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Product datasheet for SC325352

HMGCR (NM_001130996) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HMGCR (NM_001130996) Human Untagged Clone
Tag:	Tag Free
Symbol:	HMGCR
Synonyms:	LDLCQ3
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF: >OriGene ORF within SC325352 sequence for NM_001130996 edited (data generated by NextGen Sequencing)

ATGTTGTCAAGACTTTTTCGAATGCATGGCCTCTTTGTGGCCTCCCATCCCTGGGAAGTCATAGTGGGGA
CAGTGACACTGACCATCTGCATGATGTCCATGAACATGTTTACTGGTAACAATAAGATCTGTGGTTGGAA
TTATGAATGTCCAAAGTTTGAAGAGGATGTTTTGAGCAGTGACATTATAATTCTGACAATAACACGATGC
ATAGCCATCCTGTATATTTACTTCCAGTTCCAGAATTTACGTCAACTTGGATCAAAATATATTTTGGGTA
TTGCTGGCCTTTTCACAATTTTCTCAAGTTTTGTATTCAGTACAGTTGTCATTCACTTCTTAGACAAAGA
ATTGACAGGCTTGAATGAAGCTTTGCCCTTTTTCCTACTTTTGATTGACCTTTCCAGAGCAAGCACATTA
GCAAAGTTTGCCCTCAGTTCCAACTCACAGGATGAAGTAAGGGAAAATATTGCTCGTGGAATGGCAATTT
TAGGTCCTACGTTTACCCTCGATGCTCTTGTTGAATGTCTTGTGATTGGAGTTGGTACCATGTCAGGGGT
ACGTCAGCTTGAAATTATGTGCTGCTTTGGCTGCATGTCAGTTCTTGCCAACTACTTCGTGTTCATGACT
TTCTTCCCAGCTTGTGTGTCCTTGGTATTAGAGCTTTCTCGGGAAAGCCGCGAGGGTCGTCCAATTTGGC
AGCTCAGCCATTTTGCCCGAGTTTTAGAAGAAGAAGAAAATAAGCCGAATCCTGTAACTCAGAGGGTCAA
GATGATTATGTCTCTAGGCTTGGTTCTTGTTCATGCTCACAGTCGCTGGATAGCTGATCCTTCTCCTCAA
AACAGTACAGCAGATACTTCTAAGGTTTCATTAGGACTGGATGAAAATGTGTCCAAGAGAATTGAACCAA
GTGTTTCCCTCTGGCAGTTTTATCTCTCTAAAATGATCAGCATGGATATTGAACAAGTTATTACCCTAAG
TTTAGCTCTCCTTCTGGCTGTCAAGTACATCTTCTTTGAACAAACAGAGACAGAATCTACACTCTCATTA
AAAAACCCTATCACATCTCCTGTAGTGACACAAAAGAAAGTCCCAGACAATTGTTGTAGACGTGAACCTA
TGCTGGTCAGAAATAACCAGAAATGTGATTCAGTAGAGGAAGAGACAGGGATAAACCGAGAAAGAAAAGT
TGAGGTTATAAAACCCTTAGTGGCTGAAACAGATACCCCAAACAGAGCTACATTTGTGGTTGGTAACTCC
TCCTTACTCGATACTTCATCAGTACTGGTGACACAGGAACCTGAAATTGAACTTCCCAGGGAACCTCGGC
CTAATGAAGAATGTCTACAGATACTTGGGAATGCAGAGAAAGGTGCAAAATTCCTTAGTGATGCTGAGAT
CATCCAGTTAGTCAATGCTAAGCATATCCCAGCCTACAAGTTGGAAACTCTGATGGAAACTCATGAGCGT
GGTGTATCTATTCGCCGACAGTTACTTTCCAAGAAGCTTTCAGAACCTTCTTCTCTCCAGTACCTACCTT
ACAGGGATTATAATTACTCCTTGCTTGGTGGAGGTGCCAGCAGCCGAGTCCTTGCAGATGGGATGACTCG
TGGCCCAGTTGTGCGTCTTCCACGTGCTTGTGACTCTGCAGAAGTGAAAGCCTGGCTCGAAACATCTGAA
GGGTTCGCAGTGATAAAGGAGGCATTTGACAGCACTAGCAGATTTGCACGTCTACAGAAACTTCATACAA
GTATAGCTGGACGCAACCTTTATATCCGTTTCCAGTCCAGGTCAGGGGATGCCATGGGGATGAACATGAT
TTCAAAGGGTACAGAGAAAGCACTTTCAAAACTTCACGAGTATTTCCCTGAAATGCAGATTCTAGCCGTT
AGTGGTAACTATTGTACTGACAAGAAACCTGCTGCTATAAATTGGATAGAGGGAAGAGGAAAATCTGTTG
TTTGTGAAGCTGTCATTCCAGCCAAGGTTGTCAGAGAAGTATTAAAGACTACCACAGAGGCTATGATTGA
GGTCAACATTAACAAGAATTTAGTGGGCTCTGCCATGGCTGGGAGCATAGGAGGCTACAACGCCCATGCA
GCAAACATTGTCACCGCCATCTACATTGCCTGTGGACAGGATGCAGCACAGAATGTTGGTAGTTCAAACT
GTATTACTTTAATGGAAGCAAGTGGTCCCACAAATGAAGATTTATATATCAGCTGCACCATGCCATCTAT
AGAGATAGGAACGGTGGGTGGTGGGACCAACCTACTACCTCAGCAAGCCTGTTTGCAGATGCTAGGTGTT
CAAGGAGCATGCAAAGATAATCCTGGGGAAAATGCCCGGCAGCTTGCCCGAATTGTGTGTGGGACCGTAA
TGGCTGGGGAATTGTCACTTATGGCAGCATTGGCAGCAGGACATCTTGTCAAAAGTCACATGATTCACAA
CAGGTCGAAGATCAATTTACAAGACCTCCAAGGAGCTTGCACCAAGAAGACAGCCTGA

Clone variation with respect to NM_001130996.1

Restriction Sites: Please inquire

ACCN: NM_001130996

Insert Size: 3800 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 custsupport@origene.com 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. More info
OTI Annotation:	The ORF of this clone has been fully sequenced and found to be a perfect match to NM_001130996.1.
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_001130996.1, NP_001124468.1
RefSeq Size:	4430 bp
RefSeq ORF:	2508 bp
Locus ID:	3156
UniProt ID:	P04035
Cytogenetics:	5q13.3
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Metabolic pathways, Terpenoid backbone biosynthesis

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]
Transcript Variant: This variant (2) lacks an in-frame coding exon in the middle region, as compared to variant 1. The resulting isoform (2) is shorter than isoform 1.