

Supplementary Table S1. Selected SNPs based on published genetic association studies in general (1-7) and HIV population (8,9).

Chromosome	SNP	Nearest Gene	SNP type	Location relative to gene	Sequence	Sequence orientation	MAF	Associated trait
1	rs12740374	<i>CELSR2</i>	3UTR	918/782	T>G	(+)	0.302	LDL-C
1	rs4970834	<i>CELSR2</i>	intron	-20	T>C	(+)	0.268	LDL-C
1	rs585362	<i>CELSR2</i>	flanking 5UTR	-2846	T>C	(-)	0.158	Total-Cholesterol
1	rs611917	<i>CELSR2</i>	intron	-10	A>G	(-)	0.375	LDL-C
1	rs646776	<i>CELSR2</i>	flanking 3UTR	-158	T>C	(-)	0.288	Total-Cholesterol
1	rs10889353	<i>DOCK7</i>	intron	-1200	A>C	(+)	0.322	Total-Cholesterol. LDL-C. TG
1	rs1167998	<i>DOCK7</i>	intron	-8021	A>C	(+)	0.316	TG
1	rs1748195	<i>DOCK7</i>	intron	-668	C>G	(+)	0.4583	TG
1	rs1137100	<i>LEPR</i>	coding	285/44	A>G	(+)	0.342	lipid metabolism
1	rs1137101	<i>LEPR</i>	coding	173/35	A>G	(+)	0.449	lipid metabolism
1	rs17097193	<i>LEPR</i>	intron	-31	T>C	(+)	0.034	lipid metabolism
1	rs1805096	<i>LEPR</i>	coding	383/441	A>G	(-)	0.35	lipid metabolism
1	rs3790419	<i>LEPR</i>	coding	34/256	T>C	(-)	0.25	lipid metabolism
1	rs8179183	<i>LEPR</i>	coding	55/27	C>G	(-)	0.1	lipid metabolism
1	rs12130333	<i>LOC400756</i>	flanking 3UTR	-15412	T>C	(+)	0.242	TG
1	rs11206510	<i>PCSK9</i>	flanking 5UTR	-9181	T>C	(+)	0.15	LDL-C. AMI
1	rs599839	<i>PSRC1</i>	flanking 3UTR	-12	A>G	(+)	0.325	LDL-C
1	rs10889354	<i>TMEM57</i>	intron	-4316	A>G	(+)	0.492	Total-Cholesterol
1	rs873308	<i>TMEM57</i>	intron	-986	T>C	(+)	0.492	Total-Cholesterol
2	rs6756629	<i>ABCG5</i>	coding	117/4	A>G	(+)	0.08	Total-Cholesterol. LDL-C
2	rs6544713	<i>ABCG8</i>	intron	-431	T>C	(+)	0.258	LDL-C
2	rs10198175	<i>APOB</i>	flanking 3UTR	-80442	G>A	(+)	0.102	Total-Cholesterol
2	rs10495712	<i>APOB</i>	flanking 3UTR	-28197	A>G	(+)	0.258	LDL-C
2	rs1260327	<i>APOB</i>	flanking 5UTR	-202391	T>C	(+)	0.229	Total-Cholesterol
2	rs1260328	<i>APOB</i>	flanking 5UTR	-33825	A>C	(-)	0.292	Total-Cholesterol
2	rs1260329	<i>APOB</i>	flanking 5UTR	-4378	A>G	(-)	0.212	Total-Cholesterol
2	rs312985	<i>APOB</i>	flanking 5UTR	-111860	T>C	(+)	0.258	Total-Cholesterol
2	rs506585	<i>APOB</i>	flanking 5UTR	-130237	A>G	(+)	0.258	Total-Cholesterol
2	rs515135	<i>APOB</i>	flanking 5UTR	-19112	A>G	(+)	0.225	LDL-C
2	rs541041	<i>APOB</i>	flanking 5UTR	-28030	T>C	(+)	0.225	Total-Cholesterol
2	rs673548	<i>APOB</i>	intron	-79	T>C	(-)	0.2292	TG
2	rs6754295	<i>APOB</i>	flanking 3UTR	-18118	T>G	(+)	0.217	HDL-C. TG

