

Table S1. Gene-vitamin A interaction results for HDL-C levels, adjusted for age and sex.

SNP	Non-Hispanic Whites SNP×VitA Interaction			Non-Hispanic Blacks SNP×VitA Interaction			Mexican Americans SNP×VitA Interaction		
	Beta	SE	P-value	Beta	SE	P-value	Beta	SE	P-value
rs11206510	-0.025	0.035	0.471	-0.023	0.056	0.684	0.007	0.046	0.873
rs12654264	-0.036	0.026	0.174	0.014	0.039	0.717	-0.018	0.031	0.567
rs1501908	0.046	0.026	0.075	0.019	0.037	0.610	-0.007	0.035	0.832
rs174547	0.015	0.028	0.598	-0.029	0.050	0.563	0.003	0.031	0.924
rs1748195	0.087	0.027	1.16E-03	0.096	0.039	0.014	0.014	0.030	0.642
rs1883025	-0.052	0.029	0.074	-0.080	0.037	0.032	0.000	0.033	0.996
rs2156552	-0.022	0.037	0.558	-0.081	0.099	0.414	-0.027	0.061	0.656
rs2197089	0.009	0.026	0.739	-0.006	0.044	0.888	0.003	0.031	0.911
rs2271293	-0.066	0.040	0.104	-0.146	0.070	0.037	-0.071	0.046	0.121
rs2338104	0.009	0.026	0.719	-0.041	0.040	0.307	-0.015	0.031	0.620
rs2954029	-0.003	0.025	0.893	0.008	0.036	0.826	0.017	0.030	0.585
rs2967605	-0.043	0.032	0.183	-0.056	0.047	0.233	0.037	0.035	0.280
rs3135506	-0.029	0.052	0.582	0.070	0.072	0.331	-0.093	0.040	0.019
rs3764261	-0.043	0.027	0.114	-0.045	0.039	0.245	0.004	0.032	0.907
rs3890182	-0.020	0.039	0.607	-0.019	0.060	0.749	0.047	0.057	0.408
rs4149268	-0.038	0.027	0.163	0.006	0.037	0.871	-0.066	0.032	0.040
rs4775041	0.008	0.028	0.776	0.047	0.052	0.361	0.013	0.041	0.745
rs6102059	-0.028	0.028	0.312	-0.023	0.036	0.526	0.035	0.035	0.314
rs693	-0.032	0.026	0.212	0.031	0.046	0.496	-0.026	0.032	0.418
rs754523	-0.028	0.028	0.320	0.096	0.047	0.039	-0.016	0.033	0.618
rs7679	0.027	0.034	0.423	-0.003	0.085	0.970	-0.057	0.041	0.164
rs780094	0.026	0.026	0.307	0.022	0.047	0.646	0.005	0.031	0.877
rs9989419	-0.036	0.027	0.177	-0.005	0.036	0.890	-0.021	0.032	0.503

Table S2. Gene-vitamin A interaction results for LDL-C levels, adjusted for age and sex.

SNP	Non-Hispanic Whites SNP×VitA Interaction			Non-Hispanic Blacks SNP×VitA Interaction			Mexican Americans SNP×VitA Interaction		
	Beta	SE	P-value	Beta	SE	P-value	Beta	SE	P-value
rs11206510	0.002	0.102	0.982	0.342	0.155	0.027	0.583	0.147	7.65E-05
rs12654264	0.056	0.078	0.471	0.048	0.108	0.659	-0.130	0.098	0.185
rs1501908	0.071	0.078	0.365	-0.081	0.107	0.449	-0.211	0.106	0.047
rs174547	-0.068	0.084	0.421	0.307	0.176	0.081	-0.102	0.093	0.269
rs1748195	0.043	0.082	0.606	-0.267	0.112	0.018	0.000	0.091	1.000
rs1883025	0.181	0.087	0.038	0.013	0.112	0.908	0.001	0.104	0.994
rs2156552	-0.227	0.110	0.040	-0.052	0.278	0.853	-0.070	0.181	0.699
rs2197089	-0.004	0.076	0.961	0.132	0.123	0.283	-0.136	0.095	0.155
rs2271293	-0.075	0.125	0.546	0.024	0.184	0.894	-0.103	0.135	0.443
rs2338104	-0.037	0.078	0.636	-0.005	0.109	0.962	-0.201	0.097	0.038
rs2954029	-0.010	0.072	0.885	-0.031	0.107	0.770	0.099	0.090	0.275
rs2967605	0.063	0.092	0.494	-0.005	0.135	0.973	-0.123	0.101	0.223
rs3135506	0.255	0.151	0.093	-0.502	0.225	0.026	-0.132	0.119	0.268
rs3764261	-0.033	0.081	0.679	0.141	0.110	0.203	0.031	0.099	0.755
rs3890182	-0.008	0.122	0.947	-0.268	0.169	0.113	0.199	0.182	0.274
rs4149268	0.146	0.080	0.068	-0.167	0.099	0.093	0.025	0.099	0.803
rs4775041	-0.012	0.081	0.886	0.065	0.141	0.644	0.107	0.128	0.403
rs6102059	-0.005	0.081	0.952	0.110	0.102	0.282	-0.029	0.107	0.785
rs693	0.146	0.079	0.066	-0.133	0.135	0.327	0.255	0.101	0.012
rs754523	0.011	0.083	0.892	-0.095	0.137	0.487	-0.150	0.104	0.150
rs7679	0.055	0.103	0.594	-0.562	0.305	0.066	0.020	0.129	0.875
rs780094	-0.044	0.079	0.577	-0.088	0.132	0.505	0.162	0.100	0.106
rs9989419	0.060	0.079	0.449	-0.028	0.099	0.776	0.110	0.096	0.250

