

Product datasheet for **MG204737**

Hmgcl (NM_008254) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hmgcl (NM_008254) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Hmgcl
Synonyms:	AW476067; HL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG204737 representing NM_008254 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGTCAGTGAGGAAGGCTTTCCCGCGGAGGCTGGTGGGCTTGACGTCCCTCCGGCTGTGAGCACCT
CCTCCATGGGCACCTTTGCCAAAGCAGGTGAAGATCGTGGAAGTCGGTCCCCGAGATGGGCTGCAGAAATGA
AAAGAGTATTGTACCCACCCAGTGAAGATCAGGCTGATCGACATGCTTTCCGAAGCAGGGCTCCCCGTG
ATCGAGGCCACCAGCTTTGTTTCTCCAAGTGGTGCCACAGATGGCTGACCACTCTGACGTCTTGAAGG
GCATTAGAAGTTTCCCGCATCAACTACCCAGTCTGACTCCAACATGAAAGGCTTTGAGGAAGCGGT
AGCTGCGGGTGCCAAGGAAGTGAGCGTCTTCGGTGCTGTGTCTGAGCTCTTACCCGGAAGAACCGGAAC
TGCTCTATAGAGGAGAGTTTCCAGCGCTTTGCTGGAGTCATGCAGGCGGCCAGGCCAGCATCTCTG
TGAGAGGGTATGTCTCTGTGCCCTCGGATGCCCTACGAGGGGAAGGTCTCCCCGGCTAAAGTTGCTGA
GGTTGCCAAGAAGTTGTAAGTCTGATGGGCTGCTATGAGATCTCCCTTGGGGACACCATCGGCGTAGGTACC
CCAGGACTCATGAAAGACATGCTGACTGCTGTCATGCATGAAGTGCTGTGACAGCATTGGCTGTCCACT
GCCATGATACCTATGGTCAAGCTCTGGCCAACACCTTGGTGGCCCTGCAGATGGGTGTGAGTGTGTTGGA
CTCCTCTGTGGCAGGACTTGGAGGCTGTCCCTATGCAAAAGGGGCATCAGGGAACCTTGCTACTGAGGAC
CTGGTCTACATGCTGAATGGCTTAGGGATTACACGCGGTGTGAACCTCCAGAACTTCTAGAAGCTGGGG
ACTTCATCTGTCAAGCCCTTAACAGAAAACTAGTTCCAAAGTGGCACAGGCCACCTGCAAGCTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG204737 representing NM_008254
 Red=Cloning site Green=Tags(s)

MASVRKAFPRRLVGLTSLRAVSTSSMGTLPKQVKIVEVGPDRDGLQNEKSI VPTPVKIRLIDMLSEAGLPV
 IEATSFVSPKWVPMADHSDVLKGIQKFPGINYPVLPNMKGFEEAVAAGAKEVSVFGAVSELFTRKNAN
 CSIEESFQRFAGVMQAAQAASISVRGYVSCALGCPYEGKVSPAKVAEVAKKLYSMGCYEISLGDITIGVGT
 PGLMKDMLTAVMHEVPVTLAVHCHDITYGQALANTLVALQMGVSVVDSSVAGLGGCPYAKGASGNLATED
 LVYMLNGLGIHTGVNLQKLLLEAGDFICQALNRKTSKVAQATCKL

TRTRPLE - GFP Tag - V

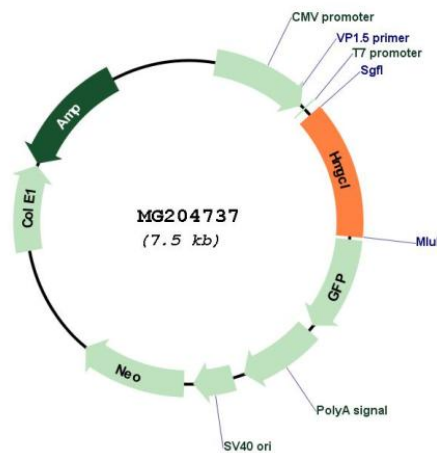
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_008254

ORF Size: 975 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_008254.3
RefSeq Size:	1440 bp
RefSeq ORF:	978 bp
Locus ID:	15356
UniProt ID:	P38060
Cytogenetics:	4 68.14 cM
Gene Summary:	Mitochondrial 3-hydroxymethyl-3-methylglutaryl-CoA lyase that catalyzes a cation-dependent cleavage of (S)-3-hydroxy-3-methylglutaryl-CoA into acetyl-CoA and acetoacetate, a key step in ketogenesis. Terminal step in leucine catabolism. Ketone bodies (beta-hydroxybutyrate, acetoacetate and acetone) are essential as an alternative source of energy to glucose, as lipid precursors and as regulators of metabolism.[UniProtKB/Swiss-Prot Function]