2	rs693	APOB	coding	4243/3328	T>C	(+)	0.492	Total-Cholesterol. LDL-C
2	rs754523	APOB	flanking 5UTR	-44746	T>C	(+)	0.292	Total-Cholesterol
2	rs754524	APOB	flanking 5UTR	-44596	A>C	(+)	0.225	Total-Cholesterol
2	rs7557067	APOB	flanking 3UTR	-16089	A>G	(+)	0.202	TG
2	rs949790	APOB	flanking 5UTR	-183042	A>G	(+)	0.233	Total-Cholesterol
2	rs1919127	C2orf16	coding	2053/3901	T>C	(+)	0.25	TG
2	rs1260326	GCKR	coding	96/1	T>C	(+)	0.4	TG
2	rs780094	GCKR	intron	-418	A>G	(+)	0.383	TG
2	rs1143634	IL1B	coding	151/13	A>G	(-)	0.2917	lipid metabolism
2	rs1799916	IL1B	5UTR	32/39	T>G	(+)	0	lipid metabolism
2	rs1801278	IRS1	coding	818/2910	T>C	(-)	0.058	lipid metabolism
3	rs13061862	ADIPOQ	coding	160/53	T>G	(+)	0	lipid metabolism
3	rs2241766	ADIPOQ	coding	44/169	T>G	(+)	0.05	lipid metabolism
3	rs266729	ADIPOQ	flanking 5UTR	-989	C>G	(+)	0.3	lipid metabolism
4	rs1800790	FGB	flanking 5UTR	-438	A>G	(+)	0.255	lipid metabolism
5	rs1042714	ADRB2	coding	78/1163	C>G	(+)	0.467	HDL-C. TG
5	rs1422698	ANKRD31	coding	1320/198	T>C	(-)	0.367	Total-Cholesterol
5	rs1551894	ANKRD31	flanking 5UTR	-37828	A>G	(+)	0.283	Total-Cholesterol
5	rs2035191	ANKRD31	intron	-247	A>G	(+)	0.217	Total-Cholesterol
5	rs3923323	ANKRD31	intron	-4252	T>C	(+)	0.217	Total-Cholesterol
5	rs4345300	ANKRD31	intron	-107	T>C	(+)	0.367	Total-Cholesterol
5	rs7700965	ANKRD31	flanking 3UTR	-7265	T>C	(+)	0.367	Total-Cholesterol
5	rs10055011	COL4A3BP	intron	-3651	A>G	(+)	0.158	Total-Cholesterol
5	rs4385188	COL4A3BP	intron	-12059	A>G	(+)	0.25	Total-Cholesterol
5	rs6872314	COL4A3BP	intron	-13762	A>C	(+)	0.25	Total-Cholesterol
5	rs6896136	COL4A3BP	intron	-14497	T>C	(+)	0.45	Total-Cholesterol
5	rs7714420	GCNT4	flanking 5UTR	-13603	A>C	(+)	0.35	Total-Cholesterol
5	rs12916	HMGCR	3UTR	371/1386	T>C	(+)	0.412	LDL-C
5	rs3846662	HMGCR	intron	-45	A>G	(-)	0.458	Total-Cholesterol. LDL-C
5	rs3846663	HMGCR	intron	-84	A>G	(-)	0.408	LDL-C
5	rs5908	HMGCR	coding	31/74	A>G	(+)	0.034	lipid metabolism
5	rs10474433	LOC728775	flanking 3UTR	-15901	T>C	(+)	0.358	Total-Cholesterol
5	rs2335418	LOC728775	flanking 3UTR	-29265	A>G	(+)	0.45	Total-Cholesterol
5	rs3761740	LOC728775	flanking 3UTR	-611	A>C	(+)	0.142	Total-Cholesterol
5	rs34358	LOC728780	coding	45/58	A>G	(+)	0.35	Total-Cholesterol

