

Product datasheet for **RC207379**

Metabotropic Glutamate Receptor 3 (GRM3) (NM_000840) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Metabotropic Glutamate Receptor 3 (GRM3) (NM_000840) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Metabotropic Glutamate Receptor 3
Synonyms:	GLUR3; GPRC1C; mGlu3; MGLUR3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC207379 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAAGATGTTGACAAGACTGCAAGTCTTACCTTAGCTTTGTTTTCAAAGGGATTTTTACTCTCTTTAG
 GGGACCATAACTTTCTAAGGAGAGAGATTAATAAGAGGTGACCTTGTTTTAGGGGCCTGTTTCTAT
 TAACGAAAAAGGCACTGGAAGTGAAGAATGTGGGCGAATCAATGAAGACCGAGGGATTCAACGCCTGGAA
 GCCATGTTGTTTCTATTGATGAAATCAACAAAGATGATTAAGTCTACCAGGAGTGAAGTTGGGTGTTT
 ACATTTTTGATACATGTTCAAGGATACCTATGCATTGGAGCAATCACTGGAGTTTGTGAGGCATCTTT
 GACAAAAGTGGATGAAGCTGAGTATATGTGCTGATGGATCCTATGCCATTCAAGAAAACATCCCCTT
 CTCATTGCAGGGTCAATGGTGGCTCTTATAGCAGTGTTCATACAGGTGGCAAACCTGCTGCGGCTCT
 TCCAGATCCCTCAGATCAGCTACGCATCCACCAGCGCAAACCTCAGTGATAAGTCGCGCTATGATTACTT
 TGCCAGGACCGTGCCTCCGACTTCTACCAGGCCAAAGCCATGGCTGAGATCTTGGCCTTCTTCAACTGG
 ACCTACGTGTCCACAGTAGCCTCCGAGGGTGATTACGGGGAGACAGGGATCGAGGCTTCGAGCAGGAAG
 CCCGCCTGCGCAACATCTGCATCGCTACGGCGGAGAAGGTGGGCCGCTCCAACATCCGCAAGTCTACGA
 CAGCGTATCCGAGAAGTGTGAGAGCCCAACGCGCGCTCGTGGTCTCTTTCATGCGCAGCGACGAC
 TCGCGGGAGCTCATTGCAGCCGCGAGCCGCGCAATGCCCTCCTTACCTGGGTGGCCAGCGACGGCTGGG
 GCGCGCAGGAGAGCATCAAGGGCAGCGAGCATGTGGCCTACGGCGCCATCACCTGGAGCTGGCCTC
 CCAGCCTGTCCGCCAGTTCGACCGCTACTTCCAGAGCCTCAACCCCTACAACAACCACCGCAACCCCTGG
 TTCCGGGACTTCTGGGAGCAAAAGTTTCAGTGCAGCCTCCAGAACAACGCAACCAAGGCGCTGCGG
 ACAAGCACCTGGCCATCGACAGCAGCAACTACGAGCAAGAGTCCAAGATCATGTTTGGTGAACGCGGT
 GTATGCCATGGCCACGCTTTGCACAAAATGCAGCGCACCTCTGTCCCAACACTACCAAGCTTTGTGAT
 GCTATGAAGATCCTGGATGGGAAGAAGTTGTACAAGGATTAAGTCTGCTGAAAATCAACTTACGGCTCCAT
 TCAACCCAAATAAAGATGCAGATAGCATAGTCAAGTTTGACACTTTTGGAGATGGAATGGGGCGATAACA
 CGTGTTCAAATTTCAAAAATGTAGGTGGAAGTATTCTACTTGAAAGTTGGTCACTGGGCAGAAACCTTA
 TCGCTAGATGTCAACTCTATCCACTGGTCCCGAACTCAGTCCCCACTTCCAGTGCAGCGACCCCTGTG
 CCCCCAATGAAATGAAGAATATGCAACCAGGGGATGTCTGCTGCTGGATTTGCATCCCCTGTGAACCCTA
 CGAATACCTGGCTGATGAGTTTACCTGTATGGATTGTGGGTCTGGACAGTGGCCACTGCAGACCTAACT
 GGATGCTATGACCTTCTGAGGACTACATCAGGTGGGAAGACGCCTGGGCCATTGGCCAGTCAACATTG
 CCTGTCTGGGTTTTATGTGTACATGCATGGTTGTAAGTGTTTTTATCAAGCACAACAACACCCCTTGGT
 CAAAGCATCGGGCCGAGAAGTCTGCTACATCTTATTGTTTGGGGTTGGCCTGTCATACTGCATGACATTC
 TTCTTCATTGCCAAGCCATCACCAGTCACTGTGCATTGCGCCGACTCGGGCTGGGGAGTTCCTTCGCTA
 TCTGTTACTCAGCCCTGTGACCAAGACAACTGCATTGCCCGCATCTTCGATGGGGTCAAGAATGGCGC
 TCAGAGGCCAAAATTCATCAGCCCCAGTCTCAGGTTTTATCTGCTGGGTCTGATCCTGGTGCAAATT
 GTGATGGTGTCTGTGGCTCATCTGGAGGCCAGGCACCAGGAGGTATACCTTGCAGAGAAGCGGG
 AAACAGTCATCTAAAATGCAATGTCAAAGATTCAGCATGTTGATCTCTTACCTACGATGTGATCCT
 GGTGATCTTATGCACTGTGTACGCTTCAAACGCGGAAGTCCCAGAAAATTTCAACGAAGCTAAGTTC
 ATAGGTTTTACCATGTACACCAGTGCATCATCTGGTTGGCCTTCTCCCTATATTTTATGTGACATCAA
 GTGACTACAGAGTGCAGACGACAACCATGTGCATCTCTGTGAGCCTGAGTGGCTTTGTGGTCTTGGGCTG
 TTTGTTTGCACCAAGGTTACATCATCTGTTTCAACCCAGAAGAATGTTGTACACACAGACTGCAC
 CTCAACAGGTTCAAGTGTGAGTGGAACTGGGACCACATACTCTCAGTCTCTGCAAGCACGTATGTGCCAA
 CGGTGTGCAATGGGCGGGAAGTCTCGACTCCACCACCTCATCTCTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC207379 protein sequence
 Red=Cloning site Green=Tags(s)

