

**Supplementary Material**  
**Branched-Chain Amino Acids and Risk of Lung Cancer: Insights from Mendelian Randomization and NHANES III**

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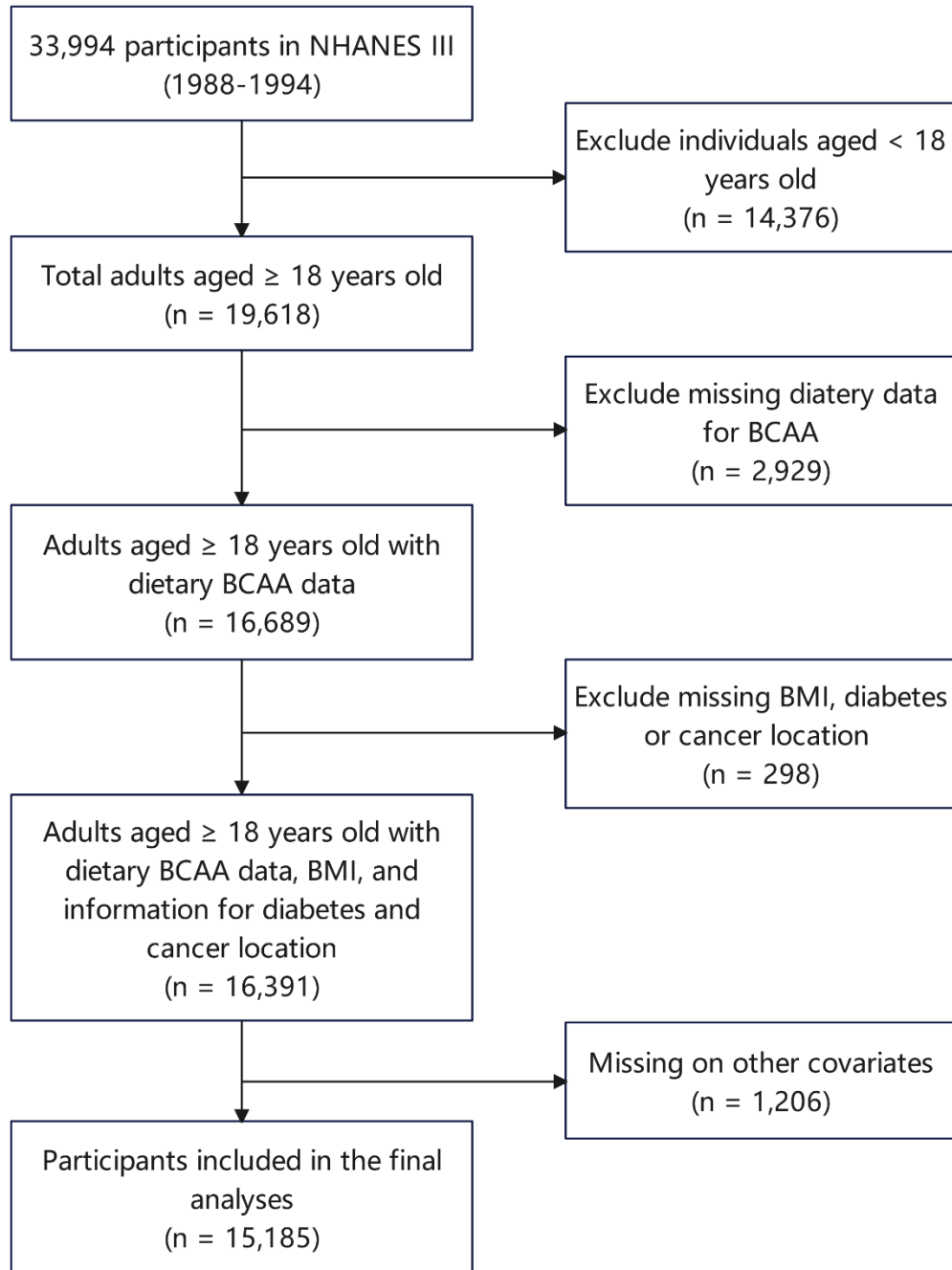
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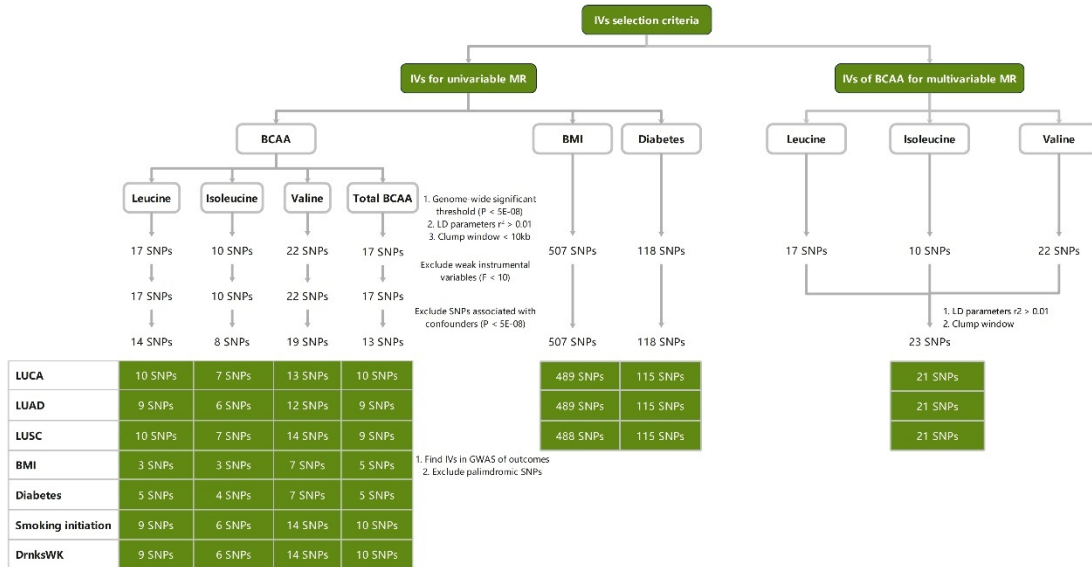
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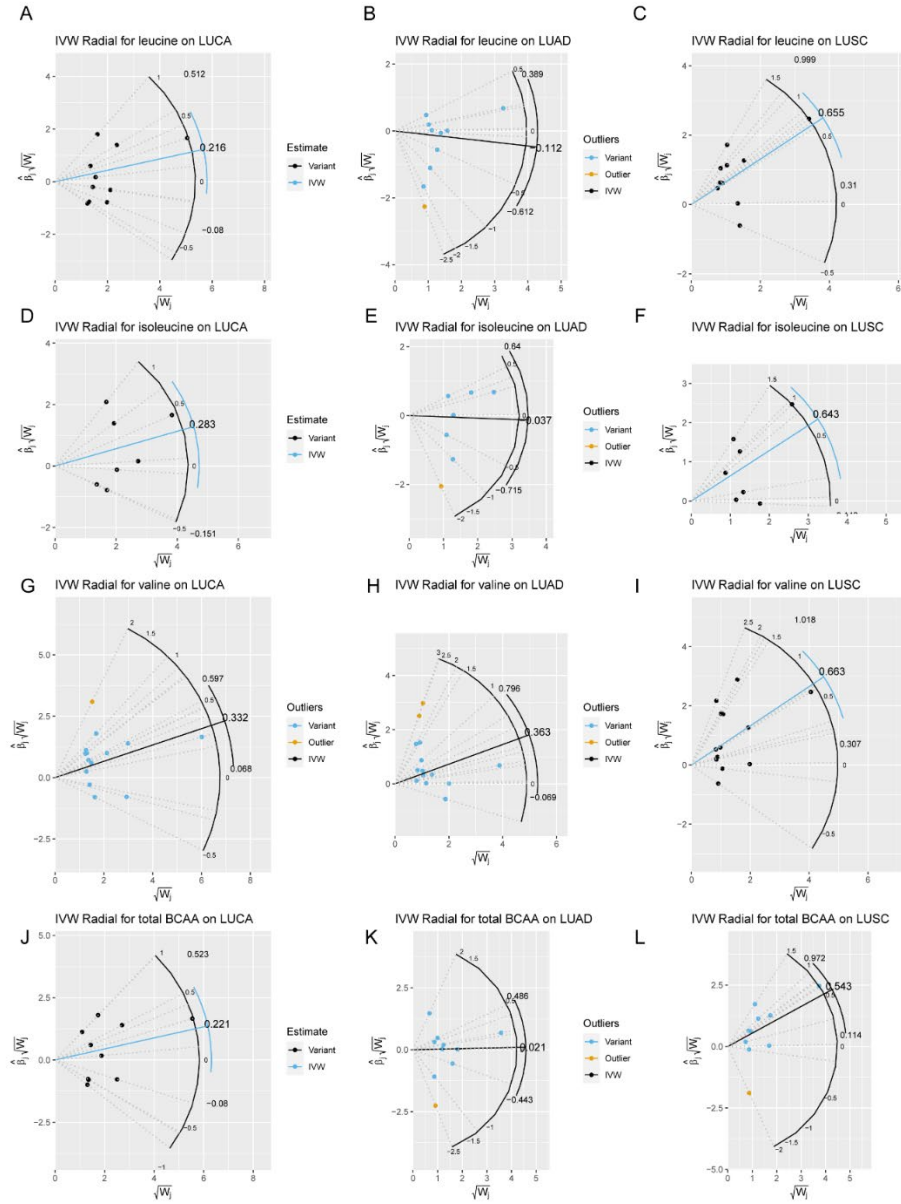
**Supplementary Figure S1. Flowchart of the selection of eligible participants in the NHANES III population. BCAA, branched-chain amino acids; BMI, body mass index.**



