

Product datasheet for **RC224071**

HMGCS1 (NM_001098272) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HMGCS1 (NM_001098272) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HMGCS1
Synonyms:	HMGCS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC224071 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCTGGATCACTTCCTTTGAATGCAGAAGCTTGCTGGCCAAAAGATGTGGGAATTGTTGCCCTTGAGA
 TCTATTTTCCTTCAATATGTTGATCAAGCAGAGTTGGAAAAATATGATGGTGTAGATGCTGGAAAGTA
 TACCATTGGCTTGGGCCAGGCCAAGATGGGCTTCTGCACAGATAGAGAAGATATTAACCTCTTTGCATG
 ACTGTGGTTCAGAATCTTATGGAGAGAAAATAACCTTTCCTATGATTGCATTGGGCGGCTGGAAAGTTGGAA
 CAGAGACAATCATCGACAAATCAAAGTCTGTGAAGACTAATTTGATGCAGCTGTTTGAAGAGTCTGGGAA
 TACAGATATAGAAGGAATCGACACAATAATGCATGCTATGGAGGCACAGCTGCTGTCTTCAATGCTGTT
 AACTGGATTGAGTCCAGCTCTTGGGATGGACGGTATGCCCTGGTAGTTCAGGAGATATTGCTGTATATG
 CCACAGGAAATGCTAGACCTACAGGTGGAGTTGGAGCAGTAGCTCTGCTAATTGGCCAAATGCTCCTTT
 AATTTTTGAACGAGGGCTTCGTGGGACACATATGCAACATGCCTATGATTTTTACAAGCCTGATATGCTA
 TCTGAATATCCTATAGTAGATGGAAAACCTCCATACAGTGTACCTCAGTGCATTAGACCGCTGCTATT
 CTGTCTACTGCAAAAAGATCCATGCCAGTGGCAGAAAAGAGGGAATGATAAAGATTTTACCTTGAATGA
 TTTTGGCTTATGATCTTCACTCACCATATTGTAACCTGGTTCAGAAATCTCTAGCTCGGATGTTGCTG
 AATGACTTCCTTAATGACCAGAAATAGAGATAAAAAATAGTATCTATAGTGGCCTGGAAGCCTTTGGGGATG
 TAAATTAGAAGACACCTACTTTGATAGAGATGTGGAGAAGGCATTTATGAAGGCTAGCTCTGAACCTTT
 CAGTCAGAAAACAAGGCATCTTACTTGTATCAAATCAAATGGAAATATGTACACATCTTCAGTATAT
 GGTTCCCTTGCATCTGTTCTAGCACAGTACTCACCTCAGCAATTAGCAGGGAAGAGAATTGGAGTGT
 CTTATGGTCTGGTTTGGCTGCCACTCTGTACTCTTAAAGTCACACAAGATGCTACACCGGGTCTGC
 TCTTGATAAAAATAACAGCAAGTTTATGTGATCTTAAATCAAGGCTTGATTCAAGAAGTGGTGGCACCA
 GATGTCTTCGCTGAAAACATGAAGCTCAGAGAGGACACCTATCATTGGTCAACTATATCCCCAGGGTT
 CAATAGATTCACTCTTTGAAGGAACGTGGTACTTAGTTAGGGTGGATGAAAAGCAGAGAAGAACTTACGC
 TCGGCGTCCCACTCCAAATGATGACACTTTGGATGAAGGAGTAGGACTTGTGCATTCAAACATAGCAACT
 GAGCATATCCAAGCCCTGCCAAGAAAGTACCAAGACTCCCTGCCACAGCAGCAGAACCTGAAGCAGCTG
 TCATTAGTAATGGGAACAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC224071 protein sequence
 Red=Cloning site Green=Tags(s)

MPGSLPLNAEACWPKDVGIVALEIYFPSQYVDQAELEKYDGVDAKTYIGLQAKMGFCTDREDINSLCM
 TVVQNLMEARNLSYDCIGRLEVGTETIIDKSKSVKTNLMQLFEESGNTDIEGIDTTNACYGGTAAVFNAV
 NWIESSWDGRYALVVAGDIIVYATGNARPTGGVAVALLIGPNAPLIFERGLRGTHMQHAYDFYKPDML
 SEYPIVDGKLSIQCYLSALDRCYSVYCKKIHAQWQKEGNDKDFTLNDFGFMIHSPYCKLVQKSLARMLL
 NDFLNDQNRDKNSIYSGLEAFGDVKLEDYFDRDVEKAFMKASSELSQKTKASLLVSNQNGNMYTSSVY
 GSLASVLAQYSPQQLAGKRIGVFSYGSGLAATLYSLKVTQDATPGSALDKITASLCDLKSRLDSRTGVAP
 DVFAENMKLREDTYHLVNYIPQGSIDSLFEGTWYLRVDEKHRRTYARRPTPNDDTLDEGVGLVHSNIAT
 EHIPSPAKKVPRLPATAAEPEAAVISNGEH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6620_f04.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_001098272

ORF Size: 1560 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_001098272.3](#)

RefSeq Size: 5450 bp

RefSeq ORF: 1563 bp

Locus ID: 3157

UniProt ID: [Q01581](#)

Cytogenetics: 5p12

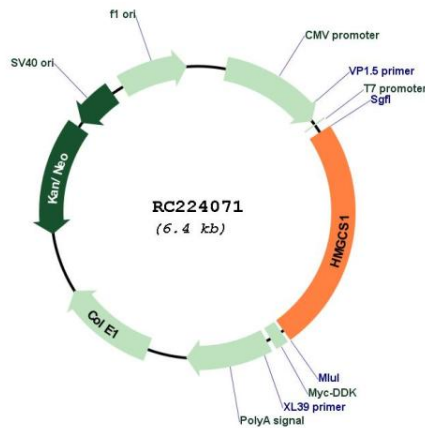
Protein Families: Druggable Genome

Protein Pathways: Butanoate metabolism, Metabolic pathways, Synthesis and degradation of ketone bodies, Terpenoid backbone biosynthesis, Valine, leucine and isoleucine degradation

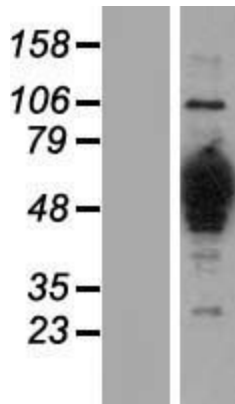
MW: 57.3 kDa

Gene Summary: This enzyme condenses acetyl-CoA with acetoacetyl-CoA to form HMG-CoA, which is the substrate for HMG-CoA reductase.[UniProtKB/Swiss-Prot Function]

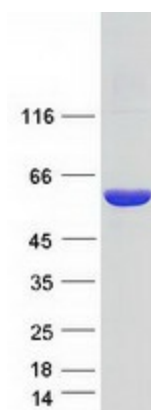
Product images:



Circular map for RC224071



Western blot validation of overexpression lysate (Cat# [LY420564]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224071 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified HMGC51 protein (Cat# [TP324071]). The protein was produced from HEK293T cells transfected with HMGC51 cDNA clone (Cat# RC224071) using MegaTran 2.0 (Cat# [TT210002]).