

Product datasheet for **RG221195**

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:	TurboGFP
Symbol:	GRM6
Synonyms:	CSNB1B; GPRC1F; mGlu6; MGLUR6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG221195 representing NM_000843
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGCGCCCCGGAGAGCCCCGGAGCCGCTGCTCGTGGCGCTGCTGCCGCTGGCGTGGCTGGCGCAGG
 CGGGCCTGGCGCGCGCGCGGGCTCTGTGCGCCTGGCGGGCGCCCTGACGCTGGCGGCCTGTTCCCGGT
 GCACGCGCGGGCGCGCGGGCCGGCGTGCGGGAGCTGAAGAAGGAGCAGGGCGTGCACCGGCTGGAG
 GCCATGCTGTACGCGCTGGACCGCTCAACGCCGACCCGAGCTGCTGCCCGGCGTGCAGCTGGCGCGC
 GGCTGCTGGACACCTGCTCGCGGACACCTACGCGCTGGAGCAGGCGCTGAGCTTCGTGCAGGCGCTGAT
 CCGCGGCCCGCGGACGGCGACGAGGTGGGCGTGCCTGCCCGGAGGCGTCCCTCCGCTGCGCCCCGCG
 CCCCCGAGCGCGTCTGGCCGCTCGTGGCGCCTCGGCCAGCTCCGTCTCCATCATGGTCGCCAACGTGC
 TGGCCTGTTTGGATACCCAGATCAGCTATGCCTCCACAGCCCCGGAGCTCAGCGACTCCACACGCTA
 TGACTTCTTCCCGGGTGGTGCACCCGACTCCTACCAGGCGCAGGCCATGGTGGACATCGTGAGGGCA
 CTGGGATGGAACATGTGTCCACGCTGGCTCCGAGGGCAACTATGGCGAAAGTGGGGTTGAGGCCCTTCG
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 GGAGGGCAAGGTGCAGTTTGTGATTGATGCGGTGTACGCCATTGCCACGCCCTCCACAGCATGCACCAG
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 GGCCAGTGGCAGAGACCCTCAGACTGGATGTGGAGGCCCTGCAGTGGTCTGGCGACCCACGAGGTGC
 CCTCGTCTGTGCAGCCTGCCCTGCGGGCCGGGGAGCGGAAGAAGATGGTGAAGGGCGTCCCCTGCTG
 TTGGCACTGCGAGGCTGTGACGGTACCCTTCCAGGTGGACGAGTTACATGCGAGGCCTGTCCTGGG
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 TACGTATCCTCTTCCATCCAGAGCAGAATGTGCAGAAGCGAAAGCGGAGCCTCAAGGCCACCTCCACGG
 TGGCAGCCCCACCAAGGGCGAGGATGCAGAGGCCACAAG

ACCGTACGCGGCCGCTCGAG - GFP Tag - **GTTTAA**

Protein Sequence: >RG221195 representing NM_000843
 Red=Cloning site Green=Tags(s)

MARPRRAREPLL VALLPLAWLAQAGLARAAGSVRLAGGL TLGGLFPVHARGAAGRACGQLKKEQGVHRLE
 AMLYALDRVNADPELLPGVRLGARLLDTCSDTYALEQALSFVQALIRGRGDGDEVGVRCPGGVPLRPA
 PPERVVAVVGASASSVSIMVANVLRIFAIPQISYASTAPELSDSTRYDFFSRVVPPDSYQAQAMVDIVRA
 LGWNYVSTLASEGNYGESGVEAFVQISREAGGVCIAQSIKIPREPKEGFSKVIRRLMETPNARGIIFA
 NEDDIRRVLEAARQANLTGHFLWVGSWSGAKTSPILSLEDVAVGAILPKRASIDGFDQYFMTRSLLEN
 NRRNIWF AEFWEENFNCKLTSSGTQSDSTRKCTGEERIGRDSTYEQEGKVQFVIDAVYIAIAHALHSMHQ
 ALCPGHTGLCPAMEPTDGRMLLQYIRAVRFNGSAGTPVMFNENGDAPGRYDIFQYQATNGSASSGGYQAV
 GQWAETLRDVEALQWSGDPHEVPSSLSLPCGPGERKKMVKGPCCWHCEACDGYRFQVDEFTCEACPG
 DMRPTPNHTGCRPTPVVRLSWSSPWAAPLLLAVLGIVATTTVVATFVRYNNTPIVRASGRELSYVLLTG
 IFLIYAITFLMVAEPGAAVCAARRLFLGLGTTLSYSALLTKTNRIYRIFEQGRSVTPPPFISPTSQQLVI
 TFSLTSLQVVGMIAWLGARPPHSVIDYEEQRTVDPEQARGVLKCDMSDSLIGCLGYSLLLMTCTVYAI
 KARGVPETFNEAKPIGFTMYTTCIIWLAFFVPIFFGTAQSAEKIYIQTTLTVSLSASVSLGMLVYPKT
 YVILFHPEQNVQKRKRSCLKATSTVAAPPKGEDAEAHK

TRTRPLE - GFP Tag - V

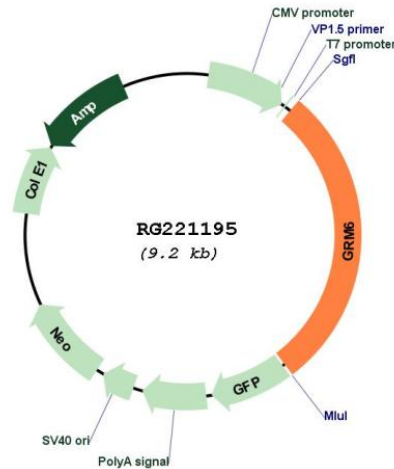
Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:


ACCN: NM_000843

ORF Size: 2631 bp

OTI Disclaimer: 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. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
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_000843.4](#)

RefSeq Size: 6122 bp

RefSeq ORF: 2634 bp

Locus ID: 2916

UniProt ID: [O15303](#)

Cytogenetics:	5q35.3
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Neuroactive ligand-receptor interaction
Gene Summary:	<p>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]</p>