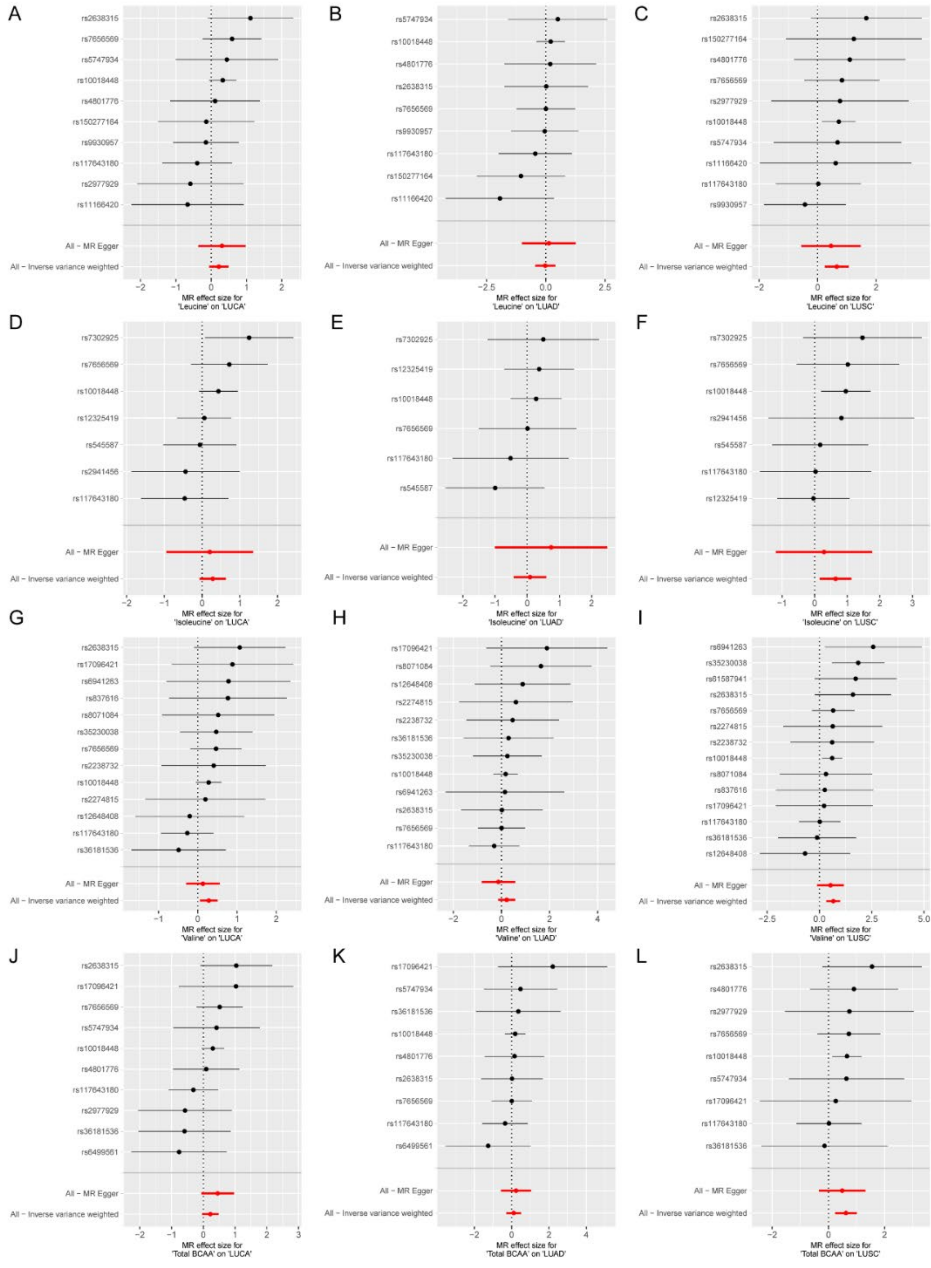
**Supplementary Figure S2. Flowchart of the SNP selection process for UVMR and MVMR analyses. SNP, single nucleotide polymorphism; UVMR, univariable Mendelian randomization; MVMR, multivariable Mendelian randomization; IVs, instrument variables; BCAA, branched-chain amino acids; BMI, body mass index; LD, linkage disequilibrium; LUCA, lung cancer; LUAD, lung adenocarcinoma; LUSC, lung squamous cell carcinoma; DrnkWK, drinks per week.**



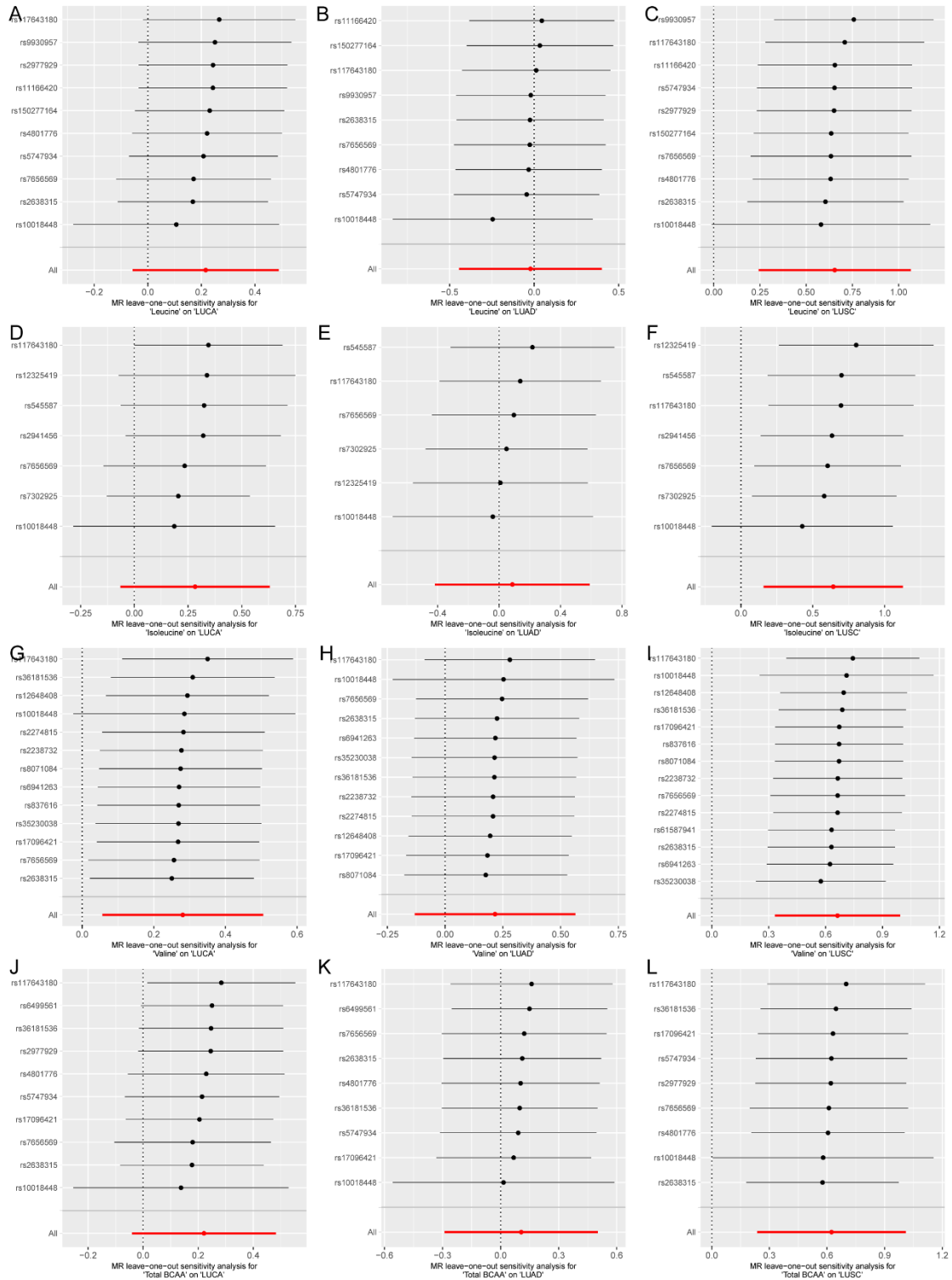
**Supplementary Figure S3. Identification of outliers with IVW Radial for the effects of circulatory BCAA on LUCA and subtypes. (A) Effect of leucine on LUCA. (B). Effect of leucine on LUAD. (C) Effect of leucine on LUSC. (D) Effect of isoleucine on LUCA. (E) Effect of isoleucine on LUAD. (F) Effect of isoleucine on LUSC. (G) Effect of valine on LUCA. (H) Effect of valine on LUAD. (I) Effect of valine on LUSC. (J) Effect of total BCAA on LUCA. (K) Effect of total BCAA on LUAD. (L) Effect of total BCAA on LUSC. IVW Radial, inverse variance weighted Radial; BCAAs, branched-chain amino acids; LUCA, lung cancer; LUAD, lung adenocarcinoma; LUSC, lung squamous cell carcinoma.**



