

## **Product datasheet for RC213184L1**

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OriGene Technologies, Inc.

### HMGCR (NM\_000859) Human Tagged Lenti ORF Clone

**Product data:** 

**Product Type:** Expression Plasmids

Product Name: HMGCR (NM 000859) Human Tagged Lenti ORF Clone

Tag:Myc-DDKSymbol:HMGCRSynonyms:LDLCQ3

Mammalian Cell

Selection:

Vector:pLenti-C-Myc-DDK (PS100064)E. coli Selection:Chloramphenicol (34 ug/mL)

None

chioramphenicor (54 dg/mb)

Sequence:

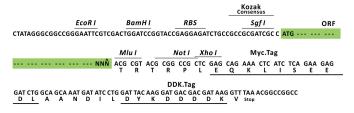
The ORF insert of this clone is exactly the same as(RC213184).

**ORF Nucleotide** 

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF.

**ACCN:** NM\_000859

ORF Size: 2664 bp





**OTI Disclaimer:** 

Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:customercom">customercom</a> or by calling 301.340.3188 option 3 for pricing and delivery.

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. <u>More info</u>

**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:

Cytogenetics:

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:** <u>NM 000859.1</u>

 RefSeq Size:
 4471 bp

 RefSeq ORF:
 2667 bp

 Locus ID:
 3156

 UniProt ID:
 P04035

**Domains:** HMG-CoA\_red

**Protein Families:** Druggable Genome, Transmembrane

5q13.3

**Protein Pathways:** Metabolic pathways, Terpenoid backbone biosynthesis

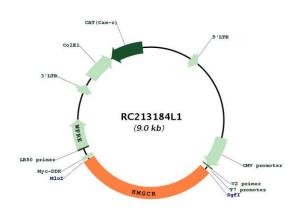
**MW:** 97.3 kDa



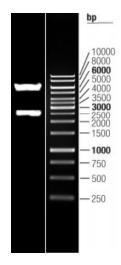
#### **Gene Summary:**

HMG-CoA reductase is the rate-limiting enzyme for cholesterol synthesis and is regulated via a negative feedback mechanism mediated by sterols and non-sterol metabolites derived from mevalonate, the product of the reaction catalyzed by reductase. Normally in mammalian cells this enzyme is suppressed by cholesterol derived from the internalization and degradation of low density lipoprotein (LDL) via the LDL receptor. Competitive inhibitors of the reductase induce the expression of LDL receptors in the liver, which in turn increases the catabolism of plasma LDL and lowers the plasma concentration of cholesterol, an important determinant of atherosclerosis. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Aug 2008]

# **Product images:**



Circular map for RC213184L1



Double digestion of RC213184L1 using Sgfl and Mlul  $\,$