

Product datasheet for **SC319504**

Monoacylglycerol Lipase (MGLL) (NM_001003794) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Monoacylglycerol Lipase (MGLL) (NM_001003794) Human Untagged Clone
Tag:	Tag Free
Symbol:	MGLL
Synonyms:	HU-K5; HUK5; MAGL; MGL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001003794, the custom clone sequence may differ by one or more nucleotides

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ATGCCAGAGGAAAGTTCCCCAGGCGGACCCCGCAGAGCATTCCCTACCAGGACCTCCCTCACCTGGTCA
ATGCAGACGGACAGTACCTCTTCTGCAGGTAAGTGGAAACCCACAGGCACACCCAAGGCCCTCATCTTTGT
GTCCCATGGAGCCGGAGAGCACAGTGGCCGCTATGAAGAGCTGGCTCGGATGCTGATGGGCTGGACCTG
CTGGTGTTCGCCCACGACCATGTTGGCCACGGACAGAGCGAAGGGGAGAGGATGGTAGTGTCTGACTTCC
ACGTTTTCGTCAGGGATGTTGCAGCATGTGGATTCCATGCAGAAAGACTACCCTGGGCTTCTGTCTT
CCTTCTGGGCACTCCATGGGAGGCGCCATCGCCATCCTCAGGCGCAGAGAGGCGGGCACTTCGCC
GGCATGGTACTCATTTCGCCTCTGGTTCTTGCCAATCCTGAATCTGCAACAACCTTCAAGGTCCTTGCTG
CGAAAGTGCTCAACCTTGTGCTGCCAACTTGTCCCTCGGGCCATCGACTCCAGCGTGCTCTCGGAA
TAAGACAGAGGTCGACATTTATAACTCAGACCCCTGATCTGCCGGCAGGGCTGAAGGTGTGCTTCGGC
ATCCAAGTGTGAATGCCGTCTCACGGGTGGAGCGCGCCCTCCCAAGCTGACTGTGCCCTTCTGCTGC
TCCAGGGCTCTGCCGATCGCCTATGTGACAGCAAGGGGCTACCTGCTCATGGAGTTAGCCAAGAGCCA
GGACAAGACTCTCAAGATTTATGAAGGTGCCTACCATGTTCTCCACAAGGAGCTTCTGAAGTACCAAC
TCCGTCTCCATGAAATAACATGTGGGTCTCTCAAAGGACAGCCACGGCAGGAAGTGCCTCCACCT
GA
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Restriction Sites:	EcoRI-XhoI
ACCN:	NM_001003794



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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](#)

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_001003794.1](#), [NP_001003794.1](#)

RefSeq Size: 4192 bp

RefSeq ORF: 912 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] Transcript Variant: This variant (2) differs in the 5' UTR, lacks a portion of the 5' coding region and initiates translation at a downstream, in-frame start codon, compared to variant 1. The encoded isoform (2) has a shorter N-terminus compared to 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.