Table S3. Gene-vitamin A interaction results for transformed triglyceride levels, adjusted for age and sex.

SNP	Non-Hispanic Whites SNPxVitA Interaction			Non-Hispanic Blacks SNPxVitA Interaction			Mexican Americans SNPxVitA Interaction		
	Beta	SE	P-value	Beta	SE	P-value	Beta	SE	P-value
rs11206510	-0.0003	0.0013	0.789	0.0001	0.0017	0.971	0.0037	0.0020	0.071
rs12654264	0.0009	0.0009	0.330	0.0001	0.0012	0.943	-0.0011	0.0014	0.430
rs1501908	0.0005	0.0009	0.634	-0.0017	0.0011	0.128	-0.0012	0.0015	0.401
rs174547	0.0001	0.0010	0.905	-0.0005	0.0019	0.781	0.0013	0.0013	0.312
rs1748195	0.0003	0.0010	0.797	-0.0006	0.0012	0.584	-0.0001	0.0013	0.919
rs1883025	0.0015	0.0011	0.163	0.0010	0.0012	0.412	0.0003	0.0014	0.828
rs2156552	-0.0022	0.0013	0.097	0.0033	0.0030	0.278	0.0001	0.0026	0.976
rs2197089	0.0001	0.0009	0.950	-0.0008	0.0014	0.554	0.0006	0.0013	0.648
rs2271293	0.0033	0.0015	0.027	-0.0024	0.0021	0.252	0.0000	0.0020	0.986
rs2338104	0.0018	0.0009	0.056	0.0008	0.0012	0.527	0.0007	0.0013	0.618
rs2954029	0.0002	0.0009	0.800	-0.0003	0.0012	0.796	-0.0003	0.0013	0.847
rs2967605	0.0008	0.0012	0.487	0.0037	0.0014	0.009	-0.0029	0.0015	0.046
rs3135506	-0.0048	0.0019	0.011	0.0007	0.0024	0.766	0.0027	0.0016	0.102
rs3764261	0.0009	0.0010	0.363	-0.0009	0.0012	0.419	-0.0030	0.0014	0.036
rs3890182	-0.0011	0.0014	0.450	0.0020	0.0018	0.275	0.0013	0.0026	0.616
rs4149268	0.0000	0.0010	0.990	0.0008	0.0011	0.444	0.0019	0.0014	0.194
rs4775041	-0.0001	0.0010	0.959	0.0009	0.0015	0.536	-0.0006	0.0018	0.716
rs6102059	-0.0005	0.0010	0.606	0.0014	0.0011	0.194	0.0002	0.0016	0.877
rs693	0.0028	0.0009	2.16E-03	0.0000	0.0014	0.975	0.0009	0.0013	0.506
rs754523	-0.0005	0.0010	0.591	-0.0022	0.0014	0.114	-0.0022	0.0014	0.110
rs7679	0.0000	0.0012	0.976	0.0015	0.0026	0.548	-0.0004	0.0018	0.841
rs780094	0.0000	0.0009	0.990	0.0005	0.0015	0.751	0.0024	0.0014	0.078
rs9989419	0.0022	0.0010	0.027	0.0001	0.0011	0.921	-0.0001	0.0014	0.935

Table S4. Gene-vitamin E interaction results for HDL-C levels, adjusted for age and sex.

SNP	Non-Hispanic Whites SNP×VitE Interaction			Non-Hispanic Blacks SNP×VitE Interaction			Mexican Americans SNP×VitE Interaction		
	Beta	SE	P-value	Beta	SE	P-value	Beta	SE	P-value
rs11206510	1.834	1.376	0.183	-5.272	3.026	0.082	-0.921	2.070	0.657
rs12654264	-1.334	1.108	0.229	-0.414	2.166	0.848	1.020	1.383	0.461
rs1501908	0.247	1.102	0.823	-1.320	2.061	0.522	-0.045	1.455	0.975
rs174547	0.575	1.138	0.613	-0.037	3.297	0.991	-2.094	1.333	0.116
rs1748195	3.279	1.063	2.06E-03	0.676	2.130	0.751	-1.498	1.329	0.260
rs1883025	-0.531	1.243	0.669	2.644	2.134	0.216	1.762	1.383	0.203
rs2156552	-1.519	1.430	0.288	2.041	4.586	0.656	-1.742	2.631	0.508
rs2197089	-2.016	1.077	0.061	-1.881	2.494	0.451	2.712	1.243	0.029
rs2271293	0.252	1.702	0.882	4.049	4.292	0.346	-2.066	2.038	0.311
rs2338104	0.953	1.077	0.376	-2.549	2.112	0.228	0.105	1.313	0.936
rs2954029	-0.663	1.057	0.530	2.050	2.107	0.331	-2.002	1.352	0.139
rs2967605	-1.089	1.355	0.422	2.425	2.506	0.333	0.848	1.534	0.580
rs3135506	-5.433	2.208	0.014	-2.779	4.517	0.539	-5.204	1.844	0.005
rs3764261	-0.834	1.133	0.462	0.303	2.351	0.897	-0.345	1.441	0.811
rs3890182	0.429	1.644	0.794	-5.264	3.215	0.102	6.950	2.409	0.004
rs4149268	0.823	1.135	0.468	0.177	2.001	0.930	0.668	1.428	0.640
rs4775041	-0.088	1.155	0.939	-1.690	2.976	0.570	-0.153	1.674	0.927
rs6102059	1.169	1.161	0.314	1.435	1.872	0.444	0.924	1.443	0.522
rs693	-1.092	1.093	0.318	1.502	2.640	0.569	0.396	1.441	0.784
rs754523	-0.944	1.112	0.396	1.108	2.536	0.662	-0.230	1.422	0.872
rs7679	1.210	1.364	0.375	13.123	5.165	0.011	-4.159	1.940	0.032
rs780094	2.547	1.046	0.015	1.438	2.791	0.606	-0.054	1.376	0.969
rs9989419	0.277	1.086	0.799	-2.350	1.998	0.240	0.052	1.420	0.971

Table S5. Gene-vitamin E interaction results for LDL-C levels, adjusted for age and sex.

SNP	Non-Hispanic Whites SNP×VitE Interaction			Non-Hispanic Blacks SNP×VitE Interaction			Mexican Americans SNP×VitE Interaction		
	Beta	SE	P-value	Beta	SE	P-value	Beta	SE	P-value
rs11206510	-3.284	3.797	0.387	17.961	7.515	0.017	17.617	6.225	0.005
rs12654264	-3.327	3.009	0.269	1.072	5.676	0.850	-5.377	4.087	0.189
rs1501908	1.125	3.090	0.716	-10.704	5.068	0.035	-0.512	4.211	0.903
rs174547	-1.971	3.193	0.537	-2.235	8.043	0.781	3.754	3.793	0.323
rs1748195	-4.179	3.030	0.168	-1.313	5.458	0.810	2.922	3.824	0.445
rs1883025	-1.795	3.538	0.612	-6.115	5.332	0.252	-11.222	3.842	0.004
rs2156552	-6.600	3.897	0.091	-3.780	11.963	0.752	-1.331	7.376	0.857
rs2197089	1.116	3.049	0.714	7.244	6.460	0.262	-3.602	3.743	0.336
rs2271293	4.031	4.879	0.409	-2.141	10.145	0.833	-9.130	5.616	0.104
rs2338104	-0.165	3.005	0.956	-5.746	5.468	0.294	-3.743	3.835	0.329
rs2954029	3.404	2.853	0.233	-4.995	5.378	0.353	4.473	3.866	0.248
rs2967605	4.613	3.778	0.222	1.328	6.429	0.836	1.950	4.215	0.644
rs3135506	5.830	6.240	0.350	20.031	11.789	0.090	6.106	5.532	0.270
rs3764261	0.507	3.192	0.874	2.744	5.723	0.632	-11.030	4.174	0.008
rs3890182	2.795	4.706	0.553	5.048	7.974	0.527	-9.546	7.013	0.174
rs4149268	-0.035	3.138	0.991	-7.470	5.167	0.149	-3.401	4.027	0.399
rs4775041	-4.510	3.128	0.150	-2.991	7.275	0.681	-2.509	4.684	0.592
rs6102059	-1.702	3.163	0.591	5.333	4.675	0.254	-2.413	4.312	0.576
rs693	11.105	3.039	2.67E-04	10.875	6.878	0.114	22.708	4.595	8.94E-07
rs754523	-1.758	3.123	0.574	7.625	6.429	0.236	1.332	4.306	0.757
rs7679	-4.225	3.833	0.270	-6.495	12.818	0.612	-2.828	5.615	0.615
rs780094	-2.484	2.923	0.396	-19.277	6.766	0.004	-1.304	4.068	0.749
rs9989419	1.584	2.962	0.593	-2.435	5.069	0.631	-9.543	4.104	0.020