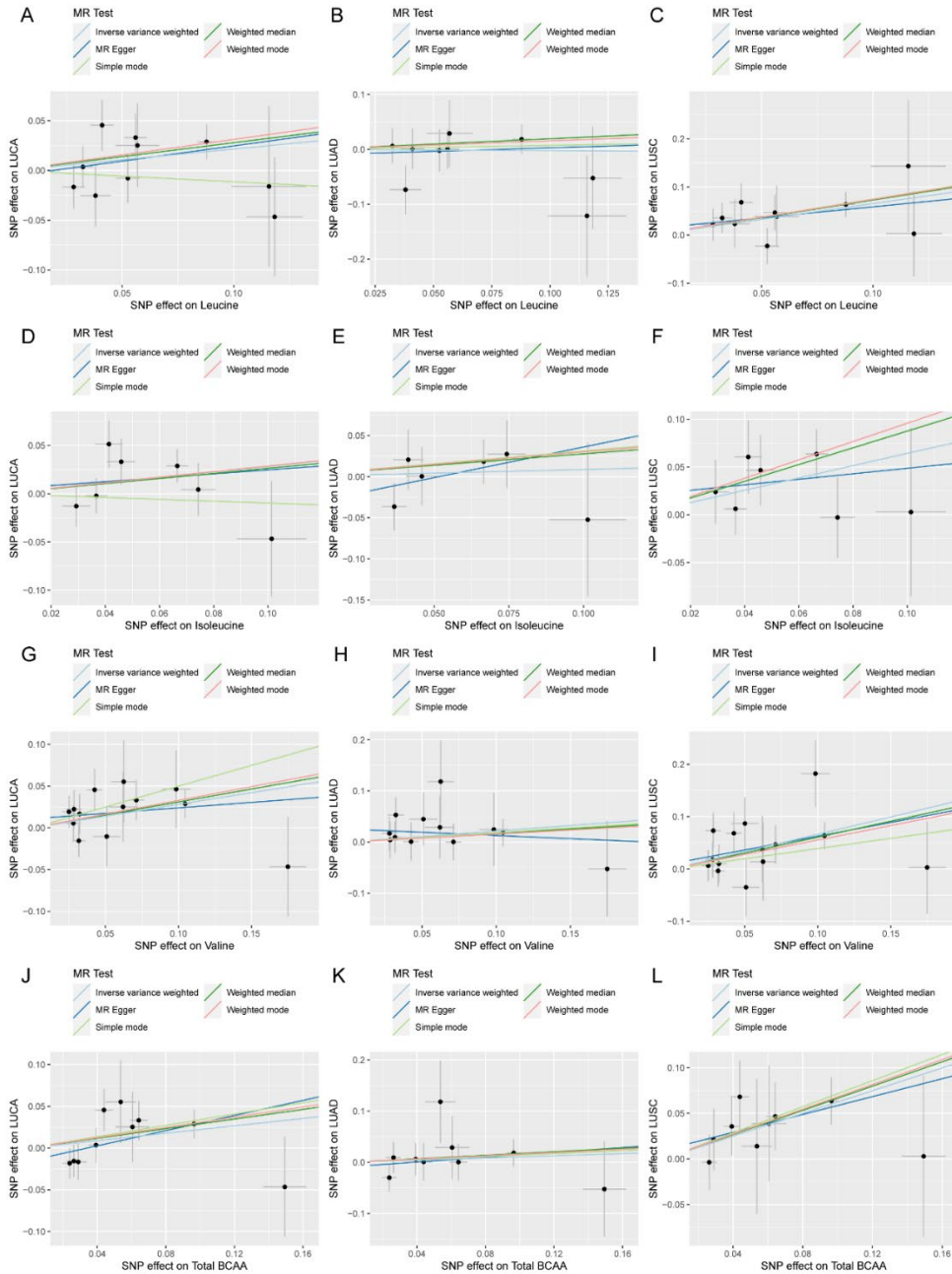
**Supplementary Figure S4. The forest plots for the effects of circulatory BCAA on LUCA and subtypes. (A) Effect of leucine on LUCA. (B). Effect of leucine on LUAD. (C) Effect of leucine on LUSC. (D) Effect of isoleucine on LUCA. (E) Effect of isoleucine on LUAD. (F) Effect of isoleucine on LUSC. (G) Effect of valine on LUCA. (H) Effect of valine on LUAD. (I) Effect of valine on LUSC. (J) Effect of total BCAA on LUCA. (K) Effect of total BCAA on LUAD. (L) Effect of total BCAA on LUSC. MR, Mendelian randomization; BCAAs, branched-chain amino acids; LUCA, lung cancer; LUAD, lung adenocarcinoma; LUSC, lung squamous cell carcinoma.**