5	rs904743	<i>LOC728780</i>	intron	-1624	A>G	(-)	0.167	Total-Cholesterol
5	rs1501908	<i>TIMD4</i>	flanking 5UTR	-7903	C>G	(-)	0.29	LDL-C
6	rs1799945	<i>HFE</i>	coding	41/153	C>G	(+)	0.129	lipid metabolism
6	rs1800562	<i>HFE</i>	coding	186/47	A>G	(+)	0.042	lipid metabolism
6	rs6415084	<i>LPA</i>	intron	-1727	T>C	(+)	0.46	AMI
6	rs2016520	<i>PPARD</i>	UTR	14/86	A>G	(+)	0.217	lipid metabolism
6	rs2076167	<i>PPARD</i>	coding	64/138	T>C	(-)	0.25	lipid metabolism
6	rs1800629	<i>TNF</i>	flanking 5UTR	-319	A>G	(+)	0.1665	TG
7	rs2240466	<i>BAZ1B</i>	intron	-242	A>G	(-)	0.103	TG
7	rs714052	<i>BAZ1B</i>	intron	-308	A>G	(-)	0.117	TG
7	rs10264272	<i>CYP3A5</i>	coding	46/102	T>C	(+)	0	lipid metabolism
7	rs12670798	<i>DNAH11</i>	intron	-2335	T>C	(+)	0.181	LDL-C
7	rs1800795	<i>IL6</i>	flanking 5UTR	-175	C>G	(+)	0.467	lipid metabolism
7	rs10487506	<i>LEP</i>	flanking 5UTR	-3176	A>G	(+)	0.483	lipid metabolism
7	rs2167270	<i>LEP</i>	5UTR	18-oct	A>G	(+)	0.375	lipid metabolism
7	rs1799983	<i>NOS3</i>	coding	77/62	A>C	(-)	0.342	lipid metabolism
7	rs11974409	<i>TBL2</i>	intron	-547	A>G	(+)	0.192	TG
7	rs17145738	<i>TBL2</i>	flanking 3UTR	-400	T>C	(+)	0.119	TG
7	rs2286276	<i>TBL2</i>	intron	-54	T>C	(-)	0.292	TG
8	rs10096633	<i>LPL</i>	flanking 3UTR	-6152	T>C	(+)	0.133	HDL-C
8	rs12678919	<i>LPL</i>	flanking 3UTR	-19453	A>G	(+)	0.142	HDL-C. TG
8	rs2083637	<i>LPL</i>	flanking 3UTR	-40406	A>G	(-)	0.25	TG
8	rs2410630	<i>LPL</i>	flanking 3UTR	-50331	T>C	(+)	0.417	TG
8	rs264	<i>LPL</i>	intron	-172	A>G	(+)	0.142	HDL-C
8	rs328	<i>LPL</i>	coding	98/6	C>G	(+)	0.125	HDL-C. TG
8	rs4523270	<i>LPL</i>	flanking 3UTR	-31770	T>C	(+)	0.292	TG
8	rs6586891	<i>SLC18A1</i>	flanking 3UTR	-87774	A>C	(+)	0.327	HDL-C. TG
8	rs17321515	<i>TRIB1</i>	flanking 3UTR	-35764	A>G	(+)	0.398	TG
8	rs2954029	<i>TRIB1</i>	flanking 3UTR	-40327	A>T	(+)	0.383	TG
8	rs6987702	<i>TRIB1</i>	flanking 3UTR	-54081	T>C	(+)	0.292	Total-Cholesterol
8	rs7819412	<i>XKR6</i>	flanking 3UTR	-12924	A>G	(+)	0.492	TG
9	rs1883025	<i>ABCA1</i>	intron	-1594	T>C	(-)	0.202	HDL-C
9	rs3847303	<i>ABCA1</i>	intron	-1803	T>C	(-)	0.092	HDL-C
9	rs3905000	<i>ABCA1</i>	intron	-5594	A>G	(+)	0.092	HDL-C
9	rs4149313	<i>ABCA1</i>	coding	7/106	T>C	(-)	0.133	HDL-C. TG

9	rs471364	<i>TTC39B</i>	intron	-17504	A>G	(+)	0.142	HDL-C
10	rs1800682	<i>FAS</i>	flanking 5UTR	-325	A>G	(-)	0.4167	lipid metabolism
10	rs7903146	<i>TCF7L2</i>	intron	-41435	T>C	(+)	0.25	lipid metabolism
11	rs3135506	<i>APOA5</i>	coding	105/6	C>G	(+)	0.058	TG
11	rs662799	<i>APOA5</i>	flanking 5UTR	-1123	A>G	(+)	0.017	HDL-C. TG
11	rs12272004	<i>BUD13</i>	flanking 3UTR	-15165	A>C	(+)	0.058	TG
11	rs12292921	<i>BUD13</i>	intron	-2672	T>G	(+)	0.067	TG
11	rs28927680	<i>BUD13</i>	3UTR	184/124	C>G	(+)	0.067	TG
11	rs480878	<i>BUD13</i>	flanking 3UTR	-96035	A>G	(+)	0.058	TG
11	rs174547	<i>FADS1</i>	intron	-52	A>G	(-)	0.3333	HDL-C. TG
11	rs174570	<i>FADS2</i>	intron	-1143	T>C	(+)	0.158	LDL-C
11	rs2851682	<i>FADS2</i>	intron	-256	A>G	(+)	0.083	LDL-C
11	rs1351452	<i>KIAA0999</i>	intron	-25505	A>C	(+)	0.067	TG
11	rs2075292	<i>KIAA0999</i>	intron	-45	T>G	(+)	0.067	TG
11	rs588918	<i>KIAA0999</i>	intron	-28862	A>G	(-)	0.067	lipid metabolism
11	rs1809986	<i>LOC120824</i>	flanking 3UTR	-9511	A>C	(-)	0.375	HDL-C
11	rs1051006	<i>MADD</i>	coding	93/31	A>G	(+)	0.108	HDL-C
11	rs4752979	<i>MADD</i>	intron	-2302	A>G	(+)	0.147	HDL-C
11	rs7395662	<i>OR4A47</i>	flanking 3UTR	-7619	A>G	(+)	0.375	HDL-C
11	rs10838852	<i>OR4X1</i>	coding	843/74	T>C	(+)	0.442	HDL-C
11	rs2270994	<i>PTPRJ</i>	intron	-21	T>C	(-)	0.408	HDL-C
11	rs747782	<i>PTPRJ</i>	flanking 5UTR	-61188	A>G	(+)	0.15	HDL-C
11	rs7946766	<i>PTPRJ</i>	intron	-1809	T>C	(+)	0.108	HDL-C
11	rs35120633	<i>ZNF259</i>	coding	29/37	A>G	(+)	0.058	TG
11	rs964184	<i>ZNF259</i>	flanking 3UTR	-359	C>G	(+)	0.108	HDL-C. TG
12	rs2650000	<i>HNF1A</i>	flanking 5UTR	-27587	A>C	(-)	0.305	LDL-C
15	rs10468017	<i>LIPC</i>	flanking 5UTR	-45663	T>C	(+)	0.231	HDL-C
15	rs11856159	<i>LIPC</i>	flanking 5UTR	-25165	T>C	(+)	0.167	HDL-C
15	rs1532085	<i>LIPC</i>	flanking 5UTR	-40809	A>G	(+)	0.367	HDL-C
15	rs166358	<i>LIPC</i>	flanking 5UTR	-43370	A>G	(+)	0.142	HDL-C
15	rs1800588	<i>LIPC</i>	flanking 5UTR	-500	T>C	(+)	0.258	HDL-C. TG
15	rs2043085	<i>LIPC</i>	flanking 5UTR	-43221	T>C	(-)	0.362	HDL-C
15	rs261336	<i>LIPC</i>	intron	-18099	A>G	(-)	0.208	HDL-C
15	rs397923	<i>LIPC</i>	flanking 5UTR	-32057	A>T	(-)	0.417	HDL-C
15	rs415799	<i>LIPC</i>	flanking 5UTR	-33421	A>G	(-)	0.467	HDL-C

