

Product datasheet for **RG210813**

Metabotropic Glutamate Receptor 8 (GRM8) (NM_000845) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Metabotropic Glutamate Receptor 8 (GRM8) (NM_000845) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Metabotropic Glutamate Receptor 8
Synonyms:	GLUR8; GPRC1H; mGlu8; MGLUR8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide
Sequence:**

>RG210813 representing NM_000845
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGTATGCGAGGGAAAGCGATCAGCCTCTTGCCCTTGTCTCTCTTACCGCCAAGTTCTACTGGA
 TCCTCACAAATGATGCAAAGAAGTACAGCCAGGAGTATGCCATTCCATACGGGTGGATGGGACATTAT
 TTTGGGGGTCTCTTCCCTGTCCACGAAAGGGAGAGAGAGGGGTGCCTTGTGGGAGCTGAAGAAGGAA
 AAGGGATTACAGACTGGAGGCCATGCTTTATGCAATTGACCAGATTAACAAGGACCCTGATCTCCTTT
 CCAACATCACTCTGGGTGCCGATCCTCGACAGTGTCTAGGGACACCTATGCTTTGGAGCAGTCTCT
 AACATTCGTGCAGGCATTAATAGAGAAAGATGCTTCGGATGTGAAGTGTGCTAATGGAGATCCACCCATT
 TTCACCAAGCCCACAAGATTTCTGGCGTCATAGGTGCTGCAGCAAGCTCCGTGTCCATCATGGTTGCTA
 ACATTTAAAGACTTTTTAAGATACCTCAAATCAGCTATGCATCCACAGCCCCAGAGCTAAGTGATAACAC
 CAGGTATGACTTTTTCTCTCGAGTGGTTCGGCCTGACTCTACCAAGCCCAAGCCATGGTGGACATCGTG
 ACAGCACTGGGATGGAATTATGTTTCGACACTGGCTTCTGAGGGAACTATGGTGAGAGCGGTGTGGAGG
 CCTTACCCAGATCTCGAGGGAGATTGGTGGTGTTCATTGCTCAGTCACAGAAAATCCCACGTGAACC
 AAGACCTGGAGAAATTTGAAAAATTATCAAACGCCTGCTAGAAAACACCTAATGCTCGAGCAGTGATTATG
 TTTGCCAATGAGGATGACATCAGGAGGATATTGGAAGCAGCAAAAAAAGTAAACCAAGTGGGCATTTTC
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 GGCTGTGACAATTTGCCAAACGAGCATCAATTGATGGATTTGATCGATACTTTAGAAGCCGAAGTCTT
 GCCAATAATCGAAGAAATGTGTGGTTGCAGAATCTGGGAGGAGAATTTGGCTGCAAGTTAGGATCAC
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 AAAGATCTCTGCCTGGATACATTGGCCTTTGTCCACGAATGAGTACCATTGATGGGAAAGAGCTACTTG
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 CTGTGAACGCTGTGAAGTTAACAATACCAGGTGGATGAGCTGTCTGTGAAGTTCCTCTGGATCAG
 AGACCAACATGAACCGCACAGGCTGCCAGCTTATCCCCATCATCAAATGGAGTGGCATTCTCCCTGGG
 CTGTGGTGCCTGTGTTTGTGCAATATTGGGAATCATCGCCACCACCTTTGTGATCGTGACCTTTGTCCG
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 CTCTGTTATTCAATCACGTTTTTAAATGATTGCAGCACCAGATACAATCATATGCTCCTTCCGACGGGTCT
 TCCTAGGACTTGGCATGTGTTTCAGCTATGCAGCCCTTCTGACCAAAAACAAACCGTATCCACCGAATATT
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 AGCCTCATCTCCGTCCAGCTCCTTGGAGTGTGTGTCTGGTTTGTGTGGATCCCCCACATCATATTG
 ACTATGGAGAGCAGCGGACACTAGATCCAGAGAAGGCCAGGGGAGTGTCAAGTGTGACATTTCTGATCT
 CTCACCTATTTGTTCACTTGGATACAGTATCCTCTTGTGGTCACTTGTACTGTTTATGCCATTAACCG
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 CCATGCAAAGCAAAGTATCCAAAAGGAAATGACAGACCAAATGGCGAGGTGAAAAGTGAAGTCTGTGA
 GAGTCTTGAACCAACACTTCTCTACCAAGACAACATATATCAGTTACAGCAATCATTTCAATC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - **GTTTAA**