MKMLTRLQVLTALFSGKFLLSLDHNFRLREIKIEGDLVLGGLFPINEKGTGTEECGRINEDRGIQRLE
 AMLFAIDEINKDDYLLPGVKLVHIFDTCSDTYALEQSLEFVRASLTKVDEAEYMC PDGSYAIQENIPL
 LIAGVIGGSYSSVSIQVANLLRFLQIPQISYASTSAKLSKSRDYDFARTVPPDFYQAKAMAEILRFFNW
 TVVSTVASEGDYGETGIEAFEQEARLRNICIATAEKVGRSNIRKSYDSVIRELLQKPNARVVVLFMRSD
 SRELIAAASRANASFTWVASDGGWAQESI IKGSEHVAYGAITLELASQPVRFDRYFQSLNPYNNHRNPW
 FRDFWEQKFCQSLQNKRNHRRVCDKHLAIDSSNYEQESKIMFVVNAVYAMAHALHKMQRTLCPNTTKLCD
 AMKILDGKLYKDYLLKINFTAPFNPNDADSIKFDTFGDGMGRYVNFNFQNVGGKYSYLKVGHWAE
 TSLDVNSIHWSRNSVPTSQCSDPCAPNEMKNMQGDVCCWICIPCEPYEYLADEFTCMDGSGQWPTADLT
 GCYDLPEDYIRWEDAWAIGPVTIACLGFMCTCMVVTVFIKHNNTPLVKASGRELCYILLFGVGLSYCMTF
 FFIKPSVICALRRLGLGSSFAICYSALLTKTNCIARIFDGVKNGAQRPKFISPSSQVFI
 CLGLILVQI VMVSVWLEAPGTRRYLAEKRETVILKCNVKDSSMLISLTYDVLVILCTVYAFKTRKCPENFNAKF
 IGFMTYTCIIWLAFLPIFYVTSSDYRVQTTTMCISVSLSGFVVLGCLFAPKVHIIILFQPKNVVTHRLH
 LNRFSVSGTGTTYSQSSASTYVPTVCNGREVLDSTTSSL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

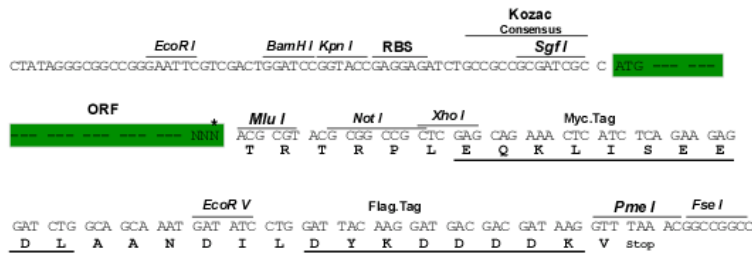
https://cdn.origene.com/chromatograms/mk6202_e01.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:

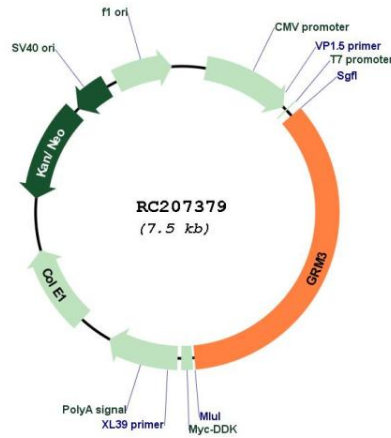


* The last codon before the Stop codon of the ORF

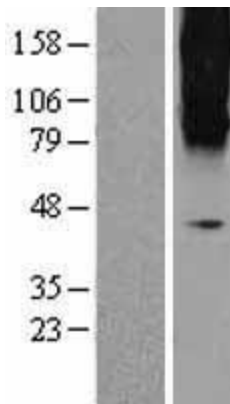
ACCN:	NM_000840
ORF Size:	2637 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own 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_000840.2 , NP_000831.2
RefSeq Size:	4260 bp
RefSeq ORF:	2640 bp
Locus ID:	2913
UniProt ID:	Q14832
Cytogenetics:	7q21.11-q21.12
Domains:	7tm_3, ANF_receptor
Protein Families:	Druggable Genome, GPCR, Transmembrane
Protein Pathways:	Neuroactive ligand-receptor interaction
MW:	98.9 kDa

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. [provided by RefSeq, Jul 2008]

Product images:


Circular map for RC207379



Western blot validation of overexpression lysate (Cat# [LY400297]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207379 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).