15	rs473224	LIPC	intron	-13022	T>G	(-)	0.192	HDL-C
15	rs4775041	LIPC	flanking 5UTR	-49480	C>G	(+)	0.263	HDL-C
15	rs487766	LIPC	flanking 5UTR	-30315	T>C	(+)	0.2	HDL-C
16	rs173539	CETP	flanking 5UTR	-7718	T>C	(+)	0.367	HDL-C
16	rs1800775	CETP	flanking 5UTR	-526	A>C	(+)	0.425	HDL-C
16	rs1864163	CETP	intron	-197	A>G	(+)	0.242	HDL-C
16	rs3764261	CETP	flanking 5UTR	-2438	A>C	(-)	0.367	HDL-C
16	rs4784744	CETP	intron	-818	A>G	(+)	0.333	HDL-C
16	rs5882	CETP	coding	15/57	A>G	(+)	0.3125	HDL-C
16	rs708272	CETP	intron	-279	A>G	(-)	0.4783	HDL-C, TG
16	rs711752	CETP	intron	-202	A>G	(+)	0.5	HDL-C
16	rs7203984	CETP	intron	-2222	A>C	(+)	0.183	HDL-C
16	rs7205804	CETP	intron	-56	A>G	(+)	0.5	HDL-C
16	rs6499137	CTCF	3UTR	28/1284	T>G	(+)	0.083	HDL-C
16	rs34221221	FOXC2	flanking 5UTR	-512	T>C	(+)	0.425	lipid metabolism
16	rs8050136	FTO	intron	-27777	A>C	(+)	0.45	lipid metabolism
16	rs12448528	HERPUD1	flanking 3UTR	-7762	A>G	(+)	0.08	HDL-C
16	rs2217332	HERPUD1	coding	ene-76	T>C	(+)	0.075	HDL-C
16	rs247615	HERPUD1	flanking 3UTR	-6970	A>G	(+)	0.242	HDL-C
16	rs9989419	HERPUD1	flanking 3UTR	-7346	A>G	(+)	0.35	HDL-C
16	rs1975802	LYPLA3	intron	-2498	A>G	(-)	0.133	HDL-C
16	rs2418736	NFATC3	intron	-1028	A>G	(-)	0.15	HDL-C
16	rs4359427	NFATC3	intron	-1829	T>C	(+)	0.108	HDL-C
16	rs9932251	NFATC3	intron	-12045	A>G	(+)	0.108	HDL-C
16	rs10468274	NRN1L	flanking 3UTR	-2071	A>G	(+)	0.15	HDL-C
16	rs16962767	NUP93	intron	-273	T>C	(+)	0.103	HDL-C
16	rs2241770	NUP93	intron	-11	T>C	(+)	0.11	HDL-C
16	rs2271293	NUTF2	intron	-173	A>G	(+)	0.1	HDL-C
16	rs8058517	PRMT7	intron	-155	T>C	(+)	0.1	HDL-C
18	rs4939883	LIPG	flanking 3UTR	-47936	T>C	(+)	0.192	HDL-C
19	rs405509	APOE	flanking 5UTR	-203	A>C	(+)	0.5	LDL-C
19	rs439401	APOE	flanking 3UTR	-1801	A>G	(-)	0.375	TG
19	rs10402271	BCAM	flanking 3UTR	-4536	T>G	(+)	0.342	LDL-C
19	rs1871045	BCAM	flanking 3UTR	-2090	T>C	(+)	0.375	LDL-C
19	rs2965101	BCL3	flanking 5UTR	-14219	A>G	(+)	0.4	Total-Cholesterol

