

## Product datasheet for **RG202412**

### Monoacylglycerol Lipase (MGLL) (NM\_001003794) Human Tagged ORF Clone

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids  |
| Product Name:             | Monoacylglycerol Lipase (MGLL) (NM_001003794) Human Tagged ORF Clone           |
| Tag:                      | TurboGFP   |
| Symbol:                   | Monoacylglycerol Lipase  |
| Synonyms:                 | HU-K5; HUK5; MAGL; MGL   |
| Mammalian Cell Selection: | Neomycin   |
| Vector:                   | pCMV6-AC-GFP (PS100010)  |
| E. coli Selection:        | Ampicillin (100 ug/mL)   |
| ORF Nucleotide Sequence:  | >RG202412 representing NM_001003794<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAACAGGACCTGAAGACCCCTCCAGCATGCCAGAGGAAAGTCCCCAGGCGGACCCCGCAGAGCA  
TTCCCTACCAGGACCTCCCTCACCTGGTCAATGCAGACGGACAGTACCTTTCTGCAGGACTGGAAACC  
CACAGGCACACCAAGGCCCTCATCTTTGTGTCCCATGGAGCCGGAGAGCACAGTGGCCGCTATGAAGAG  
CTGGCTCGGATGCTGATGGGCTGGACCTGCTGGTGTTCGCCACGACCATGTTGGCCACGGACAGAGCG  
AAGGGGAGAGGATGGTAGTGTCTGACTTCCACGTTTTTCGTCAGGGATGTGTTGCAGCATGTGGATCCAT  
GCAGAAAGACTACCTGGGCTTCTGTCTTCTTCTGGGCCACTCCATGGGAGGCCCATCGCCATCCTC  
ACGGCCGAGAGAGGCCGGCCACTTCGCCGCGCATGGTACTCATTTCGCCTCTGGTTCTTGCCAATCCTG  
AATCTGCAAACTTTCAAGGTCCTTGCTGCGAAAGTGCTCAACCTTGTGCTGCCAACTTGTCCCTCGG  
GCCCATCGACTCCAGCGTGCTCTCTCGGAATAAGACAGAGGTCGACATTTATAACTCAGACCCCTGATC  
TGCCGGGAGGGCTGAAGGTGTGCTTCCGCATCCAACCTGCTGAATGCCGTCTCACGGGTGGAGCGGCC  
TCCCAAGCTGACTGTGCCCTTCTGTCTCCAGGGCTCTGCCGATCGCCTATGTGACAGCAAAGGGGC  
CTACCTGCTCATGGAGTTAGCCAAGAGCCAGGACAAGACTCTCAAGATTTATGAAGTGCCTACCATGTT  
CTCCACAAGGAGCTTCTGAAGTCACCAACTCCGCTTCCATGAAATAAACATGTGGGTCTCTCAAAGGA  
CAGCCACGGCAGGAAGCTCGTCCCCACCC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG202412 representing NM\_001003794  
 Red=Cloning site Green=Tags(s)

METGPEDPSSMPEESSPRRTPQSIPIYQDLPHLVNADGQYLF CRYWKPTGTPKALIFVSHGAGEHSGRYEE  
 LARMLMGLDLLVFAHDHVGHGQSEGERMVVSDFHVVRDVLQHVDMSMQDYPLPVFLLGHSMGGAIAIL  
 TAAERPGHFAGMVLISPLVLANPESATTFKVLAAKVLNLVLPNLSLGPIDSSVL SRNKTEVDIYNSDPLI  
 CRAGLKVCFGIQLLNAVSRVERALPKL TVPFLLLQGSADRLCDSKGAYLLMELAKSQDKTLKIYEGAYHV  
 LHKELPEVTNSVFHEINMWVSQRTATAGTASPP

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001003794

**ORF Size:** 942 bp

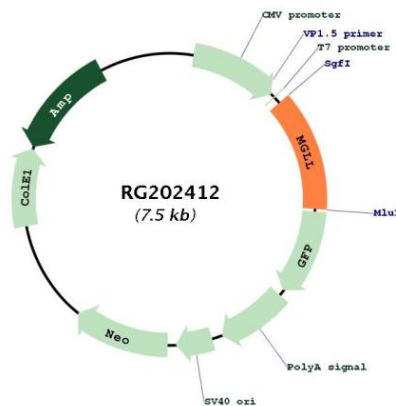
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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.

|                               |   |
|-------------------------------|---|
| <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>                | <u>NM_001003794.1, NP_001003794.1</u>   |
| <b>RefSeq Size:</b>           | 4246 bp   |
| <b>RefSeq ORF:</b>            | 912 bp  |
| <b>Locus ID:</b>              | 11343   |
| <b>UniProt ID:</b>            | <u>Q99685</u>   |
| <b>Cytogenetics:</b>          | 3q21.3  |
| <b>Protein Families:</b>      | Druggable Genome, Protease  |
| <b>Protein Pathways:</b>      | Glycerolipid metabolism, Metabolic pathways   |
| <b>Gene Summary:</b>          | This gene encodes a serine hydrolase of the AB hydrolase superfamily that catalyzes the conversion of monoacylglycerides to free fatty acids and glycerol. The encoded protein plays a critical role in several physiological processes including pain and nociperception through hydrolysis of the endocannabinoid 2-arachidonoylglycerol. Expression of this gene may play a role in cancer tumorigenesis and metastasis. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Feb 2012] |

### Product images:



Circular map for RG202412