

## Product datasheet for **RC222540**

### Metabotropic Glutamate Receptor 7 (GRM7) (NM\_181874) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Metabotropic Glutamate Receptor 7 (GRM7) (NM_181874) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Metabotropic Glutamate Receptor 7
Synonyms:	GLUR7; GPRC1G; MGLU7; MGLUR7; NEDSHBA; PPP1R87
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide  
Sequence:**

>RC222540 representing NM\_181874  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGCATCGCC

ATGGTCCAGCTGAGGAAGCTGCTCCGCGTCTGACTTTGATGAAGTTCCCCTGCTGCGTGTGGAGGTGC  
 TCTGTGCGCGCTGGCGCGCGCGCGGCCAGGAGATGTACGCCCGCACTCAATCCGATCGAGGG  
 GGACGTACCCCTCGGGGGCTGTCCCCGTGCACGCCAAGGGTCCCAGCGGAGTGCCCTGCGCGCATC  
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 ACCTACTGCCAACGTGACGCTGGGCGCGCGGATCCTGGACACTTGTCCAGGGACACTTACGCGCTCGA  
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 CCGCCGGTTTTTCGTAAGCCGGAGAAAGTAGTTGGAGTGATTGGGGCTTCGGGGAGTTCCGTCTCCATCA  
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 CCAGGAACGCAAAGACAGGACCATTGACTTTGATAGAATTATCAAACAGCTCCTGGACACCCCAACTCC  
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 AGGCGGTAGTACAGCAGCCACCATGTCATCGAGGCTGTCACACAAACCCAGTGACAGACCCACCGGTGA  
 GGCAAAGACCGAGCTCTGTGAAAACGTAGACCCAAACAACCTGTATACCACCAGTAAGAAAGAGTGTACAA  
 AAGTCTGTTACTTGGTACACTATCCACCAACAGTA

ACGCGTACGCGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGAT AAGGTTTAA

Protein Sequence: >RC222540 representing NM\_181874  
 Red=Cloning site Green=Tags(s)

MVQLRKLLRVL TLMKFPCCVLEVL L CALAAAARGQEMYAPHSIRIEGDVTLGGLFPVHAKGPSGVP CGDI  
 KRENGIHRLEAML YALDQINSDPNLLPNVTLGARILDTC SRD TYALEQSLTFVQALIQKDTSDVRC TNGE  
 PPV FVKPEKVVGVIGASGSSVSIMVANILR L FQIPQISYASTAPELSDRRYDFFSRVVPPDSFQAQAMV  
 DIVKALGWNYVSTLASEGSYGEKGVESFTQISKEAGGLCIAQSVRIPQERKDRTIDFDRIKQLLDTPNS  
 RAVVIFANDEDIKQILAAAKRADQVGHFLWVGSWSGSKINPLHQHEDIAEGAITIQPKRATVEGF DAYF  
 TSRTLENNRRNVWFAEYWEENFNCKL TISGSKKEDTRKCTGQERIGKDSNYEQEGKVQFVIDAVYAMAH  
 ALHHMNKDL CADYRGVCP EMEQAGGKLLKYIRNVNFNGSAGTPVMFNKNGDAPGRYDIFQYQTNTSNP  
 GYRLIGQWTD ELQLNIEDMQWKG VREIPASVCTLPCKPGQRKKTQKGT PCCWTC EPCDGYQYQFDEMTC  
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 VLLTGIFLCYIITFLMI AKPDVAVCSFRVFLGLGMCISYAALLTKTNRIYRIFEQKKSVTAPRLISPT  
 SQLAITSSLSISVQLLGVFIWFGVDPNNIIIDYDEHKTMNPEQARGVLKCDITDLQIICSLGYSILLMVT  
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 YMPKVYIIIFHPELNVQKRKRSFKAVVTAATMSSRLSHKPSDRPNGEAKTEL CENVDPNNCIPPVRSVKQ  
 KSVTWYIIPPTV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

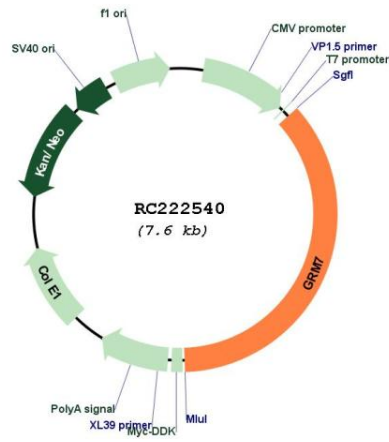


ACCN: NM\_181874

ORF Size: 2766 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_181874.2</a> , <a href="#">NP_870989.1</a>
<b>RefSeq Size:</b>	4239 bp
<b>RefSeq ORF:</b>	2769 bp
<b>Locus ID:</b>	2917
<b>UniProt ID:</b>	<a href="#">Q14831</a>
<b>Cytogenetics:</b>	3p26.1
<b>Protein Families:</b>	Druggable Genome, GPCR, Transmembrane
<b>Protein Pathways:</b>	Neuroactive ligand-receptor interaction
<b>MW:</b>	103.1 kDa
<b>Gene Summary:</b>	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]

Product images:



Circular map for RC222540