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# Product datasheet for KN220000

## PCSK9 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:** PCSK9

**Locus ID:** 255738

**Components:** **KN220000G1**, PCSK9 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GGTGCTAGCCTTGCGTTCCG
**KN220000G2**, PCSK9 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GGACGAGGACGGCGACTACG
**KN220000D**, donor DNA containing left and right homologous arms and GFP-puro functional cassette.
Homologous arm and GFP-puro sequences:
pUC vector backbone in gray; Left arm sequence in blue; GFP-puro in green; Right arm in violet

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AGGCATCGTG GTGTCACGCT CGTCGTTTGG TATGGCTTCA TTCAGCTCCG GTTCCCAACG ATC

**GE100003**, scramble sequence in pCas-Guide vector

**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.

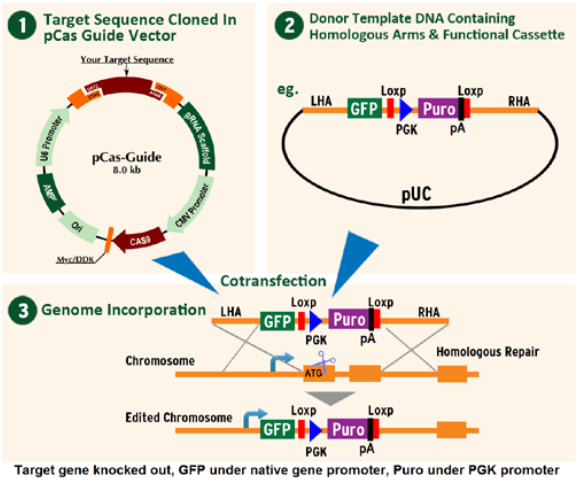
**RefSeq:** NM_174936, NR_110451

**UniProt ID:** Q8NBP7

**Synonyms:** FH3; HCHOLA3; LDLCQ1; NARC-1; NARC1; PC9

**Summary:** This gene encodes a member of the subtilisin-like proprotein convertase family, which includes proteases that process protein and peptide precursors trafficking through regulated or constitutive branches of the secretory pathway. The encoded protein undergoes an autocatalytic processing event with its prosegment in the ER and is constitutively secreted as an inactive protease into the extracellular matrix and trans-Golgi network. It is expressed in liver, intestine and kidney tissues and escorts specific receptors for lysosomal degradation. It plays a role in cholesterol and fatty acid metabolism. Mutations in this gene have been associated with autosomal dominant familial hypercholesterolemia. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Feb 2014]

## Product images:




Target gene knocked out, GFP under native gene promoter, Puro under PGK promoter