

Product datasheet for **SC109283**

Metabotropic Glutamate Receptor 7 (GRM7) (NM_181874) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Metabotropic Glutamate Receptor 7 (GRM7) (NM_181874) Human Untagged Clone
Tag:	Tag Free
Symbol:	GRM7
Synonyms:	GLUR7; GPRC1G; MGLU7; MGLUR7; NEDSHBA; PPP1R87
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Cell Selection:	None



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Fully Sequenced ORF: >NCBI ORF sequence for NM_181874, the custom clone sequence may differ by one or more nucleotides

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ATGGTCCAGCTGAGGAAGCTGCTCCGCGTCTGACTTTGATGAAGTCCCCTGCTGCGTGTGGAGGTGC
TCCTGTGCGCGCTGGCGGCGGCGCGCGGCCAGGAGATGTACGCCCCGCACTCAATCCGGATCGAGGG
GGACGTCAACCTCGGGGGCTGTCCCCGTGCACGCCAAGGGTCCCAGCGGAGTGCCCTCGGCGACATC
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ACCTACTGCCAACGTGACGCTGGGCGCGCGGATCCTGGACACTTGTCCAGGGACACTTACGCGCTCGA
ACAGTCGCTTACTTTCTGTCAGGCGCTCATCCAGAAGGACACCTCCGACGTGCGTGCACCAACGGCGAA
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TGGTAGCCAACATCCTGAGGCTCTCCAGATCCCCAGATTAGTTATGCATCAACGGCACCCGAGCTAAG
TGATGACCGGCGCTATGACTTCTCTCTCGCGTGGTCCACCCGATTCTTCCAAGCCCAGGCCATGGTA
GACATTGTAAGGCCCTAGGCTGGAATTATGTGTCTACCCTCGCATCGGAAGGAAGTTATGGAGAGAAA
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CCAGGAACGCAAAGACAGGACCATTGACTTTGATAGAATTATCAAACAGCTCCTGGACACCCCCAACTCC
AGGGCCGTCTGATTTTTGCCAACGATGAGGATATAAAGCAGATCCTTGACGAGCCAAAAGAGCTGACC
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TAAACAAGAACGGGGATGCACCTGGGCGTTATGACATCTTTCAGTACCAGACCACAAACACCAGCAACCCG
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CAGCATTGCCCTATGACCAGAGGCCAATGAAAATCGAACCGGATGCCAGGATATCCCATCATCAAAC
TGGAGTGGCACTCCCCCTGGGCTGTGATTCCTGTCTTCTGGCAATGTTGGGGATCATTGCCACCATCTT
TGTGATGGCCACTTTCATCCGCTACAATGACACGCCCATGTCCGGGCATCTGGGCGGGAACCTCAGCTAT
GTTCTTTTGACGGGCATCTTTCTTTGCTACATCATCACTTTCCTGATGATTGCCAAACCAGATGTGGCAG
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AAATCGGATTTATCGCATATTTGAGCAGGGCAAGAAATCAGTAACAGCTCCCAGACTCATAAGCCCAACA
TCACAACTGGCAATCACTTCCAGTTTAAATATCAGTTCAGCTTCTAGGGGTGTTCAATTTGGTTTGGTGTG
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AGGCGGTAGTCACAGCAGCCACCATGTCATCGAGGCTGTACACAAAACCCAGTGACAGACCCCAACGGTGA
GGCAAAGACCGAGCTCTGTGAAAACGTAGACCCAAACAACTGTATACCACCAGTAAGAAAAGAGGTACAA
AAGTCTGTTACTTGGTACACTATCCACCAACAGTATAG
