

Product datasheet for **RC239762**

Metabotropic Glutamate Receptor 1 (GRM1) (NM_001278065) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Metabotropic Glutamate Receptor 1 (GRM1) (NM_001278065) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Metabotropic Glutamate Receptor 1
Synonyms:	GPRC1A; MGLU1; MGLUR1; PPP1R85; SCA44; SCAR13
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC239762 representing NM_001278065
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGTCGGGCTCCTTTTGTTTTTTTCCACAGCATCTTTTGGAGGTGTCCCTTCTCCCCAGAAGCCCCG
 GCAGGAAAGTGTGCTGGCAGGAGCGTCGTCTCAGCGCTCGGTGGCCAGAATGGACGGAGATGTCATCAT
 TGGAGCCCTCTTCTCAGTCCATCACCAGCTCCGGCCGAGAAAGTGCCCGAGAGGAAGTGTGGGAGATC
 AGGGAGCAGTATGGCATCCAGAGGGTGGAGGCCATGTTCCACACGTTGGATAAGATCAACCGGACCCGG
 TCCTCCTGCCAACATCACCTGGGCAGTGAATCCGGGACTCCTGCTGGCACTTCCGTGGCTCTGGA
 ACAGAGCATTGAGTTCATTAGGGACTCTCTGATTTCCATTCGAGATGAGAAGGATGGGATCAACCGGTGT
 CTGCTGACGGCCAGTCCCTCCCCCAGGCAGGACTAAGAAGCCATTGCGGGAGTGATCGGTCCCGGCT
 CCAGCTCTGTAGCCATCAAGTGCAGAACCTGCTCCAGCTCTTCGACATCCCCAGATCGCTTATTCAGC
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 CAGGCAAGGGCCATGCTTACATAGTCAAACGTTACAATTGGACCTATGTCTCTGACGTCCACACGGGAA
 GGAATTATGGGGAGAGCGGAATGGACGCTTTCAAAGAGCTGGCTGCCAGGAAGGCTCTGTATCGCCCA
 TTCTGACAAAATCTACAGCAACGCTGGGGAGAAGACTTTGACCGACTCTTGCGCAAACTCCGAGAGAGG
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 GAAAGGAGAAGTGAAGTGTGCTGGATTTGCACGGCTGCAAAGAGAATGAATATGTGCAAGATGAGTTC
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 GCTATCTTGAAGTGGAGCAACATCGAATCCATTATAGCCATCGCCTTTTATGCTGGGAATCCTTGTAC
 CTTGTTTGTACCCCTAATCTTTGTACTGTACCGGACACACCAGTGGTCAAATCCTCCAGTCCGGAGCTC
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 TGATCATCATGGAACCCCTATGCCATCTGTCTACCAAGTATCAAGGAAGTCTACCTATCTGCAA
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC239762 representing NM_001278065
Red=Cloning site Green=Tags(s)

MVGLLLFFFPALFLEVSLLPRSPGRKVLLAGASSQRSVARMDGDVIGALFSVHHQPPAEKVPERKCGEI
 REQYGIQRVEAMFHTLDKINADPVLLPNITLGEIRDSCWHSSVALEQSIIEFIRDSLISIRDEKDGINRC
 LPDQSLPPGRTKKPIAGVIGPGSSVAIQVQNLQLFDIPQIAYSATSIDLSDKTLKYFLRVVPSDTL
 QARAMLDIVKRYNWTYVSAVHTEGNYGESGMDAFKELAAQEGLCIAHSDKIYSNAGEKSFDRLLRKLRR
 LPKARVVVCFCEGMTVRGLLSAMRRLGVVGEFSLIGSDGWADRDEVIIEGYEVEANGGITIKLQSPEVRSF
 DDYFLKLRDNTNRNPFPEFWQHRFQCRLPGHLLNPNFKRICTGNESLEENYVQDSKMGFVINAIYAM
 AHGLQNMHHALCPGHVGLCDAMKPIDGSKLLDFLIKSSFIVSGEEVWFDEKGDAPGRYDIMNLQYTEAN
 RYDYVHVGTWHEGVLNIDDYKIQMNKSGVVRVCSEPCCLKQIKVIRKGEVSCCWICTACKENEYVQDEF
 TCKACDLGWPNADLTGCEPIPVRYLEWSNIESIIAIAFSCLGILVTLFVTLIFVLYRDPVVKSSSREL
 CYIILAGIFLGYVCPFTLIAKPTTSCYLQRLVGLSSAMCYSALVTKNRIARILAGSKKKICTRKPRF
 MSAWAQVIIASILISVQLTLVVTIIMEPPMPILSYPSIKEVYLICNTSNLGVVAPLGYNLLIMSCYY
 AFKTRNVPANFNEAKYIAFTMYTTCIIWLA FVPIYFGSNYKIITTCFAVSLSVTVALGCMF TPKMYIIIA
 KPERNVRSAFTTSDVVRMHVGDGKLPKRSNTFLNIFRRKKAGAGNAKKRQPEFSPTSQCPSAHVQL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

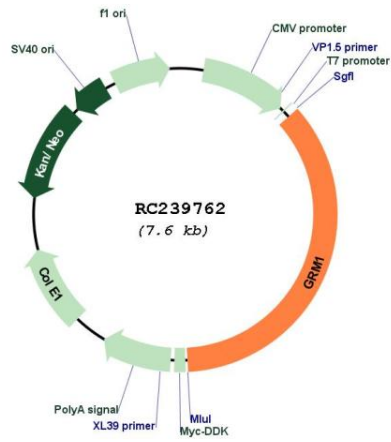
Cloning Scheme:



ACCN: NM_001278065

ORF Size:	2718 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_001278065.2
RefSeq Size:	6839 bp
RefSeq ORF:	2721 bp
Locus ID:	2911
UniProt ID:	Q13255
Cytogenetics:	6q24.3
Protein Families:	Druggable Genome, GPCR, Transmembrane
Protein Pathways:	Calcium signaling pathway, Gap junction, Long-term depression, Long-term potentiation, Neuroactive ligand-receptor interaction
MW:	101.3 kDa
Gene Summary:	This gene encodes a metabotropic glutamate receptor that functions by activating phospholipase C. 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 canonical alpha isoform of the encoded protein is a disulfide-linked homodimer whose activity is mediated by a G-protein-coupled phosphatidylinositol-calcium second messenger system. This gene may be associated with many disease states, including schizophrenia, bipolar disorder, depression, and breast cancer. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, May 2013]

Product images:



Circular map for RC239762