19	rs4803750	<i>BCL3</i>	flanking 5UTR	-4404	A>G	(+)	0.092	Total-Cholesterol
19	rs12691	<i>CEBPA</i>	3UTR	191/1116	T>C	(+)	0.158	Total-Cholesterol
19	rs16996148	<i>CILP2</i>	flanking 3UTR	-1569	T>G	(+)	0.0625	TG
19	rs17216525	<i>CILP2</i>	flanking 3UTR	-5317	T>C	(+)	0.083	TG
19	rs2304128	<i>GMIP</i>	intron	-73	T>G	(+)	0.092	Total-Cholesterol
19	rs2228671	<i>LDLR</i>	coding	13/109	T>C	(+)	0.1	Total-Cholesterol
19	rs6511720	<i>LDLR</i>	intron	-2015	T>G	(+)	0.095	Total-Cholesterol
19	rs12610185	<i>PBX4</i>	intron	-7598	A>G	(+)	0.092	Total-Cholesterol
19	rs6859	<i>PVRL2</i>	3UTR	156/161	A>G	(+)	0.442	LDL-C
19	rs2967605	<i>RAB11B</i>	flanking 3UTR	-1259	T>C	(-)	0.172	HDL-C
19	rs3219177	<i>RETN</i>	intron	-39	T>C	(+)	0.194	lipid metabolism
19	rs1122608	<i>SMARCA4</i>	intron	-5330	T>G	(+)	0.25	LDL-C AMI
19	rs157580	<i>TOMM40</i>	intron	-320	A>G	(+)	0.4	Total-Cholesterol
19	rs2075650	<i>TOMM40</i>	intron	-31	A>G	(+)	0.142	Total-Cholesterol
19	rs2304130	<i>ZNF101</i>	intron	-7	A>G	(+)	0.125	Total-Cholesterol
20	rs7679	<i>C20orf67</i>	3UTR	107/160	T>C	(+)	0.15	HDL-C, TG
20	rs1800961	<i>HNF4A</i>	coding	30/76	T>C	(+)	0.05	HDL-C
20	rs6102059	<i>MAFB</i>	flanking 3UTR	-85731	T>C	(+)	0.258	LDL-C
22	rs131759	<i>CPT1B</i>	intron	-18	A>G	(-)	0.14	lipid metabolism
22	rs1800234	<i>PPARA</i>	coding	171/31	T>C	(+)	0.067	lipid metabolism

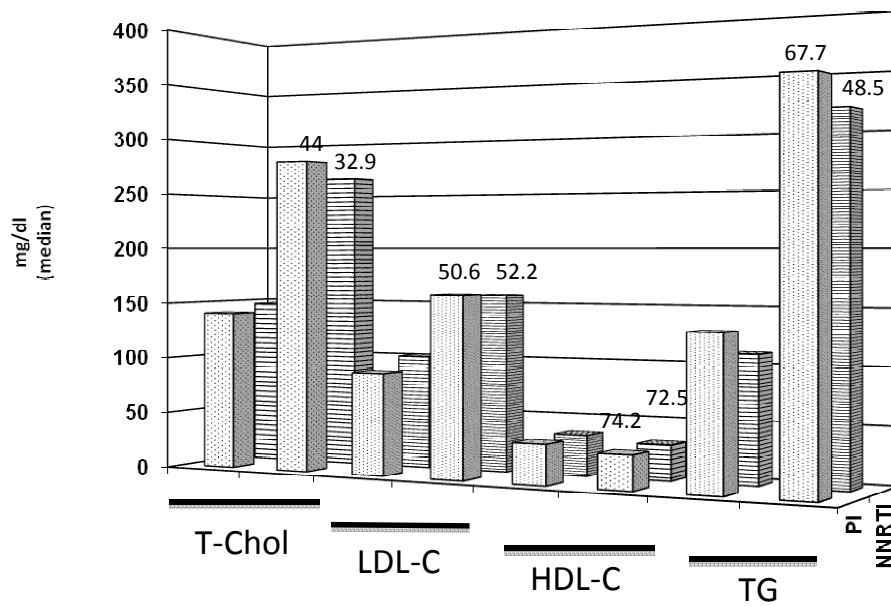
SNP. Single Nucleotide Polymorphism; MAF. minor allele frequency; (+). forward strand; (-) reverse strand; LDL-C. low-density lipoprotein cholesterol; HDL-C. high-density lipoprotein cholesterol; TG. triglycerides; AMI. Acute Myocardial Infarction.