**Supplementary Figure S5. The leave-one-out plots for the effects of circulatory BCAA on LUCA and subtypes.**

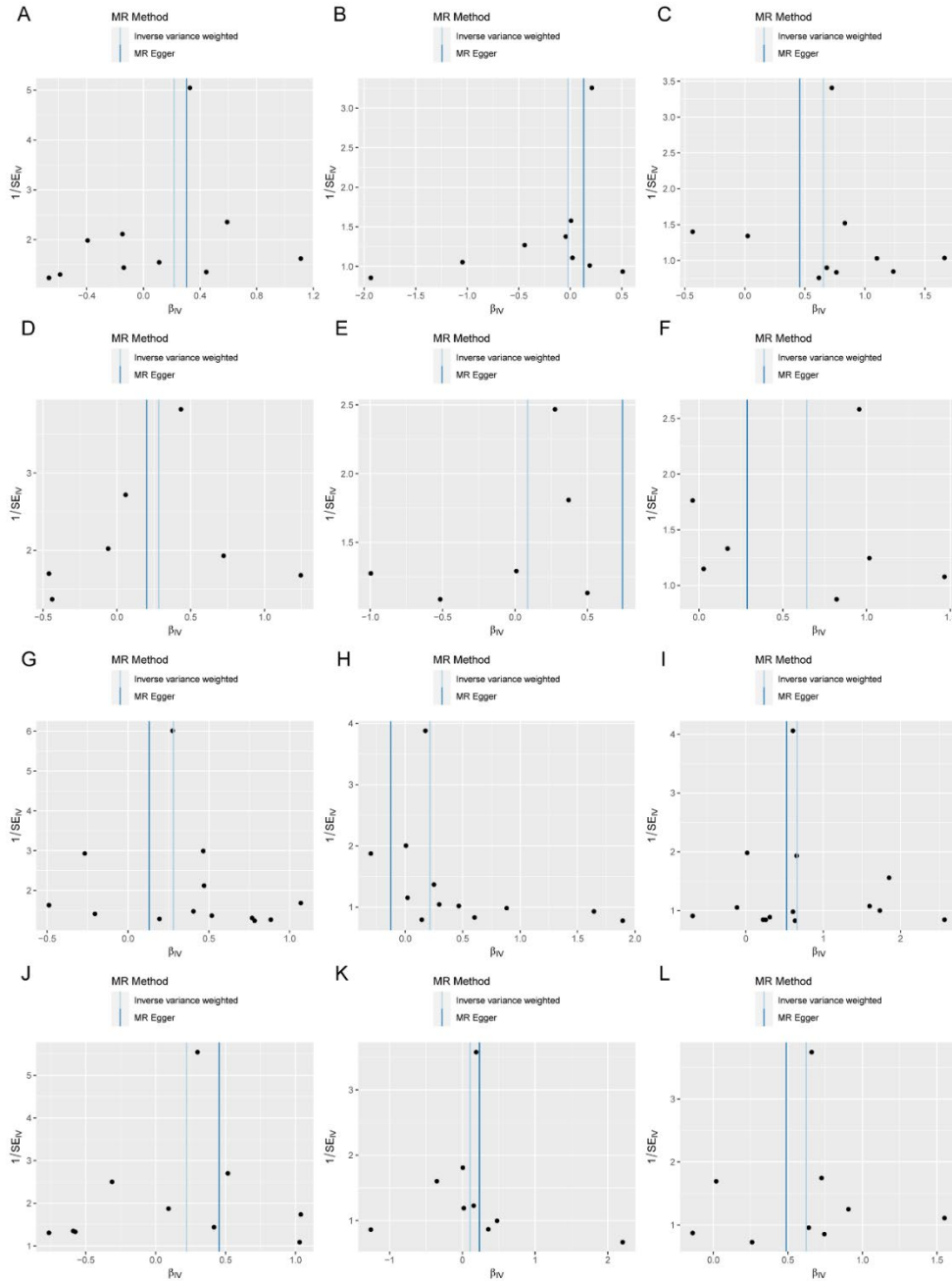


**Supplementary Figure S6. The scatter plots for the effects of circulatory BCAA on LUCA and subtypes. (A) Effect of leucine on LUCA. (B). Effect of leucine on LUAD. (C) Effect of leucine on LUSC. (D) Effect of isoleucine on LUCA. (E) Effect of isoleucine on LUAD. (F) Effect of isoleucine on LUSC. (G) Effect of valine on LUCA. (H) Effect of valine on LUAD. (I) Effect of valine on LUSC. (J) Effect of total BCAA on LUCA. (K) Effect of total BCAA on LUAD. (L) Effect of total BCAA on LUSC. MR, Mendelian randomization; BCAAs, branched-chain amino acids; LUCA, lung cancer; LUAD, lung adenocarcinoma; LUSC, lung squamous cell carcinoma.**