Table S6. Gene-vitamin E interaction results for transformed triglyceride levels, adjusted for age and sex.

SNP	Non-Hispanic Whites SNP×VitE Interaction			Non-Hispanic Blacks SNP×VitE Interaction			Mexican Americans SNP×VitE Interaction		
	Beta	SE	P-value	Beta	SE	P-value	Beta	SE	P-value
rs11206510	-0.1483	0.0459	1.27E-03	0.0877	0.0829	0.290	0.1326	0.0735	0.071
rs12654264	0.0096	0.0374	0.797	0.1272	0.0585	0.030	0.1081	0.0491	0.028
rs1501908	0.0550	0.0376	0.144	0.0486	0.0565	0.390	-0.0160	0.0510	0.754
rs174547	-0.0500	0.0387	0.196	0.1363	0.0885	0.124	0.0869	0.0472	0.066
rs1748195	-0.0117	0.0367	0.751	0.0387	0.0577	0.502	0.0326	0.0476	0.494
rs1883025	-0.0067	0.0425	0.875	-0.0396	0.0586	0.499	-0.0577	0.0487	0.236
rs2156552	0.0140	0.0483	0.773	-0.0424	0.1228	0.730	0.1495	0.0935	0.110
rs2197089	0.0222	0.0366	0.544	-0.0015	0.0702	0.984	-0.0738	0.0455	0.105
rs2271293	0.0494	0.0573	0.388	0.0423	0.1154	0.714	0.0888	0.0727	0.222
rs2338104	-0.0421	0.0368	0.253	0.0580	0.0581	0.319	0.0514	0.0464	0.267
rs2954029	0.0327	0.0357	0.360	-0.0629	0.0593	0.289	0.0829	0.0477	0.082
rs2967605	0.0218	0.0460	0.636	-0.0293	0.0690	0.671	0.0321	0.0536	0.550
rs3135506	0.0456	0.0778	0.558	0.4555	0.1238	2.45E-04	0.1918	0.0641	0.003
rs3764261	0.0099	0.0394	0.801	-0.0261	0.0640	0.684	-0.1325	0.0509	0.009
rs3890182	-0.0353	0.0581	0.543	-0.0487	0.0899	0.588	-0.0856	0.0881	0.331
rs4149268	-0.0470	0.0393	0.232	-0.0101	0.0535	0.850	0.0102	0.0514	0.842
rs4775041	-0.0223	0.0388	0.566	-0.0552	0.0727	0.448	-0.0911	0.0587	0.121
rs6102059	-0.0668	0.0394	0.090	-0.0360	0.0519	0.488	0.0611	0.0532	0.251
rs693	0.1449	0.0355	4.65E-05	-0.0850	0.0703	0.227	0.1238	0.0492	0.012
rs754523	0.0290	0.0377	0.442	-0.0921	0.0687	0.180	-0.0055	0.0505	0.913
rs7679	-0.0234	0.0466	0.615	-0.0531	0.1417	0.708	-0.0169	0.0691	0.807
rs780094	0.0084	0.0356	0.814	-0.0106	0.0753	0.888	0.0324	0.0491	0.510
rs9989419	0.0202	0.0372	0.586	0.0861	0.0545	0.114	0.0183	0.0500	0.715