- 1) Kathiresan S. et al. Nat Genet. 2008 Feb;40(2):189-97. Epub 2008 Jan 13.
- 2) Sabatti C. et al. Nat Genet. 2009 Jan;41(1):35-46. Epub 2008 Dec 7.
- 3) Kathiresan S. et al. Nat Genet. 2009 Jan;41(1):56-65. Epub 2008 Dec 7.
- 4) Aulchenko YS. Et al. Nat Genet. 2009 Jan;41(1):47-55. Epub 2008 Dec 7.
- 5) Kathiresan S. et al. Nat Genet. 2009 Mar;41(3):334-41. Epub 2009 Feb 8.
- 6) Sandhu MS et al. Lancet. 2008 Feb 9;371(9611):483-91.

- 7) Willer CJ et al. Nat Genet. 2008 Feb;40(2):161-9. Epub 2008 Jan 13.
- 8) Arnedo M. et al. Pharmacogenet Genomics. 2007 Sep;17(9):755-64.
- 9) Rotger M. et al. Circ Cardiovasc Genet. 2009 Dec;2(6):621-8. Epub 2009 Sep 18.

Supplementary Figure S1. Evolution of lipid fraction values during the study follow-up period.

Basal plasma lipid values (mg/dl) are represented in the first column. Abnormal lipid values (mg/dl) are represented in the second column with the respective % of individuals who suffered an abnormality within the first six months and one year of ART exposure.



T-Chol. Total Cholesterol; LDL-C. low-density lipoprotein cholesterol; HDL-C. high-density lipoprotein cholesterol; TG. triglycerides; PI. protease inhibitor; NNRTI. non-nucleoside reverse-transcriptase inhibitor.

Supplementary Table S2. Cochran-Maentel-Haenszel (CMH) test-based univariate analysis stratified first line antiretroviral treatment.