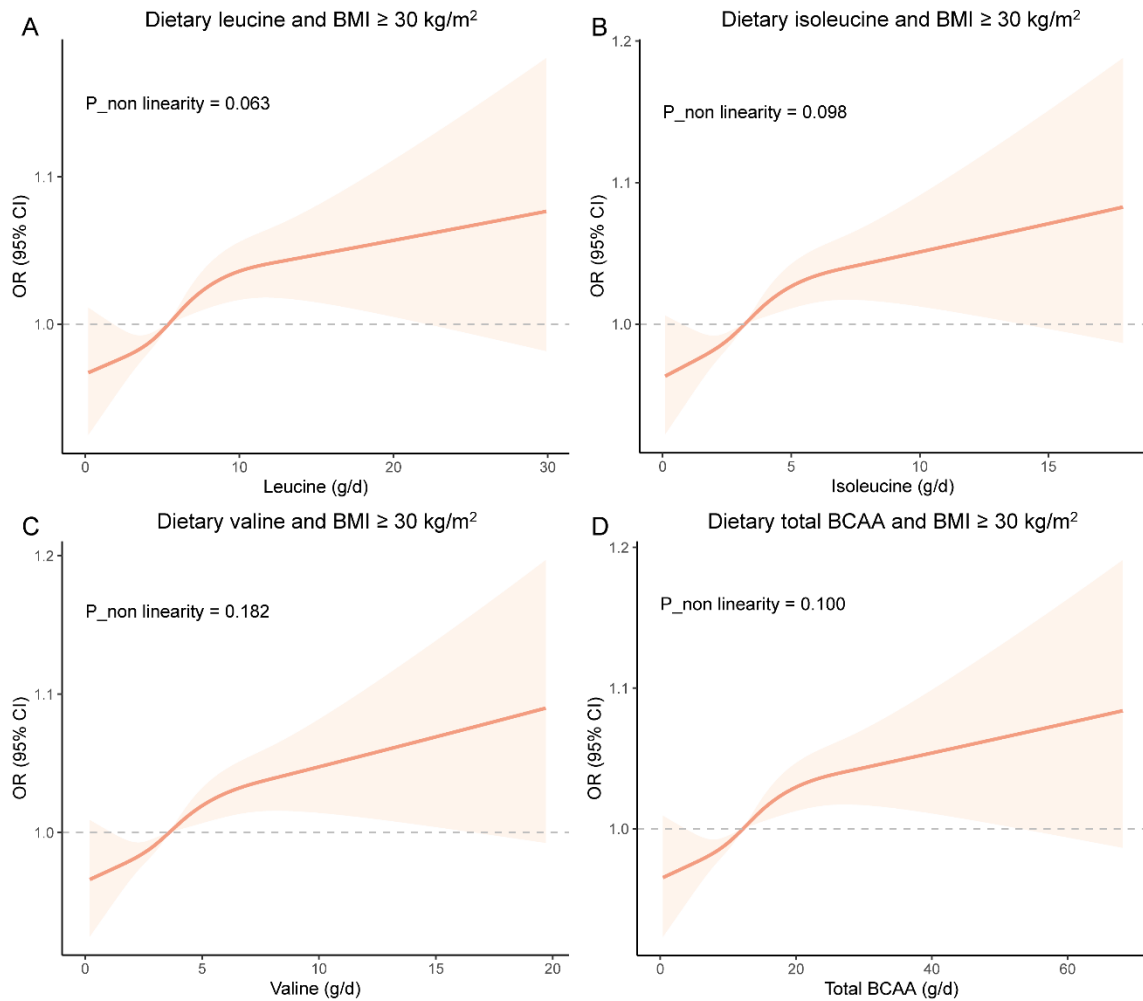




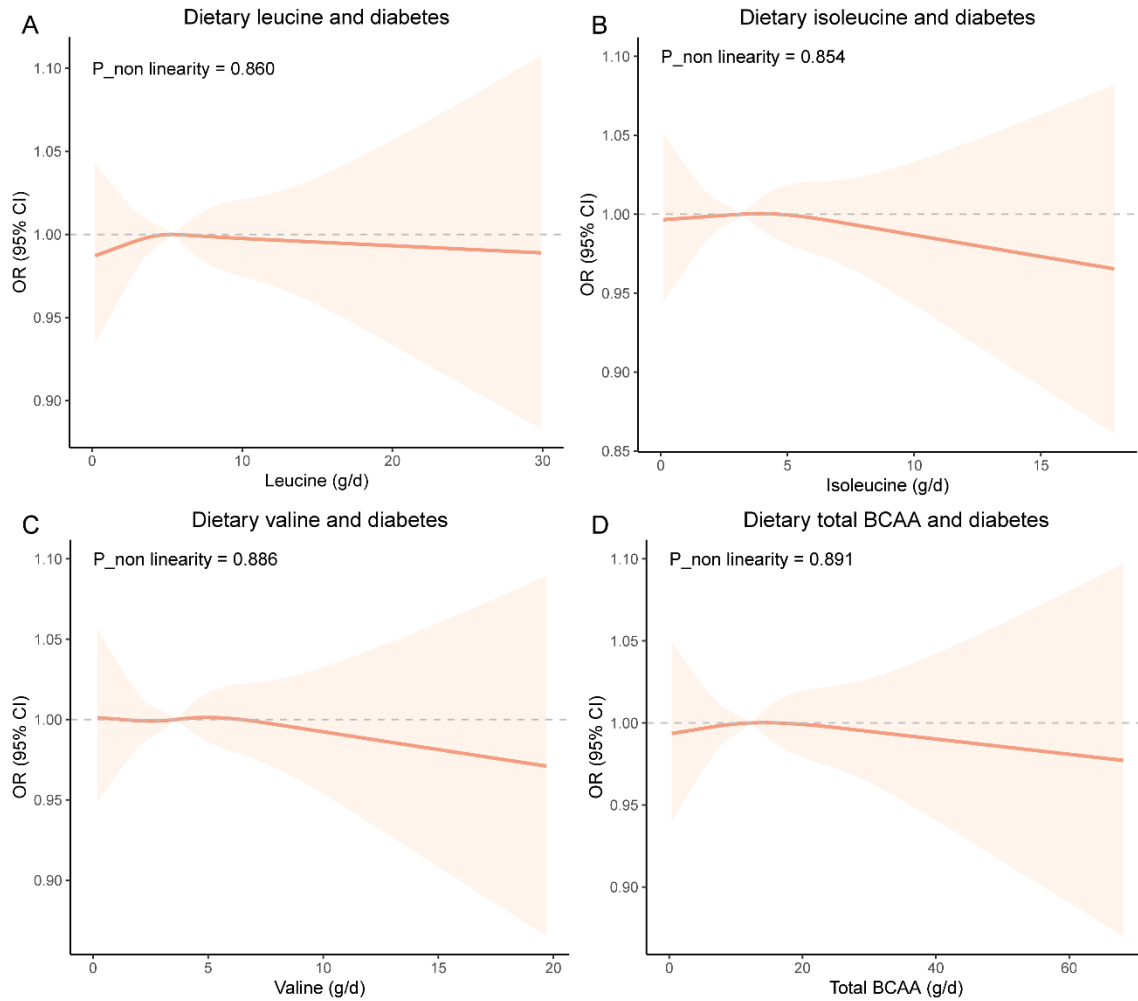
**Supplementary Figure S7. The funnel plots for the effects of circulatory BCAA on LUCA and subtypes. (A) Effect of leucine on LUCA. (B) Effect of leucine on LUAD. (C) Effect of leucine on LUSC. (D) Effect of isoleucine on LUCA. (E) Effect of isoleucine on LUAD. (F) Effect of isoleucine on LUSC. (G) Effect of valine on LUCA. (H) Effect of valine on LUAD. (I) Effect of valine on LUSC. (J) Effect of total BCAA on LUCA. (K) Effect of total BCAA on LUAD. (L) Effect of total BCAA on LUSC. MR, Mendelian randomization; BCAAs, branched-chain amino acids; LUCA, lung cancer; LUAD, lung adenocarcinoma; LUSC, lung squamous cell carcinoma.**



**Supplementary Figure S8. Testing for non-linearity with RCS for the association between dietary BCAA intake and BMI, NHANES III. (A) Non-linearity of dietary leucine with BMI; (B) Non-linearity of dietary isoleucine with BMI; (C) Non-linearity of dietary valine with BMI; (D) Non-linearity of dietary total BCAA with BMI. RCS, restricted cubic spline; BCAA, branched-chain amino acids; OR, odds ratio; 95% CI, 95% confidence interval.**



**Supplementary Figure S9. Testing for non-linearity with RCS for the association between dietary BCAA intake and diabetes, NHANES III. (A) Non-linearity of dietary leucine with diabetes; (B) Non-linearity of dietary isoleucine with diabetes; (C) Non-linearity of dietary valine with diabetes; (D) Non-linearity of dietary total BCAA with diabetes. RCS, restricted cubic spline; BCAA, branched-chain amino acids; OR, odds ratio; 95% CI, 95% confidence interval.**



**Table S1 Detailed information of GWAS involved in this study**

Traits	Consortium	First author	nCases	nControl	Sample size	Ancestry	Year	PubMed ID
Total BCAA	UK Biobank	Borges, CM.	NA	NA	115,047	European	2020	NA
Leucine	UK Biobank	Borges, CM.	NA	NA	115,074	European	2020	NA
Isoleucine	UK Biobank	Borges, CM.	NA	NA	115,075	European	2020	NA
Valine	UK Biobank	Borges, CM.	NA	NA	115,048	European	2020	NA
Lung cancer	ILCCO	Wang, Y.	11,348	15,861	27,209	European	2014	(30)
Lung adenocarcinoma	ILCCO	Wang, Y.	3,442	14,894	18,336	European	2014	(30)
Squamous cell lung cancer	ILCCO	Wang, Y.	3,275	15,038	18,313	European	2014	(30)
Body mass index	GIANT	Yengo, L.	NA	NA	681,275	European	2018	(32)
Type 2 diabetes	NA	Xue, A.	61,714	1,178	655,666	European	2018	(33)
Smoking initiation	GSCAN	Liu, M.	311,629	321,173	607,291	European	2019	(31)
Alcoholic drinks per week	GSCAN	Liu, M.	NA	NA	335,394	European	2019	(31)

GWAS, genome-wide association studies; BCAA, branched-chain amino acids; UK Biobank, United Kingdom Biobank; NA, not applicable; ILCCO International Lung Cancer Consortium; GIANT, Genetic Investigation of Anthropometric Traits; GSCAN, Sequencing Consortium of Alcohol and Nicotine use.

**Table S2 Summary information for SNPs that were used as genetic instruments in the primary analysis**

Exposure	Outcome	SNP	Effect allele	Other allele	Beta	SE	P value	Proxy SNP if used
Total BCAA	LUAD	rs10018448	G	A	0.096454	0.00401	7.3E-128	NA
Total BCAA	LUAD	rs117643180	A	C	-0.1494	0.012659	3.8E-32	NA
Total BCAA	LUAD	rs17096421	T	A	0.05369	0.008781	9.7E-10	NA
Total BCAA	LUAD	rs2638315	C	G	0.043896	0.00516	1.8E-17	NA
Total BCAA	LUAD	rs36181536	C	T	-0.02633	0.004269	7E-10	NA
Total BCAA	LUAD	rs4801776	T	C	-0.03927	0.004459	1.3E-18	NA
Total BCAA	LUAD	rs5747934	T	C	-0.06054	0.009958	1.2E-09	NA
Total BCAA	LUAD	rs6499561	G	A	0.023894	0.004207	1.3E-08	NA
Total BCAA	LUAD	rs7656569	A	C	0.064212	0.005137	7.4E-36	NA
Valine	LUAD	rs10018448	G	A	0.1046	0.004032	2.3E-148	NA
Valine	LUAD	rs117643180	A	C	-0.17484	0.01273	6.3E-43	NA
Valine	LUAD	rs12648408	A	G	-0.05088	0.009284	4.2E-08	NA
Valine	LUAD	rs17096421	T	A	0.062542	0.008831	1.4E-12	NA
Valine	LUAD	rs2238732	T	C	-0.06205	0.010017	5.8E-10	NA
Valine	LUAD	rs2274815	A	G	0.02804	0.004982	1.8E-08	NA
Valine	LUAD	rs2638315	C	G	0.042605	0.00519	2.2E-16	NA
Valine	LUAD	rs35230038	A	G	-0.09842	0.009811	1.1E-23	NA
Valine	LUAD	rs36181536	C	T	-0.03179	0.004294	1.3E-13	NA
Valine	LUAD	rs6941263	A	T	-0.0285	0.005164	3.4E-08	NA
Valine	LUAD	rs7656569	A	C	0.071136	0.005166	3.8E-43	NA
Valine	LUAD	rs8071084	G	T	-0.03234	0.005457	3.1E-09	NA
Isoleucine	LUAD	rs10018448	G	A	0.066556	0.00407	4.1E-60	NA
Isoleucine	LUAD	rs117643180	A	C	-0.10139	0.012841	2.9E-15	NA
Isoleucine	LUAD	rs12325419	A	G	-0.0743	0.006343	1.1E-31	NA
Isoleucine	LUAD	rs545587	C	A	0.036642	0.004072	2.3E-19	NA
Isoleucine	LUAD	rs7302925	G	A	-0.04133	0.005071	3.6E-16	NA
Isoleucine	LUAD	rs7656569	A	C	0.045854	0.005214	1.4E-18	NA

