

Supplementary Materials

Primer sequences:

Primers for knock-in screening:

F1- 5'- GATCAGTGTCTATTAGGTGA

R1- 5'- AATGTCCACCTCGATATGTG

F2- 5'- CCATGCATCGATGATATCAG

R2 - 5' - GGACAAGGTGAGGCTCAGAC

Primers used in construction of the pTetRedLDLRwt vector:

DNA template, pIRES2dsRED – PCR fragment 1 - 708 bp with:

DsRed forw: 5' - ACCCTCGTAAAGAATTACCATGGCCTCCTCCGAGAA

DsRed rev: 5' - GGATCCCCGGGCTACAGGAACAGGTGGTGGCG

DNA template, pIRES2dsRED – PCR fragment 2 - 606 bp with:

IRES 2 forw: 5' - TCCTGTAGCCCGGGATCCGCCCTCTCCCTC

IRES 2 rev: 5' - GGTTGTGGCCATATTATCATCGTG

DNA template, pCMV6-LDLR – PCR fragment 3 -2627 bp with:

IRES LDLR: 5' - GATAATATGGCCACAACCGCGAGCATGGGGCCCTGGGGC

3 LDLR: 5' – CCTCTAGACATATGCTGCAGTCACGCCACGTCATCCTCCAG

Primers used in construction of the LDLR variants expressing vectors

rs376207800 c.185 C>T p.(Thr62Met)

DNA template, pCMV6-LDLR – PCR fragment – 224 bp

IRES LDLR: 5' - GATAATATGGCCACAACCGCGAGCATGGGGCCCTGGGGC

LDLR185R: 5' – GTGACAGACAAGCACATCTCCTGGGACTCA

DNA template, pCMV6-LDLR – PCR fragment – 2433 bp

LDLR185F: 5' – TGAGTCCCAGGAGATGTGCTTGTCTGTCAC

3 LDLR: 5' – CCTCTAGACATATGCTGCAGTCACGCCACGTCATCCTCCAG

rs875989906 c. 661 G>T p.(Asp221Tyr)

DNA template, pCMV6-LDLR – PCR fragment – 703 bp

IRES LDLR: 5' – GATAATATGGCCACAACCGCGAGCATGGGGCCCTGGGGC

LDLR661R: 5' – CAGATTTGTCCTTGCAGTAGGGGCCACCATCA

DNA template, pCMV6-LDLR – PCR fragment – 1956 bp

LDLR661F: 5' – TGATGGTGGCCCCTACTGCAAGGACAAATCTG

3 LDLR: 5' – CCTCTAGACATATGCTGCAGTCACGCCACGTCATCCTCCAG

rs121908043 c.1216 C>T p. (Arg406Trp)

DNA template, pCMV6-LDLR – PCR fragment – 1253 bp

IRES LDLR: 5' – GATAATATGGCCACAACCGCGAGCATGGGGCCCTGGGGC

LDLR1216R: 5' – CTGACCTCGTGCCAGTTGGTGAAGAAGAGG

DNA template, pCMV6-LDLR – PCR fragment – 1404bp

LDLR1216F: 5' – CCTCTTCTTCACCAACTGGCAGGAGGTCAG

3 LDLR: 5' – CCTCTAGACATATGCTGCAGTCACGCCACGTCATCCTCCAG

rs879254862 c. 1322 T>C p.(Ile 441Thr)

DNA template, pCMV6-LDLR – PCR fragment – 1362 bp

IRES LDLR: 5' – GATAATATGGCCACAACCGCGAGCATGGGGCCCTGGGGC

LDLR1322R: 5' – CAGGTCAGACCAGTAGGTTCTATTGCTGGCCA

DNA template, pCMV6-LDLR – PCR fragment – 1297 bp

LDLR1322F: 5' – TGGCCAGCAATAGAACCTACTGGTCTGACCTG

3 LDLR: 5' – CCTCTAGACATATGCTGCAGTCACGCCACGTCATCCTCCAG