ART	CHR	SNP	nearest gene	MAF	p(<0.05)	OR	L95	U95
Total Cholesterol	1	rs1748195	<i>DOCK7</i>	0.32	0.043	0.757	0.578	0.991
	1	rs10889353	<i>DOCK7</i>	0.3	0.045	0.753	0.571	0.993
	2	rs515135	<i>APOB</i>	0.21	0.031	0.709	0.518	0.971
	2	rs541041	<i>APOB</i>	0.2	0.038	0.719	0.525	0.984
	2	rs312985	<i>APOB</i>	0.22	0.024	0.700	0.512	0.956
	2	rs506585	<i>APOB</i>	0.21	0.016	0.680	0.496	0.931
	2	rs1260326	<i>GCKR</i>	0.43	0.029	1.316	1.028	1.684
	2	rs780094	<i>GCKR</i>	0.44	0.029	1.315	1.028	1.683
	5	rs904743	<i>LOC728780</i>	0.12	0.024	1.533	1.058	2.220
	5	rs34358	<i>LOC728780</i>	0.35	0.038	1.309	1.015	1.689
	9	rs471364	<i>TTC39B</i>	0.13	0.003	0.545	0.365	0.814
	9	rs1883025	<i>ABCA1</i>	0.3	0.033	0.742	0.564	0.976
	19	rs2304130	<i>ZNF101</i>	0.09	0.046	0.643	0.414	1.000
LDL-Cholesterol	1	rs11206510	<i>PCSK9</i>	0.18	0.050	1.404	1.000	1.972
	1	rs585362	<i>CELSR2</i>	0.14	0.041	0.696	0.492	0.986
	1	rs599839	<i>PSRC1</i>	0.24	0.034	0.729	0.544	0.977
	2	rs10198175	<i>APOB</i>	0.06	0.011	1.949	1.153	3.294
	2	rs10495712	<i>APOB</i>	0.22	0.000	1.708	1.262	2.312
	2	rs6754295	<i>APOB</i>	0.25	0.013	0.688	0.511	0.925
	2	rs7557067	<i>APOB</i>	0.25	0.034	0.727	0.541	0.977
	2	rs693	<i>APOB</i>	0.45	0.013	1.380	1.070	1.780
	2	rs673548	<i>APOB</i>	0.23	0.010	0.675	0.501	0.910
	2	rs754524	<i>APOB</i>	0.22	0.001	1.656	1.217	2.255
	2	rs754523	<i>APOB</i>	0.3	0.012	1.433	1.082	1.896
	5	rs904743	<i>LOC728780</i>	0.12	0.017	1.622	1.089	2.415
	5	rs34358	<i>LOC728780</i>	0.35	0.020	1.369	1.050	1.785
	7	rs2240466	<i>BAZ1B</i>	0.06	0.044	1.695	1.011	2.842
	7	rs10264272	<i>CYP3A5</i>	0.01	0.021	0.128	0.016	1.022
	19	rs2967605	<i>RAB11B</i>	0.2	0.022	0.692	0.504	0.950
	19	rs6511720	<i>LDLR</i>	0.13	0.009	0.619	0.430	0.891
HDL-Cholesterol	7	rs10487506	<i>LEP</i>	0.41	0.026	1.383	1.040	1.839
	8	rs2954029	<i>TRIB1</i>	0.44	0.030	0.732	0.553	0.970
	9	rs4149313	<i>ABCA1</i>	0.19	0.000	0.550	0.393	0.768
	15	rs1800588	<i>LIPC</i>	0.26	0.005	0.645	0.476	0.875
	15	rs473224	<i>LIPC</i>	0.14	0.001	0.522	0.361	0.756
	15	rs261336	<i>LIPC</i>	0.18	0.003	0.601	0.428	0.843
	16	rs247615	<i>HERPUD1</i>	0.25	0.035	1.438	1.026	2.017
	16	rs173539	<i>CETP</i>	0.29	0.004	0.638	0.471	0.865
	16	rs3764261	<i>CETP</i>	0.29	0.002	0.626	0.462	0.848
	16	rs1800775	<i>CETP</i>	0.49	0.022	1.387	1.048	1.837
	16	rs711752	<i>CETP</i>	0.38	0.017	0.708	0.532	0.942
	16	rs708272	<i>CETP</i>	0.38	0.036	0.736	0.552	0.980
	16	rs7205804	<i>CETP</i>	0.37	0.014	0.696	0.521	0.929
	16	rs8058517	<i>PRMT7</i>	0.11	0.038	0.647	0.428	0.979
Triglycerides	2	rs1260326	<i>GCKR</i>	0.43	0.007	1.367	1.088	1.718
	2	rs780094	<i>GCKR</i>	0.44	0.003	1.412	1.124	1.774
	2	rs1919127	<i>C2orf16</i>	0.34	0.021	1.324	1.042	1.681
	5	rs5908	<i>HMGCR</i>	0.01	0.050	0.391	0.149	1.030
	8	rs264	<i>LPL</i>	0.16	0.016	0.687	0.505	0.934
	9	rs4149313	<i>ABCA1</i>	0.19	0.008	0.684	0.516	0.907
	10	rs1800682	<i>FAS</i>	0.49	0.022	0.759	0.600	0.960

11	rs10838852	<i>OR4X1</i>	0.47	0.018	1.314	1.048	1.648
11	rs174547	<i>FADS1</i>	0.33	0.030	1.304	1.025	1.659
11	rs174570	<i>FADS2</i>	0.17	0.005	1.570	1.143	2.157
16	rs2241770	<i>NUP93</i>	0.1	0.047	0.689	0.476	0.996
16	rs16962767	<i>NUP93</i>	0.1	0.042	0.684	0.474	0.987

CHR. chromosome; MAF. minor allele frequency.

Supplementary Table S3. Logistic regression-based multivariate analysis showing all genetic and non-genetic variants influencing each lipid fraction.