Leucine	LUAD	rs10018448	G	A	0.087817	0.003976	4.3E-108	NA
Leucine	LUAD	rs11166420	A	T	-0.03801	0.006744	1.7E-08	NA
Leucine	LUAD	rs117643180	A	C	-0.11838	0.012549	4E-21	NA
Leucine	LUAD	rs150277164	A	G	0.115856	0.01679	5.2E-12	NA
Leucine	LUAD	rs2638315	C	G	0.040947	0.005116	1.2E-15	NA
Leucine	LUAD	rs4801776	T	C	-0.03237	0.004422	2.4E-13	NA
Leucine	LUAD	rs5747934	T	C	-0.05684	0.009873	8.6E-09	NA
Leucine	LUAD	rs7656569	A	C	0.055987	0.005094	4.2E-28	NA
Leucine	LUAD	rs9930957	T	C	0.052545	0.005398	2.1E-22	NA
Leucine	LUCA	rs10018448	G	A	0.087817	0.003976	4.3E-108	NA
Leucine	LUCA	rs11166420	A	T	-0.03801	0.006744	1.7E-08	NA
Leucine	LUCA	rs117643180	A	C	-0.11838	0.012549	4E-21	NA
Leucine	LUCA	rs150277164	A	G	0.115856	0.01679	5.2E-12	NA
Leucine	LUCA	rs2638315	C	G	0.040947	0.005116	1.2E-15	NA
Leucine	LUCA	rs2977929	T	C	0.028202	0.005006	1.8E-08	NA
Leucine	LUCA	rs4801776	T	C	-0.03237	0.004422	2.4E-13	NA
Leucine	LUCA	rs5747934	T	C	-0.05684	0.009873	8.6E-09	NA
Leucine	LUCA	rs7656569	A	C	0.055987	0.005094	4.2E-28	NA
Leucine	LUCA	rs9930957	T	C	0.052545	0.005398	2.1E-22	NA
Valine	LUCA	rs10018448	G	A	0.1046	0.004032	2.3E-148	NA
Valine	LUCA	rs117643180	A	C	-0.17484	0.01273	6.3E-43	NA
Valine	LUCA	rs12648408	A	G	-0.05088	0.009284	4.2E-08	NA
Valine	LUCA	rs17096421	T	A	0.062542	0.008831	1.4E-12	NA
Valine	LUCA	rs2238732	T	C	-0.06205	0.010017	5.8E-10	NA
Valine	LUCA	rs2274815	A	G	0.02804	0.004982	1.8E-08	NA
Valine	LUCA	rs2638315	C	G	0.042605	0.00519	2.2E-16	NA
Valine	LUCA	rs35230038	A	G	-0.09842	0.009811	1.1E-23	NA
Valine	LUCA	rs36181536	C	T	-0.03179	0.004294	1.3E-13	NA
Valine	LUCA	rs6941263	A	T	-0.0285	0.005164	3.4E-08	NA
Valine	LUCA	rs7656569	A	C	0.071136	0.005166	3.8E-43	NA

Valine	LUCA	rs8071084	G	T	-0.03234	0.005457	3.1E-09	NA
Valine	LUCA	rs837616	G	A	-0.02504	0.00443	1.6E-08	NA
Total BCAA	LUCA	rs10018448	G	A	0.096454	0.00401	7.3E-128	NA
Total BCAA	LUCA	rs117643180	A	C	-0.1494	0.012659	3.8E-32	NA
Total BCAA	LUCA	rs17096421	T	A	0.05369	0.008781	9.7E-10	NA
Total BCAA	LUCA	rs2638315	C	G	0.043896	0.00516	1.8E-17	NA
Total BCAA	LUCA	rs2977929	T	C	0.028877	0.005049	1.1E-08	NA
Total BCAA	LUCA	rs36181536	C	T	-0.02633	0.004269	7E-10	NA
Total BCAA	LUCA	rs4801776	T	C	-0.03927	0.004459	1.3E-18	NA
Total BCAA	LUCA	rs5747934	T	C	-0.06054	0.009958	1.2E-09	NA
Total BCAA	LUCA	rs6499561	G	A	0.023894	0.004207	1.3E-08	NA
Total BCAA	LUCA	rs7656569	A	C	0.064212	0.005137	7.4E-36	NA
Isoleucine	LUCA	rs10018448	G	A	0.066556	0.00407	4.1E-60	NA
Isoleucine	LUCA	rs117643180	A	C	-0.10139	0.012841	2.9E-15	NA
Isoleucine	LUCA	rs12325419	A	G	-0.0743	0.006343	1.1E-31	NA
Isoleucine	LUCA	rs2941456	A	G	0.029259	0.005092	9.1E-09	NA
Isoleucine	LUCA	rs545587	C	A	0.036642	0.004072	2.3E-19	NA
Isoleucine	LUCA	rs7302925	G	A	-0.04133	0.005071	3.6E-16	NA
Isoleucine	LUCA	rs7656569	A	C	0.045854	0.005214	1.4E-18	NA
Total BCAA	LUSC	rs10018448	G	A	0.096454	0.00401	7.3E-128	NA
Total BCAA	LUSC	rs117643180	A	C	-0.1494	0.012659	3.8E-32	NA
Total BCAA	LUSC	rs17096421	T	A	0.05369	0.008781	9.7E-10	NA
Total BCAA	LUSC	rs2638315	C	G	0.043896	0.00516	1.8E-17	NA
Total BCAA	LUSC	rs2977929	T	C	0.028877	0.005049	1.1E-08	NA
Total BCAA	LUSC	rs36181536	C	T	-0.02633	0.004269	7E-10	NA
Total BCAA	LUSC	rs4801776	T	C	-0.03927	0.004459	1.3E-18	NA
Total BCAA	LUSC	rs5747934	T	C	-0.06054	0.009958	1.2E-09	NA
Total BCAA	LUSC	rs7656569	A	C	0.064212	0.005137	7.4E-36	NA
Valine	LUSC	rs10018448	G	A	0.1046	0.004032	2.3E-148	NA
Valine	LUSC	rs117643180	A	C	-0.17484	0.01273	6.3E-43	NA

Valine	LUSC	rs12648408	A	G	-0.05088	0.009284	4.2E-08	NA
Valine	LUSC	rs17096421	T	A	0.062542	0.008831	1.4E-12	NA
Valine	LUSC	rs2238732	T	C	-0.06205	0.010017	5.8E-10	NA
Valine	LUSC	rs2274815	A	G	0.02804	0.004982	1.8E-08	NA
Valine	LUSC	rs2638315	C	G	0.042605	0.00519	2.2E-16	NA
Valine	LUSC	rs35230038	A	G	-0.09842	0.009811	1.1E-23	NA
Valine	LUSC	rs36181536	C	T	-0.03179	0.004294	1.3E-13	NA
Valine	LUSC	rs61587941	A	G	-0.05018	0.009094	3.4E-08	NA
Valine	LUSC	rs6941263	A	T	-0.0285	0.005164	3.4E-08	NA
Valine	LUSC	rs7656569	A	C	0.071136	0.005166	3.8E-43	NA
Valine	LUSC	rs8071084	G	T	-0.03234	0.005457	3.1E-09	NA
Valine	LUSC	rs837616	G	A	-0.02504	0.00443	1.6E-08	NA
Leucine	LUSC	rs10018448	G	A	0.087817	0.003976	4.3E-108	NA
Leucine	LUSC	rs11166420	A	T	-0.03801	0.006744	1.7E-08	NA
Leucine	LUSC	rs117643180	A	C	-0.11838	0.012549	4E-21	NA
Leucine	LUSC	rs150277164	A	G	0.115856	0.01679	5.2E-12	NA
Leucine	LUSC	rs2638315	C	G	0.040947	0.005116	1.2E-15	NA
Leucine	LUSC	rs2977929	T	C	0.028202	0.005006	1.8E-08	NA
Leucine	LUSC	rs4801776	T	C	-0.03237	0.004422	2.4E-13	NA
Leucine	LUSC	rs5747934	T	C	-0.05684	0.009873	8.6E-09	NA
Leucine	LUSC	rs7656569	A	C	0.055987	0.005094	4.2E-28	NA
Leucine	LUSC	rs9930957	T	C	0.052545	0.005398	2.1E-22	NA
Isoleucine	LUSC	rs10018448	G	A	0.066556	0.00407	4.1E-60	NA
Isoleucine	LUSC	rs117643180	A	C	-0.10139	0.012841	2.9E-15	NA
Isoleucine	LUSC	rs12325419	A	G	-0.0743	0.006343	1.1E-31	NA
Isoleucine	LUSC	rs2941456	A	G	0.029259	0.005092	9.1E-09	NA
Isoleucine	LUSC	rs545587	C	A	0.036642	0.004072	2.3E-19	NA
Isoleucine	LUSC	rs7302925	G	A	-0.04133	0.005071	3.6E-16	NA
Isoleucine	LUSC	rs7656569	A	C	0.045854	0.005214	1.4E-18	NA
Leucine	Type 2 diabetes	rs10018448	G	A	0.087817	0.003976	4.3E-108	NA