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5' Read Nucleotide Sequence:	>OriGene 5' read for NM_181874 unedited TGTAATACGACTTCACTATAGGGCGGCCGCAATTCGCACGAGGGTTGGAGAGAGCGAGC AGCAAGCCGGTGAGCGCGAGCGCGGCCGCGCCGGCCGCTAACCCGAGAGCGCGAGGGCGCC CCAGGCTGGCAGGCGCCGCGGGACCCCTCACCTCTCTGGTCGCCCTCCCCGGATTCCC CCACCTCCGTGCCTGCAGGAGCCCTGGGCTTCCCGGAGGAGCTCGCCCTGAAGGGCC CGGAGCTCGGCGAGCCCACCACGTTCCCTCCAGCGCCGCCGCCACCAGCAGCAGCCG GAGCAGCATGGTCCAGCTGAGGAAGCTGCTCCGCGTCTGACTTTGATGAAGTTCCCTG CTGCGTCTGGAGGTGCTCCTGTGCGCGCTGGCGCGCGCGCGGCCAGGAGATGTA CGCCCCGCACTCAATCCGGATCGAGGGGACGTACCCTCGGGGGCTGTTCCCGTGCA CGCCAAGGGTCCCAGCGGAGTGCCCTGCGGCGACATCAAGAGGAAAAACGGGATCCACAG GCTGGAAGCGATGCTCTACGCCCTGGACCAGATCAACAGTGATCCCAACCTACTGCCAA CGTGACGCTGGGCGCGGATCCTGNACACTTGTCCAGGGACACTTACGCGCTCGAACA GTGCTTACTTTCTCCAGGCGCTCATCCAGAAAGACACCTNCCGACGTGCGCTGCACCA ACGGCGAACCCCGGTTTTCTGCAAGCCGGAGAAAGTACTTGGAGTGATTGGGGCTCNCG GGGAATCCGGCTTCATCATGGTAGCCAACATCCTGAGGCTCTCCAGATCCCCAGATA GTTATGCATCAACGGCACCCGAGCTAAGTGATG
3' Read Nucleotide Sequence:	>OriGene 3' read for NM_181874 unedited GCAATCGGGNTATTTATCCGCGTTATAAAAAGTTAACCAAAGTATTTTATTGATACATT CTTGGTTTTTATCACAGAATTGAAAGAGAATGGAAAGAGGGAATTTTTTTCAGCAAGGGTTG TTTTTTTCCACTAAATTGGCACATAAGCAGCAAGATTAACGAAAGTACTTATTACAAACA GTAAAAAATACATGCTTTTTTCTAAAGTCCTTATCACACTGATCAGTCAAAGGGGG CATGAACAAAACCTCAAGACATGAAAAATCCATATTCTTCTTCAAACAGCTTAATAAT TATTAATAATTATTGCAAAATATTCATATACCCTAATTAATAAACAAGAGAACACAA ATACAAATATTGAACATAATAACATGTACTGTAAAATACATTACTGGCATGCATTCCAA AGATCAAGACCTCTATTCAGTTCAGCCAATACCTTCTTTTATGTAACCTATCATATACC AAAGATAGGTGGGGCATACTTTCTCAGCACAGTTTTTGGTCTTTAAACATCTTTTTTGTCT TTAAAAAATCATGATGTGCAGTGGTACTATAATCGTAATTATACAGTCATGTACAG ATGACTTGTTTTAGTCTGCCAAGATTGCTNNTAAATNTAATTGTTTTAAATNTTTCC AAATATCCACCGTCTGAGAGAATAGGGCTCTATGAAAACAAGGCATTCGAAAACAACA GTGAACCGAGGTACGACATCAGATGGCAAAGTGCANAGGTCCTCACAAACTGTACAGAAA ATTTTAAACCTTGCCACCTAGAAGTACATACGTAATAAGACAGGTGAGCCCAAACGGG CCTTGGGGTCTTCAGTGTCCATTCTAAGAAGCCAGTGCGGACTTGAGTTTCAACACTCCT TTGGTAGGAAAGGTCCACATTGAACCCGATTTGCAGTGCTGATG
Restriction Sites:	NotI-NotI
ACCN:	NM_181874
Insert Size:	4640 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).
RefSeq:	NM_181874.1 , NP_870989.1
RefSeq Size:	4239 bp
RefSeq ORF:	4239 bp
Locus ID:	2917
UniProt ID:	Q14831 , B2R693 , B9EGG9

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 (2, also known as hmGluR7b) differs in the 3' UTR and includes an alternate segment in the 3' coding region, compared to variant 1, which results in a frameshift. The encoded isoform (b) has a distinct C-terminus, compared to isoform a.</p> <p>Sequence Note: There are no publicly available full-length human transcripts representing the 3' splicing pattern of this RefSeq. However, this variant has been described in PMIDs 9144652 and 12052533, and is supported by homologous transcripts in orangutan and rat.</p>