

Product datasheet for **SC119649**

Metabotropic Glutamate Receptor 7 (GRM7) (NM_000844) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Metabotropic Glutamate Receptor 7 (GRM7) (NM_000844) Human Untagged Clone
Tag: Tag Free
Symbol: Metabotropic Glutamate Receptor 7
Synonyms: GLUR7; GPRC1G; MGLU7; MGLUR7; NEDSHBA; PPP1R87
Mammalian Cell Selection: None
Vector: pCMV6-XL4
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene ORF sequence for NM_000844 edited
AGCGCGAGCGCGCGCGCGCGCGGCTAACCCGAGAAGCGCGAGGCGCCCCAGGCTGGCA
GGCGCCGCGGGACCCCTCACCTCTCTGGTCGCCCTCCCGGATCCCCACCCTCCGT
GCCTGCAGGAAGCCCTGGGCTTTCCCGGAGGAAGCTCGCCCTGAAGGGCCCGGACTCG
GCGAGCCACCACCGTTCCCTCAAGCGGCCCGCGCCACCGCAGCAGCCGGGAGCAGC
ATGGTCCAGCTGAGGAAGCTGCTCCGCGTCTGACTTTGATGAAGTTCCCTGCTGCGTG
CTGGAGGTGCTCTGTGCGCGTGGCGCGCGCGCGGCCAGGAGATGTACGCCCCG
CACTCAATCCGGATCGAGGGGACGTCACCCTCGGGGGGTGTTCCCGTGCACGCCAAG
GGTCCCAGCGGAGTGCCTGCGGCGACATCAAGAGGGAAAACGGGATCCACAGGCTGGAA
GCGATGCTCTACGCCCTGACCAGATCAACAGTGATCCCAACCTACTGCCAACGTGACG
CTGGGCGCGCGGATCCTGGACACTTGTTCAGGGACACTTACGCGCTCGAACAGTCGCTT
ACTTTCGTCCAGGCGCTCATCCAGAAGGACACCTCCGACGTGCGCTGCACCAACGGCGAA
CCGCCGGTTTTCGTCAAGCCGGAGAAAAGTAGTTGGAGTGATTGGGGCTTCGGGGAGTTCCG
GTCTCCATCATGGTAGCCAACATCCTGAGGCTCTTCCAGATCCCCAGATTAGTTATGCA
TCAACGGCACCCGAGCTAAGTGATGACCGGCGCTATGACTTCTTCTCTCGCGTGGTGCCA
CCCATTCTTCCAAGCCAGGCCATGGTAGACATTGTAAGGCCCTAGGCTGGAATTAT
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ATTTCAAAGAGGCAGGTGGACTCTGCATTGCCAGTCCGTGAGAATCCCCAGGAACGC
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AGGGCCGTGATTTTTGCCAACGATGAGGATATAAAGCAGATCCTTGCAGCAGCCAAA
AGAGCTGACCAAGTTGGCCATTTTCTTTGGGTGGGATCAGACAGCTGGGGATCCAAAATA
AACCCACTGCACCAGCATGAAGATATCGCAGAAGGGGCCATCACCATTACGCCCAAGCGA
GCCACGGTGGAAGGGTTTGTGCTACTTTACGTCCCGTACACTTGAAAACAACAGAAGA
AATGTATGGTTTCCGAATACTGGGAGGAAAATTCAACTGCAAGTTGACGATTAGTGGG
TCAAAAAAAGAAGACACAGATCGCAAAATGCACAGGACAGGAGAGAATTGGAAAAGATTCC
AACTATGAGCAGGAGGGTAAAGTCCAGTTCGTGATTGACGCAGTCTATGCTATGGCTCAC
GCCCTTACCACATGAACAAGGATCTCTGTGCTGACTACCGGGGTCTGCCCCAGAGATG



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GAGCAAGCTGGAGGCAAGAAGTTGCTGAAGTATATACGCAATGTTAATTTCAATGGTAGT
 GCTGGCACTCCAGTGATGTTTAAACAAGAACGGGGATGCACCTGGGCGTTATGACATCTTT
 CAGTACCAGACCACAAACACCAGCAACCCGGGTTACCGTCTGATCGGGCAGTGGACAGAC
 GAACTTCAGCTCAATATAGAAGACATGCAGTGGGGTAAAGGAGTCCGAGAGATACCCGCC
 TCAGTGTGCACACTACCATGTAAGCCAGGACAGAGAAAAGAAGACAGAAAAGGAACCTCT
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 TGTCAACCAACCTGGCATAGGACTCTTTGGTCTACCCGCTTCCCATCACCGGAGGAGCT
 TCCCCGGCCGGGAGACCAGTGTAGAGGATCCAAGCGACCTAACAGCTGCTTTATGAAA
 TATCCTTACTTTATCTGGGCTTAATAAGTCACTGACATCAGCACTGCCAACTCGGCTGCA
 ATTGTGGACCTTCCCTACCAAAGGGAGTGTGAAACTCAAGTCCCGCCCTGGCTCTT

