

## Product datasheet for **MR204737**

### Hmgcl (NM\_008254) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Hmgcl (NM_008254) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Hmgcl
Synonyms:	AW476067; HL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR204737 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGTCAGTGAGGAAGGCTTTCCCGCGGAGGCTGGTGGGCTTGACGTCCCTCCGGCTGTGAGCACCT  
CCTCCATGGGCACCTTTGCCAAAGCAGGTGAAGATCGTGGAAGTCGGTCCCCGAGATGGGCTGCAGAAATGA  
AAAGAGTATTGTACCCACCCAGTGAAGATCAGGCTGATCGACATGCTTTCCGAAGCAGGGCTCCCCGTG  
ATCGAGGCCACCAGCTTTGTTTCTCCAAGTGGGTGCCACAGATGGCTGACCACTCTGACGTCTTGAAGG  
GCATTAGAAGTTTCCCGCATCAACTACCCAGTCTGACTCCAACATGAAAGGCTTTGAGGAAGCGGT  
AGCTGCGGGTGCCAAGGAAGTGAGCGTCTTCGGTGCTGTGTCTGAGCTTTCACCCGGAAGAACGCGAAC  
TGCTCTATAGAGGAGAGTTTCCAGCGCTTTGCTGGAGTCATGCAGGCGGCCAGGCCAGCATCTCTG  
TGAGAGGGTATGTCTCCTGTGCCCTCGGATGCCCTACGAGGGGAAGGTCTCCCCGGCTAAAGTTGCTGA  
GGTTGCCAAGAAGTTGTACTCGATGGGCTGCTATGAGATCTCCCTTGGGGACACCATCGGCGTAGGTACC  
CCAGGACTCATGAAAGACATGCTGACTGCTGTCATGCATGAAGTGCTGTGACAGCATTGGCTGTCCACT  
GCCATGATACCTATGGTCAAGCTCTGGCCAACACCTTGGTGGCCCTGCAGATGGGTGTGAGTGTGTTGGA  
CTCCTCTGTGGCAGGACTTGGAGGCTGTCCCTATGCAAAAGGGGCATCAGGGAACCTTGGCTACTGAGGAC  
CTGGTCTACATGCTGAATGGCTTAGGGATTACACGCGGTGTGAACCTCCAGAAACTTCTAGAAGCTGGGG  
ACTTCATCTGTCAAGCCCTTAACAGAAAACTAGTTCCAAAGTGGCACAGGCCACCTGCAAGCTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR204737 protein sequence  
 Red=Cloning site Green=Tags(s)

MASVRKAFPRRLVGLTSLRAVSTSSMGTLPKQVKIVEVGPDRDGLQNEKSIVPTPVKIRLIDMLSEAGLPV  
 IEATSFVSPKWVPMADHSDVLDKGIQKFPGINYPVLTNPMKGFEEAVAAGAKEVSVFGAVSELFTRKNAN  
 CSIEESFQRFAGVMQAAQAASISVRGYVSCALGCPYEGKVSPAKVAEVAKKLYSMGCYEISLGDITIGVGT  
 PGLMKDMLTAVMHEVPVTALAVHCHDITYGQALANTLVALQMGVSVVDSSVAGLGGCPYAKGASGNLATE  
 LVYMLNGLGIHTGVNLQKLLLEAGDFICQALNRKTSKVAQATCKL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_008254

**ORF Size:** 978 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:**

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:** 1416 bp

**RefSeq ORF:** 978 bp

**Locus ID:** 15356

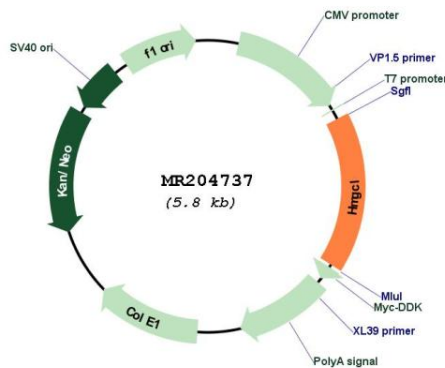
**UniProt ID:** [P38060](#)

**Cytogenetics:** 4 68.14 cM

**MW:** 34.2 kDa

**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]

**Product images:**



Circular map for MR204737