

Product datasheet for **RG224071**

HMGCS1 (NM_001098272) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HMGCS1 (NM_001098272) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	HMGCS1
Synonyms:	HMGCS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG224071 representing NM_001098272
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCCTGGATCACTTCCTTTGAATGCAGAAGCTTGCTGGCCAAAAGATGTGGGAATTGTTGCCCTTGAGA
 TCTATTTTCTTCTCAATATGTTGATCAAGCAGAGTTGGAAAAATATGATGGTGTAGATGCTGGAAAAGTA
 TACCATTGGCTTGGGCCAGGCCAAGATGGGCTTCTGCACAGATAGAGAAGATATTAACCTCTTTGCATG
 ACTGTGGTTCAGAATCTTATGGAGAGAAAATAACCTTTCCTATGATTGCATTGGGCGGCTGGAAAGTTGGAA
 CAGAGACAATCATCGACAAAATCAAAGTCTGTGAAGACTAATTTGATGCAGCTGTTTGAAGAGTCTGGGAA
 TACAGATATAGAAGGAATCGACACAATAATGCATGCTATGGAGGCACAGCTGCTGTCTTCAATGCTGTT
 AACTGGATTGAGTCCAGCTCTTGGGATGGACGGTATGCCCTGGTAGTTCAGGAGATATTGCTGTATATG
 CCACAGGAAATGTAGACCTACAGGTGGAGTTGGAGCAGTAGCTCTGCTAATTGGCCAAATGCTCCTTT
 AATTTTTGAACGAGGGCTTCGTGGACACATATGCAACATGCCTATGATTTTTACAAGCCTGATATGCTA
 TCTGAATATCCTATAGTAGATGGAAAACCTCCATACAGTGTACCTCAGTGCATTAGACCGCTGCTATT
 CTGTCTACTGCAAAAAGATCCATGCCAGTGGCAGAAAAGAGGGAATGATAAAGATTTTACCTTGAATGA
 TTTTGGCTTCATGATCTTCACTCACCATATTGTAACCTGGTTCAGAAATCTCTAGCTCGGATGTTGCTG
 AATGACTTCCTTAATGACCAGAAATAGAGATAAAAAATAGTATCTATAGTGGCTGGAAGCCTTTGGGGATG
 TAAATTAGAAGACACCTACTTTGATAGAGATGTGGAGAAGGCATTTATGAAGGCTAGCTCTGAACCTTT
 CAGTCAGAAAACAAGGCATCTTACTTGTATCAAATCAAATGGAAATATGTACACATCTTCAGTATAT
 GGTTCCCTTGCATCTGTTCTAGCACAGTACTCACCTCAGCAATTAGCAGGGAAGAGAATTGGAGTGT
 CTTATGGTCTGGTTTGGCTGCCACTCTGTACTCTTAAAGTCACACAAGATGCTACACCGGGGCTGC
 TCTTGATAAAAATAACAGCAAGTTTATGTATCTTAAATCAAGGCTTGATTCAAGAAGCTGGTGGCACCA
 GATGTCTTCGCTGAAAACATGAAGCTCAGAGAGGACACCCATCATTGGTCAACTATATCCCCAGGGTT
 CAATAGATCACTCTTTGAAGGAACGTGGTACTTAGTTAGGGTGGATGAAAAGCAGAGAAGAACTTACGC
 TCGGCGTCCCCTCCAAATGATGACACTTTGGATGAAGGAGTAGGACTTGTGCATTCAAACATAGCAACT
 GAGCATATCCAAGCCCTGCCAAGAAAGTACCAAGACTCCCTGCCACAGCAGCAGAACCTGAAGCAGCTG
 TCATTAGTAATGGGAACAT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG224071 representing NM_001098272
 Red=Cloning site Green=Tags(s)

MPGSLPLNAEACWPKDVGIVALEIYFPSQYVDQAELEKYDGVDAKTYITLGLQAKMGFCTDREDINSLCM
 TVVQNLMERNNLSYDCIGRLEVGTETIIDKSKSVKTNLMQLFEESGNTDIEGIDTTNACYGGTAAVFNAV
 NWIESSWDGRYALVVAGDIAVYATGNARPTGGVGAVALLIGPNAPLIFERGLRGTHMQHAYDFYKPDML
 SEYPIVDGKLSIQCYLSALDRCYSVYCKKIHAQWQKEGNDKDFTLNDFGFMIFHSPYCKLVQKSLARMLL
 NDFLNDQNRDKNSIYSGLEAFGDVKLEDTYFDRDVEKAFMKASSELSQKTKASLLVSNQNGNMYTSSVY
 GSLASVLAQYSPQQLAGKRIGVFSYGSGLAATLYSLKVTQDATPGSALDKITASLCDLKSRLDSRTGVAP
 DVFAENMKLREDTHHLVNYIPQGSIDSLFEGTWYLVRVDEKHRRTYARRPTPNDDTLDEGVGLVHSNIAT
 EHIPSPAKKVPRLPATAAEPEAAVISNGEH

TRTRPLE – GFP Tag – V

Restriction Sites:

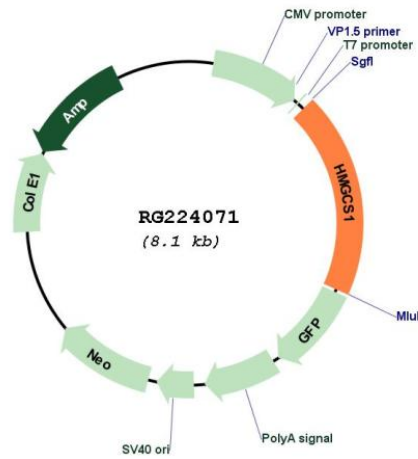
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



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:	<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_001098272.3
RefSeq Size:	3510 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
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]