

Product datasheet for **RG222540**

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:	TurboGFP
Symbol:	Metabotropic Glutamate Receptor 7
Synonyms:	GLUR7; GPRC1G; MGLU7; MGLUR7; NEDSHBA; PPP1R87
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG222540 representing NM_181874
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGGTCCAGCTGAGGAAGCTGCTCCGCGTCTGACTTTGATGAAGTCCCTGCTGCGTGTGGAGGTGC
 TCCTGTGCGCGCTGGCGCGCGCGCGGCCAGGAGATGTACGCCCGCACTCAATCCGATCGAGGG
 GGACGTACCCCTCGGGGGCTGTTCCCGTGCACGCCAAGGGTCCCAGCGGAGTGCCTGCGCGCATC
 AAGAGGGAAAACGGGATCCACAGGCTGGAAGCGATGCTCTACGCCCTGGACCAGATCAACAGTATCCCA
 ACCTACTGCCAACGTGACGCTGGGCGCGCGGATCCTGGACACTTGTCCAGGGACACTACGCGCTCGA
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 CCGCCGGTTTTTCGTAAGCCGGAGAAAGTAGTTGGAGTATTGGGGCTTCGGGGAGTTCGGTCTCCATCA
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 GACATTGTAAAGGCCCTAGGCTGGAATTATGTGTCTACCTCGCATCGGAAGGAAGTTATGGAGAGAAA
 GTGTGGAGTCTTACGCAGATTTCCAAAGAGGACAGTGGACTCTGCATTGCCAGTCCGTGAGAATCCC
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 TGGAGTGGCACTCCCCCTGGGCTGTGATTCCTGTCTTCTGGCAATGTTGGGGATCATTGCCACCATCTT
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 GCTCTACATACAAACTACCACGCTTACAATCTCCATGAACCTAAGTGCATCAGTGGCGCTGGGGATGCTA
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 AGGCGGTAGTACAGCAGCCACCATGTCATCGAGGCTGTCACACAAACCCAGTGCAGACCCCAACGGTGA
 GGCAAAGACCGAGCTCTGTGAAAACGTAGACCCAAACAACCTGTATACCACAGTAAGAAAGAGTGTACAA
 AAGTCTGTTACTTGGTACACTATCCACCAACAGTA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG222540 representing NM_181874
 Red=Cloning site Green=Tags(s)

MVQLRKLLRVL TLMKFPCCVLEVLL CALAAAARGQEMYAPHSIRIEGDVTLGGLFPVHAKGPSGVP CGDI
 KRENGIHRLEAML YALDQINSDPNLLPNVTLGARILDTC SRDTYALEQSLTFVQALIQKDTSDVRC TNGE
 PPVFKPEKVVGVIGASGSSVSIMVANILR L FQIPQISYASTAPELSDDRRYDFFSRVVPD SFQAQAMV
 DIVKALGWNYVSTLASEGSYGEKGVESFTQISKEAGGLCIAQSVRIPQERKDRTIDFDRIKQLLDTPNS
 RAVVIFANDEDIKQILAAAKRADQVGHFLWVGS DSWGSKINPLHQHEDIAEGAITIQPKRATVEGF DAYF
 TSRTLENNRRNVWFAEYWEENFNCKL TISGSKKEDTRKCTGQERIGKDSNYEQEGKVQFVIDAVYAMAH
 ALHHMNKDL CADYRGVCPMEQAGGKLLKYIRNVNFNGSAGTPVMFNKNGDAPGRYDIFQYQTNTSNP
 GYRLIGQWTDQLNIEDMQWKGKGVREIPASVCTLPCKPGQRKKTQKGT PCCWTCPCDGYQYQFDEMTC
 QHCPYDQRPNENRTGCQDIP I I KLEWHSPWAVIPVFLAMLGIIATIFVMATFIRYNDTPIVRASGREL SY
 VLLTGIFLCYIIIFLMI AKPDVAVCSFRRVFLGLGMCISYAALLTKTNRIYRIFEQKKSVTAPRLISPT
 SQLAITSSLSISVQLLGVFIWFGVDPNNIIIDYDEHKTMNPEQARGVLKCDITDLQIICSLGYSILLMVT C
 TVYAIKTRGVENFNEAKPIGFTMYTTCI VWLAFIPIFFGTAQSAEKLYIQTTTLTISMNLSASVALGML
 YMPKVYIIIFHPELNVQKRKRSFKAVVTAATMSSRL SHKPSDRPNGEAKTEL CENVDPNNCIPPVRKSVQ
 KSVTWYIIPPTV

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:

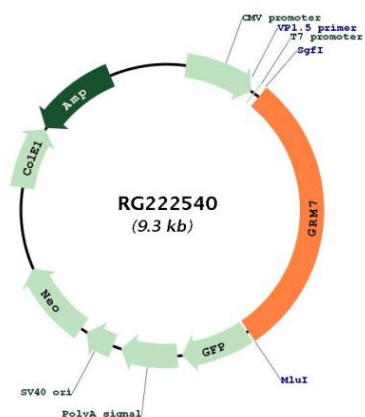


ACCN:

NM_181874

ORF Size:	2766 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_181874.2 , NP_870989.1
RefSeq Size:	4239 bp
RefSeq ORF:	2769 bp
Locus ID:	2917
UniProt ID:	Q14831
Cytogenetics:	3p26.1
Protein Families:	Druggable Genome, GPCR, Transmembrane
Protein Pathways:	Neuroactive ligand-receptor interaction
Gene Summary:	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 RG222540