	CHR	covariate	nearest gene	ma	Logistic regression				
					p (<0.05)	beta	OR	L95	U95
Total Cholesterol	2	rs515135	<i>APOB</i>	A	0.03686	-0.345	0.708	0.512	0.979
	2	rs541041	<i>APOB</i>	G	0.0381	-0.343	0.710	0.513	0.981
	2	rs312985	<i>APOB</i>	A	0.02871	-0.366	0.693	0.500	0.963
	2	rs506585	<i>APOB</i>	G	0.01482	-0.413	0.662	0.475	0.922
	2	rs1260326	<i>GCKR</i>	A	0.02923	0.291	1.338	1.030	1.739
	2	rs780094	<i>GCKR</i>	A	0.0289	0.294	1.342	1.031	1.748
	5	rs904743	<i>LOC728780</i>	G	0.03313	0.423	1.527	1.034	2.253
	9	rs471364	<i>TTC39B</i>	G	0.002927	-0.665	0.515	0.332	0.797
	9	rs1883025	<i>ABCA1</i>	A	0.04135	-0.304	0.738	0.551	0.988
		age			1.05E-09	7.92E-11	1.069	1.048	1.091
		HCV			3.50E-06	3.71E-06	0.311	0.190	0.508
LDL- Cholesterol		ART-PI			0.009	-0.484	1.608	1.422	1.915
	1	rs11206510	<i>PCSK9</i>	G	0.04922	0.393	1.482	1.001	2.193
	2	rs10198175	<i>APOB</i>	A	0.01221	0.845	2.329	1.202	4.510
	2	rs10495712	<i>APOB</i>	A	0.0003181	0.700	2.013	1.376	2.947
	2	rs6754295	<i>APOB</i>	C	0.009661	-0.478	0.620	0.432	0.891
	2	rs7557067	<i>APOB</i>	G	0.02915	-0.395	0.674	0.472	0.961
	2	rs673548	<i>APOB</i>	A	0.02094	-0.418	0.659	0.462	0.939
	2	rs754524	<i>APOB</i>	C	0.001263	0.623	1.864	1.277	2.722
	2	rs754523	<i>APOB</i>	G	0.02487	0.383	1.467	1.050	2.051
	7	rs2240466	<i>BAZ1B</i>	A	0.009008	0.855	2.352	1.238	4.468
	7	rs714052	<i>BAZ1B</i>	G	0.01225	0.806	2.240	1.192	4.209
HDL-Cholesterol	19	rs2967605	<i>RAB11B</i>	A	0.02832	-0.424	0.655	0.448	0.956
		age			0.00052	0.041	1.042	1.019	1.066
		HCV			0.00013	-1.110	0.334	0.191	0.583
	7	rs10487506	<i>LEP</i>	A	0.04503	0.313	1.368	1.007	1.858
	9	rs4149313	<i>ABCA1</i>	G	0.000297	-0.661	0.516	0.361	0.739
	9	rs1883025	<i>ABCA1</i>	A	0.01211	0.442	1.555	1.101	2.196
	10	rs7903146	<i>TCF7L2</i>	A	0.01823	0.401	1.493	1.071	2.084
	15	rs1800588	<i>LIPC</i>	A	0.002138	-0.497	0.608	0.443	0.836
	15	rs473224	<i>LIPC</i>	A	0.0003067	-0.727	0.483	0.326	0.717
	15	rs261336	<i>LIPC</i>	G	0.002239	-0.559	0.572	0.400	0.818
	16	rs247615	<i>HERPUDI</i>	G	0.03436	0.385	1.469	1.029	2.098
Triglycerides	16	rs12448528	<i>HERPUDI</i>	A	0.03887	0.424	1.528	1.022	2.285
	16	rs173539	<i>CETP</i>	A	0.002969	-0.498	0.608	0.438	0.844
	16	rs3764261	<i>CETP</i>	A	0.001521	-0.530	0.588	0.424	0.817
	16	rs711752	<i>CETP</i>	A	0.0149	-0.395	0.674	0.491	0.926
	16	rs708272	<i>CETP</i>	A	0.02753	-0.360	0.698	0.506	0.961
	16	rs7205804	<i>CETP</i>	A	0.02578	-0.360	0.698	0.508	0.957
		age			5.00E-06	-0.051	0.951	0.932	0.972
		sex-male			2.30E-07	-1.264	3.731	1.164	1.444
		ART-NNRTI			8.90E-03	-0.412	0.402	0.190	0.479
	2	rs1260326	<i>GCKR</i>	A	0.008063	2.649	1.361	1.083	1.709
	2	rs780094	<i>GCKR</i>	A	0.003286	2.940	1.412	1.122	1.777
Triglycerides	2	rs1919127	<i>C2orf16</i>	G	0.01902	2.345	1.332	1.048	1.692
	2	rs6544713	<i>ABCG8</i>	A	0.04626	-1.993	0.786	0.620	0.996
	5	rs5908	<i>HMGCR</i>	G	0.04616	-1.994	0.365	0.136	0.983
	8	rs264	<i>LPL</i>	A	0.02227	-2.286	0.689	0.500	0.948
	9	rs4149313	<i>ABCA1</i>	G	0.00877	-2.621	0.683	0.514	0.908
	10	rs1800682	<i>FAS</i>	G	0.03429	-2.117	0.786	0.629	0.982
	11	rs10838852	<i>OR4X1</i>	G	0.01303	2.483	1.343	1.064	1.695
	11	rs174547	<i>FADS1</i>	G	0.02674	2.215	1.323	1.033	1.696

11	rs174570	<i>FADS2</i>	A	0.005261	2.791	1.570	1.144	2.155
	sex-male			0.0034	-0.589	1.815	1.373	1.919
	ART-PI			0.00074	-0.587	1.802	1.395	1.989

CHR. chromosome; MA. minor allele; HCV. hepatitis C virus co-infection; ART; first line antiretroviral treatment; PI protease inhibitors; NNRTI. non nucleoside reverse transcriptase inhibitors.