

## Product datasheet for **RG210090**

### **HMGCS1 (NM\_002130) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	HMGCS1 (NM_002130) 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:**

>RG210090 representing NM\_002130  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCCTGGATCACTTCCTTTGAATGCAGAAGCTTGCTGGCCAAAAGATGTGGGAATTGTTGCCCTTGAGA  
 TCTATTTTCCTTCTCAATATGTTGATCAAGCAGAGTTGGAAAAATATGATGGTGTAGATGCTGGAAAAGTA  
 TACCATTGGCTTGGGCCAGGCCAAGATGGGCTTCTGCACAGATAGAGAAGATATTAACCTCTCTTTCATG  
 ACTGTGGTTCAGAATCTTATGGAGAGAAAATAACCTTTCCTATGATTGCATTGGGCGGCTGGAAAGTTGGAA  
 CAGAGACAATCATCGACAAATCAAAGTCTGTGAAGACTAATTTGATGCAGCTGTTTGAAGAGTCTGGGAA  
 TACAGATATAGAAGGAATCGACACAATAATGCATGCTATGGAGGCACAGCTGCTGTCTTCAATGCTGTT  
 AACTGGATTGAGTCCAGCTCTTGGGATGGACGGTATGCCCTGGTAGTTCAGGAGATATTGCTGTATATG  
 CCACAGGAAATGCTAGACCTACAGGTGGAGTTGGAGCAGTAGCTCTGCTAATTGGCCAAATGCTCCTTT  
 AATTTTTGAACGAGGGCTTCGTGGGACACATATGCAACATGCCTATGATTTTTACAAGCCTGATATGCTA  
 TCTGAATATCCTATAGTAGATGGAAAACCTCCATACAGTGTACCTCAGTGCATTAGACCGCTGCTATT  
 CTGTCTACTGCAAAAAGATCCATGCCAGTGGCAGAAAAGAGGAAATGATAAAGATTTTACCTTGAATGA  
 TTTTGGCTTATGATCTTTCCTCACTCACCATATTGTAACCTGGTTCAGAAATCTCTAGCTCGGATGTTGCTG  
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 CAGTCAGAAAACAAGGCATCTTACTTGTATCAAATCAAATGGAATATGTACACATCTTCAGTATAT  
 GGTCCCTTGCATCTGTTCTAGCACAGTACTCACCTCAGCAATTAGCAGGGAAGAGAATTGGAGTGT  
 CTTATGGTCTGGTTTGGCTGCCACTCTGTACTCTTAAAGTCACACAAGATGCTACACCGGGGCTGC  
 TCTTGATAAAAATAACAGCAAGTTTATGTATCTTAAATCAAGGCTTGATTCAAGAAGCTGGTGGCACC  
 GATGTCTTCGCTGAAAACATGAAGCTCAGAGAGGACACCTATCATTGGTCAACTATATCCCCAGGGTT  
 CAATAGATTCACTCTTTGAAGGAACGTGGTACTTAGTTAGGGTGGATGAAAAGCAGAGAAGAACTTACGC  
 TCGGCGTCCCCTCCAAATGATGACACTTTGGATGAAGGAGTAGGACTTGTGCATTCAAACATAGCAACT  
 GAGCATATCCAAGCCCTGCCAAGAAAGTACCAAGACTCCCTGCCACAGCAGCAGAACCTGAAGCAGCTG  
 TCATTAGTAATGGGAACAT

AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG210090 representing NM\_002130  
 Red=Cloning site Green=Tags(s)

MPGSLPLNAEACWPKDVGIVALEIYFSPQYVDQAELEKYDGVDAKTYITLGLQAKMGFCTDREDINSLCM  
 TVVQNLMERNNLSYDCIGRLEVGTETIIDKSKSVKTNLMQLFEESGNTDIEGIDTTNACYGGTAAVFNAV  
 NWIESSWDGRYALVVAGDIAVYATGNARPTGGVAVALLIGPNAPLIFERGLRGTHMQHAYDFYKPDML  
 SEYPIVDGKLSIQCYLSALDRCYSVYCKKIHAQWQKEGNDKDFTLNDFGFMIFHSPYCKLVQKSLARMLL  
 NDFLNDQNRDKNSIYSGLEAFGDVKLEDYFDRDVEKAFMKASSELSQKTKASLLVSNQNGNMYTSSVY  
 GSLASVLAQYSPQQLAGKRIGVFSYSGLAATLYSLKVTQDATPGSALDKITASLCDLKSRLDSRTGVAP  
 DVFAENMKLREDTYHLVNYIPQGSIDSLFEGTWYLRVDEKHRRTYARRPTPNDLDEGVGLVHSNIAT  
 EHIPSPAKKVPRLPATAAEPEAAVISNGEH

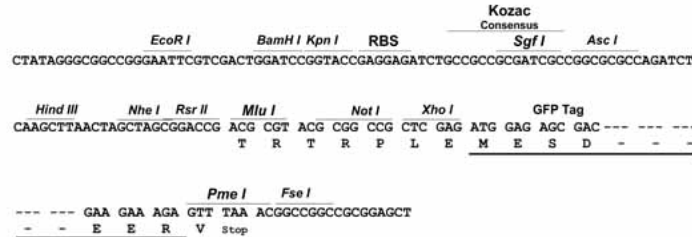
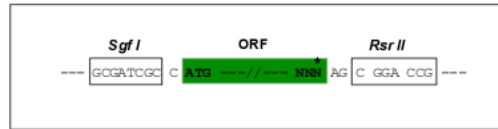
SGPTRRRLE - GFP Tag - V

**Restriction Sites:**

Sgfl-RsrII

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:


**ACCN:** NM\_002130

**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\\_002130.5](#)
**RefSeq Size:** 3421 bp

**RefSeq ORF:** 1563 bp

**Locus ID:** 3157

**UniProt ID:** [Q01581](#)
**Cytogenetics:** 5p12

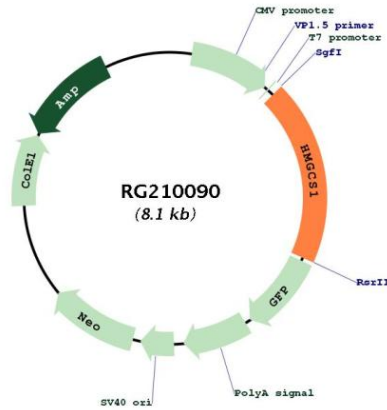
**Domains:** HMG\_CoA\_synt

**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]

**Product images:**



Circular map for RG210090