

Product datasheet for **RG232374**

Monoacylglycerol Lipase (MGLL) (NM_001256585) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Monoacylglycerol Lipase (MGLL) (NM_001256585) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MGLL
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:	>RG232374 representing NM_001256585 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAACAGGACCTGAAGACCCCTCCAGCATGCCAGAGGAAAGTCCCCAGGCGGACCCGCAGAGCA
TTCCCTACCAGGACCTCCCTCACCTGGTCAATGCAGACGGACAGTACCTTTCTGCAGGACTGGAAACC
CACAGGCACACCAAGGCCCTCATCTTTGTGTCCCATGGAGCCGGAGAGCACAGTGGCCGCTATGAAGAG
CTGGCTCGGATGCTGATGGGGCTGGACCTGCTGGTGTTCGCCACGACCATGTTGGCCACGGACAGAGCG
AAGGGGAGAGGATGGTAGTGTCTGACTTCCACGTTTTTCGTCAGGGATGTGTTGCAGCATGTGGATTCCAT
GCAGAAAGACTACCTGGGCTTCTGTCTTCTTCTGGGCCACTCCATGGGAGGCCCATCGCCATCCTC
ACGGCCGCAGAGAGGCCGGGCCACTTCGCCGCATGGTACTCATTTCGCCTCTGGTTCTTGCCAATCCTG
AATCTGCAACAACCTTTCAAGGTCGACATTTATAACTCAGACCCCTGATCTGCCGGGCAGGGCTGAAGGT
GTGCTTCGGCATCCAACCTGCTGAATGCCGTCTCACGGGTGGAGCGGCCCTCCCCAAGCTGACTGTGCC
TTCCTGCTGCTCCAGGGCTTCGCCGATCGCCTATGTGACAGCAAAGGGGCTACCTGCTCATGGAGTTAG
CCAAGAGCCAGGACAAGACTCTCAAGATTTATGAAGGTGCCTACCATGTTCTCCACAAGGAGCTTCTCGA
AGTCACCAACTCCGTCTTCCATGAAATAAATCATGTGGTCTCTCAAAGGACAGCCACGGCAGGAAGTGGC
TCCCCACC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG232374 representing NM_001256585
Red=Cloning site Green=Tags(s)

METGPEDPSSMPEESSPRRTPQSIPIYQDLPHLVNADGQYLF CRYWKPTGTPKALIFVSHGAGEHSGRYEE
 LARMLMGLDLLVFAHDHVGHGQSEGERMVVSDFHVFRDVLQHVDMSMQKDYPGLPVFLLGHSMGGAIAIL
 TAAERPGHFAGMVLISPLVLANPESATTFKVDIYNSDPLICRAGLKVCFGIQLLNAVSRVERALPKLTVP
 FLLLQGSADRLCDSKGAYLLMELAKSQDKTLKIYEGAYHVLHKELPEVTNSVVFHEINMWVSQRTATAGTA
 SPP

TRTRPLE - GFP Tag - V

Restriction Sites:

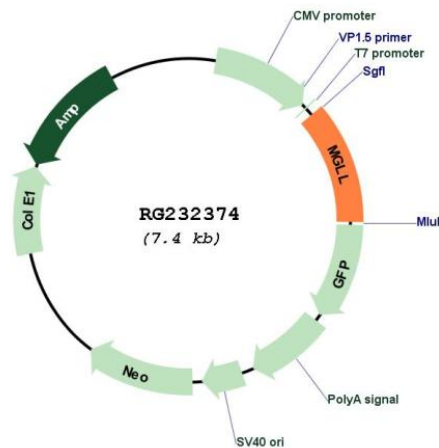
Sgfi-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_001256585

ORF Size: 849 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_001256585.1 , NP_001243514.1
RefSeq Size:	4563 bp
RefSeq ORF:	852 bp
Locus ID:	11343
UniProt ID:	Q99685
Cytogenetics:	3q21.3
Protein Families:	Druggable Genome, Protease
Protein Pathways:	Glycerolipid metabolism, Metabolic pathways
Gene Summary:	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 nociception 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]