

Product datasheet for **RC228188**

HMGCL (NM_001166059) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HMGCL (NM_001166059) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HMGCL
Synonyms:	HL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC228188 representing NM_001166059 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCAGCAATGAGGAAGGCGCTTCCGCGGCGACTGGTGGGCTTGGCGTCCCTCCGGGCTGTCAGCACCT
CATCTATGGGCACCTTACCAAAGCGGGTAAAAATTGTGGAAGTTGGTCCCCGAGATGGACTACAAAATGA
AAAGAATATCGTATCTACTCCAGTGAAAATCAAGCTGATAGACATGCTTCTGAAGCAGGACTCTCTGTT
ATAGAAACCACCAGCTTTGTGTCTCCTAAGTGGGTTCCCCAGATGGGTGACCACACTGAAGTCTTGAAGG
GCATTAGAAGTTTCTGGCATCACTACCCAGTCTGACCCAAATTTGAAAGGCTTCGAGGCAGCGGT
CACCAAGAAGTTTACTCAATGGGCTGCTACGAGATCTCCCTGGGGGACACCATTGGTGTGGGCACCCCA
GGGATCATGAAAGACATGCTATCTGCTGTGCATGCAGGAAGTGCCTCTGGCTGCCCTGGCTGTCCACTGCC
ATGACACCTATGGTCAAGCCCTGGCCAACACCTTGATGGCCCTGCAGATGGGAGTGAGTGTCTGGGACTC
TTCTGTGGCAGGACTTGGAGGCTGTCCCTACGCACAGGGGATCAGGAAACTTGGCCACAGAAGACCTG
GTCTACATGCTAGAGGGCTTGGGCATTCACACGGGTGTGAATCTCCAGAAGCTTCTGGAAGCTGAAACT
TTATCTGTCAAGCCCTGAACAGAAAACTAGCTCAAAGTGGCTCAGGCTACCTGTAACCTC

ACGCGTACGCGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC228188 representing NM_001166059
Red=Cloning site Green=Tags(s)

MAAMRKALPRRLVGLASLRVSTSSMGTLPKRVKIVEVGPDRDGLQNEKNIVSTPVKIKLIDMLSEAGLSV
 IETTSFVSPKWVPMQGDHTEVLKGIQKFPGINYPVLTPLNLKGFEEAAVTKKFYSMGCYEISLGDITIGVGT
 GIMKDMLSAVMQEVPLAALAVHCHDITYQALANTLMALQMGVSVVDSSVAGLGGCPYAQGASGNLATEDL
 VYMLEGLGIHTGVNLQKLLLEAGNFICQALNRKTSKVAQATCKL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/ja1509_f10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001166059

ORF Size: 762 bp

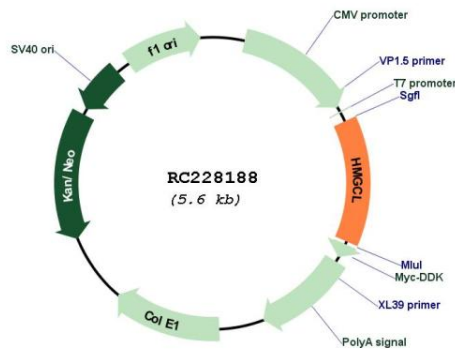
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

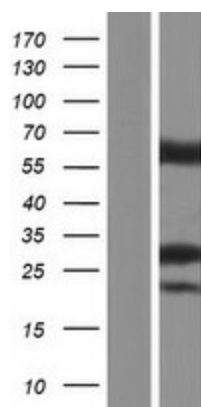
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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_001166059.1](#), [NP_001159531.1](#)
- RefSeq ORF:** 765 bp
- Locus ID:** 3155
- UniProt ID:** [P35914](#)
- Cytogenetics:** 1p36.11
- Protein Families:** Druggable Genome
- Protein Pathways:** Butanoate metabolism, Metabolic pathways, Synthesis and degradation of ketone bodies, Valine, leucine and isoleucine degradation
- MW:** 26.91 kDa
- Gene Summary:** The protein encoded by this gene belongs to the HMG-CoA lyase family. It is a mitochondrial enzyme that catalyzes the final step of leucine degradation and plays a key role in ketone body formation. Mutations in this gene are associated with HMG-CoA lyase deficiency. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2009]

Product images:



Circular map for RC228188



Western blot validation of overexpression lysate (Cat# [LY431216]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC228188 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).