Protein Sequence: >RG210813 representing NM_000845
 Red=Cloning site Green=Tags(s)

MVCEGKRSASPCFFLLTAKFYWILTMMQRTHSQEYAH SIRVDGDIILGGLFPVHAKGERGVPCGELKKE
 KGIHRLEAMLYAIDQINKDPDLLSNITLGVRILDTCSRDTYALEQSLTFVQALIEKDASDVKCANDDPPI
 FTKPKISGVIGAAASSVSIMVANILRLFKIPQISYASTAPELSDNTRYDFFSRVPPDSYQAQAMVDIV
 TALGWNYVSTLASEGNYGESGVEAFTQISREIGGVCI AQSQKIPREPRGFEKIIKRLLTPNARAVIM
 FANEDDIRRILEAAKKNLQSGHFLWIGSDSWGSKIAPVYQEEI AEGAVTILPKRASIDGFDYFRSRTL
 ANNRRNVWFAEFWEENFGCKLGSHGKRNSHIKKTGLER IARDSSYEQEGKVQFVIDAVYSMAYALHNMH
 KDLCPGYIGLCPRMSTIDGKELLGYIRAVNFNGSAGTPVTFNENGDAPGRYDIFQYQITNKSTEYKVI GH
 WTNQLHLKVEDMQWAHREHTHPASVCSLPCKPGERKKT VKGVPCCWHCERCEGNYQVDELSCELPLDQ
 RPNMNRGTCQLIPIIKLEWHSPWAVVPVFVAILGIIATTFVIVTFVRYNDTPIVRASGRELSYVLLTGIF
 LCYSITFLMIAAPDTIICSFRRVFLGLGMCFSYAALLTKTNRIHRIFEQGGKSVTAPKFI SPASQLVITF
 SLISVQLLGVFVWFVVDPPHIIIDYGEQRTL DPEKARGVLKCDISDLSLICSLGYSILLMVTCTVYAIKT
 RGPVETFNKAKPIGFTMYTTCIIWLAFIPIFFGTAQSAEKMYIQT TLLTVSMLSASVSLGMLYMPKVYI
 IIFHPEQNVQKRKRFSKAVVTAATMQSKLIQKGNDRPNGEVKSELCE SLETNTSSTKTTYISYSNHSI

TRTRPLE - GFP Tag - V

Restriction Sites:

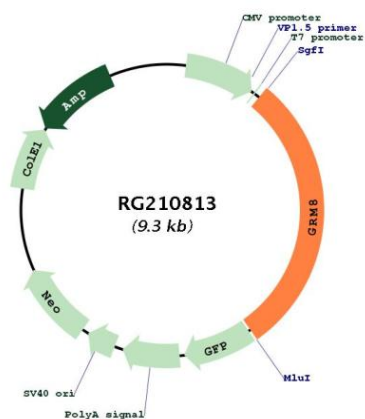
SgfI-MluI

Cloning Scheme:



ACCN:	NM_000845
ORF Size:	2724 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:	<ol style="list-style-type: none">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_000845.3
RefSeq Size:	3321 bp
RefSeq ORF:	2727 bp
Locus ID:	2918
UniProt ID:	O00222
Cytogenetics:	7q31.33
Domains:	7tm_3, ANF_receptor
Protein Families:	Druggable Genome, GPCR, Transmembrane
Protein Pathways:	Neuroactive ligand-receptor interaction
Gene Summary:	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. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG210813