Leucine	Type 2 diabetes	rs11166420	A	T	-0.03801	0.006744	1.7E-08	NA
Leucine	Type 2 diabetes	rs2638315	C	G	0.040947	0.005116	1.2E-15	NA
Leucine	Type 2 diabetes	rs2977929	T	C	0.028202	0.005006	1.8E-08	NA
Leucine	Type 2 diabetes	rs9930957	T	C	0.052545	0.005398	2.1E-22	NA
Valine	Type 2 diabetes	rs10018448	G	A	0.1046	0.004032	2.3E-148	NA
Valine	Type 2 diabetes	rs2274815	A	G	0.02804	0.004982	1.8E-08	NA
Valine	Type 2 diabetes	rs2638315	C	G	0.042605	0.00519	2.2E-16	NA
Valine	Type 2 diabetes	rs36181536	C	T	-0.03179	0.004294	1.3E-13	NA
Valine	Type 2 diabetes	rs6941263	A	T	-0.0285	0.005164	3.4E-08	NA
Valine	Type 2 diabetes	rs8071084	G	T	-0.03234	0.005457	3.1E-09	NA
Valine	Type 2 diabetes	rs837616	G	A	-0.02504	0.00443	1.6E-08	NA
Total BCAA	Type 2 diabetes	rs10018448	G	A	0.096454	0.00401	7.3E-128	NA
Total BCAA	Type 2 diabetes	rs2638315	C	G	0.043896	0.00516	1.8E-17	NA
Total BCAA	Type 2 diabetes	rs2977929	T	C	0.028877	0.005049	1.1E-08	NA
Total BCAA	Type 2 diabetes	rs36181536	C	T	-0.02633	0.004269	7E-10	NA
Total BCAA	Type 2 diabetes	rs6499561	G	A	0.023894	0.004207	1.3E-08	rs6416742
Isoleucine	Type 2 diabetes	rs10018448	G	A	0.066556	0.00407	4.1E-60	NA
Isoleucine	Type 2 diabetes	rs12325419	A	G	-0.0743	0.006343	1.1E-31	NA
Isoleucine	Type 2 diabetes	rs2941456	A	G	0.029259	0.005092	9.1E-09	NA
Isoleucine	Type 2 diabetes	rs7302925	G	A	-0.04133	0.005071	3.6E-16	NA
Leucine	BMI	rs10018448	G	A	0.087817	0.003976	4.3E-108	rs1440581
Leucine	BMI	rs2977929	T	C	0.028202	0.005006	1.8E-08	rs2941478
Leucine	BMI	rs5747934	T	C	-0.05684	0.009873	8.6E-09	NA
Valine	BMI	rs10018448	G	A	0.1046	0.004032	2.3E-148	rs1440581
Valine	BMI	rs2238732	T	C	-0.06205	0.010017	5.8E-10	NA
Valine	BMI	rs2274815	A	G	0.02804	0.004982	1.8E-08	rs7141129
Valine	BMI	rs36181536	C	T	-0.03179	0.004294	1.3E-13	rs4758684
Valine	BMI	rs6941263	A	T	-0.0285	0.005164	3.4E-08	NA
Valine	BMI	rs8071084	G	T	-0.03234	0.005457	3.1E-09	rs6565620
Valine	BMI	rs837616	G	A	-0.02504	0.00443	1.6E-08	rs506425

Total BCAA	BMI	rs10018448	G	A	0.096454	0.00401	7.3E-128	rs1440581
Total BCAA	BMI	rs2977929	T	C	0.028877	0.005049	1.1E-08	rs2941478
Total BCAA	BMI	rs36181536	C	T	-0.02633	0.004269	7E-10	rs4758684
Total BCAA	BMI	rs5747934	T	C	-0.06054	0.009958	1.2E-09	NA
Total BCAA	BMI	rs6499561	G	A	0.023894	0.004207	1.3E-08	rs6416742
Isoleucine	BMI	rs10018448	G	A	0.066556	0.00407	4.1E-60	rs1440581
Isoleucine	BMI	rs2941456	A	G	0.029259	0.005092	9.1E-09	rs2272668
Isoleucine	BMI	rs7302925	G	A	-0.04133	0.005071	3.6E-16	NA
Valine	Smoking initiation	rs10018448	G	A	0.1046	0.004032	2.3E-148	NA
Valine	Smoking initiation	rs117048185	C	G	0.189858	0.015431	8.7E-35	NA
Valine	Smoking initiation	rs117643180	A	C	-0.17484	0.01273	6.3E-43	NA
Valine	Smoking initiation	rs12974412	G	A	-0.02725	0.00499	4.8E-08	NA
Valine	Smoking initiation	rs17096421	T	A	0.062542	0.008831	1.4E-12	NA
Valine	Smoking initiation	rs2238732	T	C	-0.06205	0.010017	5.8E-10	NA
Valine	Smoking initiation	rs2274815	A	G	0.02804	0.004982	1.8E-08	NA
Valine	Smoking initiation	rs2638315	C	G	0.042605	0.00519	2.2E-16	NA
Valine	Smoking initiation	rs35230038	A	G	-0.09842	0.009811	1.1E-23	NA
Valine	Smoking initiation	rs36181536	C	T	-0.03179	0.004294	1.3E-13	NA
Valine	Smoking initiation	rs61587941	A	G	-0.05018	0.009094	3.4E-08	NA
Valine	Smoking initiation	rs6941263	A	T	-0.0285	0.005164	3.4E-08	NA
Valine	Smoking initiation	rs8071084	G	T	-0.03234	0.005457	3.1E-09	NA
Valine	Smoking initiation	rs837616	G	A	-0.02504	0.00443	1.6E-08	NA
Isoleucine	Smoking initiation	rs10018448	G	A	0.066556	0.00407	4.1E-60	NA
Isoleucine	Smoking initiation	rs117643180	A	C	-0.10139	0.012841	2.9E-15	NA
Isoleucine	Smoking initiation	rs12325419	A	G	-0.0743	0.006343	1.1E-31	NA
Isoleucine	Smoking initiation	rs2941456	A	G	0.029259	0.005092	9.1E-09	rs2272668
Isoleucine	Smoking initiation	rs545587	C	A	0.036642	0.004072	2.3E-19	NA
Isoleucine	Smoking initiation	rs7302925	G	A	-0.04133	0.005071	3.6E-16	NA
Total BCAA	Smoking initiation	rs10018448	G	A	0.096454	0.00401	7.3E-128	NA
Total BCAA	Smoking initiation	rs117643180	A	C	-0.1494	0.012659	3.8E-32	NA

