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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:	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:

```
>RG232374 representing NM_001256585
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAAACAGGACCTGAAGACCCTTCCAGCATGCCAGAGGAAAGTTCCCCCAGGCGGACCCCGCAGAGCA
TTCCCTACCAGGACCTCCCTCACCTGGTCAATGCAGACGGACAGTACCTCTTCTGCAGGTACTGGAAACC
CACAGGCACACCCAAGGCCCTCATCTTTGTGTCCCATGGAGCCGGAGAGCACAGTGGCCGCTATGAAGAG
CTGGCTCGGATGCTGATGGGGCTGGACCTGCTGGTGTTCGCCCACGACCATGTTGGCCACGGACAGAGCG
AAGGGGAGAGGATGGTAGTGTCTGACTTCCACGTTTTCGTCAGGGATGTGTTGCAGCATGTGGATTCCAT
GCAGAAAGACTACCCTGGGCTTCCTGTCTTCCTTCTGGGCCACTCCATGGGAGGCGCCATCGCCATCCTC
ACGGCCGCAGAGAGGCCGGGCCACTTCGCCGGCATGGTACTCATTTCGCCTCTGGTTCTTGCCAATCCTG
AATCTGCAACAACTTTCAAGGTCGACATTTATAACTCAGACCCCCTGATCTGCCGGGCAGGGCTGAAGGT
GTGCTTCGGCATCCAACTGCTGAATGCCGTCTCACGGGTGGAGCGCGCCCTCCCCAAGCTGACTGTGCCC
TTCCTGCTGCTCCAGGGCTCTGCCGATCGCCTATGTGACAGCAAAGGGGCCTACCTGCTCATGGAGTTAG
CCAAGAGCCAGGACAAGACTCTCAAGATTTATGAAGGTGCCTACCATGTTCTCCACAAGGAGCTTCCTGA
AGTCACCAACTCCGTCTTCCATGAAATAAACATGTGGGTCTCTCAAAGGACAGCCACGGCAGGAACTGCG
TCCCCACCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag -  GTTTAA
```

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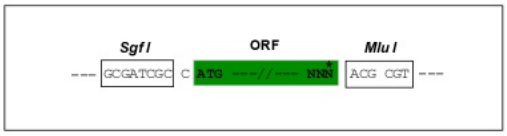
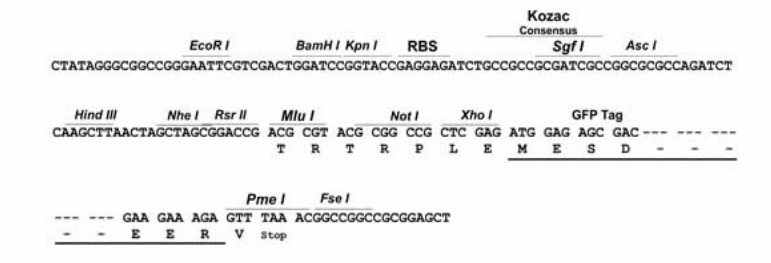
Protein Sequence:

```
>RG232374 representing NM_001256585
Red=Cloning site Green=Tags(s)

METGPEDPSSMPEESSPRRTPQSIPYQDLPHLVNADGQYLFCRYWKPTGTPKALIFVSHGAGEHSGRYEE
LARMLMGLDLLVFAHDHVGHGQSEGERMVVSDFHVFVRDVLQHVDSMQKDYPGLPVFLLGHSMGGAIAIL
TAAERPGHFAGMVLISPLVLANPESATTFKVDIYNSDPLICRAGLKVCFGIQLLNAVSRVERALPKLTVP
FLLLQGSADRLCDSKGAYLLMELAKSQDKTLKIYEGAYHVLHKELPEVTNSVFHEINMWVSQRTATAGTA
SPP

TRTRPLE - GFP Tag -  V
```

Restriction Sites: SgfI-MluI

Cloning Scheme:





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).

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Reconstitution Method:
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

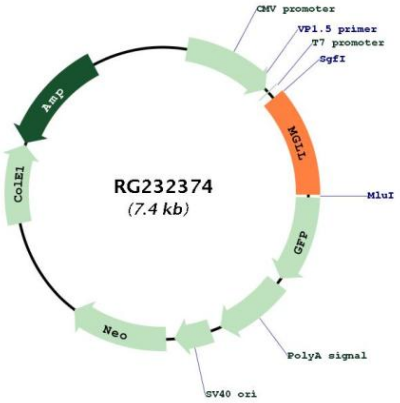
Cytogenetics: 3q21.3

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 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 RG232374

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