Common DNA Sequence Variants at Thirty Genetic Loci Contribute to Polygenic Dyslipidemia

Supplementary Materials

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Supplementary Methods

Stage 1 study samples, phenotypes, and genotyping. The FHS is a community-based three-generational prospective cohort study designed to evaluate risk factors for cardiovascular disease. The original cohort of participants was recruited in 1948 from Framingham, USA. The 2nd generation cohort (n=5,124, offspring of the original cohort and their spouses) was recruited in 1971-1975 with subsequent follow-up examinations approximately every 4 years. The 3rd generation cohort (n=4,095, grand-children of the original cohort) was recruited from 2002-2005 for an initial examination. In the 2nd generation cohort, fasting levels of total cholesterol, high-density lipoprotein cholesterol, and triglycerides have been measured using standard enzymatic methods at up to seven time points over ~30 years. For each individual, we analyzed the average of measurements from the seven time points as the primary phenotype. We have previously reported that this average is more heritable than any measure at a single time-point[1]. In the 3rd generation cohort, there has been a single measurement of fasting blood lipids and this measure served as the phenotype[2].

FHS samples were genotyped using the Affymetrix GeneChip Human Mapping 500K Array Set and a supplemental 50K Array Set focused on coding SNPs and SNPs tagging protein-coding genes. We excluded samples with a call frequency <0.97. In total, 432,815 SNPs passed quality control criteria of Hardy-Weinberg equilibrium (HWE) $P > 10^{-6}$, call frequency > 0.95, and MAF > 0.01. Across the 2nd and 3rd generation participants, 7,423 individuals who had successful genotyping and at least one lipoprotein phenotype were included in the Stage 1 GWAS.

The London Life Sciences Population Study (LOLIPOP) is a cohort study of cardiovascular health in men and women aged 35-75 years and registered with family practitioners in West London[3]. Blood was collected after an 8 hour fast for biochemical analysis, including total and HDL cholesterol and triglycerides. 627 individuals of European ancestry were genotyped using the Affymetrix GeneChip Human Mapping 500K Array Set and 423 with a customized

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genome-wide array, as previously described[4]. The call frequency of included samples was > 0.95. In total, 374,773 autosomal SNPs passed quality control criteria (HWE P > 10^{-6}, call frequency > 0.90, and minor allele frequency > 0.01).

The Supplementation en Vitamines et Mineraux Antioxydants (SUVIMAX) study is a randomized, placebo-controlled trial of the health effects of antioxidant vitamins and minerals, with enrollment of 13,017 French adults between 1994 and 2002[5]. Fasting lipid levels were obtained from the baseline examination (prior to randomization) and these values served as the primary phenotype for this investigation. SUVIMAX samples were genotyped using the Illumina 317K array. The call frequency of included samples was > 0.95. In total, 294,882 SNPs passed quality control criteria (HWE P > 10^{-6}, call frequency > 0.95, and MAF > 0.01). 1,551 individuals who had successful genotyping and at least one lipoprotein phenotype were included in the Stage 1 GWAS.

The Invecchiare in Chianti (InCHIANTI) study is a population-based study of older persons living in Tuscany, Italy[6]. 1,453 persons were enrolled between 1998 and 2000. InCHIANTI samples were genotyped using the Illumina 550K array. The call frequency of included samples was > 0.99. In total, 484,115 autosomal SNPs passed quality control criteria (HWE P > 0.0001, call frequency > 0.99, and minor allele frequency > 0.01). 1,132 individuals who had successful genotyping and at least one lipoprotein phenotype were included in the Stage 1 GWAS.

In addition to the above four studies, the association results for 8,684 individuals from three previously published GWAS – the Diabetes Genetics Initiative (DGI), the Finland-United States Investigation of NIDDM Genetics (FUSION) study and the SardiNIA Study of Aging – were included in Stage 1[7-9].

In each study, LDL cholesterol was calculated using Friedewald's formula with missing values assigned to individuals with triglycerides > 400 mg/dl. Individuals known to be on lipid-

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lowering therapy were excluded from association analysis for LDL cholesterol in all studies except FHS. In FHS, we imputed the untreated LDL cholesterol values using an algorithm described previously[1].

All participants provided informed consent. Local ethical committees at each participating institution approved the individual study protocols. The institutional review boards at Boston Medical Center, Massachusetts Institute of Technology, and the University of Michigan approved this study.

Stage 1 imputation. In each of the seven Stage 1 GWAS, directly genotyped SNPs from the chips and phased chromosomes for 60 HapMap CEU founders were utilized to impute genotypes for ~2.4-2.6 million autosomal SNPs in HapMap with an estimated MAF > 0.01. Imputation was conducted using a Hidden Markov Model algorithm implemented in MACH software[9].

Stage 1 meta-analysis for directly genotyped and imputed SNPs. Using the statistical evidence for each marker from each of seven Stage 1 GWAS, we conducted a fixed-effects meta-analysis using METAL software[9]. For each marker, an arbitrary reference allele was selected and a z-statistic characterizing the evidence for association was used. The z-statistic summarizes the magnitude and the direction of effect relative to the reference allele. An overall z-statistic and P value were then calculated from the weighted sum of the individual study statistics. We used weights proportional to the square-root of the number of individuals examined in each sample and scaled so that the squared weights summed to one.

Stage 2 study samples, phenotypes, and genotyping. Replication of promising association signals from Stage 1 was attempted in up to 20,623 independent participants from five studies. We performed follow-up genotyping in 5,519 individuals from the Malmo Diet and Cancer Study –

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Cardiovascular Cohort (MDC-CC), a community-based prospective epidemiologic cohort study designed to investigate risk factors for cardiovascular disease[8]. A second replication study consisted of 7,940 individuals from FINRISK97, a population-based cross-sectional survey designed to study the prevalence of cardiovascular risk factors in Finland[8]. A third replication consisted of FUSION Stage 2, an additional 967 Finnish type 2 diabetes cases and 1257 Finnish controls with normal glucose tolerance[9]. The fourth replication study consisted of the METabolic Syndrome In Men (METSIM) study which aims to investigate the metabolic syndrome, type 2 diabetes, cardiovascular disease, and cardiovascular risk factors in men, aged 50-70 years, randomly selected from the population of the town of Kuopio in Eastern Finland (population 95,000). The current sample included 437 T2D cases and 3,327 controls with lipid measurements. Finally, the fifth replication study consisted of cases and controls from the International Study of Infarct Survival (ISIS) in the United Kingdom[10]. The sample included 1,254 cases of non-fatal myocardial infarction and 1,253 controls free of myocardial infarction. Blood samples in ISIS were non-fasting. Plasma concentrations of LDL cholesterol, HDL cholesterol and triglycerides were directly measured. Plasma triglyceride measurements were not available for myocardial infarction cases because of the acute effect of myocardial infarction on triglyceride levels.

Variance-weighted meta-analysis. As an additional analysis, we applied a uniform analysis strategy to all sample sets to estimate regression coefficients (measuring association between each SNP and lipid levels) and their corresponding standard errors and combined regression coefficients across samples using an inverse-variance weighted meta-analysis. To accomplish this, we first standardized the exclusion criteria, the phenotype modeling, and the association analysis methodology across Stage 1 and 2 samples. Specifically, we excluded all individuals on lipid lowering therapy. We standardized the phenotype modeling by: 1) calculating residuals after adjustment for age, sex, age^2, and diabetes status and 2) transforming residuals to ranks and then to

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normally distributed z-scores. These inverse-normal transformed residuals served as the phenotype in each study. Next, we conducted linear regression-based analyses in each study to evaluate association between genotypes and phenotypes using an additive genetic model (where appropriate, as in the FHS and SardiNIA samples, we adjusted for relatedness). Finally, we combined the statistical evidence across Stage 1 and Stage 2 studies using a fixed-effects meta-analysis of regression coefficients, weighting by the inverse of the variance in each study. Effect estimates, standard errors, and P values from each individual study as well as the variance-weighted meta-analysis are presented in **Supplementary Tables 3, 4, 5, and 6**. The Stage 1 + 2 effect estimates from the variance-weighted meta-analysis were highly correlated to the effect estimates from the population-based FHS sample presented in Table 2 (r=0.97, **Supplementary Table 3**). This uniform analysis also enabled us to test for heterogeneity of effects at the 30 confirmed loci. As shown in **Supplementary Tables 4, 5, and 6**, we did not observe convincing evidence for heterogeneity at any of the 30 loci (all $P > 0.002$; Bonferroni corrected for 30 loci).

Specialized lipoprotein-related phenotypes. We studied 21 phenotypes measured in the FHS 2nd Generation cohort: apo A-I; apo B; apo C-III; apo E; size of LDL, HDL, and VLDL particles measured by nuclear magnetic resonance (NMR) spectroscopy; concentrations of large, intermediate and small HDL particles by NMR; concentrations of large and small LDL particles by NMR; concentrations of large, intermediate, and small VLDL particles by NMR; concentration of intermediate-density lipoprotein (IDL) by NMR; HDL_2 and HDL_3 subfractions; lipoprotein(a); remnant lipoprotein total cholesterol; and remnant lipoprotein triglycerides. The phenotypes were measured at the 3rd, 4th, or 5th examination cycle and were available in 2,629 to 3,628 individuals. Each of the 21 phenotypes was tested for association with index SNPs at 30 loci (SNPs from **Table 2)** and *PCSK9* R46L using residual phenotypes from sex-specific linear regression models accounting for age and age^2.

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***Cis* expression quantitative trait locus analyses.** To evaluate whether lipoprotein-associated SNPs also served as eQTLs with putative *cis* regulatory effects on liver gene expression traits, we profiled expression levels of 39,280 transcripts and genotyped 782,476 SNPs in 957 human liver samples. Liver samples were either postmortem or surgical resections from organ donors. The tissue collection, RNA and DNA isolation, expression profiling, and DNA genotyping have been previously described[11]. We studied the correlation of each lipoprotein-associated SNP (or a proxy defined as a SNP with r^2>0.8 in HapMap CEU) with all transcripts within 500 kb upstream or downstream of the SNP position.

Genotype score analysis in FHS. We modeled the cumulative number of HDL cholesterol-lowering, LDL cholesterol-raising, or triglyceride-raising alleles carried by each participant in the FHS 2nd generation. We constructed a score from all 32 SNPs in Table 2. The score was composed of allelic dosage (observed counts of 0, 1, or 2 for genotyped SNPs, or fractional allele counts between 0.0 and 2.0 estimated from the imputation procedure for imputed SNPs), weighted by the effect size of that allele on the lipid phenotype (beta-coefficient from linear regression in the FHS Stage 1 data as shown in **Table 2**), and summed across SNPs. In contrast to simpler scoring systems using integer allele counts without weighting, this method offers the advantage of accounting for low-frequency alleles with larger effect sizes. We determined the mean lipoprotein concentration across deciles of the score in participants attending the fifth examination of FHS 2nd generation participants. In addition, we calculated the proportion of individuals who met clinical cutpoints as defined by the U.S. national cholesterol treatment guidelines for low HDL cholesterol (< 40 mg/dl), high LDL cholesterol (> 160 mg/dl), and high triglycerides (> 200 mg/dl)[12]. For individuals on lipid lowering therapy in FHS, we used the imputed untreated values to define high LDL cholesterol. Across deciles of score, we evaluated a test of trend (after adjustment for age and

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gender) to assess differences in mean lipid value or proportion exceeding clinical cutpoints. One potential concern is the simultaneous derivation and application of the score in the same sample. However, this concern is mitigated by the fact that the index SNPs were discovered either from earlier GWAS that did not include FHS or only after combining FHS with other Stage 1 and Stage 2 data.

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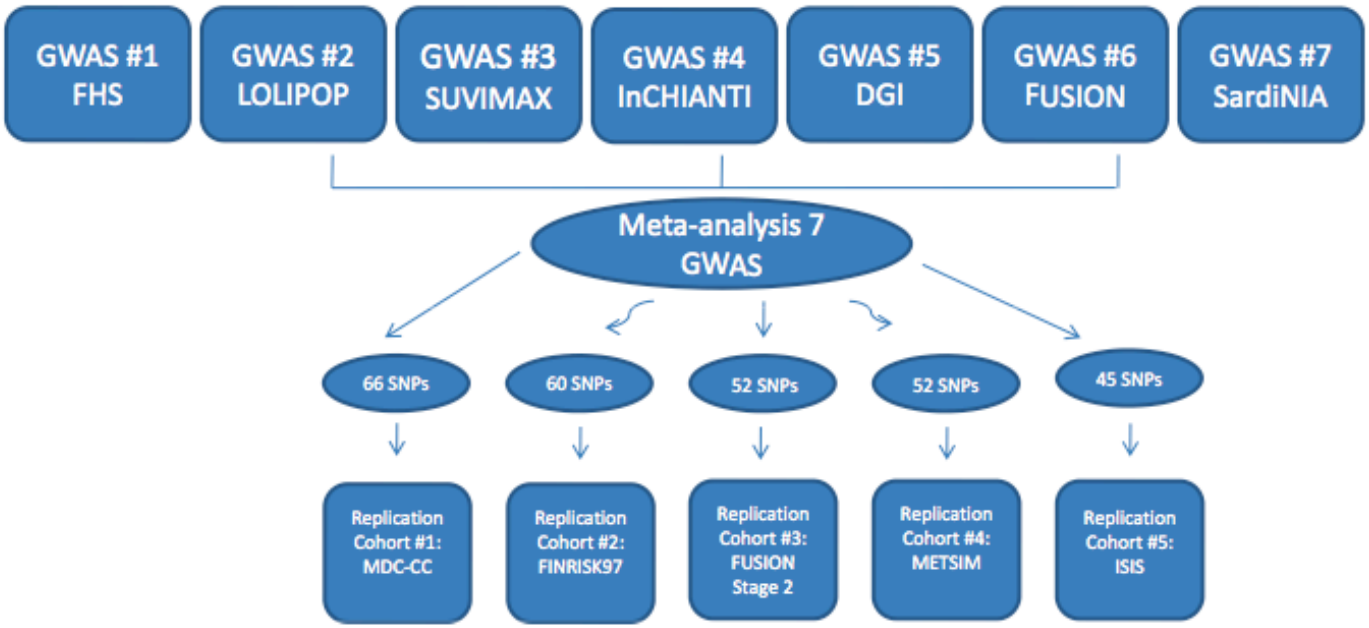
Supplementary Figure 1. Study Design



Supplementary Figure 2. Hierarchical clustering of genotype-phenotype correlations of SNPs with specialized lipid phenotypes. We present results of two-way hierarchical clustering using uncentered correlation distance and centroid linkage, using the Cluster 3.0 software package (Human Genome Center, University of Tokyo, Japan). Data were visualized using Java TreeView version 1.1.1 (Stanford University School of Medicine, Palo Alto, California). In an initial round of analysis, we computed a T statistic for each SNP-phenotype relationship by dividing the beta-coefficient by the standard error, with the minor allele of the SNP serving as the reference allele. The input dataset for clustering comprised the magnitude and sign of each T statistic, with red representing a positive sign and green a negative sign; the intensity of color corresponded to the magnitude. In subsequent rounds of analysis, we reversed the signs of the T statistic for a given SNP (making the major allele of the SNP the reference allele) as appropriate to improve clustering.

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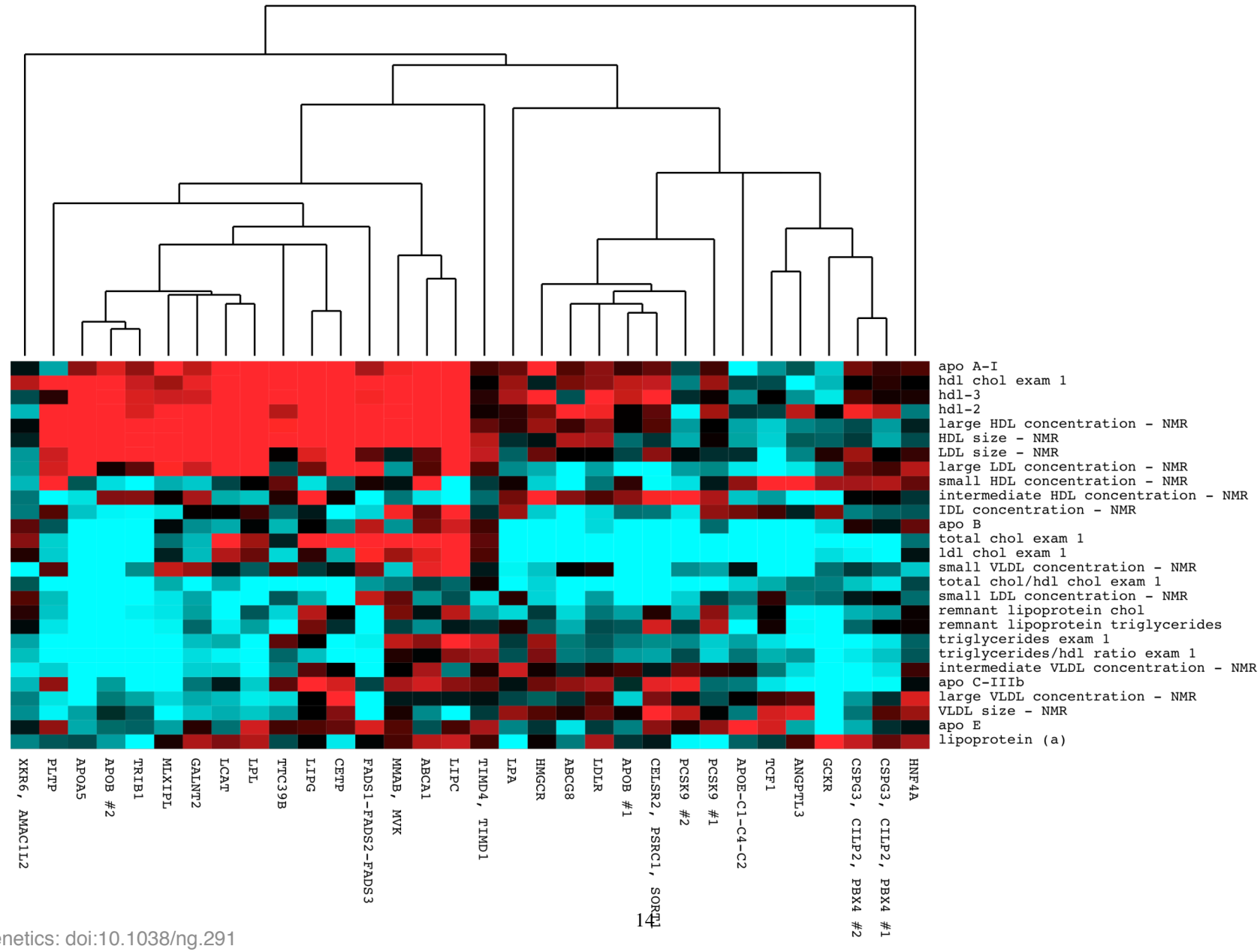
Supplementary Figure 2



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Supplementary Figure 3. The top two axes of variations in principal components analysis of the Framingham Heart Study genome-wide single nucleotide polymorphism data. Analyses were conducted using EIGENSTRAT as described in the Methods. Based on self-reported country of origin and religious identity in FHS (data not shown), the two axes correspond to gradients previously reported in American individuals of European ancestry (Northwest, Southeast, and Ashkenazi Jewish).

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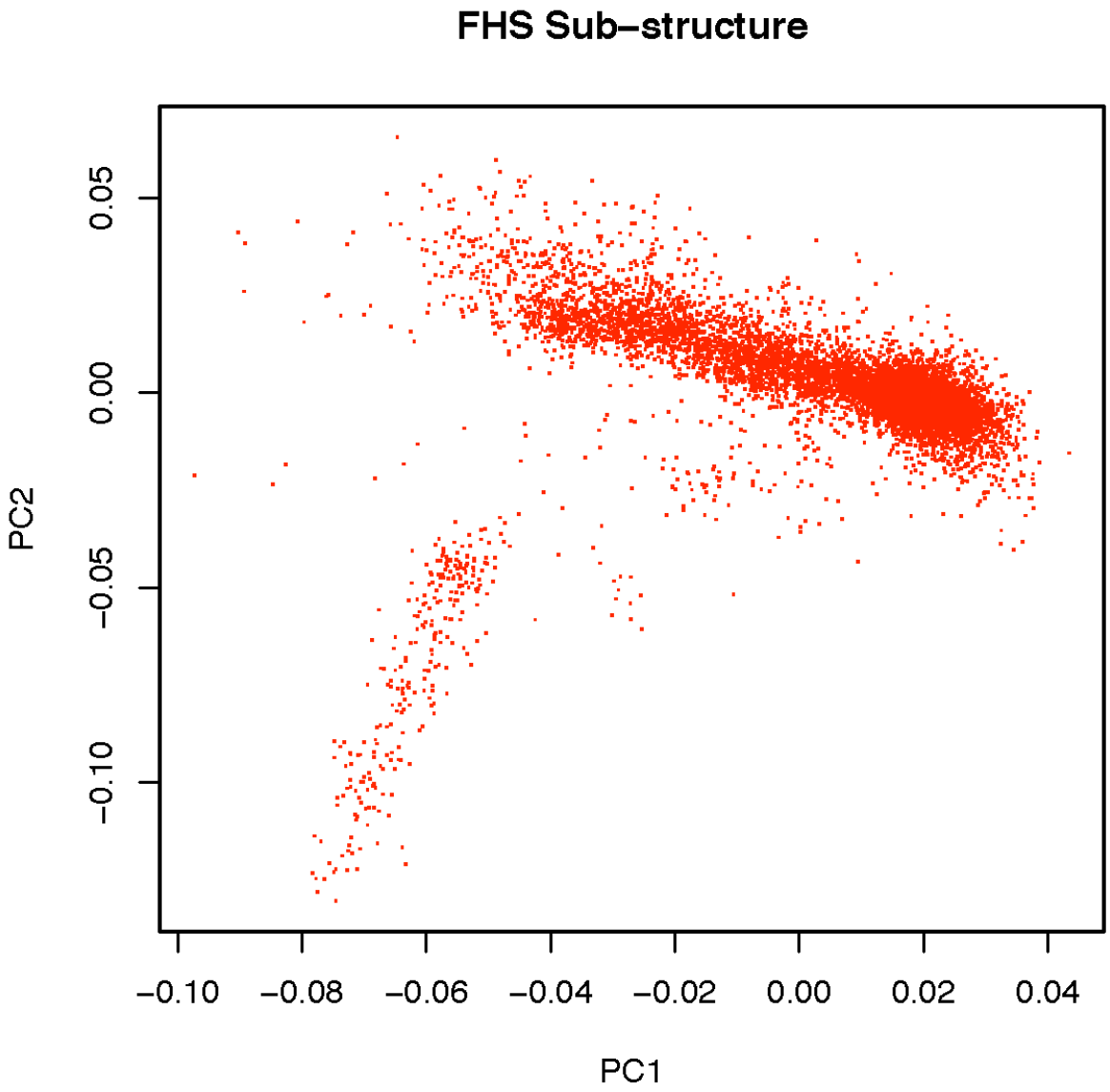
Supplementary Figure 3



Supplementary Table 1. Independent replication evidence from Framingham Heart Study participants for eight recently identified genetic loci associated with blood lipoproteins

Locus	Trait	SNP	Nearest gene(s)	Alleles*	Published statistical evidence†	FHS allele modeled (frequency)	FHS n	FHS effect size (s.e.m.)‡	FHS association P
1p13	LDL	Rs599839	*CELSR2, PSRC1, SORT1*	A, G	5×10^{-42}	G (0.23)	7,323	-0.22 (0.02)	1×10^{-24}
1q42	HDL	rs4846914	*GALNT2*	A, G	2×10^{-13}	G (0.40)	7,423	-0.05 (0.02)	0.004
12q24	HDL	rs2338104	*MMAB, MVK*	G, C	3×10^{-8}	C (0.45)	7,422	-0.07 (0.02)	6×10^{-5}
2p23	TG	rs780094	*GCKR*	C, T	3×10^{-14}	T (0.44)	7,403	0.11 (0.02)	3×10^{-10}
19p13	TG	rs16996148	*CILP2, PBX4*	G, T	4×10^{-9}	T (0.07)	7,320	-0.10 (0.03)	0.004
7q11	TG	rs17145738	*MLXIPL*	C, T	7×10^{-22}	T (0.11)	7,422	-0.15 (0.03)	2×10^{-7}
8q24	TG	rs17321515	*TRIB1*	A, G	4×10^{-17}	G (0.45)	7,403	-0.10 (0.02)	6×10^{-9}
1p31	TG	rs12130333	*ANGPTL3*	C, T	2×10^{-8}	T (0.20)	7,423	-0.04 (0.02)	0.046

SNP refers to single nucleotide polymorphism; FHS, Framingham Heart Study; LDL, low-density lipoprotein; HDL, high-density lipoprotein; TG, triglycerides.
*Alleles for the SNP on the forward strand of human genome reference sequence (National Center for Biotechnology Information Build 35) were modeled.
†Published statistical evidence is derived from Table 2 in Kathiresan et al. except for rs2338104 where data from Willer et al. Table 3 is provided.
‡Effect size shown is beta-coefficient (β) which represents the proportion of 1 standard deviation change (in standardized sex-specific blood lipid residual with mean=0 and SD=1 after adjustment for age and age^2, and 10 principal components) per copy of the allele modeled.

