

Product datasheet for SC115603

Monoacylglycerol Lipase (MGLL) (NM_007283) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Monoacylglycerol Lipase (MGLL) (NM_007283) Human Untagged Clone
Tag:	Tag Free
Symbol:	Monoacylglycerol Lipase
Synonyms:	HU-K5; HUK5; MAGL; MGL
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC115603 sequence for NM_007283 edited (data generated by NextGen Sequencing)

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ATGGAACAGGACCTGAAGACCCTTCCAGCATGCCAGAGGAAAGTCCCCAGGCGGACC
CCGCAGAGCATTCCCTACCAGGACCTCCCTCACCTGGTCAATGCAGACGGACAGTACCTC
TTCTGCAGGTAAGTGGAAACCCACAGGCACACCCAAAGGCCCTCATCTTTGTGTCCCATGGA
GCCGGAGAGCACAGTGGCCGCTATGAAGAGCTGGCTCGGATGCTGATGGGGCTGGACCTG
CTGGTGTTCGCCCACGACCATGTTGGCCACGGACAGAGCGAAGGGGAGAGGATGGTAGTG
TCTGACTTCCACGTTTTTCGTGAGGGATGTGTTGCAGCATGTGGATTCCATGCAGAAAGAC
TACCCTGGGCTTCTGTCTTCTTCTGGGCCACTCCATGGGAGGGCCATCGCCATCCTC
ACGGCCGCAGAGAGGCCGGGCCACTTCGCCGGCATGGTACTCATTTGCTCTGGTTCTT
GCCAATCCTGAATCTGCAACAACCTTCAAGGTCCTTGCTGCGAAAGTGCTCAACCTTGTC
CTGCCAACTTGTCCCTCGGGCCATCGACTCCAGCGTGCTCTCTCGGAATAAGACAGAG
GTGACATTTATAACTCAGACCCCTGATCTGCCGGGCAGGGCTGAAGGTGTGCTTCGGC
ATCCAACCTGCTGAATGCCGTCTCACGGGTGGAGCGCGCCCTCCCAAGCTGACTGTGCC
TTCTGTGCTCCAGGGCTCTGCCGATCGCCTATGTGACAGCAAAGGGGCTACCTGCTC
ATGGAGTTAGCCAAGAGCCAGGACAAGACTCTCAAGATTTATGAAGGTGCCTACCATGTT
CTCCACAAGGAGCTTCTGAAGTCACCAACTCCGTCTTCCATGAAATAAACATGTGGGTC
TCTCAAAGGACAGCCACGGCAGGAACTGCGTCCCCACCCTGA

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Clone variation with respect to NM_007283.5



[View online »](#)

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_007283 unedited
 GGCGTGCANATTTGTATACGACTCACTATAGGCGGCCGGAATTCGCACGAGGCCTCGTG
 CCGAATTCGGCAGGAGGGAGGGAACAGCCCGATTTGCCTGTTCTGATTCTCCAGGCTGT
 CGTGGTTGTGGAATGCAAACGCCAGCACATAATGGAAACAGGACCTGAAGACCTTCCAG
 CATGCCAGAGGAAAGTTCCTCCAGGCGGACCCCGCAGAGCATTCCCTACCAGGACCTCCC
 TCACCTGGTCAATGCAGACGGACAGTACCTCTTCTGCAGGTAAGTGGAAACCCACAGGCAC
 ACCCAAGGCCCTCATCTTTGTGTCCCATGGAGCCGGAGAGCACAGTGGCCGCTATGAAGA
 GCTGGCTCGGATGCTGATGGGGCTGGACCTGCTGGTGTTCGCCACGACCATGTTGGCCA
 CGGACAGAGCGAAGGGGAGAGGATGGTAGTGTCTGACTTCCACGTTTTCTCAGGGATGT
 GTTGACAGCATGTGGATTCCATGCAGAAAGACTACCCTGGGCTTCTGTCTTCTTCTGGG
 CCACTCCATGGGAGGCGCCATCGCCATCCTCACGGCCGAGAGAGGCCGGGCCACTTCGC
 CGGCATGGTACTCATTTCGCCTCTGGTTCTTGCCAATCCTGAATCTGCAACAACCTTCAA
 GGTCTTGTGCGAAAGTCTCAACCTTGTGCTGCCAACTTGTCCCTCGGGCCCATCGA
 CTCCAGCGTGTCTCTCGGAATAAGACAGAGTCGACATTTATAACTCAGACCCCTGATC
 TGCCGGGAGGGCTGAAGGTGTGCTTCGGCATTCAACTGCTGAATGCCGTCTCACGGGTG
 GAGCGCGCCCTTCCCAAGCTGACTGTGCCCTTCTGCTGCTCCAGGCCTTTGGCGATCGC
 CTATGTGACAAGCAAGGGGCCTACCTG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_007283 unedited
 TAGCTTGTCCGCGCCGCAATCTANAGTCGAGTTTTTTTTTTTTTTTTTTGGCAAGCCAT
 ATCTGAGAAGCCATCTCTGCCCTTCCCCTGCTGCATCCCCAGACCTGAGCCGGGCACC
 GGCCAATGCATTCAGGGTGGGACGCAGTTCCTGCCGTGGCTGCCTTTGAGAGACCCAC
 ATGTTTATTTTCATGGAAGACGGAGTTGGTACTTCAGGAAGCTCCTTGTGGAGAATGG
 TAGGCACCTTCATAAATCTTGAAGTCTTGTCCCTGGCTCTTGGCTAACTCCATGAGCAGG
 TAGGCCCTTTGTGCTCACATAGGCGATCGGCACAGCCCTGGAGCAGCAGGAAGGGCACA
 GCCAGCTTGGGGAGGGCGCGCTCCACCCGTGAGACGGCATTACAGCAGTTGGATGCCGAAG
 CACACCTTCAGCCCTGCCCGGCAGATCAGGGGGTCTGAGTTATAAATGTCGACCTCTGTC
 TTATTCCGAGAGAGCACGCTGGAGTCGATGGGCCCGAGGGACAAGCTTGGCAGCACAAGG
 TTGAGCACTTTCCAGCAAGGACCTTAAAAGTTGTTGTAGATTTAGGATTGGCAAGAACC
 AGAGGCGAAATGAGTACCATGCCCGCGAAGTGGCCCGGCCTCTCTGCGCCGTGAGGAT
 GGCGATGGCGCCTCCCATGGAGTGGTTTCATATAGAAGCCGGAAGCCAGTGTATTCTTTT
 TGCTGGAATTCATGCTGGAACAAAACCCTGAGAAAAAGGGCAGCCAGACCCCTACCATT
 CTCTTCCCCTTGGTCTGTCCGGTGCATATTGTCTGGGGGCCAAAACCCCGCCAGTCCCAC
 CCCTCAGATTCGGACCAACTCTCTTAACGGCCACGGGCTTCCCCTCATGGACAAAAAAA
 GAAGCCCTTGGTGCAGGGGGCTCCCCACCCGCAAAAG

Restriction Sites:

NotI-NotI

ACCN:

NM_007283

Insert Size:

1090 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 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](#)

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:

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_007283.5](#), [NP_009214.1](#)

RefSeq Size: 4617 bp

RefSeq ORF: 942 bp

Locus ID: 11343

UniProt ID: [Q99685](#)

Cytogenetics: 3q21.3

Domains: abhydrolase

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] Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.