

## Product datasheet for **RG234974**

### Metabotropic Glutamate Receptor 4 (GRM4) (NM\_001256811) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Metabotropic Glutamate Receptor 4 (GRM4) (NM_001256811) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Metabotropic Glutamate Receptor 4
Synonyms:	GPRC1D; mGlu4; MGLUR4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG234974 representing NM\_001256811  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCCTGGGAAGAGAGGCTTGGGCTGGTGGTGGGCCCGGTGCCCTTTGCCTGCTCCTCAGCCTTTACG  
 GCCCTGGATGCCTTCTCCCTGGGAAAGCCAAAGGCCACCCTCACATGAATCCATCCGCATAGATGG  
 GGACATCACACTGGGAGGCTGTCCCGGTGCATGGCCGGGGCTCAGAGGGCAAGCCCTGTGGAGAACTT  
 AAGAAGGAAAAGGGCATCCACCGGCTGGAGGCCATGCTGTTCCGCTGGATCGCATCAACAACGACCCGG  
 ACCTGCTGCCTAACATCACGCTGGGCGCCCGCATTCTGGACACCTGCTCCAGGGACACCCATGCCCTCGA  
 GCAGTCGCTGACCTTTGTGACGGCGCTCATCGAGAAGGATGGCACAGAGGTCCGCTGTGGCAGTGGCGGC  
 CCACCCATCATCACCAGCCTGAACGTGTGGTGGGTGTCATCGGTGCTTCAGGGAGCTCGGTCTCCATCA  
 TGGTGGCCAAACATCCTTCGCCTTCTCAAGATACCCAGATCAGCTACGCCTCCACAGCGCCAGACCTGAG  
 TGACAACAGCCGCTACGACTTCTTCTCCGCGTGGTGCCTCGGACACGTACCAGGCCAGGCCATGGTG  
 GACATCGTCCGTCGCCCTCAAGTGGAACTATGTGTCCACAGTGGCCTCGGAGGGCAGCTATGGTGAGAGCG  
 GTGTGGAGGCCTTCATCCAGAAGTCCCCTGAGGACGGGGCGTGTGCATCGCCCAGTCCGGTGAAGATACC  
 ACGGGAGCCAAAGGCAGGCGAGTTCGACAAGATCATCCGCCGCTCCTGGAGACTTCGAACGCCAGGGCA  
 GTCATCATCTTTGCCAACGAGGATGACATCAGGCGTGTGCTGGAGGCAGCACGAAGGGCCAAACCAGACAG  
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 GGCTGAGGGTGTGTACGATCCTCCCCAAGAGGATGTCCGTACGAGACCGTGAGCGAATTGGGCAGGAT  
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 AATGGAGATGCGCCTGGGCGCTATGACATCTACCAATACCAGCTGCGCAACGATTCTGCCGAGTACAAGG  
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 GCTGCCCGCTCCATCTGCAGCCTGCCCTGCCAACCGGTGAGCGGAAGAAGACAGTGAAGGGCATGCCCT  
 TGCTGCTGGCACTGCGAGCCTTGACACAGGTTACCAGTACCAGGTGGACCGCTACACCTGTAAAGACGTGC  
 CCTATGACATGCGGCCACAGAGAACCACAGGGCTGCCGGCCATCCCCATCATCAAGCTTGAGTGGGG  
 CTCGCCCTGGGCGTGTGCCCTTCTCCTGGCGTGGTGGGCATCGCTGCCACGTTGTTCTGTGGTGATC  
 ACCTTTGTGCGCTACAACGACACGCCCATCGTCAAGGCCTCGGGCGTGAAGTACGCTACGCTGCTGCTGG  
 CAGGCATCTTCTGTGCTATGCCACCACCTTCTCATGATCGCTGAGCCCGACCTTGGCACCTGCTCGCT  
 GCGCCGAATCTTCTGGGACTAGGGATGAGCATCAGCTATGCAGCCCTGCTCACCAAGACCAACCGCATC  
 TACCGCATCTTCGAGCAGGGCAAGCGCTCGGTGAGTGCACCGCTTTCATCAGCCCCGCTCACAGCTGG  
 CCATCACCTTCAGCCTCATCTCGCTGCAGCTGCTGGGCATCTGTGTGGTTTGTGGTGGACCCCTCCCA  
 CTCGGTGGTGGACTTCCAGGACCAGCGGACACTCGACCCCGCTTCGCCAGGGGTGTGCTCAAGTGTGAC  
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 CAGACGACGACGCTGACGGTCTCGGTGAGTCTGAGCGCCTCGGTGCCCTGGGAATGCTCTACATGCCCA  
 AAGTCTACATCATCTTCTTCCACCCGGAGCAGAAGCTGCCCAAGCGCAAGCGCAGCCTCAAAGCCGTCGT  
 TACGGCGGCCACCATGTCCAACAAGTTCACGCAGAAGGGCAACTTCCGGCCCAACGGAGAGGGCAAGTCT  
 GAGCTCTGCGAGAACCTTGGGCCCCAGCGCTGGCCACCAACAGACTTACGTCACTTACACCAACCATG  
 CAATC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG234974 representing NM\_001256811  
 Red=Cloning site Green=Tags(s)

