

Product datasheet for **RC203817**

HMGCL (NM_000191) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HMGCL (NM_000191) 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:	>RC203817 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCAGCAATGAGGAAGGCGCTTCGCGGCGACTGGTGGGCTTGGCGTCCCTCCGGCTGTCAGCACCT
CATCTATGGGCACCTTACCAAAGCGGGTAAAAATTGTGGAAGTTGGTCCCGAGATGGACTACAAAATGA
AAAGAATATCGTATCTACTCCAGTGAAAATCAAGCTGATAGACATGCTTCTGAAGCAGGACTCTGTGT
ATAGAAACCACCAGCTTTGTGTCTCCTAAGTGGGTTCCCAGATGGGTGACCACACTGAAGTCTTGAAGG
GCATTGAGAGTTTCTGGCATCAACTACCCAGTCTGACCCAAATTTGAAAGGCTTCGAGGCAGCGGT
TGCTGCTGGAGCCAAGGAAGTAGTCATCTTTGGAGCTGCCTCAGAGCTCTTACCAGAAAGAACATCAAT
TGTTCCATAGAGGAGAGTTTTTCAGAGGTTTGACGCAATCCTGAAGGCAGCGCAGTCAGCCAAATTTCTG
TGCGGGGGTACGTCTCCTGTGCTCTTGGCTGCCCTTATGAAGGGAAGATCTCCCGAGCTAAAGTAGCTGA
GGTCACCAAGAAGTTCTACTCAATGGGCTGCTACGAGATCTCCCTGGGGGACACCATTGGTGTGGGCACC
CCAGGGATCATGAAAGACATGCTGTCTGCTGTCATGCAGGAAGTGCTCTGGCTGCCCTGGCTGTCCACT
GCCATGACACCTATGGTCAAGCCCTGGCCAACACCTTGATGGCCCTGCAGATGGGAGTGAGTGTCTGTGGA
CTCTTCTGTGGCAGGACTTGGAGGCTGTCCCTACGCACAGGGGGCATCAGGAAACTTGGCCACAGAAGAC
CTGGTCTACATGCTAGAGGGCTTGGCATTACACCGGGTGTGAATCTCCAGAAGCTTCTGGAAGCTGGAA
ACTTTATCTGTCAAGCCCTGAACAGAAAACTAGCTCAAAGTGGCTCAGGCTACCTGTAATCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

Protein Sequence: >RC203817 protein sequence
Red=Cloning site Green=Tags(s)

MAAMRKALPRRLVGLASLRVSTSSMGTLPKRVKIVEVGPDRDGLQNEKNIVSTPVKIKLIDMLSEAGLSV
 IETTSFVSPKWVPQMGDHEVLKGIQKFPGINYPVLTPNLKGFEEAAVAAGAKEVVIFGAASELFTKKNIN
 CSIEESFQRFDAILKAAQSANISVRGYVSCALGCPYEGKISPAKVAEVTKKFYSMGCYEISLGDITIGVGT
 PGIMKDMLSAVMQEVPLAALAVHCHDITYGQALANTLMALQMGVSVVDSSVAGLGGCPYAQGASGNLATE
 LVYMLEGLGIHTGVNLQKLLLEAGNFICQALNRKTSKVAQATCKL

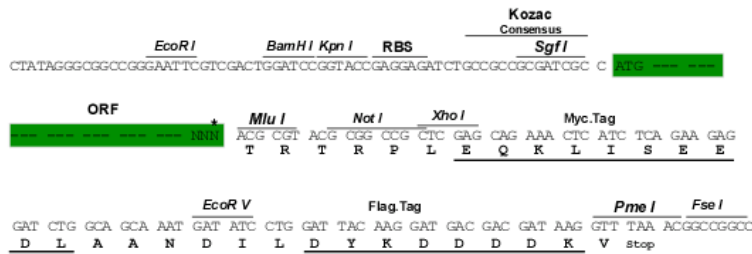
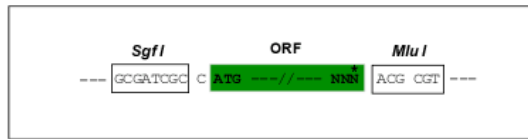
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6302_c05.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_000191

ORF Size: 975 bp

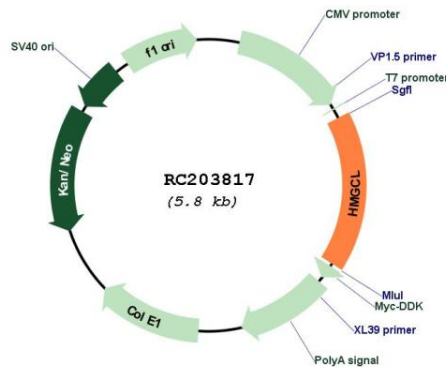
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially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

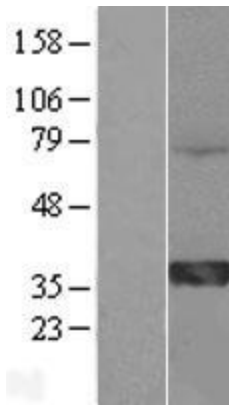
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_000191.3
RefSeq Size:	1617 bp
RefSeq ORF:	978 bp
Locus ID:	3155
UniProt ID:	P35914
Cytogenetics:	1p36.11
Domains:	HMGL-like
Protein Families:	Druggable Genome
Protein Pathways:	Butanoate metabolism, Metabolic pathways, Synthesis and degradation of ketone bodies, Valine, leucine and isoleucine degradation
MW:	34.4 kDa
Gene Summary:	<p>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]</p>

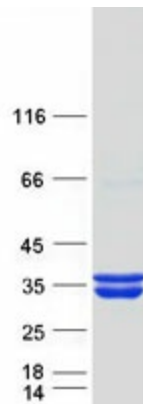
Product images:



Circular map for RC203817



Western blot validation of overexpression lysate (Cat# [LY424872]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203817 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified HMGCL protein (Cat# [TP303817]). The protein was produced from HEK293T cells transfected with HMGCL cDNA clone (Cat# RC203817) using MegaTran 2.0 (Cat# [TT210002]).