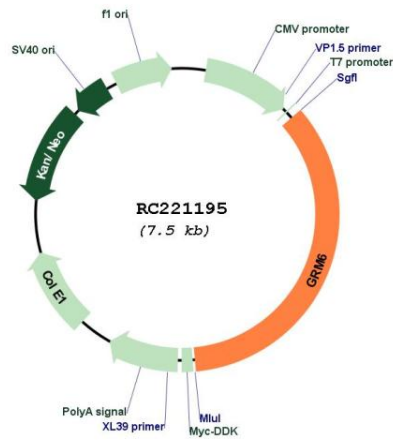
Cloning sites used for ORF Shuttling:



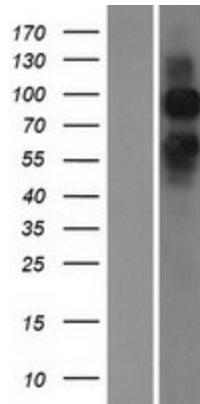
\* The last codon before the Stop codon of the ORF

<b>ACCN:</b>	NM_000843
<b>ORF Size:</b>	2631 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_000843.4</a>
<b>RefSeq Size:</b>	6122 bp
<b>RefSeq ORF:</b>	2634 bp
<b>Locus ID:</b>	2916
<b>UniProt ID:</b>	<a href="#">O15303</a>
<b>Cytogenetics:</b>	5q35.3
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Protein Pathways:</b>	Neuroactive ligand-receptor interaction
<b>MW:</b>	95.3 kDa
<b>Gene Summary:</b>	L-glutamate is the major excitatory neurotransmitter in the central nervous system and activates both ionotropic and metabotropic glutamate receptors. Glutamatergic neurotransmission is involved in most aspects of normal brain function and can be perturbed in many neuropathologic conditions. The metabotropic glutamate receptors are a family of G protein-coupled receptors, that have been divided into 3 groups on the basis of sequence homology, putative signal transduction mechanisms, and pharmacologic properties. Group I includes GRM1 and GRM5 and these receptors have been shown to activate phospholipase C. Group II includes GRM2 and GRM3 while Group III includes GRM4, GRM6, GRM7 and GRM8. Group II and III receptors are linked to the inhibition of the cyclic AMP cascade but differ in their agonist selectivities. Mutations in this gene result in congenital stationary night blindness type 1B. [provided by RefSeq, May 2018]

Product images:



Circular map for RC221195



Western blot validation of overexpression lysate (Cat# [LY424487]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221195 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).