MPGKRGLGWWWARLPLCLLLSLYGPWMPSSLGKPKGHPHMNSIRIDGDITLGGFLFPVHGRGSEKPCGEL  
 KKEKGIHRLEAMLFALDRINNDPDLNPNITLGARILDTCSDRTHALEQSLTFVQALIEKDGTEVRCGSGG  
 PPIITKPERVVGVIGASGSSVSMVANILRFLKIPQISYASTAPDLSDNSRYDFFSRVPSDITYQAQAMV  
 DIVRALKWNYYVSTVASEGSYGESEAFIQKSREDGGVCIQSVKIPREPKAGEFDKIIRRLLETSNARA  
 VIIFANEDDIRRVLEAARRANQTHGFFWMGSDSWGSKIAPVLHLEEVAEGAVTILPKRMSVRDRERIGQD  
 SAYEQEGKVQFVIDAVYAMGHALHAMHRDLCPGRVGLCPRMDPVDGTQLLKYIRNVNFSGIAGNPVTFNE  
 NGDAPGRYDIYQYQLRNDSAEYKVIKSWTDHLHLRIERMHWPGSGQQLPRISICSLPCQPERKKTVKGMP  
 CCWHCEPCTGYQYQVDRYTCKTCPYDMRPTENRTGCRPIPIIKLEWGSWAVLPLFLAVVIAATLFFVI  
 TFRYNDTPIVKASGRELSYVLLAGIFLCYATTFMLIAEPDLGTCSLRRIFLGLGMSISYAALLTKTNRI  
 YRIFEQGRSVSAPRFISPASQLAITFSLISLQLLGICVWFVVDPSHSVVDVFQDQRTLDPRFARGVLKCD  
 ISDLSLICLLGYSMLLMVTCTVYAIKTRGVPETFNEAKPIGFTMYTTCIVWLAFFIPFFGTQSADKLYI  
 QTTLTIVSVLSASVSLGMLYMPKYYIILFHPEQNVPKRKRSLKAVVTAATMSNKFQKGNFRPNGEAKS  
 ELCENLEAPALATKQTYVYTNHAI

TRTRPLE - GFP Tag - V

**Restriction Sites:**

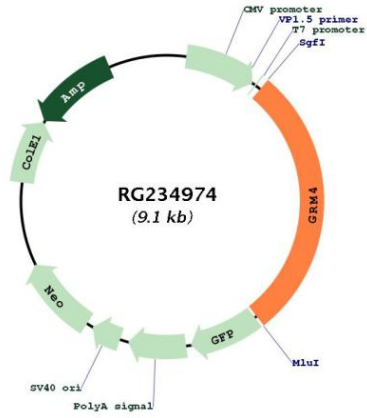
SgfI-MluI

**Cloning Scheme:**



ACCN:	NM_001256811
ORF Size:	2595 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. <a href="#">More info</a>
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"><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>
RefSeq:	<a href="#">NM_001256811.2</a> , <a href="#">NP_001243740.1</a>
RefSeq Size:	7293 bp
RefSeq ORF:	2598 bp
Locus ID:	2914
UniProt ID:	<a href="#">Q14833</a>
Cytogenetics:	6p21.31
Protein Families:	Druggable Genome, GPCR, Transmembrane
Protein Pathways:	Neuroactive ligand-receptor interaction, Taste transduction
Gene Summary:	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 metabotropic glutamate receptors are a family of G protein-coupled receptors, that have been divided into 3 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. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Feb 2012]

Product images:



Circular map for RG234974