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Supplementary Table 2. Stage 1 and 2 genome-wide association results for 11 newly-defined loci

Trait	Chr	SNP	Stage 1 association P	Stage 1 sample size	Stage 2 association P	Stage 2 sample size	Nearby gene(s) of interest
LDL	2p21	rs6544713	2×10^{-17}	19,648	7×10^{-5}	8,927	*ABCG8*
LDL	5q23	rs1501908	6×10^{-8}	19,641	4×10^{-5}	7,637	*TIMD4-TIMD1*
LDL	20q12	rs6102059	3×10^{-7}	19,648	0.003	9,247	*MAFB*
LDL	12q24	rs2650000	2×10^{-9}	19,590	0.03	19,678	*TCF1*
HDL	11q12	rs174547	2×10^{-9}	19,776	7×10^{-6}	15,780	*FADS1-FADS2-*
HDL	16q22	rs2271293	2×10^{-7}	19,594	1×10^{-6}	12,352	*LCAT*
HDL	9p22	rs471364	4×10^{-7}	19,791	1×10^{-4}	20,623	*TTC39B*
HDL	20q13	rs1800961	6×10^{-6}	12,377	2×10^{-5}	18,337	*HNF4A*
HDL	20q13	rs7679	3×10^{-4}	19,728	3×10^{-6}	20,520	*PLTP*
HDL	19p13	rs2967605	4×10^{-8}	19,794	0.02	15,357	*ANGPTL4*
TG	11q12	rs174547	4×10^{-7}	19,822	9×10^{-9}	19,024	*FADS1-FADS2-*
TG	20q13	rs7679	1×10^{-5}	19,774	2×10^{-6}	18,787	*PLTP*
TG	8p23	rs7819412	2×10^{-7}	19,803	0.01	13,533	*XKR6-AMAC1L2*

SNP refers to single nucleotide polymorphism; LDL, low-density lipoprotein; HDL, high-density lipoprotein; TG, triglycerides.

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Supplementary Table 3. Association evidence for common polymorphisms using an uniform analysis across Stage 1 a Stage 2 studies

Trait	Chr	SNP	Gene(s) of interest within or near associated interval	Framingham Heart Study effect size estimates*		Uniform Analysis in Stage 1 + Stage 2 studies
				major allele, minor allele, (MAF)	effect size for minor allele (s.e.m.)†	effect size for minor allele (s.e.m.)
LDL	2p21	rs6544713	*ABCG8*	C, T (0.32)‡	0.15 (0.01)	0.10 (0.01)
LDL	5q23	rs1501908	*TIMD4-HAVCR1*	C, G (0.37)	-0.07 (0.02	-0.06 (0.01)
LDL	20q12	rs6102059	*MAFB*	C, T (0.32)‡	-0.06 (0.02)	-0.06 (0.01)
LDL	12q24	rs2650000	*TCF1*	C, A (0.36)	0.07 (0.02)	0.04 (0.01)
HDL	11q12	rs174547	*FADS1-FADS2-FADS3*	T, C (0.33)	-0.09 (0.02)	-0.05 (0.01)
HDL	16q22	rs2271293	*LCAT*	G, A (0.11)	0.07 (0.03)	0.11 (0.01)
HDL	9p22	rs471364	*TTC39B*	T, C (0.12)	-0.08 (0.03)	-0.08 (0.01)
HDL	20q13	rs1800961	*HNF4A*	C, T (0.03)	-0.19 (0.05)	-0.12 (0.02)
HDL	20q13	rs7679	*PLTP*	T, C (0.19)	-0.07 (0.02)	-0.06 (0.01)
HDL	19p13	rs2967605	*ANGPTL4*	C, T (0.16)‡	-0.12 (0.04)	-0.06 (0.01)
TG	11q12	rs174547	*FADS1-FADS2-FADS3*	T, C (0.33)	0.06 (0.02)	0.06 (0.01)
TG	20q13	rs7679	*PLTP*	T, C (0.19)	0.07 (0.02)	0.06 (0.01)
TG	8p23	rs7819412	*XKR6-AMAC1L2*	A, G (0.48)	-0.04 (0.02)	0.05 (0.01)
LDL	1p13	rs12740374	*CELSR2*, *PSRC1*, *SORT1*	G, T (0.21)‡	-0.23 (0.02)	-0.20 (0.01)
LDL	2p24	rs515135	*APOB*	C, T (0.20)‡	-0.16 (0.02)	-0.17 (0.01)
LDL	19q13	rs4420638	*APOE-C1-C4-C2*	A, G (0.16)‡	0.29 (0.06)	0.23 (0.02)
LDL	19p13	rs6511720	*LDLR*	G, T (0.10)‡	-0.26 (0.04)	-0.24 (0.02)
LDL	5q13	rs3846663	*HMGCR*	C, T (0.38)	0.07 (0.02)	0.08 (0.01)
LDL	19p13	rs10401969	*CSPG3, CILP2, PBX4*	T, C (0.06)‡	-0.05 (0.04)	-0.13 (0.02)
LDL	1p32	rs11206510	*PCSK9*	T, C (0.19)	-0.09 (0.02)	-0.09 (0.02)
HDL	16q13	rs173539	*CETP*	C, T (0.32)‡	0.25 (0.02)	0.24 (0.01)
HD	8p21	rs12678919	*LPL*	A, G (0.10)‡	0.23 (0.03)	0.22 (0.02)
HDL	15q22	rs10468017	*LIPC*	C, T (0.30)‡	0.10 (0.02)	0.12 (0.01)
HDL	18q21	rs4939883	*LIPG*	C, T (0.17)	-0.14 (0.02)	-0.12 (0.02)
HDL	11q23	rs964184	*APOA1-C3-A4-A5*	C, G (0.14)‡	-0.17 (0.03)	-0.12 (0.02)
HDL	12q24	rs2338104	*MMAB*, *MVK*	G, C (0.45)	-0.07 (0.02)	-0.07 (0.01)
HDL	9q31	rs1883025	*ABCA1*	C, T (0.26)‡	-0.08 (0.02)	-0.09 (0.01)
HDL	1q42	rs4846914	*GALNT2*	A, G (0.40)	-0.05 (0.02)	-0.05 (0.01)
TG	11q23	rs964184	*APOA1-C3-A4-A5*	C, G (0.14)‡	0.30 (0.03)	0.28 (0.02)
TG	8p21	rs12678919	*LPL*	A, G (0.10)‡	-0.25 (0.03)	-0.24 (0.02)
TG	2p23	rs1260326	*GCKR*	C, T (0.45)‡	0.12 (0.02)	0.13 (0.01)
TG	8q24	rs2954029	*TRIB1*	A, T (0.44)‡	-0.11 (0.02)	-0.09 (0.01)
TG	7q11	rs714052	*MLXIPL*	A, G (0.12)‡	-0.16 (0.03)	-0.15 (0.02)
TG	2p24	rs7557067	*APOB*	A, G (0.22)‡	-0.08(0.02)	-0.08 (0.01)
TG	19p13	rs17216525	*CSPG3*, *CILP2*, *PBX4*	C, T (0.07)‡	-0.11 (0.03)	-0.14 (0.02)
TG	1p31	rs10889353	*ANGPTL3*	A, C (0.33)‡	-0.05 (0.02)	-0.06 (0.01)

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[*] Effect size and direction from the Framingham Heart Study, the largest of the Stage 1 studies, are presented for illustrative purposes. Alleles fo the SNP on the forward strand of human genome reference sequence (NCBI Build 36.2) are displayed and the minor allele at each SNP was modeled.
[†] Effect size shown is beta-coefficient (β) which represents change in lipid levels measured in standard deviation units (in a sex-stratified analysis after adjustment age, age^2, and 10 ancestry-informative principal components) per copy of the allele modeled.
[‡] Results for these SNPs are derived from imputed SNP data.
[§] For five of these loci (*MAFB*, *TIMD4-HAVCR1*, *FADS1-FADS2-FADS3*, *TTC39B*, *XKR6-AMAC1L2*), there is no prior statistical evidence for association with blood lipoprotein concentrations. For the remaining six, there is at least some modest statistical evidence for common SNPs. For these six loci, we provide definitive evidence for common SNPs.

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Supplementary Table 4. Study-specific and meta-analytic association evidence for LDL cholesterol SNPs using an uniform analysis strategy

SNP	Locus	Major Allele	Minor Allele	N	P-value	Effect Size for Minor Allele	s.e.	Cohort	Heterogeneity P
rs6544713	ABCG8	C	T	7083	2.81E-13	0.148	0.02	Framingham Heart Study	
rs6544713		C	T	1050	0.09273	0.081	0.048	LOLIPOP	
rs6544713		C	T	1533	0.02608	0.089	0.04	SUVIMAX	
rs6544713		G	T	1132	0.02209	0.103	0.045	InCHIANTI	
rs6544713		C	T	2693	0.01616	0.094	0.039	DGI	
rs6544713		C	T	1835	0.00684	0.119	0.044	FUSION Stage 1	
rs6544713		G	C	3654	2.24E-05	0.106	0.025	MDC-CC	
rs6544713		C	A	1470	0.7821	0.013	0.047	FUSION Stage 2	
rs6544713		C	T	4313	0.03212	0.06	0.028	METSIM	
rs6544713		**G**	**T**	**15326**	**2.62E-18**	**0.121**	**0.014**	**Stage 1**	
rs6544713		**G**	**A**	**9437**	**1.21E-05**	**0.076**	**0.017**	**Stage 2**	
rs6544713		**C**	**T**	**24763**	**2.40E-21**	**0.103**	**0.011**	**Stage 1+2**	**0.22**
rs1501908	TIMD4, HAVCR1	C	G	7076	7.15E-05	-0.073	0.018	Framingham Heart Study	
rs1501908		C	G	1050	0.06692	-0.084	0.046	LOLIPOP	
rs1501908		C	G	1533	0.0002817	-0.138	0.038	SUVIMAX	
rs1501908		C	G	1132	0.2868	-0.049	0.046	InCHIANTI	
rs1501908		C	G	2693	0.3835	-0.025	0.029	DGI	
rs1501908		C	G	1835	0.3044	-0.038	0.037	FUSION Stage 1	
rs1501908		C	G	4184	0.9005	-0.004	0.032	SardiNIA	
rs1501908		C	G	1495	0.1239	-0.06	0.039	FUSION Stage 2	
rs1501908		C	G	3655	0.007096	-0.07	0.026	METSIM	
rs1501908		C	G	1181	0.03265	-0.094	0.044	ISIS	
rs1501908		**C**	**G**	**19503**	**5.24E-07**	**-0.058**	**0.012**	**Stage 1**	
rs1501908		**C**	**G**	**6331**	**0.0001979**	**-0.072**	**0.019**	**Stage 2**	
rs1501908		**C**	**G**	**25834**	**4.04E-10**	**-0.062**	**0.01**	**Stage 1+2**	**0.36**
rs6102059	MAFB	C	T	7083	0.001173	-0.062	0.019	Framingham Heart Study	
rs6102059		C	A	1050	0.2588	-0.054	0.048	LOLIPOP	
rs6102059		C	A	1533	0.09239	0.069	0.041	SUVIMAX	
rs6102059		C	T	1132	0.001595	-0.161	0.051	InCHIANTI	
rs6102059		C	A	2693	0.05057	-0.06	0.031	DGI	
rs6102059		C	T	1835	0.005428	-0.114	0.041	FUSION Stage 1	
rs6102059		C	T	4184	0.1372	-0.055	0.037	SardiNIA	
rs6102059		C	A	4305	0.02445	-0.054	0.024	MDC-CC	
rs6102059		C	T	1430	0.1493	-0.062	0.043	FUSION Stage 2	

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rs6102059		G	C	4154	0.09296	-0.042	0.025	METSIM	
rs6102059		**G**	**A**	**19510**	**1.88E-06**	**-0.059**	**0.012**	**Stage 1**	
rs6102059		**C**	**T**	**9889**	**0.001821**	**-0.05**	**0.016**	**Stage 2**	
rs6102059		**C**	**T**	**29399**	**1.32E-08**	**-0.056**	**0.01**	**Stage 1+2**	**0.1**
rs2650000	TCF1	G	T	7025	4.01E-05	0.076	0.019	Framingham Heart Study	
rs2650000		C	T	1050	0.03569	0.098	0.047	LOLIPOP	
rs2650000		C	T	1533	0.8375	0.008	0.039	SUVIMAX	
rs2650000		C	T	1132	0.2031	0.056	0.044	InCHIANTI	
rs2650000		C	T	2693	0.03056	0.059	0.027	DGI	
rs2650000		C	T	1835	0.2765	0.037	0.034	FUSION Stage 1	
rs2650000		C	A	4184	0.006091	0.096	0.035	SardiNIA	
rs2650000		G	C	4706	0.1276	0.032	0.021	MDC-CC	
rs2650000		C	T	7294	0.001314	0.054	0.017	FINRISK 97	
rs2650000		G	T	1456	0.09922	-0.061	0.037	FUSION Stage 2	
rs2650000		G	C	3618	0.3379	-0.023	0.024	METSIM	
rs2650000		C	T	1197	0.1458	0.064	0.044	ISIS	
rs2650000		**C**	**T**	**19452**	**1.67E-08**	**0.065**	**0.011**	**Stage 1**	
rs2650000		**C**	**T**	**18271**	**0.02243**	**0.024**	**0.011**	**Stage 2**	
rs2650000		**G**	**A**	**37723**	**3.80E-08**	**0.043**	**0.008**	**Stage 1+2**	**0.02**
rs12740374	CELSR2, PSRC1, SORT1	C	T	7083	2.19E-28	-0.247	0.022	Framingham Heart Study	
rs12740374		C	T	1050	0.001853	-0.16	0.051	LOLIPOP	
rs12740374		C	T	1533	0.000485	-0.157	0.045	SUVIMAX	
rs12740374		C	T	1132	0.001339	-0.17	0.053	InCHIANTI	
rs12740374		G	T	2693	1.35E-09	-0.195	0.032	DGI	
rs12740374		G	A	1835	0.0003852	-0.142	0.04	FUSION Stage 1	
rs12740374		C	T	4184	7.74E-05	-0.166	0.042	SardiNIA	
rs12740374		**C**	**T**	**19510**	**8.78E-48**	**-0.198**	**0.014**	**Stage 1**	**0.19**
rs515135	APOB	G	C	7083	3.11E-14	-0.166	0.022	Framingham Heart Study	
rs515135		G	C	1050	0.07741	-0.103	0.058	LOLIPOP	
rs515135		G	C	1533	4.86E-05	-0.195	0.048	SUVIMAX	
rs515135		G	T	1132	0.009322	-0.143	0.055	InCHIANTI	
rs515135		C	T	2693	2.09E-10	-0.224	0.035	DGI	
rs515135		C	T	1835	0.0003772	-0.16	0.045	FUSION Stage 1	
rs515135		C	A	4184	7.60E-06	-0.188	0.042	SardiNIA	
rs515135		**C**	**T**	**19510**	**3.86E-35**	**-0.174**	**0.014**	**Stage 1**	**0.5**
rs4420638	APOE-C1-C4-C2	A	G	7083	9.26E-07	0.288	0.059	Framingham Heart Study	

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rs4420638		A	G	1050	0.009495	0.19	0.073	LOLIPOP	
rs4420638		A	G	1533	0.001279	0.219	0.068	SUVIMAX	
rs4420638		A	G	1132	0.002091	0.28	0.091	InCHIANTI	
rs4420638		A	G	2693	2.64E-10	0.203	0.032	DGI	
rs4420638		A	G	1835	4.71E-07	0.267	0.053	FUSION Stage 1	
rs4420638		A	G	4184	2.49E-06	0.259	0.055	SardiNIA	
rs4420638		**A**	**G**	**19510**	**2.38E-31**	**0.234**	**0.02**	**Stage 1**	**0.63**
rs6511720	LDLR	G	T	7083	9.99E-10	-0.272	0.045	Framingham Heart Study	
rs6511720		C	T	1050	0.0003008	-0.361	0.1	LOLIPOP	
rs6511720		G	C	1533	6.90E-07	-0.278	0.056	SUVIMAX	
rs6511720		G	C	1132	0.0005915	-0.213	0.062	InCHIANTI	
rs6511720		C	T	2693	1.43E-07	-0.275	0.052	DGI	
rs6511720		C	T	1835	3.97E-05	-0.226	0.055	FUSION Stage 1	
rs6511720		G	T	4184	0.02757	-0.13	0.059	SardiNIA	
rs6511720		**C**	**T**	**19510**	**5.18E-30**	**-0.245**	**0.021**	**Stage 1**	**0.35**
rs3846663	HMGCR	G	T	7083	0.0004073	0.065	0.018	Framingham Heart Study	
rs3846663		C	T	1050	0.03885	0.094	0.046	LOLIPOP	
rs3846663		C	T	1533	0.01663	0.091	0.038	SUVIMAX	
rs3846663		G	A	1132	2.14E-05	0.187	0.044	InCHIANTI	
rs3846663		C	A	2693	0.004163	0.079	0.028	DGI	
rs3846663		C	T	1835	0.0027	0.102	0.034	FUSION Stage 1	
rs3846663		G	T	4184	0.5564	0.02	0.034	SardiNIA	
rs3846663		**C**	**T**	**19510**	**4.21E-12**	**0.079**	**0.011**	**Stage 1**	**0.12**
rs10401969	CSPG3, CILP2, PBX4	T	C	7083	0.1605	-0.058	0.041	Framingham Heart Study	
rs10401969		T	C	1050	0.1246	-0.135	0.088	LOLIPOP	
rs10401969		T	C	1533	0.7066	-0.032	0.085	SUVIMAX	
rs10401969		T	C	1132	6.33E-05	-0.368	0.092	InCHIANTI	
rs10401969		T	C	2693	0.1229	-0.073	0.047	DGI	
rs10401969		T	C	1835	0.004425	-0.222	0.078	FUSION Stage 1	
rs10401969		T	C	4184	3.24E-05	-0.266	0.064	SardiNIA	
rs10401969		**T**	**C**	**19510**	**5.07E-08**	**-0.128**	**0.023**	**Stage 1**	**0.01**
rs11206510	PCSK9	T	C	7064	0.0005963	-0.078	0.023	Framingham Heart Study	
rs11206510		T	C	1050	0.6066	0.031	0.06	LOLIPOP	
rs11206510		T	C	1533	0.532	0.05	0.08	SUVIMAX	
rs11206510		T	C	1132	0.1385	-0.08	0.054	InCHIANTI	
rs11206510		T	C	2693	0.006429	-0.099	0.036	DGI	
rs11206510		T	C	1835	0.01122	-0.213	0.084	FUSION Stage 1	
rs11206510		T	C	4184	0.0001545	-0.14	0.037	SardiNIA	

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rs11206510	**T**	**C**	**19491**	**2.00E-08**	**-0.085**	**0.015**	**Stage 1**	**0.08**

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Supplementary Table 5. Study-specific and meta-analytic association evidence for HDL cholesterol SNPs using an uniform analysis strategy

