

Supplementary Table 1. Primer design for constructing mutants

mLPCAT3 mutants	forward primer	reverse primer
P182A	gggggtgcgcttcattgctggaag	cttcagcaatgaagcgacacccc
S183A	cgggggtgccctgcattgctggaag	cttcagcaatgcagggacaccccg
L184A	gggtgcccttcagcgctggaagtgc	caactccagcgctgaaggacaccc
L185A	gggtgcccttcattggcggaagtgc	caactccgcaatgaaggacaccc
E186A	cccttcattgctggcagttgctgg	ccagcaactgccagcaatgaaggg
R312A	gggaccgtggcatgggatgcctgtgc	gcacaggcatcccatgcccggtccc
W313A	ccgtgagagcggatgcctgtgcc	ggcacaggcatccgctctcacgg
D314A	gggaccgtgagatgggctgcctgtgc	gcacaggcagcccatctcaggtccc
W373A	gctgttcttggccctcgcgcatggc	gccatgcgcgagggccaagaacagc
H374A	cttggccctctgggctggcctacac	gtgtaggccagcccagaggccaag
G375A	ccctctggcatgccctacactcagg	cctgagtgtaggcatgccagagg
G379A	ggcctacactcagcatacctgatttgc	gcaaatcagggtatgctgagttaggcc
Y380A	ggcctacactcaggagccctgatttgc	gcaaatcagggtcctgagttaggcc
F384A	ggatacctgatttgcgccagatgg	ccatctgggcgcaaatcaggatatcc
Y434A	gctgttcattgggtgccctctatgactgc	gcagtcataaggcaccatgaacagc
F439A	gttactctatgactgccgcctgcc	ggcaggcggcagtcatagagtaacc
Y451A	ggtgccagatccatctatttccttg	caaggaaatagatggatctggccacc
S453A	gtgtacagagccatctatttccttg	caaggaaatagatggctctgtacacc
Y455A	gtgtacagatccatcgcttcccttg	ccaaggaaagcgatggatctgtacac
F456A	gtgtacagatccatctatgcccttg	ccaaggcatagatggatctgtacac
H459A	ccctggagctgtcttctcttgagcc	ggctcaagaagaagacagctccaagg