**5' Read Nucleotide
 Sequence:**

>OriGene 5' read for NM_000844 unedited
 ATACACTCTATAGGCGGCCGCAATTCGGCACGAGGGCGAAGCAGCAAGCCGGTGAAGC
 CGAGCGCGGCGCGCCGGCCGGCTAACCCGAGAAGCGCGAGGGCGCCCAAGGCTGGCAGGCG
 CCGCGGGACCCCTCACCTCTCTGGTCGCCCTCCCGGATTCCCCACCCCTCCGTGCTT
 GCAGGAAGCCCTGGGCTTTCCCGGAGGAAGCTCGCCCTGAAGGGCCCGGACCTCGGCGA
 GCCCACCACCGTTCCCTCAAGCGGCCGCCGCCACCAGCAGCCGGGAGCAGCATGG
 TCCAGTGAAGGAGTGTCCGCGTCTGACTTTGATGAAGTCCCCTGTGCGTGTGCTGG
 AGGTGCTCCTGTGCGCGTGGCNGCGGGCGCGCGGCCAGGAGATGTACGCCCCGCAC
 TCAATCCGGATCGAGGGGGACGTCAACCTCGGGGGGCTGTTCCCCGTGCACGCCAAGG
 GTCCCAGCGGAGTGCCCTGCGGGCAGATCAAGAGGGAAAACGGGATCCACAGGCTGGAAG
 CGATGCTCTACGCCCTGGACCAGATCAACAGTGATCCCAACCTACTGCCAACGTGACGC
 TGGGCGCGCGGATCCTGGACACTTGTCCAGGGACACTTACGCGCTCGAACAGTCGCTTA
 CTTTCTGTCAGGCGCTCATCCAGAAGGACACCTCCGACGTGCGCTGCACCAACGGCGAAA
 CGGCCGNTTTTTCTGCAAGCCGGAGAAAATAATTTGGATGAATTTGGGCTCNGGGGAAAT
 TTCGGTCTCCATCATGGTAAGCCAAAATCCTGAGGCTCTTCCAGATCCCCAGATAATTA
 TGCATCACCGCACCCGAGCTAATGATGACCGNGCTATGATTCTTTTTTTCGTGGGGCA
 CCCGATTTCAAGCCAGCCATGGAGACATTGAAAGGCCCTAGCTGGAATTTTGTCTACC
 TCCTGGAAGGAATATGAAAAAGGGTGGATCCTCACA

3' Read Nucleotide Sequence:	>OriGene 3' read for NM_000844 unedited TTCTATGGACCCGCGCCGAATCTAAAATCGAGTTTTTTTTTTTTTTTTTTTTAAAAAGTT AACCAAAGTATTTTATTGATACATTCTTGGACAATATCACAGAATTGAAAGAGAATGGAA AGAGGGAAATTTTCAGCAAGGGTTGTTTTTTTCCACTAAATTGGCACATAAGCAGCAAGA TTAACGAAAGTACTTATTACAAACAGTAAAAACATACATGCTTTTTTTCCTAAAGTCCT TATCACACTGATCAGTCAAAGGGGGCATGAACAAAACCTCAAGACATGAAAAATCCATAT TCTTTCCTTCAAACAGCTTAATAATTATTAATAATTATTGCAAAAATTTTCATATACCCTAA TTAAAAATAACAAAAGAGAACACAAATACAAATATTGAACATAATAAACATGTACTGTAA AATACATTACTGGCATGCATTCCAAAGATCAAGACCTCTATTCAGTTCAGCCAATACCTT CCTTTTATGTAACCTATCATATACCAAAGATAGGTGGGGCATACTTTCTCAGCACAGTTT TTGGTCTTTAAACATCTTTTTGTCTTAAAAAACAACATGATGTGCAGTGGTACTATA ATCGTAATTATACAGTCATGTACAGATGTACTTGTTTTAGTCTGCCAAGATTGCTTTAAA ATTTTAATTGTTTTAAAAATTTTCCAAATATTCCACCGTCTGAGAGAATAGGGCTCTATG AAAACCAGGCATTCGAAAACAAACAGTGAACCGAGGTACGACATCAGATGGCAAAAGTGC AAACGGTCTCTACCAACTGTACAGAACAATTTCAAACCTTGACCCTAGAAGTCATACGT AATAAGACAGGTACCCACAACGTCCTGTGGCTCTCAGGGGCCATTCTAAGAGCAGGCGG GAATTTGAGTTACATTCCTTGTAGGGAAGGCCAATTGCACCCTTGCATCCTATCCAG GCTATTACCCAT
Restriction Sites:	NotI-NotI
ACCN:	NM_000844
Insert Size:	4000 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_000844.2 , NP_000835.1
RefSeq Size:	4021 bp
RefSeq ORF:	2748 bp
Locus ID:	2917
UniProt ID:	Q14831

Cytogenetics:	3p26.1
Domains:	7tm_3, ANF_receptor
Protein Families:	Druggable Genome, GPCR, Transmembrane
Protein Pathways:	Neuroactive ligand-receptor interaction
Gene Summary:	<p>L-glutamate is the major excitatory neurotransmitter in the central nervous system, and it 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 three 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. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jun 2009]</p> <p>Transcript Variant: This variant (1, also known as hmGluR7a) encodes the predominant isoform (a).</p>