SNP	Locus	Major Allele	Minor Allele	N	P-value	Effect Size for Minor Allele	s.e.	Cohort	Heterogeneity P
rs174547	FADS1-FADS2-FADS3	T	C	7118	3.07E-06	-0.089	0.019	Framingham Heart Study	
rs174547		T	C	1050	0.1026	-0.073	0.045	LOLIPOP	
rs174547		T	C	1533	0.8375	-0.008	0.039	SUVIMAX	
rs174547		T	C	1132	0.6704	0.02	0.047	InCHIANTI	
rs174547		T	C	2728	0.03002	-0.06	0.028	DGI	
rs174547		T	C	1872	0.1222	-0.051	0.033	FUSION Stage 1	
rs174547		T	C	4184	0.009322	-0.091	0.035	SardiNIA	
rs174547		T	C	4774	0.9276	0.002	0.022	MDC-CC	
rs174547		T	C	7590	0.0002719	-0.06	0.016	FINRISK 97	
rs174547		T	C	2163	0.1755	-0.042	0.031	FUSION Stage 2	
rs174547		T	C	3637	0.01566	-0.058	0.024	METSIM	
rs174547		T	C	2307	0.8201	-0.007	0.032	ISIS	
rs174547		**T**	**C**	**19617**	**2.69E-08**	**-0.065**	**0.012**	**Stage 1**	
rs174547		**T**	**C**	**20471**	**0.0001652**	**-0.039**	**0.01**	**Stage 2**	
rs174547		**T**	**C**	**40088**	**8.39E-11**	**-0.05**	**0.008**	**Stage 1+2**	**0.17**
rs2271293	LCAT	G	A	6944	0.0007728	0.098	0.029	Framingham Heart Study	
rs2271293		G	A	1050	0.4388	0.059	0.076	LOLIPOP	
rs2271293		G	A	1533	0.2163	0.068	0.055	SUVIMAX	
rs2271293		G	A	1132	0.1436	0.098	0.067	InCHIANTI	
rs2271293		G	A	2728	0.009033	0.102	0.039	DGI	
rs2271293		G	A	1872	0.0005512	0.152	0.044	FUSION Stage 1	
rs2271293		G	A	4184	0.03455	0.093	0.044	SardiNIA	
rs2271293		G	A	2364	0.06618	0.079	0.043	MDC-CC	
rs2271293		G	A	7425	4.82E-08	0.121	0.022	FINRISK 97	
rs2271293		**G**	**A**	**19443**	**1.41E-09**	**0.101**	**0.017**	**Stage 1**	
rs2271293		**G**	**A**	**9789**	**1.23E-08**	**0.112**	**0.02**	**Stage 2**	
rs2271293		**G**	**A**	**29232**	**8.59E-17**	**0.106**	**0.013**	**Stage 1+2**	**0.91**
rs471364	TTC39B	T	C	7132	0.03427	-0.059	0.028	Framingham Heart Study	
rs471364		T	C	1050	0.3556	-0.063	0.068	LOLIPOP	
rs471364		T	C	1533	0.1524	-0.083	0.058	SUVIMAX	

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rs471364		T	C	1132	0.1131	-0.103	0.065	InCHIANTI	
rs471364		T	C	2728	0.0003042	-0.153	0.042	DGI	
rs471364		T	C	1872	0.3914	-0.048	0.056	FUSION Stage 1	
rs471364		T	C	4184	0.06037	-0.077	0.041	SardiNIA	
rs471364		T	C	4790	0.1257	-0.049	0.032	MDC-CC	
rs471364		T	C	7402	0.01813	-0.067	0.028	FINRISK 97	
rs471364		T	C	2160	0.8503	-0.01	0.053	FUSION Stage 2	
rs471364		T	C	3644	0.01516	-0.102	0.042	METSIM	
rs471364		T	C	2341	0.003952	-0.129	0.045	ISIS	
rs471364		**T**	**C**	**19631**	**1.64E-06**	**-0.081**	**0.017**	**Stage 1**	
rs471364		**T**	**C**	**20337**	**2.17E-05**	**-0.07**	**0.017**	**Stage 2**	
rs471364		**T**	**C**	**39968**	**1.41E-10**	**-0.076**	**0.012**	**Stage 1+2**	**0.8**
rs1800961	HNF4A	C	T	7127	0.001184	-0.17	0.052	Framingham Heart Study	
rs1800961		C	T	1050	0.3214	-0.191	0.192	LOLIPOP	
rs1800961		C	T	1533	0.9477	0.008	0.122	SUVIMAX	
rs1800961		C	T	1132	0.3869	-0.154	0.178	InCHIANTI	
rs1800961		C	T	2728	0.8566	0.027	0.152	DGI	
rs1800961		C	T	1872	0.0027	-0.243	0.081	FUSION Stage 1	
rs1800961		C	T	4781	0.0394	-0.103	0.05	MDC-CC	
rs1800961		C	T	7590	0.07335	-0.074	0.041	FINRISK 97	
rs1800961		C	T	2175	0.003847	-0.211	0.073	FUSION Stage 2	
rs1800961		C	T	3656	0.09346	-0.104	0.062	METSIM	
rs1800961		**C**	**T**	**15442**	**4.19E-05**	**-0.157**	**0.038**	**Stage 1**	
rs1800961		**C**	**T**	**18202**	**6.65E-05**	**-0.105**	**0.026**	**Stage 2**	
rs1800961		**C**	**T**	**33644**	**1.99E-08**	**-0.122**	**0.022**	**Stage 1+2**	**0.59**
rs7679	PLTP	T	C	7074	0.0007201	-0.078	0.023	Framingham Heart Study	
rs7679		T	C	1050	0.3531	-0.053	0.057	LOLIPOP	
rs7679		T	C	1533	0.08995	-0.078	0.046	SUVIMAX	
rs7679		T	C	1132	0.2706	-0.065	0.059	InCHIANTI	
rs7679		T	C	2728	0.8623	-0.007	0.038	DGI	
rs7679		T	C	1872	0.2519	-0.055	0.048	FUSION Stage 1	
rs7679		T	C	4184	0.1146	-0.071	0.045	SardiNIA	
rs7679		T	C	4780	0.003401	-0.077	0.026	MDC-CC	
rs7679		T	C	7376	0.03266	-0.049	0.023	FINRISK 97	
rs7679		T	C	2105	0.0532	-0.087	0.045	FUSION Stage 2	
rs7679		T	C	3623	0.1122	-0.054	0.034	METSIM	

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rs7679		T	C	2350	0.305	-0.04	0.039	ISIS	
rs7679		**T**	**C**	**19573**	**2.88E-05**	**-0.062**	**0.015**	**Stage 1**	
rs7679		**T**	**C**	**20234**	**1.14E-05**	**-0.06**	**0.014**	**Stage 2**	
rs7679		**T**	**C**	**39807**	**1.28E-09**	**-0.061**	**0.01**	**Stage 1+2**	**0.3**
rs2967605	ANGPTL4	C	T	7135	0.001876	-0.112	0.036	Framingham Heart Study	
rs2967605		C	T	1050	0.3567	-0.062	0.068	LOLIPOP	
rs2967605		C	T	1533	0.7286	0.017	0.049	SUVIMAX	
rs2967605		C	T	1132	0.1764	-0.073	0.054	InCHIANTI	
rs2967605		G	A	2728	0.2783	-0.043	0.04	DGI	
rs2967605		C	T	1872	0.005676	-0.13	0.047	FUSION Stage 1	
rs2967605		G	A	2334	0.08242	-0.066	0.038	MDC-CC	
rs2967605		C	T	2138	0.5098	-0.029	0.044	FUSION Stage 2	
rs2967605		C	T	4335	0.114	-0.049	0.031	METSIM	
rs2967605		**C**	**T**	**15450**	**0.0001228**	**-0.072**	**0.019**	**Stage 1**	
rs2967605		**C**	**T**	**8807**	**0.01874**	**-0.05**	**0.021**	**Stage 2**	
rs2967605		**C**	**T**	**24257**	**8.88E-06**	**-0.062**	**0.014**	**Stage 1+2**	**0.51**
rs173539	CETP	C	T	7135	1.11E-37	0.251	0.02	Framingham Heart Study	
rs173539		C	T	1050	1.97E-08	0.326	0.058	LOLIPOP	
rs173539		C	T	1533	2.27E-08	0.218	0.039	SUVIMAX	
rs173539		C	T	1132	1.74E-10	0.3	0.047	InCHIANTI	
rs173539		C	T	2728	7.79E-11	0.187	0.029	DGI	
rs173539		C	T	1872	4.98E-11	0.276	0.042	FUSION Stage 1	
rs173539		**C**	**T**	**15450**	**2.28E-77**	**0.244**	**0.013**	**Stage 1**	
rs12678919	LPL	A	G	7135	1.68E-14	0.237	0.031	Framingham Heart Study	
rs12678919		A	G	1050	0.003213	0.209	0.071	LOLIPOP	
rs12678919		A	G	1533	4.02E-07	0.299	0.059	SUVIMAX	
rs12678919		A	G	1132	1.88E-05	0.261	0.061	InCHIANTI	
rs12678919		A	G	2728	0.005769	0.128	0.046	DGI	
rs12678919		A	G	1872	0.0027	0.171	0.057	FUSION Stage 1	
rs12678919		A	G	4184	3.80E-06	0.208	0.045	SardiNIA	
rs12678919		**A**	**G**	**19634**	**1.18E-32**	**0.215**	**0.018**	**Stage 1**	**0.22**
rs10468017	LIPC	G	A	7135	1.27E-06	0.097	0.02	Framingham Heart Study	
rs10468017		C	T	1050	0.01839	0.119	0.051	LOLIPOP	
rs10468017		C	T	1533	0.001745	0.144	0.046	SUVIMAX	
rs10468017		C	T	1132	0.0001147	0.189	0.049	InCHIANTI	
rs10468017		C	T	2728	0.0001026	0.114	0.029	DGI	

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rs10468017		C	T	1872	5.09E-05	0.158	0.039	FUSION Stage 1	
rs10468017		C	T	4184	4.90E-05	0.134	0.033	SardiNIA	
rs10468017		**G**	**A**	**19634**	**8.31E-23**	**0.122**	**0.012**	**Stage 1**	**0.48**
rs4939883	LIPG	C	T	7127	3.50E-09	-0.141	0.024	Framingham Heart Study	
rs4939883		C	T	1050	0.06294	-0.107	0.058	LOLIPOP	
rs4939883		C	T	1533	0.01504	-0.124	0.051	SUVIMAX	
rs4939883		C	T	1132	0.675	-0.026	0.062	InCHIANTI	
rs4939883		C	T	2728	0.01813	-0.08	0.034	DGI	
rs4939883		C	T	4184	0.0001087	-0.209	0.054	SardiNIA	
rs4939883		**C**	**T**	**17754**	**2.61E-14**	**-0.121**	**0.016**	**Stage 1**	**0.29**
rs964184	APOA1-C3-A4-A5	C	G	7135	7.05E-12	-0.177	0.026	Framingham Heart Study	
rs964184		C	G	1050	0.02818	-0.143	0.065	LOLIPOP	
rs964184		C	G	1533	0.0495	-0.11	0.056	SUVIMAX	
rs964184		C	G	1132	0.000189	-0.224	0.06	InCHIANTI	
rs964184		C	G	2728	0.8883	-0.005	0.038	DGI	
rs964184		C	G	1872	0.04334	-0.099	0.049	FUSION Stage 1	
rs964184		C	G	4184	0.6424	-0.026	0.056	SardiNIA	
rs964184		**C**	**G**	**19634**	**1.65E-13**	**-0.12**	**0.016**	**Stage 1**	**0.006**
rs2338104	MMAB, MVK	C	T	7134	5.14E-05	-0.073	0.018	Framingham Heart Study	
rs2338104		C	T	1050	0.8198	-0.01	0.044	LOLIPOP	
rs2338104		C	T	1533	0.1049	-0.06	0.037	SUVIMAX	
rs2338104		C	T	1132	0.1107	-0.067	0.042	InCHIANTI	
rs2338104		C	T	2728	0.1946	-0.035	0.027	DGI	
rs2338104		C	T	1872	0.001491	-0.108	0.034	FUSION Stage 1	
rs2338104		C	T	4184	0.0002332	-0.092	0.025	SardiNIA	
rs2338104		**C**	**T**	**19633**	**1.28E-10**	**-0.069**	**0.011**	**Stage 1**	**0.33**
rs1883025	ABCA1	C	T	7135	0.0002652	-0.077	0.021	Framingham Heart Study	
rs1883025		C	T	1050	0.5354	-0.043	0.069	LOLIPOP	
rs1883025		C	T	1533	0.0329	-0.096	0.045	SUVIMAX	
rs1883025		C	T	1132	0.6662	-0.022	0.051	InCHIANTI	
rs1883025		C	T	2728	1.06E-05	-0.142	0.032	DGI	
rs1883025		C	T	1872	0.2404	-0.054	0.046	FUSION Stage 1	
rs1883025		C	T	4184	0.000285	-0.127	0.035	SardiNIA	
rs1883025		**C**	**T**	**19634**	**1.86E-11**	**-0.09**	**0.013**	**Stage 1**	**0.43**
rs4846914	GALNT2	A	G	7135	0.02072	-0.042	0.018	Framingham Heart Study	
rs4846914		A	G	1050	0.09004	-0.077	0.046	LOLIPOP	

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rs4846914	A	G	1533	0.07787	-0.067	0.038	SUVIMAX	
rs4846914	A	G	1132	0.03314	0.098	0.046	InCHIANTI	
rs4846914	A	G	2728	0.02329	-0.062	0.027	DGI	
rs4846914	A	G	1872	0.002972	-0.101	0.034	FUSION Stage 1	
rs4846914	A	G	4184	0.008854	-0.089	0.034	SardiNIA	
rs4846914	**A**	**G**	**19634**	**2.93E-06**	**-0.053**	**0.011**	**Stage 1**	**0.04**

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Supplementary Table 6. Study-specific and meta-analytic association evidence for triglyceride SNPs using an uniform analysis strategy

SNP	Locus	Major Allele	Minor Allele	N	P-value	Effect Size for Minor Allele	s.e.	Cohort	Heterogeneity P
rs174547	FADS1-FADS2-FADS3	T	C	7120	6.77E-05	0.075	0.019	Framingham Heart Study	
rs174547		T	C	1050	0.5491	0.027	0.045	LOLIPOP	
rs174547		T	C	1552	0.1824	0.052	0.039	SUVIMAX	
rs174547		T	C	1132	0.7658	0.014	0.047	InCHIANTI	
rs174547		T	C	2773	0.01498	0.066	0.027	DGI	
rs174547		T	C	1872	0.05245	0.064	0.033	FUSION Stage 1	
rs174547		T	C	4184	0.006386	0.09	0.033	SardiNIA	
rs174547		T	C	4820	0.0181	0.052	0.022	MDC-CC	
rs174547		T	C	7590	0.001093	0.054	0.016	FINRISK 97	
rs174547		T	C	1689	0.003252	0.103	0.035	FUSION Stage 2	
rs174547		T	C	3638	0.005244	0.067	0.024	METSIM	
rs174547		T	C	1161	0.4866	0.032	0.046	ISIS	
rs174547		**T**	**C**	**19683**	**1.43E-08**	**0.065**	**0.011**	**Stage 1**	
rs174547		**T**	**C**	**18898**	**2.83E-08**	**0.059**	**0.011**	**Stage 2**	
rs174547		**T**	**C**	**38581**	**1.70E-15**	**0.062**	**0.008**	**Stage 1+2**	**0.95**
rs7679	PLTP	T	C	7076	0.01942	0.053	0.023	Framingham Heart Study	
rs7679		T	C	1050	0.3131	0.058	0.057	LOLIPOP	
rs7679		T	C	1552	0.2235	0.056	0.046	SUVIMAX	
rs7679		T	C	1132	0.4871	-0.041	0.059	InCHIANTI	
rs7679		T	C	2773	0.8568	0.007	0.037	DGI	
rs7679		T	C	1872	0.1336	0.072	0.048	FUSION Stage 1	
rs7679		T	C	4184	9.26E-05	0.172	0.044	SardiNIA	
rs7679		T	C	4827	0.0003477	0.093	0.026	MDC-CC	
rs7679		T	C	7376	0.1049	0.037	0.023	FINRISK 97	
rs7679		T	C	1639	0.04342	0.103	0.051	FUSION Stage 2	
rs7679		T	C	3624	0.07279	0.061	0.034	METSIM	
rs7679		T	C	1192	0.05378	0.108	0.056	ISIS	
rs7679		**T**	**C**	**19639**	**0.0001471**	**0.056**	**0.015**	**Stage 1**	
rs7679		**T**	**C**	**18658**	**2.00E-06**	**0.068**	**0.014**	**Stage 2**	

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rs7679		**T**	**C**	**38297**	**1.29E-09**	**0.062**	**0.01**	**Stage 1+2**	**0.21**
rs7819412	XKR6, AMAC1L2	A	G	7102	0.001488	-0.056	0.018	Framingham Heart Study	
rs7819412		A	G	1050	0.799	-0.011	0.043	LOLIPOP	
rs7819412		A	G	1552	0.002288	-0.122	0.04	SUVIMAX	
rs7819412		A	G	1132	0.1531	-0.06	0.042	InCHIANTI	
rs7819412		A	G	2773	0.1343	-0.04	0.027	DGI	
rs7819412		A	G	1872	0.0181	-0.078	0.033	FUSION Stage 1	
rs7819412		A	G	4184	0.001065	-0.108	0.033	SardiNIA	
rs7819412		A	G	4829	0.3953	-0.017	0.02	MDC-CC	
rs7819412		A	G	7402	0.2043	-0.021	0.016	FINRISK 97	
rs7819412		A	G	1177	0.2226	-0.05	0.041	ISIS	
rs7819412		**A**	**G**	**19665**	**8.58E-09**	**-0.064**	**0.011**	**Stage 1**	
rs7819412		**A**	**G**	**13408**	**0.06904**	**-0.022**	**0.012**	**Stage 2**	
rs7819412		**A**	**G**	**33073**	**4.36E-08**	**-0.045**	**0.008**	**Stage 1+2**	**0.19**
rs964184	APOA1-C3-A4-A5	C	G	7137	4.13E-30	0.287	0.025	Framingham Heart Study	
rs964184		C	G	1050	2.21E-05	0.277	0.065	LOLIPOP	
rs964184		C	G	1552	3.41E-09	0.331	0.056	SUVIMAX	
rs964184		C	G	1132	3.80E-08	0.33	0.06	InCHIANTI	
rs964184		C	G	2773	2.72E-12	0.26	0.037	DGI	
rs964184		C	G	1872	2.87E-09	0.291	0.049	FUSION Stage 1	
rs964184		C	G	4184	5.86E-05	0.217	0.054	SardiNIA	
rs964184		**C**	**G**	**19700**	**1.02E-69**	**0.282**	**0.016**	**Stage 1**	**0.7**
rs12678919	LPL	A	G	7137	1.08E-13	-0.226	0.03	Framingham Heart Study	
rs12678919		A	G	1050	1.69E-05	-0.306	0.071	LOLIPOP	
rs12678919		A	G	1552	9.35E-08	-0.315	0.059	SUVIMAX	
rs12678919		A	G	1132	2.22E-07	-0.316	0.061	InCHIANTI	
rs12678919		A	G	2773	8.00E-07	-0.225	0.046	DGI	
rs12678919		A	G	1872	0.0005134	-0.198	0.057	FUSION Stage 1	
rs12678919		A	G	4184	1.66E-06	-0.206	0.043	SardiNIA	
rs12678919		**A**	**G**	**19700**	**1.45E-41**	**-0.24**	**0.018**	**Stage 1**	**0.59**
rs1260326	GCKR	C	T	7137	3.51E-11	0.118	0.018	Framingham Heart Study	
rs1260326		C	T	1050	7.42E-05	0.179	0.045	LOLIPOP	
rs1260326		C	T	1552	0.006484	0.098	0.036	SUVIMAX	
rs1260326		C	T	1132	0.003387	0.126	0.043	InCHIANTI	
rs1260326		C	T	2773	2.82E-10	0.177	0.028	DGI	

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rs1260326		C	T	1872	6.33E-05	0.136	0.034	FUSION Stage 1	
rs1260326		C	T	4184	7.33E-06	0.139	0.031	SardiNIA	
rs1260326		**C**	**T**	**19700**	**1.66E-33**	**0.134**	**0.011**	**Stage 1**	**0.55**
rs2954029	TRIB1	A	T	7137	2.55E-07	-0.093	0.018	Framingham Heart Study	
rs2954029		A	T	1050	0.09697	-0.072	0.043	LOLIPOP	
rs2954029		A	T	1552	0.1049	-0.06	0.037	SUVIMAX	
rs2954029		A	T	1132	0.001692	-0.135	0.043	InCHIANTI	
rs2954029		A	T	2773	0.0002402	-0.098	0.027	DGI	
rs2954029		A	T	1872	0.0003919	-0.117	0.033	FUSION Stage 1	
rs2954029		A	T	4184	0.008165	-0.082	0.031	SardiNIA	
rs2954029		**A**	**T**	**19700**	**1.62E-17**	**-0.094**	**0.011**	**Stage 1**	**0.83**
rs714052	MLXIPL	A	G	7137	1.29E-08	-0.158	0.028	Framingham Heart Study	
rs714052		A	G	1050	0.09532	-0.126	0.076	LOLIPOP	
rs714052		A	G	1552	0.03747	-0.129	0.062	SUVIMAX	
rs714052		A	G	1132	0.01091	-0.196	0.077	InCHIANTI	
rs714052		A	G	2773	0.002014	-0.117	0.038	DGI	
rs714052		A	G	1872	0.0002276	-0.188	0.051	FUSION Stage 1	
rs714052		A	G	4184	0.006421	-0.139	0.051	SardiNIA	
rs714052		**A**	**G**	**19700**	**5.64E-18**	**-0.149**	**0.017**	**Stage 1**	**0.71**
rs7557067	APOB	A	G	7137	8.27E-05	-0.083	0.021	Framingham Heart Study	
rs7557067		A	G	1050	0.002824	-0.153	0.051	LOLIPOP	
rs7557067		A	G	1552	0.06379	-0.076	0.041	SUVIMAX	
rs7557067		A	G	1132	0.06625	-0.09	0.049	InCHIANTI	
rs7557067		A	G	2773	0.003274	-0.089	0.03	DGI	
rs7557067		A	G	1872	0.08368	-0.064	0.037	FUSION Stage 1	
rs7557067		A	G	4184	0.0265	-0.071	0.032	SardiNIA	
rs7557067		**A**	**G**	**19700**	**1.92E-11**	**-0.084**	**0.013**	**Stage 1**	**0.93**
rs17216525	CSPG3, CILP2, PBX4	C	T	7137	1.84E-05	-0.144	0.034	Framingham Heart Study	
rs17216525		C	T	1050	0.09301	-0.124	0.074	LOLIPOP	
rs17216525		C	T	1552	0.8392	0.014	0.069	SUVIMAX	
rs17216525		C	T	1132	0.001141	-0.257	0.079	InCHIANTI	
rs17216525		C	T	2773	0.02675	-0.101	0.046	DGI	
rs17216525		C	T	1872	0.001344	-0.202	0.063	FUSION Stage 1	
rs17216525		C	T	4184	0.0005792	-0.234	0.068	SardiNIA	
rs17216525		**C**	**T**	**19700**	**4.46E-12**	**-0.142**	**0.021**	**Stage 1**	**0.13**
rs10889353	ANGPTL3	A	C	7137	0.02092	-0.043	0.019	Framingham Heart Study	

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rs10889353	A	C	1050	0.7787	-0.013	0.046	LOLIPOP	
rs10889353	A	C	1552	0.001128	-0.127	0.039	SUVIMAX	
rs10889353	A	C	1132	0.4212	-0.037	0.046	InCHIANTI	
rs10889353	A	C	2773	0.005378	-0.078	0.028	DGI	
rs10889353	A	C	1872	0.0485	-0.073	0.037	FUSION Stage 1	
rs10889353	A	C	4184	0.06546	-0.07	0.038	SardiNIA	
rs10889353	**A**	**C**	**19700**	**3.08E-07**	**-0.06**	**0.012**	**Stage 1**	**0.5**

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Supplementary Table 7. Association of SNPs with specialized lipoprotein-related phenotypes in Framingham Heart Study 2nd generation participants

Phenotype	SNP	Chr	Position	Locus	n	beta	se	P for association	MAF
apo A-I	rs10401969	19	19268718	CSPG3, CILP2, PBX4	3023	0.02	0.06	7.7E-01	0.07
apo B	rs10401969	19	19268718	CSPG3, CILP2, PBX4	3023	-0.01	0.06	8.9E-01	0.07
apo C-III	rs10401969	19	19268718	CSPG3, CILP2, PBX4	2486	-0.13	0.07	4.8E-02	0.06
total chol exam 1	rs10401969	19	19268718	CSPG3, CILP2, PBX4	3496	-0.15	0.05	6.5E-03	0.06
total chol/hdl chol ratio exam 1	rs10401969	19	19268718	CSPG3, CILP2, PBX4	3481	-0.10	0.05	7.2E-02	0.06
hdl chol exam 1	rs10401969	19	19268718	CSPG3, CILP2, PBX4	3495	0.01	0.06	8.4E-01	0.06
hdl-2	rs10401969	19	19268718	CSPG3, CILP2, PBX4	3166	0.07	0.06	2.2E-01	0.06
hdl-3	rs10401969	19	19268718	CSPG3, CILP2, PBX4	3009	0.01	0.06	9.0E-01	0.07
intermediate HDL concentration - NMR	rs10401969	19	19268718	CSPG3, CILP2, PBX4	2744	0.00	0.06	9.6E-01	0.07
large HDL concentration - NMR	rs10401969	19	19268718	CSPG3, CILP2, PBX4	2744	-0.07	0.06	2.7E-01	0.07
small HDL concentration - NMR	rs10401969	19	19268718	CSPG3, CILP2, PBX4	2744	0.07	0.06	2.6E-01	0.07
HDL size - NMR	rs10401969	19	19268718	CSPG3, CILP2, PBX4	2744	-0.08	0.06	2.3E-01	0.07
IDL concentration - NMR	rs10401969	19	19268718	CSPG3, CILP2, PBX4	2744	-0.04	0.06	5.3E-01	0.07
ldl chol exam 1	rs10401969	19	19268718	CSPG3, CILP2, PBX4	3458	-0.12	0.05	2.3E-02	0.06
large LDL concentration - NMR	rs10401969	19	19268718	CSPG3, CILP2, PBX4	2744	0.02	0.06	7.2E-01	0.07
small LDL concentration - NMR	rs10401969	19	19268718	CSPG3, CILP2, PBX4	2744	0.00	0.06	9.6E-01	0.07
LDL size - NMR	rs10401969	19	19268718	CSPG3, CILP2, PBX4	2744	0.00	0.06	1.0E+00	0.07
lipoprotein (a)	rs10401969	19	19268718	CSPG3, CILP2, PBX4	2193	0.04	0.07	6.0E-01	0.06
apo E	rs10401969	19	19268718	CSPG3, CILP2, PBX4	2262	-0.02	0.07	7.6E-01	0.07
remnant lipoprotein chol	rs10401969	19	19268718	CSPG3, CILP2, PBX4	2470	-0.07	0.07	2.8E-01	0.06
remnant lipoprotein triglycerides	rs10401969	19	19268718	CSPG3, CILP2, PBX4	2387	0.00	0.07	1.0E+00	0.06
triglycerides exam 1	rs10401969	19	19268718	CSPG3, CILP2, PBX4	3494	-0.10	0.06	8.1E-02	0.06
triglycerides/hdl ratio exam 1	rs10401969	19	19268718	CSPG3, CILP2, PBX4	3480	-0.08	0.06	1.4E-01	0.06
intermediate VLDL concentration - NMR	rs10401969	19	19268718	CSPG3, CILP2, PBX4	2897	-0.11	0.06	8.5E-02	0.06
large VLDL concentration - NMR	rs10401969	19	19268718	CSPG3, CILP2, PBX4	2408	-0.02	0.07	7.7E-01	0.07
small VLDL concentration - NMR	rs10401969	19	19268718	CSPG3, CILP2, PBX4	2744	-0.04	0.06	4.9E-01	0.07
VLDL size - NMR	rs10401969	19	19268718	CSPG3, CILP2, PBX4	2744	0.03	0.06	6.5E-01	0.07
apo A-I	rs10468017	15	56465804	LIPC	3023	0.11	0.03	2.6E-04	0.30
apo B	rs10468017	15	56465804	LIPC	3023	0.04	0.03	1.8E-01	0.30
apo C-III	rs10468017	15	56465804	LIPC	2486	0.03	0.03	3.9E-01	0.31
total chol exam 1	rs10468017	15	56465804	LIPC	3496	0.12	0.03	5.1E-06	0.31
total chol/hdl chol ratio exam 1	rs10468017	15	56465804	LIPC	3481	-0.02	0.03	4.9E-01	0.31
hdl chol exam 1	rs10468017	15	56465804	LIPC	3495	0.10	0.03	1.4E-04	0.31
hdl-2	rs10468017	15	56465804	LIPC	3166	0.13	0.03	3.8E-06	0.31
hdl-3	rs10468017	15	56465804	LIPC	3009	0.07	0.03	1.3E-02	0.31
intermediate HDL concentration - NMR	rs10468017	15	56465804	LIPC	2744	-0.08	0.03	9.2E-03	0.30
large HDL concentration - NMR	rs10468017	15	56465804	LIPC	2744	0.18	0.03	2.9E-09	0.30
small HDL concentration - NMR	rs10468017	15	56465804	LIPC	2744	-0.07	0.03	3.4E-02	0.30

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HDL size - NMR	rs10468017	15	56465804	LIPC	2744	0.18	0.03	1.8E-09	0.30
IDL concentration - NMR	rs10468017	15	56465804	LIPC	2744	0.10	0.03	1.1E-03	0.30
ldl chol exam 1	rs10468017	15	56465804	LIPC	3458	0.07	0.03	1.2E-02	0.31
large LDL concentration - NMR	rs10468017	15	56465804	LIPC	2744	0.10	0.03	1.9E-03	0.30
small LDL concentration - NMR	rs10468017	15	56465804	LIPC	2744	-0.02	0.03	6.1E-01	0.30
LDL size - NMR	rs10468017	15	56465804	LIPC	2744	0.09	0.03	5.1E-03	0.30
lipoprotein (a)	rs10468017	15	56465804	LIPC	2193	0.04	0.03	2.0E-01	0.31
apo E	rs10468017	15	56465804	LIPC	2262	0.01	0.03	7.1E-01	0.31
remnant lipoprotein chol	rs10468017	15	56465804	LIPC	2470	0.04	0.03	2.4E-01	0.31
remnant lipoprotein triglycerides	rs10468017	15	56465804	LIPC	2387	-0.01	0.03	8.7E-01	0.31
triglycerides exam 1	rs10468017	15	56465804	LIPC	3494	0.07	0.03	8.5E-03	0.31
triglycerides/hdl ratio exam 1	rs10468017	15	56465804	LIPC	3480	0.02	0.03	3.9E-01	0.31
intermediate VLDL concentration - NMR	rs10468017	15	56465804	LIPC	2897	-0.02	0.03	4.1E-01	0.30
large VLDL concentration - NMR	rs10468017	15	56465804	LIPC	2408	-0.01	0.03	8.7E-01	0.30
small VLDL concentration - NMR	rs10468017	15	56465804	LIPC	2744	0.14	0.03	8.1E-06	0.30
VLDL size - NMR	rs10468017	15	56465804	LIPC	2744	-0.07	0.03	1.6E-02	0.30
apo A-I	rs10889353	1	62890784	ANGPTL3	3023	-0.01	0.03	5.9E-01	0.33
apo B	rs10889353	1	62890784	ANGPTL3	3023	-0.07	0.03	1.4E-02	0.33
apo C-III	rs10889353	1	62890784	ANGPTL3	2486	-0.09	0.03	3.9E-03	0.33
total chol exam 1	rs10889353	1	62890784	ANGPTL3	3496	-0.09	0.03	2.4E-04	0.33
total chol/hdl chol ratio exam 1	rs10889353	1	62890784	ANGPTL3	3481	-0.02	0.03	4.2E-01	0.33
hdl chol exam 1	rs10889353	1	62890784	ANGPTL3	3495	-0.05	0.03	4.1E-02	0.33
hdl-2	rs10889353	1	62890784	ANGPTL3	3166	0.03	0.03	2.4E-01	0.33
hdl-3	rs10889353	1	62890784	ANGPTL3	3009	-0.03	0.03	3.0E-01	0.33
intermediate HDL concentration - NMR	rs10889353	1	62890784	ANGPTL3	2744	-0.08	0.03	7.8E-03	0.33
large HDL concentration - NMR	rs10889353	1	62890784	ANGPTL3	2744	-0.03	0.03	3.7E-01	0.33
small HDL concentration - NMR	rs10889353	1	62890784	ANGPTL3	2744	0.07	0.03	1.2E-02	0.33
HDL size - NMR	rs10889353	1	62890784	ANGPTL3	2744	-0.02	0.03	5.6E-01	0.33
IDL concentration - NMR	rs10889353	1	62890784	ANGPTL3	2744	-0.01	0.03	8.5E-01	0.33
ldl chol exam 1	rs10889353	1	62890784	ANGPTL3	3458	-0.06	0.03	1.6E-02	0.33
large LDL concentration - NMR	rs10889353	1	62890784	ANGPTL3	2744	-0.05	0.03	7.6E-02	0.33
small LDL concentration - NMR	rs10889353	1	62890784	ANGPTL3	2744	-0.03	0.03	3.9E-01	0.33
LDL size - NMR	rs10889353	1	62890784	ANGPTL3	2744	-0.03	0.03	3.7E-01	0.33
lipoprotein (a)	rs10889353	1	62890784	ANGPTL3	2193	0.01	0.03	7.0E-01	0.33
apo E	rs10889353	1	62890784	ANGPTL3	2262	-0.04	0.03	2.3E-01	0.33
remnant lipoprotein chol	rs10889353	1	62890784	ANGPTL3	2470	-0.10	0.03	1.4E-03	0.33
remnant lipoprotein triglycerides	rs10889353	1	62890784	ANGPTL3	2387	-0.06	0.03	5.4E-02	0.33
triglycerides exam 1	rs10889353	1	62890784	ANGPTL3	3494	-0.05	0.03	4.1E-02	0.33
triglycerides/hdl ratio exam 1	rs10889353	1	62890784	ANGPTL3	3480	-0.03	0.03	3.0E-01	0.33
intermediate VLDL concentration - NMR	rs10889353	1	62890784	ANGPTL3	2897	-0.05	0.03	9.2E-02	0.33
large VLDL concentration - NMR	rs10889353	1	62890784	ANGPTL3	2408	0.02	0.03	6.0E-01	0.33
small VLDL concentration - NMR	rs10889353	1	62890784	ANGPTL3	2744	-0.11	0.03	7.7E-05	0.33

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VLDL size - NMR	rs10889353	1	62890784	ANGPTL3	2744	0.04	0.03	1.2E-01	0.33
apo A-I	rs11206510	1	55268627	PCSK9	3023	0.01	0.04	7.1E-01	0.18
apo B	rs11206510	1	55268627	PCSK9	3023	-0.03	0.04	4.7E-01	0.18
apo C-III	rs11206510	1	55268627	PCSK9	2486	-0.03	0.04	4.8E-01	0.17
total chol exam 1	rs11206510	1	55268627	PCSK9	3496	-0.08	0.03	1.6E-02	0.18
total chol/hdl chol ratio exam 1	rs11206510	1	55268627	PCSK9	3481	-0.08	0.03	2.0E-02	0.17
hdl chol exam 1	rs11206510	1	55268627	PCSK9	3495	0.03	0.04	3.5E-01	0.17
hdl-2	rs11206510	1	55268627	PCSK9	3166	0.04	0.04	3.2E-01	0.18
hdl-3	rs11206510	1	55268627	PCSK9	3009	0.00	0.04	9.4E-01	0.18
intermediate HDL concentration - NMR	rs11206510	1	55268627	PCSK9	2744	0.04	0.04	2.8E-01	0.18
large HDL concentration - NMR	rs11206510	1	55268627	PCSK9	2744	0.00	0.04	9.9E-01	0.18
small HDL concentration - NMR	rs11206510	1	55268627	PCSK9	2744	-0.01	0.04	8.6E-01	0.18
HDL size - NMR	rs11206510	1	55268627	PCSK9	2744	0.00	0.04	9.2E-01	0.18
IDL concentration - NMR	rs11206510	1	55268627	PCSK9	2744	0.03	0.04	3.9E-01	0.18
ldl chol exam 1	rs11206510	1	55268627	PCSK9	3458	-0.10	0.03	3.9E-03	0.17
large LDL concentration - NMR	rs11206510	1	55268627	PCSK9	2744	-0.04	0.04	3.6E-01	0.18
small LDL concentration - NMR	rs11206510	1	55268627	PCSK9	2744	-0.02	0.04	7.0E-01	0.18
LDL size - NMR	rs11206510	1	55268627	PCSK9	2744	-0.01	0.04	7.7E-01	0.18
lipoprotein (a)	rs11206510	1	55268627	PCSK9	2193	-0.10	0.04	2.4E-02	0.18
apo E	rs11206510	1	55268627	PCSK9	2262	0.04	0.04	3.8E-01	0.17
remnant lipoprotein chol	rs11206510	1	55268627	PCSK9	2470	0.03	0.04	4.0E-01	0.18
remnant lipoprotein triglycerides	rs11206510	1	55268627	PCSK9	2387	0.05	0.04	2.4E-01	0.18
triglycerides exam 1	rs11206510	1	55268627	PCSK9	3494	-0.05	0.04	1.3E-01	0.17
triglycerides/hdl ratio exam 1	rs11206510	1	55268627	PCSK9	3480	-0.06	0.04	1.1E-01	0.17
intermediate VLDL concentration - NMR	rs11206510	1	55268627	PCSK9	2897	0.01	0.04	8.0E-01	0.18
large VLDL concentration - NMR	rs11206510	1	55268627	PCSK9	2408	-0.02	0.04	6.1E-01	0.18
small VLDL concentration - NMR	rs11206510	1	55268627	PCSK9	2744	-0.05	0.04	2.4E-01	0.18
VLDL size - NMR	rs11206510	1	55268627	PCSK9	2744	0.00	0.04	9.4E-01	0.18
hdl chol exam 1	rs11591147	1	55278235	PCSK9	2273	-0.10	0.12	3.9E-01	0.02
hdl-3	rs11591147	1	55278235	PCSK9	1999	-0.04	0.13	7.7E-01	0.02
hdl-2	rs11591147	1	55278235	PCSK9	2095	-0.24	0.13	5.6E-02	0.02
total chol exam 1	rs11591147	1	55278235	PCSK9	2273	-0.59	0.12	1.4E-06	0.02
total chol/hdl chol ratio exam 1	rs11591147	1	55278235	PCSK9	2263	-0.28	0.12	2.3E-02	0.02
ldl chol exam 1	rs11591147	1	55278235	PCSK9	2249	-0.54	0.12	9.0E-06	0.02
lipoprotein (a)	rs11591147	1	55278235	PCSK9	1468	-0.28	0.14	5.3E-02	0.02
triglycerides exam 1	rs11591147	1	55278235	PCSK9	2272	-0.11	0.12	3.5E-01	0.02
triglycerides/hdl ratio exam 1	rs11591147	1	55278235	PCSK9	2263	-0.06	0.12	6.2E-01	0.02
HDL size - NMR	rs11591147	1	55278235	PCSK9	1814	-0.16	0.13	2.1E-01	0.02
LDL size - NMR	rs11591147	1	55278235	PCSK9	1814	-0.01	0.13	9.2E-01	0.02
VLDL size - NMR	rs11591147	1	55278235	PCSK9	1814	0.16	0.13	2.3E-01	0.02
small HDL concentration - NMR	rs11591147	1	55278235	PCSK9	1814	-0.23	0.13	8.6E-02	0.02
intermediate HDL concentration - NMR	rs11591147	1	55278235	PCSK9	1814	0.28	0.13	3.5E-02	0.02

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large HDL concentration - NMR	rs11591147	1	55278235	PCSK9	1814	-0.14	0.13	2.7E-01	0.02
small LDL concentration - NMR	rs11591147	1	55278235	PCSK9	1814	-0.21	0.13	1.2E-01	0.02
large LDL concentration - NMR	rs11591147	1	55278235	PCSK9	1814	-0.14	0.13	2.8E-01	0.02
small VLDL concentration - NMR	rs11591147	1	55278235	PCSK9	1814	-0.12	0.13	3.3E-01	0.02
intermediate VLDL concentration - NMR	rs11591147	1	55278235	PCSK9	1907	0.07	0.13	5.7E-01	0.02
IDL concentration - NMR	rs11591147	1	55278235	PCSK9	1814	-0.22	0.13	7.9E-02	0.02
large VLDL concentration - NMR	rs11591147	1	55278235	PCSK9	1605	-0.02	0.14	9.0E-01	0.02
remnant lipoprotein chol	rs11591147	1	55278235	PCSK9	1616	-0.17	0.14	2.1E-01	0.02
remnant lipoprotein triglycerides	rs11591147	1	55278235	PCSK9	1561	-0.05	0.14	7.2E-01	0.02
apo E	rs11591147	1	55278235	PCSK9	1551	0.03	0.15	8.5E-01	0.02
apo A-I	rs11591147	1	55278235	PCSK9	2008	-0.06	0.12	6.3E-01	0.02
apo B	rs11591147	1	55278235	PCSK9	2008	-0.37	0.13	3.4E-03	0.02
apo C-III	rs11591147	1	55278235	PCSK9	1696	0.24	0.14	1.0E-01	0.02
apo A-I	rs1260326	2	27584444	GCKR	3023	0.04	0.03	1.4E-01	0.45
apo B	rs1260326	2	27584444	GCKR	3023	0.04	0.03	1.0E-01	0.45
apo C-III	rs1260326	2	27584444	GCKR	2486	0.19	0.03	8.7E-12	0.45
total chol exam 1	rs1260326	2	27584444	GCKR	3496	0.08	0.02	8.0E-04	0.45
total chol/hdl chol ratio exam 1	rs1260326	2	27584444	GCKR	3481	0.02	0.02	3.9E-01	0.45
hdl chol exam 1	rs1260326	2	27584444	GCKR	3495	0.03	0.02	1.8E-01	0.45
hdl-2	rs1260326	2	27584444	GCKR	3166	0.00	0.03	9.6E-01	0.45
hdl-3	rs1260326	2	27584444	GCKR	3009	0.05	0.03	7.6E-02	0.45
intermediate HDL concentration - NMR	rs1260326	2	27584444	GCKR	2744	0.07	0.03	1.7E-02	0.45
large HDL concentration - NMR	rs1260326	2	27584444	GCKR	2744	0.02	0.03	4.6E-01	0.45
small HDL concentration - NMR	rs1260326	2	27584444	GCKR	2744	-0.03	0.03	3.0E-01	0.45
HDL size - NMR	rs1260326	2	27584444	GCKR	2744	0.02	0.03	5.3E-01	0.45
IDL concentration - NMR	rs1260326	2	27584444	GCKR	2744	-0.02	0.03	4.7E-01	0.45
ldl chol exam 1	rs1260326	2	27584444	GCKR	3458	0.04	0.02	9.6E-02	0.45
large LDL concentration - NMR	rs1260326	2	27584444	GCKR	2744	0.03	0.03	3.5E-01	0.45
small LDL concentration - NMR	rs1260326	2	27584444	GCKR	2744	0.02	0.03	4.8E-01	0.45
LDL size - NMR	rs1260326	2	27584444	GCKR	2744	-0.01	0.03	8.5E-01	0.45
lipoprotein (a)	rs1260326	2	27584444	GCKR	2193	-0.06	0.03	6.3E-02	0.45
apo E	rs1260326	2	27584444	GCKR	2262	0.08	0.03	6.4E-03	0.45
remnant lipoprotein chol	rs1260326	2	27584444	GCKR	2470	0.08	0.03	6.2E-03	0.45
remnant lipoprotein triglycerides	rs1260326	2	27584444	GCKR	2387	0.09	0.03	3.8E-03	0.45
triglycerides exam 1	rs1260326	2	27584444	GCKR	3494	0.10	0.02	5.8E-05	0.45
triglycerides/hdl ratio exam 1	rs1260326	2	27584444	GCKR	3480	0.07	0.02	4.7E-03	0.45
intermediate VLDL concentration - NMR	rs1260326	2	27584444	GCKR	2897	0.11	0.03	2.5E-05	0.46
large VLDL concentration - NMR	rs1260326	2	27584444	GCKR	2408	0.12	0.03	6.3E-05	0.46
small VLDL concentration - NMR	rs1260326	2	27584444	GCKR	2744	0.02	0.03	4.5E-01	0.45
VLDL size - NMR	rs1260326	2	27584444	GCKR	2744	0.10	0.03	4.1E-04	0.45
apo A-I	rs12678919	8	19888502	LPL	3023	0.13	0.05	5.2E-03	0.10
apo B	rs12678919	8	19888502	LPL	3023	0.00	0.05	9.6E-01	0.10

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apo C-III	rs12678919	8	19888502	LPL	2486	-0.07	0.05	1.3E-01	0.10
total chol exam 1	rs12678919	8	19888502	LPL	3496	0.04	0.04	3.3E-01	0.10
total chol/hdl chol ratio exam 1	rs12678919	8	19888502	LPL	3481	-0.14	0.04	1.0E-03	0.10
hdl chol exam 1	rs12678919	8	19888502	LPL	3495	0.19	0.04	6.7E-06	0.10
hdl-2	rs12678919	8	19888502	LPL	3166	0.16	0.04	1.8E-04	0.10
hdl-3	rs12678919	8	19888502	LPL	3009	0.17	0.05	1.2E-04	0.10
intermediate HDL concentration - NMR	rs12678919	8	19888502	LPL	2744	-0.07	0.05	1.5E-01	0.10
large HDL concentration - NMR	rs12678919	8	19888502	LPL	2744	0.16	0.05	7.9E-04	0.10
small HDL concentration - NMR	rs12678919	8	19888502	LPL	2744	0.00	0.05	1.0E+00	0.10
HDL size - NMR	rs12678919	8	19888502	LPL	2744	0.16	0.05	9.0E-04	0.10
IDL concentration - NMR	rs12678919	8	19888502	LPL	2744	0.02	0.05	7.4E-01	0.10
ldl chol exam 1	rs12678919	8	19888502	LPL	3458	0.03	0.04	5.4E-01	0.10
large LDL concentration - NMR	rs12678919	8	19888502	LPL	2744	0.12	0.05	1.2E-02	0.10
small LDL concentration - NMR	rs12678919	8	19888502	LPL	2744	-0.12	0.05	9.6E-03	0.10
LDL size - NMR	rs12678919	8	19888502	LPL	2744	0.10	0.05	2.8E-02	0.10
lipoprotein (a)	rs12678919	8	19888502	LPL	2193	0.06	0.05	2.6E-01	0.10
apo E	rs12678919	8	19888502	LPL	2262	0.07	0.05	1.7E-01	0.10
remnant lipoprotein chol	rs12678919	8	19888502	LPL	2470	-0.03	0.05	5.8E-01	0.10
remnant lipoprotein triglycerides	rs12678919	8	19888502	LPL	2387	-0.06	0.05	2.6E-01	0.10
triglycerides exam 1	rs12678919	8	19888502	LPL	3494	-0.14	0.04	7.9E-04	0.10
triglycerides/hdl ratio exam 1	rs12678919	8	19888502	LPL	3480	-0.18	0.04	1.8E-05	0.10
intermediate VLDL concentration - NMR	rs12678919	8	19888502	LPL	2897	-0.19	0.05	2.5E-05	0.10
large VLDL concentration - NMR	rs12678919	8	19888502	LPL	2408	-0.09	0.05	6.9E-02	0.10
small VLDL concentration - NMR	rs12678919	8	19888502	LPL	2744	-0.03	0.05	5.5E-01	0.10
VLDL size - NMR	rs12678919	8	19888502	LPL	2744	-0.07	0.05	1.4E-01	0.10
apo A-I	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	3023	0.02	0.03	5.7E-01	0.22
apo B	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	3023	-0.19	0.03	1.2E-08	0.22
apo C-III	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	2486	0.05	0.04	1.3E-01	0.22
total chol exam 1	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	3496	-0.19	0.03	9.2E-11	0.21
total chol/hdl chol ratio exam 1	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	3481	-0.15	0.03	1.8E-06	0.21
hdl chol exam 1	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	3495	0.04	0.03	2.1E-01	0.21
hdl-2	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	3166	0.02	0.03	6.0E-01	0.21
hdl-3	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	3009	0.06	0.03	6.5E-02	0.22
intermediate HDL concentration - NMR	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	2744	0.06	0.03	8.7E-02	0.22
large HDL concentration - NMR	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	2744	0.02	0.03	6.5E-01	0.22
small HDL concentration - NMR	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	2744	-0.07	0.03	4.8E-02	0.22
HDL size - NMR	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	2744	-0.01	0.03	7.4E-01	0.22
IDL concentration - NMR	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	2744	-0.03	0.03	4.4E-01	0.22
ldl chol exam 1	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	3458	-0.21	0.03	6.2E-12	0.22
large LDL concentration - NMR	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	2744	-0.10	0.03	4.2E-03	0.22
small LDL concentration - NMR	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	2744	-0.08	0.03	1.9E-02	0.22
LDL size - NMR	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	2744	0.03	0.03	4.0E-01	0.22

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lipoprotein (a)	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	2193	-0.01	0.04	8.5E-01	0.21
apo E	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	2262	0.03	0.04	4.0E-01	0.21
remnant lipoprotein chol	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	2470	0.01	0.04	8.5E-01	0.22
remnant lipoprotein triglycerides	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	2387	0.05	0.04	1.7E-01	0.22
triglycerides exam 1	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	3494	-0.03	0.03	3.4E-01	0.21
triglycerides/hdl ratio exam 1	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	3480	-0.04	0.03	2.4E-01	0.22
intermediate VLDL concentration - NMR	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	2897	-0.01	0.03	8.6E-01	0.22
large VLDL concentration - NMR	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	2408	0.03	0.04	4.5E-01	0.22
small VLDL concentration - NMR	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	2744	-0.11	0.03	1.5E-03	0.22
VLDL size - NMR	rs12740374	1	109619113	CELSR2, PSRC1, SORT1	2744	0.08	0.03	1.7E-02	0.22
apo A-I	rs1501908	5	156330747	TIMD4, TIMD1	3023	-0.01	0.03	7.1E-01	0.37
apo B	rs1501908	5	156330747	TIMD4, TIMD1	3023	-0.01	0.03	7.1E-01	0.37
apo C-III	rs1501908	5	156330747	TIMD4, TIMD1	2486	-0.02	0.03	5.3E-01	0.38
total chol exam 1	rs1501908	5	156330747	TIMD4, TIMD1	3496	-0.01	0.02	5.9E-01	0.38
total chol/hdl chol ratio exam 1	rs1501908	5	156330747	TIMD4, TIMD1	3481	0.00	0.02	9.2E-01	0.38
hdl chol exam 1	rs1501908	5	156330747	TIMD4, TIMD1	3495	0.00	0.02	9.5E-01	0.38
hdl-2	rs1501908	5	156330747	TIMD4, TIMD1	3166	0.00	0.03	9.1E-01	0.37
hdl-3	rs1501908	5	156330747	TIMD4, TIMD1	3009	-0.01	0.03	8.2E-01	0.38
intermediate HDL concentration - NMR	rs1501908	5	156330747	TIMD4, TIMD1	2744	0.02	0.03	4.7E-01	0.37
large HDL concentration - NMR	rs1501908	5	156330747	TIMD4, TIMD1	2744	-0.02	0.03	5.8E-01	0.37
small HDL concentration - NMR	rs1501908	5	156330747	TIMD4, TIMD1	2744	0.01	0.03	7.2E-01	0.37
HDL size - NMR	rs1501908	5	156330747	TIMD4, TIMD1	2744	-0.03	0.03	2.4E-01	0.37
IDL concentration - NMR	rs1501908	5	156330747	TIMD4, TIMD1	2744	0.01	0.03	7.6E-01	0.37
ldl chol exam 1	rs1501908	5	156330747	TIMD4, TIMD1	3458	-0.01	0.02	6.6E-01	0.38
large LDL concentration - NMR	rs1501908	5	156330747	TIMD4, TIMD1	2744	-0.01	0.03	6.6E-01	0.37
small LDL concentration - NMR	rs1501908	5	156330747	TIMD4, TIMD1	2744	0.05	0.03	9.1E-02	0.37
LDL size - NMR	rs1501908	5	156330747	TIMD4, TIMD1	2744	-0.04	0.03	2.1E-01	0.37
lipoprotein (a)	rs1501908	5	156330747	TIMD4, TIMD1	2193	-0.01	0.03	7.1E-01	0.38
apo E	rs1501908	5	156330747	TIMD4, TIMD1	2262	-0.03	0.03	2.9E-01	0.37
remnant lipoprotein chol	rs1501908	5	156330747	TIMD4, TIMD1	2470	0.03	0.03	2.5E-01	0.37
remnant lipoprotein triglycerides	rs1501908	5	156330747	TIMD4, TIMD1	2387	0.01	0.03	7.5E-01	0.37
triglycerides exam 1	rs1501908	5	156330747	TIMD4, TIMD1	3494	-0.03	0.02	1.7E-01	0.38
triglycerides/hdl ratio exam 1	rs1501908	5	156330747	TIMD4, TIMD1	3480	-0.03	0.02	3.0E-01	0.38
intermediate VLDL concentration - NMR	rs1501908	5	156330747	TIMD4, TIMD1	2897	0.00	0.03	8.7E-01	0.37
large VLDL concentration - NMR	rs1501908	5	156330747	TIMD4, TIMD1	2408	0.00	0.03	9.1E-01	0.38
small VLDL concentration - NMR	rs1501908	5	156330747	TIMD4, TIMD1	2744	0.01	0.03	8.5E-01	0.37
VLDL size - NMR	rs1501908	5	156330747	TIMD4, TIMD1	2744	0.01	0.03	7.2E-01	0.37
apo A-I	rs17216525	19	19523220	CSPG3, CILP2, PBX4	3023	0.03	0.05	5.0E-01	0.08
apo B	rs17216525	19	19523220	CSPG3, CILP2, PBX4	3023	0.01	0.05	8.6E-01	0.08
apo C-III	rs17216525	19	19523220	CSPG3, CILP2, PBX4	2486	-0.13	0.05	1.4E-02	0.08
total chol exam 1	rs17216525	19	19523220	CSPG3, CILP2, PBX4	3496	-0.11	0.05	1.3E-02	0.08
total chol/hdl chol ratio exam 1	rs17216525	19	19523220	CSPG3, CILP2, PBX4	3481	-0.07	0.05	1.5E-01	0.08

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hdl chol exam 1	rs17216525	19	19523220	CSPG3, CILP2, PBX4	3495	0.00	0.05	9.8E-01	0.08
hdl-2	rs17216525	19	19523220	CSPG3, CILP2, PBX4	3166	0.08	0.05	9.3E-02	0.08
hdl-3	rs17216525	19	19523220	CSPG3, CILP2, PBX4	3009	0.02	0.05	6.6E-01	0.08
intermediate HDL concentration - NMR	rs17216525	19	19523220	CSPG3, CILP2, PBX4	2744	0.00	0.05	9.5E-01	0.08
large HDL concentration - NMR	rs17216525	19	19523220	CSPG3, CILP2, PBX4	2744	-0.03	0.05	6.2E-01	0.08
small HDL concentration - NMR	rs17216525	19	19523220	CSPG3, CILP2, PBX4	2744	0.05	0.05	3.0E-01	0.08
HDL size - NMR	rs17216525	19	19523220	CSPG3, CILP2, PBX4	2744	-0.02	0.05	7.3E-01	0.08
IDL concentration - NMR	rs17216525	19	19523220	CSPG3, CILP2, PBX4	2744	-0.04	0.05	3.9E-01	0.08
ldl chol exam 1	rs17216525	19	19523220	CSPG3, CILP2, PBX4	3458	-0.09	0.05	5.9E-02	0.08
large LDL concentration - NMR	rs17216525	19	19523220	CSPG3, CILP2, PBX4	2744	0.03	0.05	5.5E-01	0.08
small LDL concentration - NMR	rs17216525	19	19523220	CSPG3, CILP2, PBX4	2744	-0.01	0.05	8.7E-01	0.08
LDL size - NMR	rs17216525	19	19523220	CSPG3, CILP2, PBX4	2744	0.05	0.05	3.3E-01	0.08
lipoprotein (a)	rs17216525	19	19523220	CSPG3, CILP2, PBX4	2193	0.07	0.06	2.1E-01	0.08
apo E	rs17216525	19	19523220	CSPG3, CILP2, PBX4	2262	-0.07	0.06	2.1E-01	0.08
remnant lipoprotein chol	rs17216525	19	19523220	CSPG3, CILP2, PBX4	2470	-0.07	0.05	2.0E-01	0.08
remnant lipoprotein triglycerides	rs17216525	19	19523220	CSPG3, CILP2, PBX4	2387	-0.04	0.06	5.1E-01	0.08
triglycerides exam 1	rs17216525	19	19523220	CSPG3, CILP2, PBX4	3494	-0.11	0.05	2.3E-02	0.08
triglycerides/hdl ratio exam 1	rs17216525	19	19523220	CSPG3, CILP2, PBX4	3480	-0.08	0.05	7.1E-02	0.08
intermediate VLDL concentration - NMR	rs17216525	19	19523220	CSPG3, CILP2, PBX4	2897	-0.13	0.05	1.0E-02	0.08
large VLDL concentration - NMR	rs17216525	19	19523220	CSPG3, CILP2, PBX4	2408	-0.06	0.06	2.9E-01	0.08
small VLDL concentration - NMR	rs17216525	19	19523220	CSPG3, CILP2, PBX4	2744	-0.02	0.05	7.1E-01	0.08
VLDL size - NMR	rs17216525	19	19523220	CSPG3, CILP2, PBX4	2744	-0.04	0.05	4.3E-01	0.08
apo A-I	rs173539	16	55545545	CETP	3023	0.19	0.03	1.3E-10	0.32
apo B	rs173539	16	55545545	CETP	3023	-0.03	0.03	3.6E-01	0.32
apo C-III	rs173539	16	55545545	CETP	2486	0.04	0.03	1.6E-01	0.32
total chol exam 1	rs173539	16	55545545	CETP	3496	0.05	0.03	5.8E-02	0.31
total chol/hdl chol ratio exam 1	rs173539	16	55545545	CETP	3481	-0.21	0.03	5.6E-15	0.31
hdl chol exam 1	rs173539	16	55545545	CETP	3495	0.29	0.03	1.5E-26	0.31
hdl-2	rs173539	16	55545545	CETP	3166	0.18	0.03	6.5E-10	0.31
hdl-3	rs173539	16	55545545	CETP	3009	0.24	0.03	2.2E-16	0.31
intermediate HDL concentration - NMR	rs173539	16	55545545	CETP	2744	0.00	0.03	9.5E-01	0.32
large HDL concentration - NMR	rs173539	16	55545545	CETP	2744	0.23	0.03	1.6E-13	0.32
small HDL concentration - NMR	rs173539	16	55545545	CETP	2744	-0.02	0.03	5.1E-01	0.32
HDL size - NMR	rs173539	16	55545545	CETP	2744	0.19	0.03	3.1E-10	0.32
IDL concentration - NMR	rs173539	16	55545545	CETP	2744	-0.15	0.03	1.1E-06	0.32
ldl chol exam 1	rs173539	16	55545545	CETP	3458	-0.03	0.03	2.2E-01	0.31
large LDL concentration - NMR	rs173539	16	55545545	CETP	2744	0.14	0.03	7.4E-06	0.32
small LDL concentration - NMR	rs173539	16	55545545	CETP	2744	-0.16	0.03	5.3E-07	0.32
LDL size - NMR	rs173539	16	55545545	CETP	2744	0.17	0.03	3.6E-08	0.32
lipoprotein (a)	rs173539	16	55545545	CETP	2193	-0.06	0.03	7.2E-02	0.31
apo E	rs173539	16	55545545	CETP	2262	0.02	0.03	5.7E-01	0.32
remnant lipoprotein chol	rs173539	16	55545545	CETP	2470	0.00	0.03	9.8E-01	0.32

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remnant lipoprotein triglycerides	rs173539	16	55545545	CETP	2387	-0.01	0.03	7.7E-01	0.32
triglycerides exam 1	rs173539	16	55545545	CETP	3494	-0.07	0.03	1.8E-02	0.31
triglycerides/hdl ratio exam 1	rs173539	16	55545545	CETP	3480	-0.15	0.03	4.8E-08	0.31
intermediate VLDL concentration - NMR	rs173539	16	55545545	CETP	2897	0.00	0.03	9.7E-01	0.31
large VLDL concentration - NMR	rs173539	16	55545545	CETP	2408	0.07	0.03	2.9E-02	0.31
small VLDL concentration - NMR	rs173539	16	55545545	CETP	2744	0.00	0.03	9.0E-01	0.32
VLDL size - NMR	rs173539	16	55545545	CETP	2744	0.02	0.03	4.3E-01	0.32
apo A-I	rs174547	11	61327359	FADS1, FADS2, FADS3	3023	-0.03	0.03	2.9E-01	0.33
apo B	rs174547	11	61327359	FADS1, FADS2, FADS3	3023	-0.03	0.03	2.3E-01	0.33
apo C-III	rs174547	11	61327359	FADS1, FADS2, FADS3	2486	0.01	0.03	6.6E-01	0.33
total chol exam 1	rs174547	11	61327359	FADS1, FADS2, FADS3	3496	-0.06	0.03	2.3E-02	0.33
total chol/hdl chol ratio exam 1	rs174547	11	61327359	FADS1, FADS2, FADS3	3481	0.03	0.03	2.9E-01	0.33
hdl chol exam 1	rs174547	11	61327359	FADS1, FADS2, FADS3	3495	-0.07	0.03	4.7E-03	0.33
hdl-2	rs174547	11	61327359	FADS1, FADS2, FADS3	3166	-0.08	0.03	2.8E-03	0.33
hdl-3	rs174547	11	61327359	FADS1, FADS2, FADS3	3009	-0.05	0.03	9.5E-02	0.33
intermediate HDL concentration - NMR	rs174547	11	61327359	FADS1, FADS2, FADS3	2744	0.08	0.03	4.1E-03	0.33
large HDL concentration - NMR	rs174547	11	61327359	FADS1, FADS2, FADS3	2744	-0.08	0.03	5.5E-03	0.33
small HDL concentration - NMR	rs174547	11	61327359	FADS1, FADS2, FADS3	2744	0.00	0.03	8.8E-01	0.33
HDL size - NMR	rs174547	11	61327359	FADS1, FADS2, FADS3	2744	-0.07	0.03	1.7E-02	0.33
IDL concentration - NMR	rs174547	11	61327359	FADS1, FADS2, FADS3	2744	0.05	0.03	1.1E-01	0.33
ldl chol exam 1	rs174547	11	61327359	FADS1, FADS2, FADS3	3458	-0.05	0.03	7.7E-02	0.33
large LDL concentration - NMR	rs174547	11	61327359	FADS1, FADS2, FADS3	2744	-0.05	0.03	7.9E-02	0.33
small LDL concentration - NMR	rs174547	11	61327359	FADS1, FADS2, FADS3	2744	-0.04	0.03	2.1E-01	0.33
LDL size - NMR	rs174547	11	61327359	FADS1, FADS2, FADS3	2744	-0.02	0.03	6.0E-01	0.33
lipoprotein (a)	rs174547	11	61327359	FADS1, FADS2, FADS3	2193	0.00	0.03	9.6E-01	0.33
apo E	rs174547	11	61327359	FADS1, FADS2, FADS3	2262	-0.05	0.03	1.5E-01	0.33
remnant lipoprotein chol	rs174547	11	61327359	FADS1, FADS2, FADS3	2470	0.09	0.03	5.8E-03	0.33
remnant lipoprotein triglycerides	rs174547	11	61327359	FADS1, FADS2, FADS3	2387	0.09	0.03	5.4E-03	0.33
triglycerides exam 1	rs174547	11	61327359	FADS1, FADS2, FADS3	3494	0.05	0.03	6.3E-02	0.33
triglycerides/hdl ratio exam 1	rs174547	11	61327359	FADS1, FADS2, FADS3	3480	0.06	0.03	1.5E-02	0.33
intermediate VLDL concentration - NMR	rs174547	11	61327359	FADS1, FADS2, FADS3	2897	0.09	0.03	1.6E-03	0.33
large VLDL concentration - NMR	rs174547	11	61327359	FADS1, FADS2, FADS3	2408	0.10	0.03	1.7E-03	0.33
small VLDL concentration - NMR	rs174547	11	61327359	FADS1, FADS2, FADS3	2744	-0.02	0.03	4.3E-01	0.33
VLDL size - NMR	rs174547	11	61327359	FADS1, FADS2, FADS3	2744	0.11	0.03	2.9E-04	0.33
apo A-I	rs1800961	20	42475778	HNF4A	3023	-0.06	0.14	6.7E-01	0.05
apo B	rs1800961	20	42475778	HNF4A	3023	-0.08	0.14	5.6E-01	0.05
apo C-III	rs1800961	20	42475778	HNF4A	2486	0.01	0.14	9.4E-01	0.05
total chol exam 1	rs1800961	20	42475778	HNF4A	3496	0.09	0.12	4.5E-01	0.05
total chol/hdl chol ratio exam 1	rs1800961	20	42475778	HNF4A	3481	0.06	0.12	6.5E-01	0.05
hdl chol exam 1	rs1800961	20	42475778	HNF4A	3495	0.00	0.12	9.8E-01	0.05
hdl-2	rs1800961	20	42475778	HNF4A	3166	0.11	0.13	4.1E-01	0.05
hdl-3	rs1800961	20	42475778	HNF4A	3009	-0.02	0.14	8.8E-01	0.05

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intermediate HDL concentration - NMR	rs1800961	20	42475778	HNF4A	2744	0.04	0.14	7.6E-01	0.05
large HDL concentration - NMR	rs1800961	20	42475778	HNF4A	2744	0.03	0.14	8.3E-01	0.05
small HDL concentration - NMR	rs1800961	20	42475778	HNF4A	2744	-0.08	0.14	5.6E-01	0.05
HDL size - NMR	rs1800961	20	42475778	HNF4A	2744	0.07	0.14	6.4E-01	0.05
IDL concentration - NMR	rs1800961	20	42475778	HNF4A	2744	0.08	0.14	5.8E-01	0.05
ldl chol exam 1	rs1800961	20	42475778	HNF4A	3458	0.02	0.12	9.0E-01	0.05
large LDL concentration - NMR	rs1800961	20	42475778	HNF4A	2744	-0.17	0.14	2.5E-01	0.05
small LDL concentration - NMR	rs1800961	20	42475778	HNF4A	2744	0.10	0.14	4.7E-01	0.05
LDL size - NMR	rs1800961	20	42475778	HNF4A	2744	-0.04	0.14	7.8E-01	0.05
lipoprotein (a)	rs1800961	20	42475778	HNF4A	2193	-0.16	0.15	3.0E-01	0.05
apo E	rs1800961	20	42475778	HNF4A	2262	0.02	0.15	8.9E-01	0.05
remnant lipoprotein chol	rs1800961	20	42475778	HNF4A	2470	-0.01	0.15	9.2E-01	0.05
remnant lipoprotein triglycerides	rs1800961	20	42475778	HNF4A	2387	-0.01	0.15	9.4E-01	0.05
triglycerides exam 1	rs1800961	20	42475778	HNF4A	3494	0.08	0.12	5.3E-01	0.05
triglycerides/hdl ratio exam 1	rs1800961	20	42475778	HNF4A	3480	0.07	0.12	5.7E-01	0.05
intermediate VLDL concentration - NMR	rs1800961	20	42475778	HNF4A	2897	-0.05	0.14	7.4E-01	0.05
large VLDL concentration - NMR	rs1800961	20	42475778	HNF4A	2408	-0.22	0.15	1.5E-01	0.05
small VLDL concentration - NMR	rs1800961	20	42475778	HNF4A	2744	0.21	0.14	1.4E-01	0.05
VLDL size - NMR	rs1800961	20	42475778	HNF4A	2744	-0.13	0.14	3.5E-01	0.05
apo A-I	rs1883025	9	106704122	ABCA1	3023	-0.08	0.03	7.1E-03	0.26
apo B	rs1883025	9	106704122	ABCA1	3023	-0.02	0.03	5.1E-01	0.26
apo C-III	rs1883025	9	106704122	ABCA1	2486	-0.05	0.03	1.7E-01	0.26
total chol exam 1	rs1883025	9	106704122	ABCA1	3496	-0.07	0.03	1.9E-02	0.26
total chol/hdl chol ratio exam 1	rs1883025	9	106704122	ABCA1	3481	0.01	0.03	7.0E-01	0.26
hdl chol exam 1	rs1883025	9	106704122	ABCA1	3495	-0.07	0.03	1.2E-02	0.26
hdl-2	rs1883025	9	106704122	ABCA1	3166	-0.07	0.03	2.6E-02	0.26
hdl-3	rs1883025	9	106704122	ABCA1	3009	-0.08	0.03	7.6E-03	0.26
intermediate HDL concentration - NMR	rs1883025	9	106704122	ABCA1	2744	0.06	0.03	8.1E-02	0.26
large HDL concentration - NMR	rs1883025	9	106704122	ABCA1	2744	-0.09	0.03	8.9E-03	0.26
small HDL concentration - NMR	rs1883025	9	106704122	ABCA1	2744	-0.08	0.03	1.5E-02	0.26
HDL size - NMR	rs1883025	9	106704122	ABCA1	2744	-0.08	0.03	1.7E-02	0.26
IDL concentration - NMR	rs1883025	9	106704122	ABCA1	2744	-0.02	0.03	6.0E-01	0.26
ldl chol exam 1	rs1883025	9	106704122	ABCA1	3458	-0.04	0.03	1.3E-01	0.26
large LDL concentration - NMR	rs1883025	9	106704122	ABCA1	2744	-0.01	0.03	6.6E-01	0.26
small LDL concentration - NMR	rs1883025	9	106704122	ABCA1	2744	0.03	0.03	3.0E-01	0.26
LDL size - NMR	rs1883025	9	106704122	ABCA1	2744	-0.02	0.03	6.0E-01	0.26
lipoprotein (a)	rs1883025	9	106704122	ABCA1	2193	-0.04	0.04	2.4E-01	0.26
apo E	rs1883025	9	106704122	ABCA1	2262	0.02	0.04	6.2E-01	0.26
remnant lipoprotein chol	rs1883025	9	106704122	ABCA1	2470	0.00	0.03	8.9E-01	0.25
remnant lipoprotein triglycerides	rs1883025	9	106704122	ABCA1	2387	0.03	0.03	3.3E-01	0.26
triglycerides exam 1	rs1883025	9	106704122	ABCA1	3494	-0.02	0.03	4.0E-01	0.26
triglycerides/hdl ratio exam 1	rs1883025	9	106704122	ABCA1	3480	0.00	0.03	9.6E-01	0.26

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intermediate VLDL concentration - NMR	rs1883025	9	106704122	ABCA1	2897	-0.03	0.03	3.0E-01	0.26
large VLDL concentration - NMR	rs1883025	9	106704122	ABCA1	2408	0.01	0.04	8.5E-01	0.26
small VLDL concentration - NMR	rs1883025	9	106704122	ABCA1	2744	-0.05	0.03	1.2E-01	0.26
VLDL size - NMR	rs1883025	9	106704122	ABCA1	2744	0.03	0.03	3.5E-01	0.26
apo A-I	rs2271293	16	66459571	LCAT	3023	0.08	0.04	6.5E-02	0.10
apo B	rs2271293	16	66459571	LCAT	3023	-0.05	0.04	2.3E-01	0.10
apo C-III	rs2271293	16	66459571	LCAT	2486	-0.01	0.05	8.5E-01	0.10
total chol exam 1	rs2271293	16	66459571	LCAT	3496	0.07	0.04	6.8E-02	0.10
total chol/hdl chol ratio exam 1	rs2271293	16	66459571	LCAT	3481	-0.05	0.04	2.0E-01	0.10
hdl chol exam 1	rs2271293	16	66459571	LCAT	3495	0.10	0.04	1.2E-02	0.10
hdl-2	rs2271293	16	66459571	LCAT	3166	0.10	0.04	2.0E-02	0.10
hdl-3	rs2271293	16	66459571	LCAT	3009	0.11	0.04	8.8E-03	0.10
intermediate HDL concentration - NMR	rs2271293	16	66459571	LCAT	2744	-0.06	0.04	2.2E-01	0.10
large HDL concentration - NMR	rs2271293	16	66459571	LCAT	2744	0.13	0.05	2.9E-03	0.10
small HDL concentration - NMR	rs2271293	16	66459571	LCAT	2744	-0.02	0.04	6.5E-01	0.10
HDL size - NMR	rs2271293	16	66459571	LCAT	2744	0.13	0.04	4.9E-03	0.10
IDL concentration - NMR	rs2271293	16	66459571	LCAT	2744	0.00	0.04	9.7E-01	0.10
ldl chol exam 1	rs2271293	16	66459571	LCAT	3458	0.04	0.04	2.6E-01	0.10
large LDL concentration - NMR	rs2271293	16	66459571	LCAT	2744	0.13	0.05	5.7E-03	0.10
small LDL concentration - NMR	rs2271293	16	66459571	LCAT	2744	-0.13	0.05	4.8E-03	0.10
LDL size - NMR	rs2271293	16	66459571	LCAT	2744	0.17	0.05	1.5E-04	0.10
lipoprotein (a)	rs2271293	16	66459571	LCAT	2193	0.04	0.05	4.6E-01	0.11
apo E	rs2271293	16	66459571	LCAT	2262	-0.04	0.05	4.4E-01	0.10
remnant lipoprotein chol	rs2271293	16	66459571	LCAT	2470	-0.10	0.05	3.5E-02	0.10
remnant lipoprotein triglycerides	rs2271293	16	66459571	LCAT	2387	-0.09	0.05	6.6E-02	0.10
triglycerides exam 1	rs2271293	16	66459571	LCAT	3494	-0.05	0.04	2.2E-01	0.10
triglycerides/hdl ratio exam 1	rs2271293	16	66459571	LCAT	3480	-0.07	0.04	5.6E-02	0.10
intermediate VLDL concentration - NMR	rs2271293	16	66459571	LCAT	2897	-0.07	0.04	1.2E-01	0.10
large VLDL concentration - NMR	rs2271293	16	66459571	LCAT	2408	-0.07	0.05	1.7E-01	0.10
small VLDL concentration - NMR	rs2271293	16	66459571	LCAT	2744	-0.01	0.04	8.5E-01	0.10
VLDL size - NMR	rs2271293	16	66459571	LCAT	2744	-0.06	0.04	2.1E-01	0.10
apo A-I	rs2338104	12	108379551	MMAB, MVK	3023	0.04	0.03	9.5E-02	0.55
apo B	rs2338104	12	108379551	MMAB, MVK	3023	-0.03	0.03	3.1E-01	0.55
apo C-III	rs2338104	12	108379551	MMAB, MVK	2486	0.03	0.03	2.9E-01	0.54
total chol exam 1	rs2338104	12	108379551	MMAB, MVK	3496	0.06	0.02	1.7E-02	0.55
total chol/hdl chol ratio exam 1	rs2338104	12	108379551	MMAB, MVK	3481	-0.02	0.02	4.2E-01	0.55
hdl chol exam 1	rs2338104	12	108379551	MMAB, MVK	3495	0.06	0.02	1.3E-02	0.55
hdl-2	rs2338104	12	108379551	MMAB, MVK	3166	0.05	0.03	5.1E-02	0.55
hdl-3	rs2338104	12	108379551	MMAB, MVK	3009	0.08	0.03	3.6E-03	0.55
intermediate HDL concentration - NMR	rs2338104	12	108379551	MMAB, MVK	2744	-0.02	0.03	4.2E-01	0.55
large HDL concentration - NMR	rs2338104	12	108379551	MMAB, MVK	2744	0.07	0.03	1.0E-02	0.55
small HDL concentration - NMR	rs2338104	12	108379551	MMAB, MVK	2744	0.00	0.03	8.9E-01	0.55

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HDL size - NMR	rs2338104	12	108379551	MMAB, MVK	2744	0.06	0.03	3.7E-02	0.55
IDL concentration - NMR	rs2338104	12	108379551	MMAB, MVK	2744	0.05	0.03	9.1E-02	0.55
ldl chol exam 1	rs2338104	12	108379551	MMAB, MVK	3458	0.02	0.02	3.3E-01	0.55
large LDL concentration - NMR	rs2338104	12	108379551	MMAB, MVK	2744	-0.03	0.03	2.9E-01	0.55
small LDL concentration - NMR	rs2338104	12	108379551	MMAB, MVK	2744	0.02	0.03	5.8E-01	0.55
LDL size - NMR	rs2338104	12	108379551	MMAB, MVK	2744	-0.01	0.03	8.4E-01	0.55
lipoprotein (a)	rs2338104	12	108379551	MMAB, MVK	2193	0.01	0.03	6.9E-01	0.55
apo E	rs2338104	12	108379551	MMAB, MVK	2262	0.01	0.03	6.3E-01	0.56
remnant lipoprotein chol	rs2338104	12	108379551	MMAB, MVK	2470	0.02	0.03	4.9E-01	0.55
remnant lipoprotein triglycerides	rs2338104	12	108379551	MMAB, MVK	2387	-0.01	0.03	6.9E-01	0.55
triglycerides exam 1	rs2338104	12	108379551	MMAB, MVK	3494	0.03	0.02	2.2E-01	0.55
triglycerides/hdl ratio exam 1	rs2338104	12	108379551	MMAB, MVK	3480	0.00	0.02	8.5E-01	0.55
intermediate VLDL concentration - NMR	rs2338104	12	108379551	MMAB, MVK	2897	0.00	0.03	9.9E-01	0.55
large VLDL concentration - NMR	rs2338104	12	108379551	MMAB, MVK	2408	0.00	0.03	8.7E-01	0.55
small VLDL concentration - NMR	rs2338104	12	108379551	MMAB, MVK	2744	-0.04	0.03	1.4E-01	0.55
VLDL size - NMR	rs2338104	12	108379551	MMAB, MVK	2744	0.00	0.03	8.8E-01	0.55
apo A-I	rs2650000	12	119873345	TCF1	3023	0.03	0.03	3.1E-01	0.36
apo B	rs2650000	12	119873345	TCF1	3023	0.06	0.03	2.9E-02	0.36
apo C-III	rs2650000	12	119873345	TCF1	2486	0.05	0.03	7.9E-02	0.36
total chol exam 1	rs2650000	12	119873345	TCF1	3496	0.08	0.02	1.5E-03	0.36
total chol/hdl chol ratio exam 1	rs2650000	12	119873345	TCF1	3481	0.03	0.03	2.2E-01	0.36
hdl chol exam 1	rs2650000	12	119873345	TCF1	3495	0.01	0.03	6.4E-01	0.36
hdl-2	rs2650000	12	119873345	TCF1	3166	0.01	0.03	6.8E-01	0.36
hdl-3	rs2650000	12	119873345	TCF1	3009	0.00	0.03	9.8E-01	0.36
intermediate HDL concentration - NMR	rs2650000	12	119873345	TCF1	2744	0.03	0.03	2.7E-01	0.36
large HDL concentration - NMR	rs2650000	12	119873345	TCF1	2744	0.04	0.03	1.3E-01	0.36
small HDL concentration - NMR	rs2650000	12	119873345	TCF1	2744	-0.05	0.03	5.9E-02	0.36
HDL size - NMR	rs2650000	12	119873345	TCF1	2744	0.04	0.03	1.2E-01	0.36
IDL concentration - NMR	rs2650000	12	119873345	TCF1	2744	-0.01	0.03	7.2E-01	0.36
ldl chol exam 1	rs2650000	12	119873345	TCF1	3458	0.06	0.03	1.2E-02	0.36
large LDL concentration - NMR	rs2650000	12	119873345	TCF1	2744	0.09	0.03	2.6E-03	0.36
small LDL concentration - NMR	rs2650000	12	119873345	TCF1	2744	-0.01	0.03	7.9E-01	0.36
LDL size - NMR	rs2650000	12	119873345	TCF1	2744	0.06	0.03	3.0E-02	0.36
lipoprotein (a)	rs2650000	12	119873345	TCF1	2193	0.01	0.03	7.2E-01	0.36
apo E	rs2650000	12	119873345	TCF1	2262	-0.04	0.03	1.6E-01	0.35
remnant lipoprotein chol	rs2650000	12	119873345	TCF1	2470	0.00	0.03	9.9E-01	0.36
remnant lipoprotein triglycerides	rs2650000	12	119873345	TCF1	2387	0.00	0.03	9.1E-01	0.36
triglycerides exam 1	rs2650000	12	119873345	TCF1	3494	0.04	0.03	8.4E-02	0.36
triglycerides/hdl ratio exam 1	rs2650000	12	119873345	TCF1	3480	0.03	0.03	2.0E-01	0.36
intermediate VLDL concentration - NMR	rs2650000	12	119873345	TCF1	2897	0.02	0.03	4.2E-01	0.36
large VLDL concentration - NMR	rs2650000	12	119873345	TCF1	2408	-0.01	0.03	7.1E-01	0.36
small VLDL concentration - NMR	rs2650000	12	119873345	TCF1	2744	0.08	0.03	5.1E-03	0.36

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VLDL size - NMR	rs2650000	12	119873345	TCF1	2744	-0.04	0.03	1.6E-01	0.36
apo A-I	rs2954029	8	126560154	TRIB1	3023	0.02	0.03	3.7E-01	0.45
apo B	rs2954029	8	126560154	TRIB1	3023	-0.09	0.03	9.7E-04	0.45
apo C-III	rs2954029	8	126560154	TRIB1	2486	-0.10	0.03	5.8E-04	0.45
total chol exam 1	rs2954029	8	126560154	TRIB1	3496	-0.06	0.02	1.5E-02	0.44
total chol/hdl chol ratio exam 1	rs2954029	8	126560154	TRIB1	3481	-0.07	0.02	7.4E-03	0.44
hdl chol exam 1	rs2954029	8	126560154	TRIB1	3495	0.03	0.02	2.0E-01	0.44
hdl-2	rs2954029	8	126560154	TRIB1	3166	0.04	0.03	1.5E-01	0.45
hdl-3	rs2954029	8	126560154	TRIB1	3009	0.04	0.03	1.6E-01	0.45
intermediate HDL concentration - NMR	rs2954029	8	126560154	TRIB1	2744	0.02	0.03	4.2E-01	0.45
large HDL concentration - NMR	rs2954029	8	126560154	TRIB1	2744	0.05	0.03	5.3E-02	0.45
small HDL concentration - NMR	rs2954029	8	126560154	TRIB1	2744	-0.06	0.03	2.1E-02	0.45
HDL size - NMR	rs2954029	8	126560154	TRIB1	2744	0.05	0.03	6.2E-02	0.45
IDL concentration - NMR	rs2954029	8	126560154	TRIB1	2744	-0.05	0.03	5.0E-02	0.45
ldl chol exam 1	rs2954029	8	126560154	TRIB1	3458	-0.06	0.02	1.2E-02	0.44
large LDL concentration - NMR	rs2954029	8	126560154	TRIB1	2744	0.01	0.03	6.0E-01	0.45
small LDL concentration - NMR	rs2954029	8	126560154	TRIB1	2744	-0.09	0.03	1.1E-03	0.45
LDL size - NMR	rs2954029	8	126560154	TRIB1	2744	0.07	0.03	1.6E-02	0.45
lipoprotein (a)	rs2954029	8	126560154	TRIB1	2193	-0.08	0.03	1.1E-02	0.45
apo E	rs2954029	8	126560154	TRIB1	2262	-0.02	0.03	5.2E-01	0.45
remnant lipoprotein chol	rs2954029	8	126560154	TRIB1	2470	-0.05	0.03	6.2E-02	0.45
remnant lipoprotein triglycerides	rs2954029	8	126560154	TRIB1	2387	-0.06	0.03	2.9E-02	0.46
triglycerides exam 1	rs2954029	8	126560154	TRIB1	3494	-0.06	0.02	1.6E-02	0.44
triglycerides/hdl ratio exam 1	rs2954029	8	126560154	TRIB1	3480	-0.06	0.02	1.3E-02	0.44
intermediate VLDL concentration - NMR	rs2954029	8	126560154	TRIB1	2897	-0.06	0.03	2.4E-02	0.45
large VLDL concentration - NMR	rs2954029	8	126560154	TRIB1	2408	-0.03	0.03	2.5E-01	0.45
small VLDL concentration - NMR	rs2954029	8	126560154	TRIB1	2744	-0.03	0.03	3.4E-01	0.45
VLDL size - NMR	rs2954029	8	126560154	TRIB1	2744	-0.02	0.03	5.8E-01	0.45
apo A-I	rs2967605	19	8375738	ANGPTL4	3023	-0.08	0.05	1.3E-01	0.16
apo B	rs2967605	19	8375738	ANGPTL4	3023	0.09	0.05	8.2E-02	0.16
apo C-III	rs2967605	19	8375738	ANGPTL4	2486	0.02	0.06	7.7E-01	0.16
total chol exam 1	rs2967605	19	8375738	ANGPTL4	3496	0.02	0.05	6.7E-01	0.16
total chol/hdl chol ratio exam 1	rs2967605	19	8375738	ANGPTL4	3481	0.12	0.05	1.6E-02	0.16
hdl chol exam 1	rs2967605	19	8375738	ANGPTL4	3495	-0.11	0.05	2.1E-02	0.16
hdl-2	rs2967605	19	8375738	ANGPTL4	3166	-0.13	0.05	9.9E-03	0.16
hdl-3	rs2967605	19	8375738	ANGPTL4	3009	-0.16	0.05	3.8E-03	0.16
intermediate HDL concentration - NMR	rs2967605	19	8375738	ANGPTL4	2744	0.03	0.06	5.9E-01	0.16
large HDL concentration - NMR	rs2967605	19	8375738	ANGPTL4	2744	-0.15	0.06	7.1E-03	0.16
small HDL concentration - NMR	rs2967605	19	8375738	ANGPTL4	2744	0.01	0.06	8.9E-01	0.16
HDL size - NMR	rs2967605	19	8375738	ANGPTL4	2744	-0.14	0.06	1.1E-02	0.16
IDL concentration - NMR	rs2967605	19	8375738	ANGPTL4	2744	0.08	0.06	1.4E-01	0.16
ldl chol exam 1	rs2967605	19	8375738	ANGPTL4	3458	0.06	0.05	2.1E-01	0.16

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large LDL concentration - NMR	rs2967605	19	8375738	ANGPTL4	2744	-0.10	0.06	8.5E-02	0.16
small LDL concentration - NMR	rs2967605	19	8375738	ANGPTL4	2744	0.14	0.06	1.2E-02	0.16
LDL size - NMR	rs2967605	19	8375738	ANGPTL4	2744	-0.15	0.06	9.6E-03	0.16
lipoprotein (a)	rs2967605	19	8375738	ANGPTL4	2193	-0.02	0.06	7.4E-01	0.16
apo E	rs2967605	19	8375738	ANGPTL4	2262	0.05	0.06	3.9E-01	0.16
remnant lipoprotein chol	rs2967605	19	8375738	ANGPTL4	2470	0.02	0.06	6.8E-01	0.16
remnant lipoprotein triglycerides	rs2967605	19	8375738	ANGPTL4	2387	-0.02	0.06	7.0E-01	0.16
triglycerides exam 1	rs2967605	19	8375738	ANGPTL4	3494	0.06	0.05	2.2E-01	0.16
triglycerides/hdl ratio exam 1	rs2967605	19	8375738	ANGPTL4	3480	0.09	0.05	6.1E-02	0.16
intermediate VLDL concentration - NMR	rs2967605	19	8375738	ANGPTL4	2897	0.06	0.05	2.5E-01	0.16
large VLDL concentration - NMR	rs2967605	19	8375738	ANGPTL4	2408	-0.03	0.06	5.7E-01	0.16
small VLDL concentration - NMR	rs2967605	19	8375738	ANGPTL4	2744	-0.09	0.06	1.1E-01	0.16
VLDL size - NMR	rs2967605	19	8375738	ANGPTL4	2744	0.02	0.06	7.5E-01	0.16
hdl chol exam 1	rs3798220	6	160881127	LPA	3500	-0.09	0.10	3.5E-01	0.02
hdl-3	rs3798220	6	160881127	LPA	3010	-0.12	0.11	2.8E-01	0.02
hdl-2	rs3798220	6	160881127	LPA	3168	-0.03	0.10	8.0E-01	0.02
total chol exam 1	rs3798220	6	160881127	LPA	3501	0.26	0.10	6.6E-03	0.02
total chol/hdl chol ratio exam 1	rs3798220	6	160881127	LPA	3486	0.21	0.10	3.6E-02	0.02
ldl chol exam 1	rs3798220	6	160881127	LPA	3463	0.33	0.10	6.6E-04	0.02
lipoprotein (a)	rs3798220	6	160881127	LPA	2197	1.84	0.12	1.6E-49	0.02
triglycerides exam 1	rs3798220	6	160881127	LPA	3499	0.03	0.10	7.3E-01	0.02
triglycerides/hdl ratio exam 1	rs3798220	6	160881127	LPA	3485	0.05	0.10	6.1E-01	0.02
HDL size - NMR	rs3798220	6	160881127	LPA	2745	0.03	0.11	7.6E-01	0.02
LDL size - NMR	rs3798220	6	160881127	LPA	2745	0.07	0.11	5.2E-01	0.02
VLDL size - NMR	rs3798220	6	160881127	LPA	2745	-0.10	0.11	3.7E-01	0.02
small HDL concentration - NMR	rs3798220	6	160881127	LPA	2745	-0.01	0.11	9.1E-01	0.02
intermediate HDL concentration - NMR	rs3798220	6	160881127	LPA	2745	-0.08	0.11	4.9E-01	0.02
large HDL concentration - NMR	rs3798220	6	160881127	LPA	2745	-0.03	0.11	8.1E-01	0.02
small LDL concentration - NMR	rs3798220	6	160881127	LPA	2745	-0.02	0.11	8.3E-01	0.02
large LDL concentration - NMR	rs3798220	6	160881127	LPA	2745	0.10	0.11	3.5E-01	0.02
small VLDL concentration - NMR	rs3798220	6	160881127	LPA	2745	0.21	0.11	5.9E-02	0.02
intermediate VLDL concentration - NMR	rs3798220	6	160881127	LPA	2899	-0.14	0.11	1.9E-01	0.02
IDL concentration - NMR	rs3798220	6	160881127	LPA	2745	-0.10	0.11	3.5E-01	0.02
large VLDL concentration - NMR	rs3798220	6	160881127	LPA	2409	0.05	0.12	6.6E-01	0.02
remnant lipoprotein chol	rs3798220	6	160881127	LPA	2472	0.20	0.12	1.1E-01	0.02
remnant lipoprotein triglycerides	rs3798220	6	160881127	LPA	2388	-0.02	0.12	8.5E-01	0.02
apo E	rs3798220	6	160881127	LPA	2268	0.12	0.13	3.7E-01	0.02
apo A-I	rs3798220	6	160881127	LPA	3024	-0.06	0.11	5.5E-01	0.02
apo B	rs3798220	6	160881127	LPA	3024	0.22	0.11	3.8E-02	0.02
apo C-III	rs3798220	6	160881127	LPA	2490	0.01	0.11	9.1E-01	0.02
apo A-I	rs3846663	5	74691482	HMGCR	3023	-0.08	0.03	5.0E-03	0.37
apo B	rs3846663	5	74691482	HMGCR	3023	0.07	0.03	1.5E-02	0.37

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apo C-III	rs3846663	5	74691482	HMGCR	2486	-0.02	0.03	5.4E-01	0.37
total chol exam 1	rs3846663	5	74691482	HMGCR	3496	0.06	0.02	1.5E-02	0.37
total chol/hdl chol ratio exam 1	rs3846663	5	74691482	HMGCR	3481	0.04	0.02	1.1E-01	0.37
hdl chol exam 1	rs3846663	5	74691482	HMGCR	3495	0.00	0.02	8.5E-01	0.37
hdl-2	rs3846663	5	74691482	HMGCR	3166	-0.02	0.03	4.8E-01	0.38
hdl-3	rs3846663	5	74691482	HMGCR	3009	-0.05	0.03	7.1E-02	0.37
intermediate HDL concentration - NMR	rs3846663	5	74691482	HMGCR	2744	-0.07	0.03	9.7E-03	0.37
large HDL concentration - NMR	rs3846663	5	74691482	HMGCR	2744	-0.03	0.03	3.4E-01	0.37
small HDL concentration - NMR	rs3846663	5	74691482	HMGCR	2744	0.04	0.03	1.2E-01	0.37
HDL size - NMR	rs3846663	5	74691482	HMGCR	2744	0.00	0.03	9.0E-01	0.37
IDL concentration - NMR	rs3846663	5	74691482	HMGCR	2744	0.04	0.03	1.3E-01	0.37
ldl chol exam 1	rs3846663	5	74691482	HMGCR	3458	0.07	0.02	2.9E-03	0.37
large LDL concentration - NMR	rs3846663	5	74691482	HMGCR	2744	0.04	0.03	2.1E-01	0.37
small LDL concentration - NMR	rs3846663	5	74691482	HMGCR	2744	0.05	0.03	1.1E-01	0.37
LDL size - NMR	rs3846663	5	74691482	HMGCR	2744	-0.02	0.03	5.5E-01	0.37
lipoprotein (a)	rs3846663	5	74691482	HMGCR	2193	0.00	0.03	9.4E-01	0.38
apo E	rs3846663	5	74691482	HMGCR	2262	0.01	0.03	7.5E-01	0.37
remnant lipoprotein chol	rs3846663	5	74691482	HMGCR	2470	0.01	0.03	7.3E-01	0.37
remnant lipoprotein triglycerides	rs3846663	5	74691482	HMGCR	2387	0.02	0.03	5.3E-01	0.37
triglycerides exam 1	rs3846663	5	74691482	HMGCR	3494	-0.02	0.02	3.4E-01	0.37
triglycerides/hdl ratio exam 1	rs3846663	5	74691482	HMGCR	3480	-0.02	0.02	4.6E-01	0.37
intermediate VLDL concentration - NMR	rs3846663	5	74691482	HMGCR	2897	0.00	0.03	9.2E-01	0.38
large VLDL concentration - NMR	rs3846663	5	74691482	HMGCR	2408	0.02	0.03	5.4E-01	0.38
small VLDL concentration - NMR	rs3846663	5	74691482	HMGCR	2744	0.04	0.03	1.5E-01	0.37
VLDL size - NMR	rs3846663	5	74691482	HMGCR	2744	-0.01	0.03	6.5E-01	0.37
apo A-I	rs4420638	19	50114786	APOE	3023	0.25	0.09	4.9E-03	0.16
apo B	rs4420638	19	50114786	APOE	3023	0.35	0.09	6.5E-05	0.16
apo C-III	rs4420638	19	50114786	APOE	2486	0.08	0.10	4.1E-01	0.16
total chol exam 1	rs4420638	19	50114786	APOE	3496	0.25	0.08	1.9E-03	0.16
total chol/hdl chol ratio exam 1	rs4420638	19	50114786	APOE	3481	0.13	0.08	1.2E-01	0.16
hdl chol exam 1	rs4420638	19	50114786	APOE	3495	0.03	0.08	6.8E-01	0.16
hdl-2	rs4420638	19	50114786	APOE	3166	0.03	0.09	7.3E-01	0.16
hdl-3	rs4420638	19	50114786	APOE	3009	0.09	0.09	3.1E-01	0.16
intermediate HDL concentration - NMR	rs4420638	19	50114786	APOE	2744	0.14	0.09	1.5E-01	0.16
large HDL concentration - NMR	rs4420638	19	50114786	APOE	2744	0.11	0.09	2.4E-01	0.16
small HDL concentration - NMR	rs4420638	19	50114786	APOE	2744	-0.08	0.09	3.9E-01	0.16
HDL size - NMR	rs4420638	19	50114786	APOE	2744	0.11	0.09	2.5E-01	0.16
IDL concentration - NMR	rs4420638	19	50114786	APOE	2744	-0.06	0.09	5.0E-01	0.16
ldl chol exam 1	rs4420638	19	50114786	APOE	3458	0.25	0.08	1.7E-03	0.16
large LDL concentration - NMR	rs4420638	19	50114786	APOE	2744	0.17	0.09	7.4E-02	0.16
small LDL concentration - NMR	rs4420638	19	50114786	APOE	2744	0.08	0.09	4.1E-01	0.16
LDL size - NMR	rs4420638	19	50114786	APOE	2744	0.03	0.09	7.7E-01	0.16

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lipoprotein (a)	rs4420638	19	50114786	APOE	2193	0.07	0.10	5.2E-01	0.16
apo E	rs4420638	19	50114786	APOE	2262	-0.55	0.10	3.3E-08	0.16
remnant lipoprotein chol	rs4420638	19	50114786	APOE	2470	0.12	0.10	2.2E-01	0.16
remnant lipoprotein triglycerides	rs4420638	19	50114786	APOE	2387	0.21	0.10	3.5E-02	0.16
triglycerides exam 1	rs4420638	19	50114786	APOE	3494	0.09	0.08	2.6E-01	0.16
triglycerides/hdl ratio exam 1	rs4420638	19	50114786	APOE	3480	0.07	0.08	4.2E-01	0.16
intermediate VLDL concentration - NMR	rs4420638	19	50114786	APOE	2897	-0.01	0.09	8.8E-01	0.16
large VLDL concentration - NMR	rs4420638	19	50114786	APOE	2408	0.00	0.10	9.9E-01	0.16
small VLDL concentration - NMR	rs4420638	19	50114786	APOE	2744	0.01	0.09	9.1E-01	0.16
VLDL size - NMR	rs4420638	19	50114786	APOE	2744	0.08	0.09	4.0E-01	0.16
apo A-I	rs471364	9	15279578	C9orf52	3023	-0.08	0.04	4.4E-02	0.12
apo B	rs471364	9	15279578	C9orf52	3023	0.05	0.04	1.9E-01	0.12
apo C-III	rs471364	9	15279578	C9orf52	2486	-0.02	0.04	5.9E-01	0.11
total chol exam 1	rs471364	9	15279578	C9orf52	3496	0.01	0.04	8.4E-01	0.12
total chol/hdl chol ratio exam 1	rs471364	9	15279578	C9orf52	3481	0.11	0.04	4.7E-03	0.12
hdl chol exam 1	rs471364	9	15279578	C9orf52	3495	-0.12	0.04	1.3E-03	0.12
hdl-2	rs471364	9	15279578	C9orf52	3166	-0.05	0.04	2.5E-01	0.12
hdl-3	rs471364	9	15279578	C9orf52	3009	-0.08	0.04	5.1E-02	0.12
intermediate HDL concentration - NMR	rs471364	9	15279578	C9orf52	2744	-0.01	0.04	8.6E-01	0.12
large HDL concentration - NMR	rs471364	9	15279578	C9orf52	2744	-0.07	0.04	7.6E-02	0.12
small HDL concentration - NMR	rs471364	9	15279578	C9orf52	2744	-0.02	0.04	5.8E-01	0.12
HDL size - NMR	rs471364	9	15279578	C9orf52	2744	-0.08	0.04	4.2E-02	0.12
IDL concentration - NMR	rs471364	9	15279578	C9orf52	2744	0.03	0.04	5.2E-01	0.12
ldl chol exam 1	rs471364	9	15279578	C9orf52	3458	0.06	0.04	1.1E-01	0.12
large LDL concentration - NMR	rs471364	9	15279578	C9orf52	2744	0.02	0.04	6.3E-01	0.12
small LDL concentration - NMR	rs471364	9	15279578	C9orf52	2744	0.02	0.04	5.8E-01	0.12
LDL size - NMR	rs471364	9	15279578	C9orf52	2744	0.00	0.04	9.6E-01	0.12
lipoprotein (a)	rs471364	9	15279578	C9orf52	2193	0.02	0.05	6.4E-01	0.12
apo E	rs471364	9	15279578	C9orf52	2262	-0.02	0.05	7.2E-01	0.11
remnant lipoprotein chol	rs471364	9	15279578	C9orf52	2470	0.07	0.04	1.1E-01	0.12
remnant lipoprotein triglycerides	rs471364	9	15279578	C9orf52	2387	0.11	0.04	1.7E-02	0.12
triglycerides exam 1	rs471364	9	15279578	C9orf52	3494	-0.02	0.04	5.9E-01	0.12
triglycerides/hdl ratio exam 1	rs471364	9	15279578	C9orf52	3480	0.03	0.04	5.0E-01	0.12
intermediate VLDL concentration - NMR	rs471364	9	15279578	C9orf52	2897	0.04	0.04	3.6E-01	0.12
large VLDL concentration - NMR	rs471364	9	15279578	C9orf52	2408	0.07	0.04	9.9E-02	0.13
small VLDL concentration - NMR	rs471364	9	15279578	C9orf52	2744	-0.02	0.04	6.2E-01	0.12
VLDL size - NMR	rs471364	9	15279578	C9orf52	2744	0.05	0.04	2.7E-01	0.12
apo A-I	rs4846914	1	228362314	GALNT2	3023	-0.03	0.03	2.2E-01	0.39
apo B	rs4846914	1	228362314	GALNT2	3023	0.03	0.03	3.3E-01	0.39
apo C-III	rs4846914	1	228362314	GALNT2	2486	0.02	0.03	4.3E-01	0.39
total chol exam 1	rs4846914	1	228362314	GALNT2	3496	0.03	0.02	1.8E-01	0.40
total chol/hdl chol ratio exam 1	rs4846914	1	228362314	GALNT2	3481	0.05	0.02	3.0E-02	0.40

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hdl chol exam 1	rs4846914	1	228362314	GALNT2	3495	-0.04	0.02	1.2E-01	0.40
hdl-2	rs4846914	1	228362314	GALNT2	3166	-0.06	0.03	2.8E-02	0.40
hdl-3	rs4846914	1	228362314	GALNT2	3009	-0.04	0.03	1.8E-01	0.40
intermediate HDL concentration - NMR	rs4846914	1	228362314	GALNT2	2744	-0.03	0.03	2.9E-01	0.40
large HDL concentration - NMR	rs4846914	1	228362314	GALNT2	2744	-0.08	0.03	6.8E-03	0.40
small HDL concentration - NMR	rs4846914	1	228362314	GALNT2	2744	0.04	0.03	1.4E-01	0.40
HDL size - NMR	rs4846914	1	228362314	GALNT2	2744	-0.06	0.03	3.9E-02	0.40
IDL concentration - NMR	rs4846914	1	228362314	GALNT2	2744	0.00	0.03	9.7E-01	0.40
ldl chol exam 1	rs4846914	1	228362314	GALNT2	3458	0.03	0.02	1.7E-01	0.40
large LDL concentration - NMR	rs4846914	1	228362314	GALNT2	2744	-0.04	0.03	1.8E-01	0.40
small LDL concentration - NMR	rs4846914	1	228362314	GALNT2	2744	0.03	0.03	2.4E-01	0.40
LDL size - NMR	rs4846914	1	228362314	GALNT2	2744	-0.08	0.03	7.0E-03	0.40
lipoprotein (a)	rs4846914	1	228362314	GALNT2	2193	-0.03	0.03	2.8E-01	0.39
apo E	rs4846914	1	228362314	GALNT2	2262	-0.01	0.03	8.4E-01	0.40
remnant lipoprotein chol	rs4846914	1	228362314	GALNT2	2470	0.03	0.03	2.6E-01	0.40
remnant lipoprotein triglycerides	rs4846914	1	228362314	GALNT2	2387	0.02	0.03	5.1E-01	0.40
triglycerides exam 1	rs4846914	1	228362314	GALNT2	3494	0.03	0.02	1.6E-01	0.40
triglycerides/hdl ratio exam 1	rs4846914	1	228362314	GALNT2	3480	0.04	0.02	9.1E-02	0.40
intermediate VLDL concentration - NMR	rs4846914	1	228362314	GALNT2	2897	0.04	0.03	1.2E-01	0.39
large VLDL concentration - NMR	rs4846914	1	228362314	GALNT2	2408	0.04	0.03	2.2E-01	0.40
small VLDL concentration - NMR	rs4846914	1	228362314	GALNT2	2744	-0.03	0.03	3.4E-01	0.40
VLDL size - NMR	rs4846914	1	228362314	GALNT2	2744	0.04	0.03	1.4E-01	0.40
apo A-I	rs4939883	18	45421212	LIPG	3023	-0.14	0.04	1.2E-04	0.17
apo B	rs4939883	18	45421212	LIPG	3023	0.00	0.04	9.8E-01	0.17
apo C-III	rs4939883	18	45421212	LIPG	2486	-0.09	0.04	2.5E-02	0.17
total chol exam 1	rs4939883	18	45421212	LIPG	3496	-0.06	0.03	6.8E-02	0.17
total chol/hdl chol ratio exam 1	rs4939883	18	45421212	LIPG	3481	0.08	0.03	1.0E-02	0.17
hdl chol exam 1	rs4939883	18	45421212	LIPG	3495	-0.14	0.03	2.1E-05	0.17
hdl-2	rs4939883	18	45421212	LIPG	3166	-0.13	0.03	2.5E-04	0.17
hdl-3	rs4939883	18	45421212	LIPG	3009	-0.15	0.04	3.3E-05	0.17
intermediate HDL concentration - NMR	rs4939883	18	45421212	LIPG	2744	-0.08	0.04	4.0E-02	0.17
large HDL concentration - NMR	rs4939883	18	45421212	LIPG	2744	-0.15	0.04	8.1E-05	0.17
small HDL concentration - NMR	rs4939883	18	45421212	LIPG	2744	0.06	0.04	9.0E-02	0.17
HDL size - NMR	rs4939883	18	45421212	LIPG	2744	-0.12	0.04	1.2E-03	0.17
IDL concentration - NMR	rs4939883	18	45421212	LIPG	2744	0.01	0.04	8.5E-01	0.17
ldl chol exam 1	rs4939883	18	45421212	LIPG	3458	-0.01	0.03	7.9E-01	0.17
large LDL concentration - NMR	rs4939883	18	45421212	LIPG	2744	-0.02	0.04	5.1E-01	0.17
small LDL concentration - NMR	rs4939883	18	45421212	LIPG	2744	0.05	0.04	2.0E-01	0.17
LDL size - NMR	rs4939883	18	45421212	LIPG	2744	-0.05	0.04	1.5E-01	0.17
lipoprotein (a)	rs4939883	18	45421212	LIPG	2193	0.00	0.04	9.6E-01	0.17
apo E	rs4939883	18	45421212	LIPG	2262	-0.02	0.04	6.6E-01	0.16
remnant lipoprotein chol	rs4939883	18	45421212	LIPG	2470	-0.04	0.04	2.5E-01	0.16

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remnant lipoprotein triglycerides	rs4939883	18	45421212	LIPG	2387	-0.03	0.04	5.0E-01	0.16
triglycerides exam 1	rs4939883	18	45421212	LIPG	3494	0.00	0.03	9.9E-01	0.17
triglycerides/hdl ratio exam 1	rs4939883	18	45421212	LIPG	3480	0.05	0.03	1.6E-01	0.17
intermediate VLDL concentration - NMR	rs4939883	18	45421212	LIPG	2897	-0.02	0.04	6.2E-01	0.17
large VLDL concentration - NMR	rs4939883	18	45421212	LIPG	2408	0.00	0.04	9.9E-01	0.17
small VLDL concentration - NMR	rs4939883	18	45421212	LIPG	2744	0.01	0.04	7.3E-01	0.17
VLDL size - NMR	rs4939883	18	45421212	LIPG	2744	0.00	0.04	9.8E-01	0.17
apo A-I	rs515135	2	21139562	APOB	3023	0.01	0.03	7.5E-01	0.20
apo B	rs515135	2	21139562	APOB	3023	-0.16	0.03	9.6E-07	0.20
apo C-III	rs515135	2	21139562	APOB	2486	-0.01	0.04	7.9E-01	0.20
total chol exam 1	rs515135	2	21139562	APOB	3496	-0.12	0.03	7.5E-05	0.20
total chol/hdl chol ratio exam 1	rs515135	2	21139562	APOB	3481	-0.10	0.03	6.1E-04	0.20
hdl chol exam 1	rs515135	2	21139562	APOB	3495	0.04	0.03	2.3E-01	0.20
hdl-2	rs515135	2	21139562	APOB	3166	0.00	0.03	9.6E-01	0.20
hdl-3	rs515135	2	21139562	APOB	3009	0.04	0.03	2.0E-01	0.20
intermediate HDL concentration - NMR	rs515135	2	21139562	APOB	2744	0.03	0.03	4.1E-01	0.20
large HDL concentration - NMR	rs515135	2	21139562	APOB	2744	0.00	0.03	9.6E-01	0.20
small HDL concentration - NMR	rs515135	2	21139562	APOB	2744	0.01	0.03	7.9E-01	0.20
HDL size - NMR	rs515135	2	21139562	APOB	2744	-0.02	0.03	4.7E-01	0.20
IDL concentration - NMR	rs515135	2	21139562	APOB	2744	-0.03	0.03	4.5E-01	0.20
ldl chol exam 1	rs515135	2	21139562	APOB	3458	-0.14	0.03	5.1E-06	0.20
large LDL concentration - NMR	rs515135	2	21139562	APOB	2744	-0.11	0.03	1.0E-03	0.20
small LDL concentration - NMR	rs515135	2	21139562	APOB	2744	-0.07	0.03	3.7E-02	0.20
LDL size - NMR	rs515135	2	21139562	APOB	2744	-0.01	0.03	6.6E-01	0.20
lipoprotein (a)	rs515135	2	21139562	APOB	2193	-0.01	0.04	7.5E-01	0.20
apo E	rs515135	2	21139562	APOB	2262	-0.03	0.04	3.9E-01	0.20
remnant lipoprotein chol	rs515135	2	21139562	APOB	2470	-0.04	0.04	2.5E-01	0.20
remnant lipoprotein triglycerides	rs515135	2	21139562	APOB	2387	-0.02	0.04	5.9E-01	0.20
triglycerides exam 1	rs515135	2	21139562	APOB	3494	-0.03	0.03	4.0E-01	0.20
triglycerides/hdl ratio exam 1	rs515135	2	21139562	APOB	3480	-0.03	0.03	2.8E-01	0.20
intermediate VLDL concentration - NMR	rs515135	2	21139562	APOB	2897	0.01	0.03	7.1E-01	0.20
large VLDL concentration - NMR	rs515135	2	21139562	APOB	2408	-0.06	0.04	1.2E-01	0.20
small VLDL concentration - NMR	rs515135	2	21139562	APOB	2744	-0.08	0.03	1.3E-02	0.20
VLDL size - NMR	rs515135	2	21139562	APOB	2744	0.00	0.03	9.1E-01	0.20
apo A-I	rs6511720	19	11063306	LDLR	3023	0.06	0.07	4.0E-01	0.10
apo B	rs6511720	19	11063306	LDLR	3023	-0.11	0.07	1.0E-01	0.10
apo C-III	rs6511720	19	11063306	LDLR	2486	0.08	0.07	2.9E-01	0.10
total chol exam 1	rs6511720	19	11063306	LDLR	3496	-0.22	0.06	3.4E-04	0.10
total chol/hdl chol ratio exam 1	rs6511720	19	11063306	LDLR	3481	-0.17	0.06	5.4E-03	0.10
hdl chol exam 1	rs6511720	19	11063306	LDLR	3495	0.05	0.06	3.9E-01	0.10
hdl-2	rs6511720	19	11063306	LDLR	3166	0.11	0.07	1.0E-01	0.10
hdl-3	rs6511720	19	11063306	LDLR	3009	0.14	0.07	4.4E-02	0.10

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intermediate HDL concentration - NMR	rs6511720	19	11063306	LDLR	2744	0.03	0.07	6.6E-01	0.10
large HDL concentration - NMR	rs6511720	19	11063306	LDLR	2744	0.06	0.07	3.9E-01	0.10
small HDL concentration - NMR	rs6511720	19	11063306	LDLR	2744	-0.06	0.07	4.3E-01	0.10
HDL size - NMR	rs6511720	19	11063306	LDLR	2744	0.07	0.07	3.0E-01	0.10
IDL concentration - NMR	rs6511720	19	11063306	LDLR	2744	-0.11	0.07	1.0E-01	0.10
ldl chol exam 1	rs6511720	19	11063306	LDLR	3458	-0.22	0.06	3.0E-04	0.10
large LDL concentration - NMR	rs6511720	19	11063306	LDLR	2744	-0.08	0.07	2.5E-01	0.10
small LDL concentration - NMR	rs6511720	19	11063306	LDLR	2744	-0.08	0.07	2.7E-01	0.10
LDL size - NMR	rs6511720	19	11063306	LDLR	2744	0.00	0.07	9.9E-01	0.10
lipoprotein (a)	rs6511720	19	11063306	LDLR	2193	0.08	0.07	2.9E-01	0.10
apo E	rs6511720	19	11063306	LDLR	2262	-0.03	0.08	7.1E-01	0.10
remnant lipoprotein chol	rs6511720	19	11063306	LDLR	2470	-0.06	0.07	4.4E-01	0.10
remnant lipoprotein triglycerides	rs6511720	19	11063306	LDLR	2387	-0.04	0.08	6.4E-01	0.10
triglycerides exam 1	rs6511720	19	11063306	LDLR	3494	-0.03	0.06	5.8E-01	0.10
triglycerides/hdl ratio exam 1	rs6511720	19	11063306	LDLR	3480	-0.04	0.06	4.8E-01	0.10
intermediate VLDL concentration - NMR	rs6511720	19	11063306	LDLR	2897	0.01	0.07	8.6E-01	0.10
large VLDL concentration - NMR	rs6511720	19	11063306	LDLR	2408	0.03	0.08	6.9E-01	0.10
small VLDL concentration - NMR	rs6511720	19	11063306	LDLR	2744	0.01	0.07	8.9E-01	0.10
VLDL size - NMR	rs6511720	19	11063306	LDLR	2744	0.04	0.07	5.6E-01	0.10
apo A-I	rs6544713	2	43927385	ABCG8	3023	-0.01	0.03	6.3E-01	0.31
apo B	rs6544713	2	43927385	ABCG8	3023	0.12	0.03	9.6E-05	0.31
apo C-III	rs6544713	2	43927385	ABCG8	2486	-0.03	0.03	3.8E-01	0.31
total chol exam 1	rs6544713	2	43927385	ABCG8	3496	0.12	0.03	1.0E-05	0.32
total chol/hdl chol ratio exam 1	rs6544713	2	43927385	ABCG8	3481	0.08	0.03	3.9E-03	0.32
hdl chol exam 1	rs6544713	2	43927385	ABCG8	3495	-0.02	0.03	4.9E-01	0.32
hdl-2	rs6544713	2	43927385	ABCG8	3166	-0.06	0.03	5.4E-02	0.31
hdl-3	rs6544713	2	43927385	ABCG8	3009	0.02	0.03	6.0E-01	0.31
intermediate HDL concentration - NMR	rs6544713	2	43927385	ABCG8	2744	-0.03	0.03	4.2E-01	0.31
large HDL concentration - NMR	rs6544713	2	43927385	ABCG8	2744	-0.01	0.03	7.3E-01	0.31
small HDL concentration - NMR	rs6544713	2	43927385	ABCG8	2744	0.07	0.03	2.8E-02	0.31
HDL size - NMR	rs6544713	2	43927385	ABCG8	2744	-0.03	0.03	2.6E-01	0.31
IDL concentration - NMR	rs6544713	2	43927385	ABCG8	2744	0.08	0.03	7.7E-03	0.31
ldl chol exam 1	rs6544713	2	43927385	ABCG8	3458	0.12	0.03	5.2E-06	0.32
large LDL concentration - NMR	rs6544713	2	43927385	ABCG8	2744	0.06	0.03	4.1E-02	0.31
small LDL concentration - NMR	rs6544713	2	43927385	ABCG8	2744	0.08	0.03	1.1E-02	0.31
LDL size - NMR	rs6544713	2	43927385	ABCG8	2744	0.00	0.03	9.9E-01	0.31
lipoprotein (a)	rs6544713	2	43927385	ABCG8	2193	0.03	0.03	4.0E-01	0.31
apo E	rs6544713	2	43927385	ABCG8	2262	0.06	0.03	7.8E-02	0.31
remnant lipoprotein chol	rs6544713	2	43927385	ABCG8	2470	0.05	0.03	1.1E-01	0.31
remnant lipoprotein triglycerides	rs6544713	2	43927385	ABCG8	2387	0.04	0.03	2.1E-01	0.31
triglycerides exam 1	rs6544713	2	43927385	ABCG8	3494	0.02	0.03	4.2E-01	0.32
triglycerides/hdl ratio exam 1	rs6544713	2	43927385	ABCG8	3480	0.02	0.03	4.0E-01	0.32

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intermediate VLDL concentration - NMR	rs6544713	2	43927385	ABCG8	2897	0.01	0.03	7.8E-01	0.31
large VLDL concentration - NMR	rs6544713	2	43927385	ABCG8	2408	0.01	0.03	7.5E-01	0.31
small VLDL concentration - NMR	rs6544713	2	43927385	ABCG8	2744	0.00	0.03	9.8E-01	0.31
VLDL size - NMR	rs6544713	2	43927385	ABCG8	2744	-0.01	0.03	8.5E-01	0.31
apo A-I	rs714052	7	72502805	MLXIPL	3023	0.09	0.04	3.2E-02	0.12
apo B	rs714052	7	72502805	MLXIPL	3023	0.00	0.04	9.2E-01	0.12
apo C-III	rs714052	7	72502805	MLXIPL	2486	-0.15	0.04	4.9E-04	0.12
total chol exam 1	rs714052	7	72502805	MLXIPL	3496	-0.03	0.04	4.6E-01	0.12
total chol/hdl chol ratio exam 1	rs714052	7	72502805	MLXIPL	3481	-0.05	0.04	2.2E-01	0.11
hdl chol exam 1	rs714052	7	72502805	MLXIPL	3495	0.04	0.04	3.2E-01	0.11
hdl-2	rs714052	7	72502805	MLXIPL	3166	0.11	0.04	8.7E-03	0.11
hdl-3	rs714052	7	72502805	MLXIPL	3009	0.05	0.04	1.9E-01	0.12
intermediate HDL concentration - NMR	rs714052	7	72502805	MLXIPL	2744	0.00	0.04	9.4E-01	0.12
large HDL concentration - NMR	rs714052	7	72502805	MLXIPL	2744	0.08	0.04	5.9E-02	0.12
small HDL concentration - NMR	rs714052	7	72502805	MLXIPL	2744	-0.05	0.04	2.1E-01	0.12
HDL size - NMR	rs714052	7	72502805	MLXIPL	2744	0.12	0.04	7.1E-03	0.12
IDL concentration - NMR	rs714052	7	72502805	MLXIPL	2744	-0.07	0.04	8.4E-02	0.12
ldl chol exam 1	rs714052	7	72502805	MLXIPL	3458	-0.01	0.04	8.4E-01	0.11
large LDL concentration - NMR	rs714052	7	72502805	MLXIPL	2744	0.08	0.04	7.4E-02	0.12
small LDL concentration - NMR	rs714052	7	72502805	MLXIPL	2744	-0.08	0.04	8.0E-02	0.12
LDL size - NMR	rs714052	7	72502805	MLXIPL	2744	0.09	0.04	3.1E-02	0.12
lipoprotein (a)	rs714052	7	72502805	MLXIPL	2193	0.01	0.05	8.7E-01	0.11
apo E	rs714052	7	72502805	MLXIPL	2262	-0.05	0.05	2.6E-01	0.12
remnant lipoprotein chol	rs714052	7	72502805	MLXIPL	2470	-0.08	0.05	8.0E-02	0.12
remnant lipoprotein triglycerides	rs714052	7	72502805	MLXIPL	2387	-0.09	0.05	5.8E-02	0.12
triglycerides exam 1	rs714052	7	72502805	MLXIPL	3494	-0.10	0.04	1.0E-02	0.11
triglycerides/hdl ratio exam 1	rs714052	7	72502805	MLXIPL	3480	-0.10	0.04	1.2E-02	0.11
intermediate VLDL concentration - NMR	rs714052	7	72502805	MLXIPL	2897	-0.14	0.04	6.3E-04	0.12
large VLDL concentration - NMR	rs714052	7	72502805	MLXIPL	2408	-0.08	0.05	1.0E-01	0.11
small VLDL concentration - NMR	rs714052	7	72502805	MLXIPL	2744	0.05	0.04	2.0E-01	0.12
VLDL size - NMR	rs714052	7	72502805	MLXIPL	2744	-0.09	0.04	3.8E-02	0.12
apo A-I	rs7557067	2	21061717	APOB	3023	0.05	0.03	1.5E-01	0.22
apo B	rs7557067	2	21061717	APOB	3023	-0.12	0.03	1.4E-04	0.22
apo C-III	rs7557067	2	21061717	APOB	2486	-0.04	0.03	2.8E-01	0.22
total chol exam 1	rs7557067	2	21061717	APOB	3496	-0.07	0.03	1.0E-02	0.22
total chol/hdl chol ratio exam 1	rs7557067	2	21061717	APOB	3481	-0.08	0.03	7.8E-03	0.22
hdl chol exam 1	rs7557067	2	21061717	APOB	3495	0.05	0.03	7.2E-02	0.22
hdl-2	rs7557067	2	21061717	APOB	3166	0.09	0.03	3.5E-03	0.22
hdl-3	rs7557067	2	21061717	APOB	3009	0.06	0.03	5.4E-02	0.22
intermediate HDL concentration - NMR	rs7557067	2	21061717	APOB	2744	0.03	0.03	4.4E-01	0.22
large HDL concentration - NMR	rs7557067	2	21061717	APOB	2744	0.07	0.03	3.3E-02	0.22
small HDL concentration - NMR	rs7557067	2	21061717	APOB	2744	-0.06	0.03	9.4E-02	0.22

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HDL size - NMR	rs7557067	2	21061717	APOB	2744	0.07	0.03	2.4E-02	0.22
IDL concentration - NMR	rs7557067	2	21061717	APOB	2744	-0.06	0.03	5.5E-02	0.22
ldl chol exam 1	rs7557067	2	21061717	APOB	3458	-0.07	0.03	1.6E-02	0.22
large LDL concentration - NMR	rs7557067	2	21061717	APOB	2744	0.00	0.03	8.9E-01	0.22
small LDL concentration - NMR	rs7557067	2	21061717	APOB	2744	-0.09	0.03	5.1E-03	0.22
LDL size - NMR	rs7557067	2	21061717	APOB	2744	0.08	0.03	2.0E-02	0.22
lipoprotein (a)	rs7557067	2	21061717	APOB	2193	-0.04	0.04	2.7E-01	0.22
apo E	rs7557067	2	21061717	APOB	2262	-0.03	0.04	4.9E-01	0.22
remnant lipoprotein chol	rs7557067	2	21061717	APOB	2470	-0.07	0.03	3.5E-02	0.22
remnant lipoprotein triglycerides	rs7557067	2	21061717	APOB	2387	-0.08	0.04	2.0E-02	0.22
triglycerides exam 1	rs7557067	2	21061717	APOB	3494	-0.10	0.03	6.2E-04	0.22
triglycerides/hdl ratio exam 1	rs7557067	2	21061717	APOB	3480	-0.10	0.03	1.0E-03	0.22
intermediate VLDL concentration - NMR	rs7557067	2	21061717	APOB	2897	-0.10	0.03	2.3E-03	0.22
large VLDL concentration - NMR	rs7557067	2	21061717	APOB	2408	-0.03	0.04	4.2E-01	0.22
small VLDL concentration - NMR	rs7557067	2	21061717	APOB	2744	-0.09	0.03	7.0E-03	0.22
VLDL size - NMR	rs7557067	2	21061717	APOB	2744	-0.01	0.03	7.9E-01	0.22
apo A-I	rs7679	20	44009909	PLTP	3023	0.04	0.03	2.4E-01	0.18
apo B	rs7679	20	44009909	PLTP	3023	0.02	0.03	5.8E-01	0.18
apo C-III	rs7679	20	44009909	PLTP	2486	-0.03	0.04	3.8E-01	0.18
total chol exam 1	rs7679	20	44009909	PLTP	3496	0.05	0.03	1.2E-01	0.18
total chol/hdl chol ratio exam 1	rs7679	20	44009909	PLTP	3481	0.08	0.03	1.1E-02	0.18
hdl chol exam 1	rs7679	20	44009909	PLTP	3495	-0.08	0.03	1.7E-02	0.18
hdl-2	rs7679	20	44009909	PLTP	3166	-0.11	0.03	1.1E-03	0.18
hdl-3	rs7679	20	44009909	PLTP	3009	-0.01	0.03	8.2E-01	0.18
intermediate HDL concentration - NMR	rs7679	20	44009909	PLTP	2744	0.34	0.04	2.6E-21	0.18
large HDL concentration - NMR	rs7679	20	44009909	PLTP	2744	-0.17	0.04	2.1E-06	0.18
small HDL concentration - NMR	rs7679	20	44009909	PLTP	2744	-0.08	0.04	2.3E-02	0.18
HDL size - NMR	rs7679	20	44009909	PLTP	2744	-0.15	0.04	4.1E-05	0.18
IDL concentration - NMR	rs7679	20	44009909	PLTP	2744	-0.02	0.04	6.5E-01	0.18
ldl chol exam 1	rs7679	20	44009909	PLTP	3458	0.05	0.03	1.3E-01	0.18
large LDL concentration - NMR	rs7679	20	44009909	PLTP	2744	-0.05	0.04	1.7E-01	0.18
small LDL concentration - NMR	rs7679	20	44009909	PLTP	2744	0.05	0.04	1.6E-01	0.18
LDL size - NMR	rs7679	20	44009909	PLTP	2744	-0.05	0.04	1.9E-01	0.18
lipoprotein (a)	rs7679	20	44009909	PLTP	2193	0.02	0.04	5.8E-01	0.18
apo E	rs7679	20	44009909	PLTP	2262	-0.03	0.04	3.9E-01	0.18
remnant lipoprotein chol	rs7679	20	44009909	PLTP	2470	0.05	0.04	1.5E-01	0.18
remnant lipoprotein triglycerides	rs7679	20	44009909	PLTP	2387	0.07	0.04	7.9E-02	0.18
triglycerides exam 1	rs7679	20	44009909	PLTP	3494	0.09	0.03	5.3E-03	0.18
triglycerides/hdl ratio exam 1	rs7679	20	44009909	PLTP	3480	0.09	0.03	3.0E-03	0.18
intermediate VLDL concentration - NMR	rs7679	20	44009909	PLTP	2897	0.05	0.03	1.2E-01	0.18
large VLDL concentration - NMR	rs7679	20	44009909	PLTP	2408	0.07	0.04	8.4E-02	0.19
small VLDL concentration - NMR	rs7679	20	44009909	PLTP	2744	-0.02	0.04	6.1E-01	0.18

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VLDL size - NMR	rs7679	20	44009909	PLTP	2744	0.07	0.04	5.7E-02	0.18
apo A-I	rs7819412	8	11082571	XKR6, AMAC1L2	3023	0.00	0.03	9.0E-01	0.48
apo B	rs7819412	8	11082571	XKR6, AMAC1L2	3023	0.01	0.03	5.9E-01	0.48
apo C-III	rs7819412	8	11082571	XKR6, AMAC1L2	2486	-0.04	0.03	1.9E-01	0.48
total chol exam 1	rs7819412	8	11082571	XKR6, AMAC1L2	3496	0.02	0.02	4.2E-01	0.48
total chol/hdl chol ratio exam 1	rs7819412	8	11082571	XKR6, AMAC1L2	3481	-0.01	0.02	5.9E-01	0.48
hdl chol exam 1	rs7819412	8	11082571	XKR6, AMAC1L2	3495	0.03	0.02	2.5E-01	0.48
hdl-2	rs7819412	8	11082571	XKR6, AMAC1L2	3166	-0.03	0.03	1.8E-01	0.48
hdl-3	rs7819412	8	11082571	XKR6, AMAC1L2	3009	-0.01	0.03	6.4E-01	0.48
intermediate HDL concentration - NMR	rs7819412	8	11082571	XKR6, AMAC1L2	2744	-0.02	0.03	4.3E-01	0.48
large HDL concentration - NMR	rs7819412	8	11082571	XKR6, AMAC1L2	2744	0.00	0.03	9.3E-01	0.48
small HDL concentration - NMR	rs7819412	8	11082571	XKR6, AMAC1L2	2744	-0.04	0.03	1.9E-01	0.48
HDL size - NMR	rs7819412	8	11082571	XKR6, AMAC1L2	2744	-0.01	0.03	8.5E-01	0.48
IDL concentration - NMR	rs7819412	8	11082571	XKR6, AMAC1L2	2744	-0.02	0.03	4.1E-01	0.48
ldl chol exam 1	rs7819412	8	11082571	XKR6, AMAC1L2	3458	0.00	0.02	8.6E-01	0.48
large LDL concentration - NMR	rs7819412	8	11082571	XKR6, AMAC1L2	2744	-0.03	0.03	2.8E-01	0.48
small LDL concentration - NMR	rs7819412	8	11082571	XKR6, AMAC1L2	2744	0.01	0.03	6.3E-01	0.48
LDL size - NMR	rs7819412	8	11082571	XKR6, AMAC1L2	2744	-0.03	0.03	2.9E-01	0.48
lipoprotein (a)	rs7819412	8	11082571	XKR6, AMAC1L2	2193	-0.03	0.03	3.7E-01	0.48
apo E	rs7819412	8	11082571	XKR6, AMAC1L2	2262	-0.01	0.03	8.6E-01	0.48
remnant lipoprotein chol	rs7819412	8	11082571	XKR6, AMAC1L2	2470	0.01	0.03	8.1E-01	0.48
remnant lipoprotein triglycerides	rs7819412	8	11082571	XKR6, AMAC1L2	2387	0.00	0.03	9.3E-01	0.48
triglycerides exam 1	rs7819412	8	11082571	XKR6, AMAC1L2	3494	-0.03	0.02	2.3E-01	0.48
triglycerides/hdl ratio exam 1	rs7819412	8	11082571	XKR6, AMAC1L2	3480	-0.03	0.02	1.6E-01	0.48
intermediate VLDL concentration - NMR	rs7819412	8	11082571	XKR6, AMAC1L2	2897	-0.05	0.03	6.6E-02	0.48
large VLDL concentration - NMR	rs7819412	8	11082571	XKR6, AMAC1L2	2408	-0.03	0.03	4.0E-01	0.48
small VLDL concentration - NMR	rs7819412	8	11082571	XKR6, AMAC1L2	2744	-0.07	0.03	7.5E-03	0.48
VLDL size - NMR	rs7819412	8	11082571	XKR6, AMAC1L2	2744	-0.03	0.03	3.3E-01	0.48
apo A-I	rs6102059	20	38662198	MAFB	3023	0.02	0.03	0.48	0.31
apo B	rs6102059	20	38662198	MAFB	3023	-0.08	0.03	0.00	0.31
apo C-III	rs6102059	20	38662198	MAFB	2486	-0.02	0.03	0.42	0.31
total chol exam 1	rs6102059	20	38662198	MAFB	3496	-0.09	0.03	0.00	0.31
total chol/hdl chol ratio exam 1	rs6102059	20	38662198	MAFB	3481	-0.04	0.03	0.16	0.31
hdl chol exam 1	rs6102059	20	38662198	MAFB	3495	-0.02	0.03	0.46	0.31
hdl-2	rs6102059	20	38662198	MAFB	3176	0.02	0.03	0.45	0.31
hdl-3	rs6102059	20	38662198	MAFB	2902	0.01	0.03	0.80	0.32
intermediate HDL concentration - NMR	rs6102059	20	38662198	MAFB	2744	0.02	0.03	0.48	0.31
large HDL concentration - NMR	rs6102059	20	38662198	MAFB	2744	0.03	0.03	0.30	0.31
small HDL concentration - NMR	rs6102059	20	38662198	MAFB	2744	-0.06	0.03	0.05	0.31

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HDL size - NMR	rs6102059	20	38662198	MAFB	2744	0.03	0.03	0.34	0.31
IDL concentration - NMR	rs6102059	20	38662198	MAFB	2744	-0.06	0.03	0.05	0.31
ldl chol exam 1	rs6102059	20	38662198	MAFB	3458	-0.09	0.03	0.00	0.31
large LDL concentration - NMR	rs6102059	20	38662198	MAFB	2744	-0.01	0.03	0.64	0.31
small LDL concentration - NMR	rs6102059	20	38662198	MAFB	2744	-0.08	0.03	0.01	0.31
LDL size - NMR	rs6102059	20	38662198	MAFB	2744	0.03	0.03	0.33	0.31
lipoprotein (a)	rs6102059	20	38662198	MAFB	2193	0.01	0.03	0.85	0.32
apo E	rs6102059	20	38662198	MAFB	2262	-0.02	0.03	0.62	0.32
remnant lipoprotein chol	rs6102059	20	38662198	MAFB	2470	0.02	0.03	0.52	0.31
remnant lipoprotein triglycerides	rs6102059	20	38662198	MAFB	2387	0.04	0.03	0.20	0.31
triglycerides exam 1	rs6102059	20	38662198	MAFB	3494	-0.02	0.03	0.45	0.31
triglycerides/hdl ratio exam 1	rs6102059	20	38662198	MAFB	3480	-0.01	0.03	0.71	0.31
intermediate VLDL concentration - NMR	rs6102059	20	38662198	MAFB	2897	-0.04	0.03	0.14	0.31
large VLDL concentration - NMR	rs6102059	20	38662198	MAFB	2408	0.03	0.03	0.29	0.31
samll VLDL concentration - NMR	rs6102059	20	38662198	MAFB	2744	-0.06	0.03	0.05	0.31
VLDL size - NMR	rs6102059	20	38662198	MAFB	2744	0.04	0.03	0.16	0.31
apo A-I	rs964184	11	116154127	APOA5	3023	-0.03	0.04	4.0E-01	0.14
apo B	rs964184	11	116154127	APOA5	3023	0.14	0.04	1.6E-04	0.14
apo C-III	rs964184	11	116154127	APOA5	2486	0.14	0.04	1.1E-03	0.13
total chol exam 1	rs964184	11	116154127	APOA5	3496	0.10	0.03	3.4E-03	0.14
total chol/hdl chol ratio exam 1	rs964184	11	116154127	APOA5	3481	0.20	0.03	9.2E-09	0.14
hdl chol exam 1	rs964184	11	116154127	APOA5	3495	-0.16	0.03	2.9E-06	0.14
hdl-2	rs964184	11	116154127	APOA5	3166	-0.17	0.04	3.6E-06	0.14
hdl-3	rs964184	11	116154127	APOA5	3009	-0.14	0.04	3.3E-04	0.14
intermediate HDL concentration - NMR	rs964184	11	116154127	APOA5	2744	0.07	0.04	9.1E-02	0.14
large HDL concentration - NMR	rs964184	11	116154127	APOA5	2744	-0.14	0.04	8.4E-04	0.14
small HDL concentration - NMR	rs964184	11	116154127	APOA5	2744	0.02	0.04	5.9E-01	0.14
HDL size - NMR	rs964184	11	116154127	APOA5	2744	-0.10	0.04	1.6E-02	0.14
IDL concentration - NMR	rs964184	11	116154127	APOA5	2744	0.06	0.04	1.5E-01	0.14
ldl chol exam 1	rs964184	11	116154127	APOA5	3458	0.08	0.03	1.5E-02	0.14
large LDL concentration - NMR	rs964184	11	116154127	APOA5	2744	-0.08	0.04	3.7E-02	0.14
small LDL concentration - NMR	rs964184	11	116154127	APOA5	2744	0.18	0.04	8.6E-06	0.14
LDL size - NMR	rs964184	11	116154127	APOA5	2744	-0.16	0.04	1.3E-04	0.14
lipoprotein (a)	rs964184	11	116154127	APOA5	2193	0.02	0.04	6.4E-01	0.14
apo E	rs964184	11	116154127	APOA5	2262	0.05	0.04	2.2E-01	0.14
remnant lipoprotein chol	rs964184	11	116154127	APOA5	2470	0.19	0.04	1.0E-05	0.14
remnant lipoprotein triglycerides	rs964184	11	116154127	APOA5	2387	0.19	0.04	6.4E-06	0.14
triglycerides exam 1	rs964184	11	116154127	APOA5	3494	0.23	0.03	6.4E-11	0.14

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triglycerides/hdl ratio exam 1	rs964184	11	116154127	APOA5	3480	0.24	0.03	5.2E-12	0.14
intermediate VLDL concentration - NMR	rs964184	11	116154127	APOA5	2897	0.29	0.04	4.3E-14	0.14
large VLDL concentration - NMR	rs964184	11	116154127	APOA5	2408	0.11	0.04	8.9E-03	0.14
small VLDL concentration - NMR	rs964184	11	116154127	APOA5	2744	0.12	0.04	2.4E-03	0.14
VLDL size - NMR	rs964184	11	116154127	APOA5	2744	0.05	0.04	2.5E-01	0.14

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