

Online Supplement

Conventional and Mendelian randomization analyses suggest no association between lipoprotein (a) and early atherosclerosis: the Young Finns Study

Mika Kivimäki, Costan G. Magnussen, Markus Juonala, Mika Kähönen, Johannes Kettunen, Terho Lehtimäki, Jorma Viikari, Olli T. Raitakari

eTable1. Genowide association analysis of SNPs associated with Lp(a) in 2007.

SNP	Chr	N	Alleles/MAF	Effect size*	SE	P
rs783147	6	2022	A/G/0.47	-0.495	0.029	3.08 x 10E-58
rs2457564	6	2017	G/A/0.47	0.492	0.030	3.00 x 10E-57
rs2076828	6	2022	G/C/0.47	0.489	0.030	1.08 x 10E-56
rs2504926	6	2022	A/G/0.47	0.489	0.030	1.62 x 10E-56
rs1782627	6	2021	G/A/0.45	-0.427	0.031	9.06 x 10E-42
rs2048327	6	2023	G/A/0.29	0.382	0.034	1.10 x 10E-28
rs2292334	6	2022	A/G/0.29	0.382	0.034	1.10 x 10E-28
rs1652500	6	2019	G/A/0.23	0.401	0.036	9.37 x 10E-28
rs11970528	6	2023	A/G/0.46	-0.335	0.031	6.45 x 10E-27
rs2186129	6	2021	C/A/0.47	-0.336	0.031	8.91 x 10E-27
rs2665355	6	2013	C/G/0.43	0.339	0.032	3.13 x 10E-26
rs2457571	6	2021	A/G/0.43	0.337	0.032	4.60 x 10E-26
rs7758229	6	2020	A/C/0.27	0.364	0.035	3.28 x 10E-24
rs6919346	6	2023	A/G/0.15	-0.424	0.043	4.67 x 10E-22
rs7740824	6	2021	A/C/0.24	0.356	0.037	2.24 x 10E-21
rs388170	6	2023	A/G/0.28	0.329	0.034	3.26 x 10E-21
rs9365164	6	2022	A/G/0.28	0.327	0.034	4.66 x 10E-21
rs9364554	6	2018	A/G/0.24	0.353	0.037	5.26 x 10E-21
rs813641	6	2022	A/G/0.21	-0.355	0.038	1.70 x 10E-20
rs13231	6	2023	G/A/0.28	-0.320	0.035	1.08 x 10E-19

Abbreviations: SNP, single nucleotide polymorphism; Chr, chromosome number, MAF, minor allele frequency.

*In g/dL for logLp(a) per minor allele from an additive model.

eTable2. Age- and sex-adjusted association of Lp(a) with carotid intima-media thickness (IMT) and brachial flow-mediated dilation (FMD) according to gene score (10 SNPs)* instrumented regression analysis.

Exposure	Outcome	N	Regression coefficient (SE)	<i>P</i>
LogLp(a) lipoprotein in 1986	IMT in 2001, mm	1009	-0.013 (0.014)	0.35
LogLp(a) lipoprotein in 1986	IMT in 2007, mm	963	-0.018 (0.012)	0.16
LogLp(a) lipoprotein in 1986	Δ IMT (2001-2007), mm	817	-0.011 (0.012)	0.38
LogLp(a) lipoprotein in 2007	IMT in 2007, mm	1980	-0.000 (0.004)	0.91
LogLp(a) lipoprotein in 1986	FMD in 2001, %	946	0.865 (0.595)	0.15
LogLp(a) lipoprotein in 1986	FMD in 2007, %	956	-0.819 (0.612)	0.18
LogLp(a) lipoprotein in 1986	Δ FMD (2001-2007), %-units	761	-1.262 (0.780)	0.11
LogLp(a) lipoprotein in 2007	FMD in 2007, %	1965	-0.139 (0.193)	0.47

*rs783147, rs2457564, rs2076828, rs2504926, rs1782627, rs2048327, rs2292334, rs1652500, rs11970528, and rs2186129. Genetic score is the simple sum of effect alleles (additive model).