

Product datasheet for **KN213184**

HMGCR Human Gene Knockout Kit (CRISPR)

Product data:

Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 GFP-puro donor, 1 scramble control
Donor DNA:	GFP-puro
Symbol:	HMGCR
Locus ID:	3156
Components:	<p>KN213184G1, HMGCR gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TCAAGACTTTTTCGAATGCA</p> <p>KN213184G2, HMGCR gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TCTTTGTGGCCTCCCATCCC</p> <p>KN213184D, donor DNA containing left and right homologous arms and GFP-puro functional cassette.</p> <p>Homologous arm and GFP-puro sequences: pUC vector backbone in gray; Left arm sequence in blue; GFP-puro in green; Right arm in violet</p> <pre> CATCCTTTTG CTAGTGACAT TATGCCATAT GTTCTATGGA ATGAAAAAGT ACAAGAGGTC CCTGCCCTTG AGGATCTTAT CAACTAACAT GATTTATAGC AGGACTCA ATAAGTGGAT TCTTGGGTGT TTACCTTTTG TGTAATCAGA ATGTAGATGA TGAAGAAGAT ACTTAACATG CATTTTATAT CTAGGTAATT AGAAAATGTG AATAGCTGTT TCTCACTTGT GTTTTCTGCT TGATTGCTCT TCTACTTGCA AGGCTTAGGT AATAAGGTCCG AGATACTTAT CTGGTTTGGT CTTAAATGTT TGAATTCATA TAATTTTAA GAAATGGCTG CTTTAAAGTT GGTTGCCAGT AAGTAATAAA GGATTTATTG TTTGAGTGAA GAAGAAATAA CATAGTTCTC TTAATTTTAT AATTATTTTC CAGAATTATA AGGAACAGTA TCAAATAGTC ATATGTATGG GACACTGTGC ATACAAAGCA GGGTTTATAG CACACTTTTC CTTAAATCT TTTCTAAAA ATACAATGAG CTGTATACTA AGTGTTCCACC CTTGATATTC CTTCCAGGAT CCAAGGATTC TGTAGCTACA ACCATCTGCA TGATGTCCAT GAACATGTTT ACTGGTAACA ATAAGATCTG TGGTTGGAAT TATGAATGTC CAAAGTTTGA AGAGGTTAGT GAAGTTAATT TGATACTGAC TAAAGTAAAT TACATTTTCA ATTTTGAAG AGCCCTAAG CCCCTATAGG GAGCACATAA TTTTTAAAG TTAGAGTAAA ATATTTATTT TAGTATTTTG GAACTTACCT CAAATTTCTG CTTACATGGA ATGCACTGGA AATGCTCTTA TTTTGCTTTG TCTTTACAAA TGAATGTAAT TGACTTTATT TGAGAAATAC ATCTTTTATA AGTGACTAAT AGTCAAAAAT GATTGTGGGC CGGTATAGT GACTCATGCC TGTAATCCCA GCACTTTGGG AGGCCAAAGC AGGAGAATTG TTTGAGCCTA GGAGTTCAAG ACCAGCCTGG GCAACCTGGA CAACATAGTA AGACCCAGTC TTTAAAAAAA AATTAAGGC CGGGCACGGT GGCTCATGTC TGTAATCCCA GCACTTTGGG AGGCCAAGGC GGGTGGATCA CGAGGTCGGG AGATCGAGAC CATCCTGGCT AACATGGTGA AACCCGTGTC </pre> <p>GE100003, scramble sequence in pCas-Guide vector</p>



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Disclaimer: These products are manufactured and supplied by OriGene under license from ERS. The kit is designed based on the best knowledge of CRISPR technology. The system has been functionally validated for knocking-in the cassette downstream the native promoter. The efficiency of the knock-out varies due to the nature of the biology and the complexity of the experimental process.

RefSeq: [NM_000859](#), [NM_001130996](#), [NM_001364187](#)

UniProt ID: [P04035](#)

Synonyms: LDLCQ3

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:

