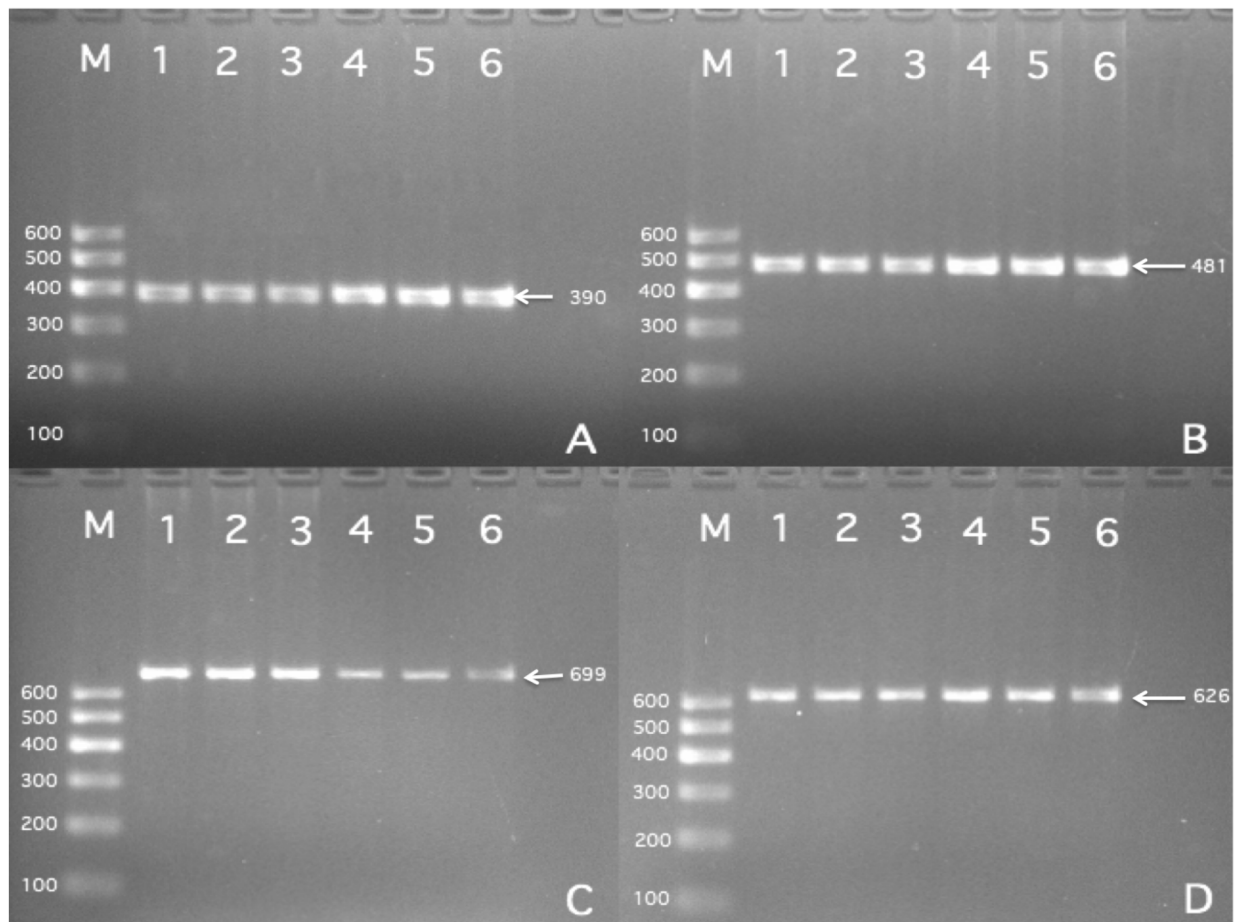


The effect of *MVK*-*MMAB* variants, their haplotypes and G×E interactions on serum lipid levels and the risk of coronary heart disease and ischemic stroke

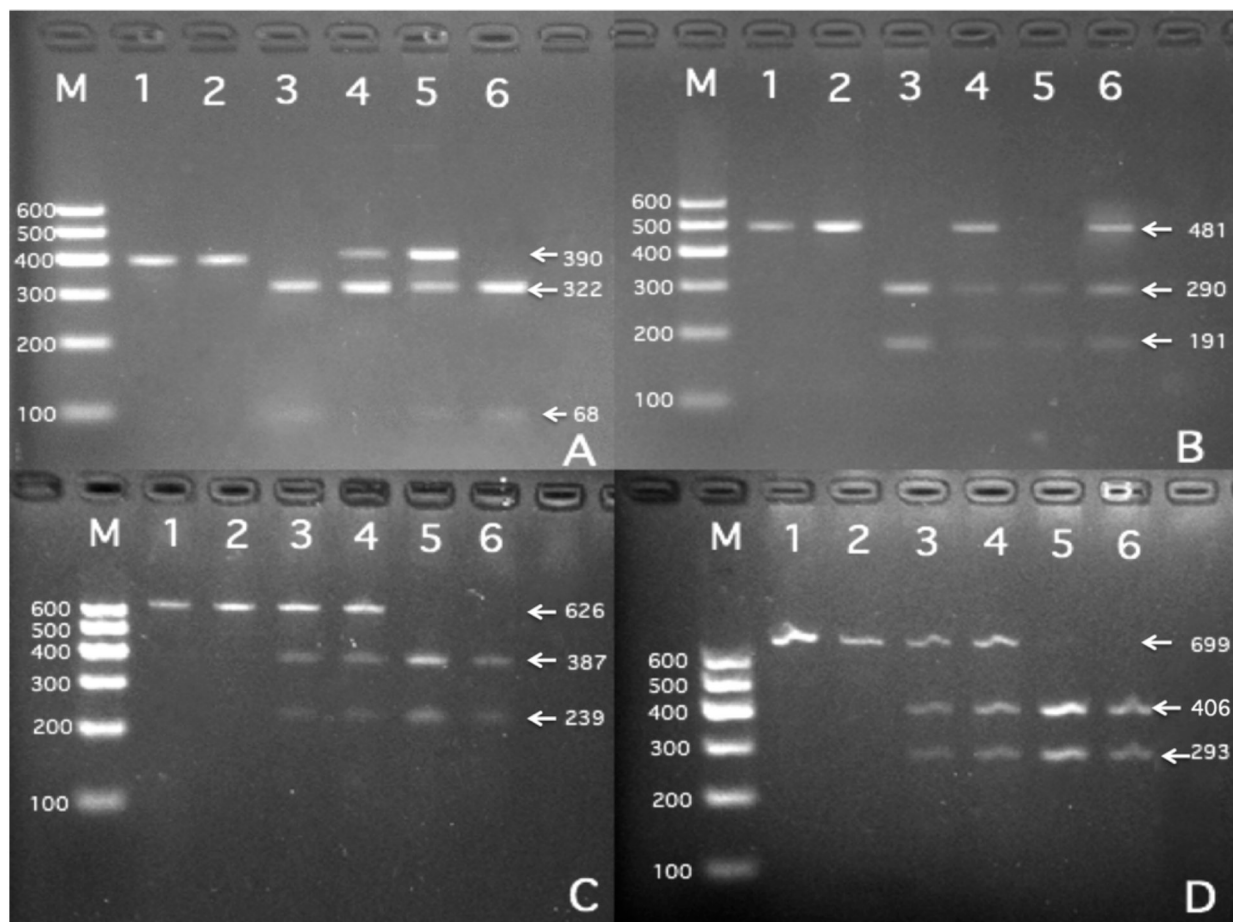
SUPPLEMENTARY MATERIALS



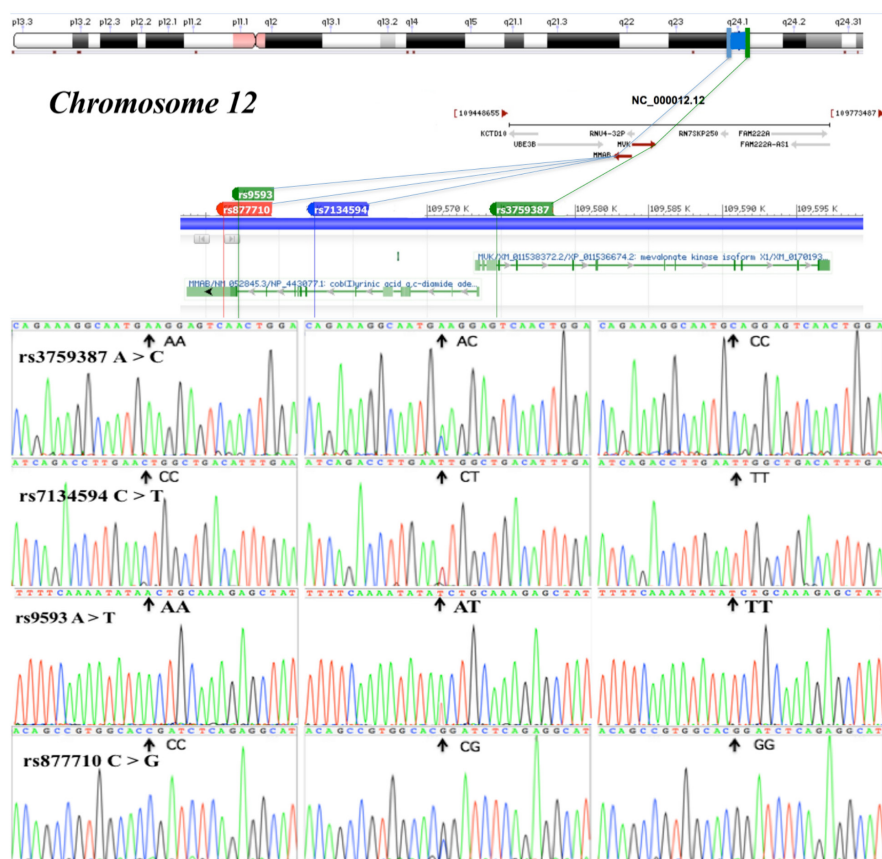
Supplementary Figure 1: The linkage disequilibrium (LD) analyses of the *MVK* rs3759387, *MMAB* rs877710, *MMAB* rs7134594 and *MMAB* rs9593 SNPs in the combined three groups. (A) D' ; (B) r^2 .



Supplementary Figure 2: Agarose gel electrophoresis (2%) of PCR products of the *MVK* and *MMAB* SNPs. Lane M: DNA ladder 100bp; PCR amplicon of (A) *MMAB* rs9593, (B) *MMAB* rs7134594, (C) *MVK* rs877710, (D) *MMAB* rs3759387 SNPs were 390-, 481-, 699- and 626-bp nucleotide sequences; respectively.



Supplementary Figure 3: Agarose gel electrophoresis (2%) of genotyping of the *MVK* and *MMAB* SNPs. Lane M: DNA ladder 100bp. The genotypes of 4 SNPs were as follow: **(A)** *MMAB* rs9593: AA (lanes 1 and 2, 390-bp); AT (lanes 4 and 5, 390-, 322- and 68-bp); and TT genotype (lanes 3 and 6, 322- and 68-bp). **(B)** *MMAB* rs7134594: CC (lanes 1 and 2, 481-bp); CT (lanes 4 and 6, 481-, 290- and 191-bp); and TT genotype (lanes 3 and 5, 290- and 191-bp). **(C)** *MVK* rs3759387: AA (lanes 1 and 2, 626-bp); AC (lanes 3 and 4, 626-, 387-, 239-bp); and CC genotype (lanes 5 and 6, 387- and 239-bp). **(D)** *MMAB* rs877710: CC (lanes 1 and 2, 699- bp); CT (lanes 3 and 4, 699-, 406- and 293-bp); and TT genotype (lanes 5 and 6, 406- and 293-bp).



Supplementary Figure 4: The positions and parts of the nucleotide direct sequencing results of the *MVK* and *MMAB* SNPs. *MVK*, mevalonate kinase; *MMAB*, methylmalonic aciduria (cobalamin deficiency) cblB type.

Supplementary Table 1: The sequences of forward and backward primers of the *MVK-MMAB* mutations.

SNP	Primer sequence	Annealing temperature	PCR product	Enzyme
<i>MVK</i>				
rs3759387	TACCACGGCATGTTCTCCAT GGCGTACTGGGTGTTTTCTG	61°C	626bp	<i>HpyCH4V</i>
rs877710	AATATACCTGGCCCTCCTGC GGGGAAGGATAGCTGCAGAT	61°C	699bp	<i>BstX2I</i>
<i>MMAB</i>				
rs9593	TCTCTCTGCCCCCTCCAGACT TGAGAAGGAGCTGTGCGGAA	61°C	390bp	<i>FaeI</i>
rs7134594	CCCCTAGTGCTGTCTTGTGA CCAGACGGTTCCTCTTGACT	61°C	481bp	<i>BseI</i>