Total BCAA	Smoking initiation	rs12974412	G	A	-0.02795	0.004962	1.8E-08	NA
Total BCAA	Smoking initiation	rs17096421	T	A	0.05369	0.008781	9.7E-10	NA
Total BCAA	Smoking initiation	rs2638315	C	G	0.043896	0.00516	1.8E-17	NA
Total BCAA	Smoking initiation	rs2977929	T	C	0.028877	0.005049	1.1E-08	NA
Total BCAA	Smoking initiation	rs36181536	C	T	-0.02633	0.004269	7E-10	NA
Total BCAA	Smoking initiation	rs4801776	T	C	-0.03927	0.004459	1.3E-18	NA
Total BCAA	Smoking initiation	rs5747934	T	C	-0.06054	0.009958	1.2E-09	NA
Total BCAA	Smoking initiation	rs6499561	G	A	0.023894	0.004207	1.3E-08	rs6416742
Leucine	Smoking initiation	rs10018448	G	A	0.087817	0.003976	4.3E-108	NA
Leucine	Smoking initiation	rs117643180	A	C	-0.11838	0.012549	4E-21	NA
Leucine	Smoking initiation	rs12974412	G	A	-0.02911	0.00492	3.3E-09	NA
Leucine	Smoking initiation	rs150277164	A	G	0.115856	0.01679	5.2E-12	NA
Leucine	Smoking initiation	rs2638315	C	G	0.040947	0.005116	1.2E-15	NA
Leucine	Smoking initiation	rs2977929	T	C	0.028202	0.005006	1.8E-08	NA
Leucine	Smoking initiation	rs4801776	T	C	-0.03237	0.004422	2.4E-13	NA
Leucine	Smoking initiation	rs5747934	T	C	-0.05684	0.009873	8.6E-09	NA
Leucine	Smoking initiation	rs9930957	T	C	0.052545	0.005398	2.1E-22	NA
Isoleucine	Alcoholic drinks per week	rs10018448	G	A	0.066556	0.00407	4.1E-60	NA
Isoleucine	Alcoholic drinks per week	rs117643180	A	C	-0.10139	0.012841	2.9E-15	NA
Isoleucine	Alcoholic drinks per week	rs12325419	A	G	-0.0743	0.006343	1.1E-31	NA
Isoleucine	Alcoholic drinks per week	rs2941456	A	G	0.029259	0.005092	9.1E-09	rs2272668
Isoleucine	Alcoholic drinks per week	rs545587	C	A	0.036642	0.004072	2.3E-19	NA
Isoleucine	Alcoholic drinks per week	rs7302925	G	A	-0.04133	0.005071	3.6E-16	NA
Total BCAA	Alcoholic drinks per week	rs10018448	G	A	0.096454	0.00401	7.3E-128	NA
Total BCAA	Alcoholic drinks per week	rs117643180	A	C	-0.1494	0.012659	3.8E-32	NA
Total BCAA	Alcoholic drinks per week	rs12974412	G	A	-0.02795	0.004962	1.8E-08	NA
Total BCAA	Alcoholic drinks per week	rs17096421	T	A	0.05369	0.008781	9.7E-10	NA
Total BCAA	Alcoholic drinks per week	rs2638315	C	G	0.043896	0.00516	1.8E-17	NA
Total BCAA	Alcoholic drinks per week	rs2977929	T	C	0.028877	0.005049	1.1E-08	NA
Total BCAA	Alcoholic drinks per week	rs36181536	C	T	-0.02633	0.004269	7E-10	NA

Total BCAA	Alcoholic drinks per week	rs4801776	T	C	-0.03927	0.004459	1.3E-18	NA
Total BCAA	Alcoholic drinks per week	rs5747934	T	C	-0.06054	0.009958	1.2E-09	NA
Total BCAA	Alcoholic drinks per week	rs6499561	G	A	0.023894	0.004207	1.3E-08	rs6416742
Valine	Alcoholic drinks per week	rs10018448	G	A	0.1046	0.004032	2.3E-148	NA
Valine	Alcoholic drinks per week	rs117048185	C	G	0.189858	0.015431	8.7E-35	NA
Valine	Alcoholic drinks per week	rs117643180	A	C	-0.17484	0.01273	6.3E-43	NA
Valine	Alcoholic drinks per week	rs12974412	G	A	-0.02725	0.00499	4.8E-08	NA
Valine	Alcoholic drinks per week	rs17096421	T	A	0.062542	0.008831	1.4E-12	NA
Valine	Alcoholic drinks per week	rs2238732	T	C	-0.06205	0.010017	5.8E-10	NA
Valine	Alcoholic drinks per week	rs2274815	A	G	0.02804	0.004982	1.8E-08	NA
Valine	Alcoholic drinks per week	rs2638315	C	G	0.042605	0.00519	2.2E-16	NA
Valine	Alcoholic drinks per week	rs35230038	A	G	-0.09842	0.009811	1.1E-23	NA
Valine	Alcoholic drinks per week	rs36181536	C	T	-0.03179	0.004294	1.3E-13	NA
Valine	Alcoholic drinks per week	rs61587941	A	G	-0.05018	0.009094	3.4E-08	NA
Valine	Alcoholic drinks per week	rs6941263	A	T	-0.0285	0.005164	3.4E-08	NA
Valine	Alcoholic drinks per week	rs8071084	G	T	-0.03234	0.005457	3.1E-09	NA
Valine	Alcoholic drinks per week	rs837616	G	A	-0.02504	0.00443	1.6E-08	NA
Leucine	Alcoholic drinks per week	rs10018448	G	A	0.087817	0.003976	4.3E-108	NA
Leucine	Alcoholic drinks per week	rs117643180	A	C	-0.11838	0.012549	4E-21	NA
Leucine	Alcoholic drinks per week	rs12974412	G	A	-0.02911	0.00492	3.3E-09	NA
Leucine	Alcoholic drinks per week	rs150277164	A	G	0.115856	0.01679	5.2E-12	NA
Leucine	Alcoholic drinks per week	rs2638315	C	G	0.040947	0.005116	1.2E-15	NA
Leucine	Alcoholic drinks per week	rs2977929	T	C	0.028202	0.005006	1.8E-08	NA
Leucine	Alcoholic drinks per week	rs4801776	T	C	-0.03237	0.004422	2.4E-13	NA
Leucine	Alcoholic drinks per week	rs5747934	T	C	-0.05684	0.009873	8.6E-09	NA
Leucine	Alcoholic drinks per week	rs9930957	T	C	0.052545	0.005398	2.1E-22	NA
BMI	LUAD	rs10009336	T	C	-0.014	794766	2.2E-10	NA
BMI	LUAD	rs1006896	C	A	-0.0234	691892	5.5E-18	NA
BMI	LUAD	rs10132280	A	C	-0.0223	786578	5.6E-35	NA
BMI	LUAD	rs10169594	C	T	0.0121	685712	2E-11	NA

BMI	LUAD	rs10182181	G	A	0.0325	792111	6.7E-90	NA
BMI	LUAD	rs10192119	G	T	0.0166	795369	3E-14	NA
BMI	LUAD	rs10197031	C	T	0.0166	691479	1.9E-18	NA
BMI	LUAD	rs10243319	C	T	-0.0107	690936	1.2E-09	NA
BMI	LUAD	rs10247983	A	G	0.0201	672411	1.7E-09	NA
BMI	LUAD	rs10248136	T	C	-0.0097	686892	2E-08	NA
BMI	LUAD	rs10269783	A	G	0.0133	790551	1.4E-15	NA
BMI	LUAD	rs10408324	T	C	-0.0124	690737	9.5E-11	NA
BMI	LUAD	rs10478110	C	A	0.01	680441	9.6E-09	NA
BMI	LUAD	rs1048932	A	C	-0.016	795167	3.8E-22	NA
BMI	LUAD	rs10492229	T	C	0.0142	794845	7.7E-14	NA
BMI	LUAD	rs10510419	T	G	-0.0177	789318	2.2E-14	NA
BMI	LUAD	rs10518694	A	C	0.0146	690554	3.3E-09	NA
BMI	LUAD	rs1064213	A	G	0.012	692576	2.4E-12	NA
BMI	LUAD	rs10733051	G	A	-0.0097	781928	2.9E-09	NA
BMI	LUAD	rs10742752	C	T	0.0124	792704	1.1E-13	NA
BMI	LUAD	rs10747488	A	C	-0.0123	689295	1.2E-09	NA
BMI	LUAD	rs10750215	T	G	0.0108	788895	1.3E-10	NA
BMI	LUAD	rs1075901	C	T	0.0121	794789	1.2E-13	NA
BMI	LUAD	rs10768994	C	T	-0.0114	791685	6.4E-12	NA
BMI	LUAD	rs10795422	G	A	0.0139	692108	9.3E-14	NA
BMI	LUAD	rs10811871	G	A	-0.0108	686376	1.6E-09	NA
BMI	LUAD	rs10832778	G	C	0.0125	783042	1.3E-13	NA
BMI	LUAD	rs10858334	G	C	0.0143	672640	2.7E-08	NA
BMI	LUAD	rs10867256	T	C	-0.0118	689493	8.7E-12	NA
BMI	LUAD	rs10878946	T	C	-0.0141	685707	3.6E-13	NA
BMI	LUAD	rs10914462	G	A	-0.0112	689808	1.5E-10	NA
BMI	LUAD	rs10915840	A	G	-0.0118	684857	1.3E-09	NA
BMI	LUAD	rs10920678	G	A	-0.0155	788624	1.5E-21	NA
BMI	LUAD	rs10938397	G	A	0.0324	793518	3.4E-86	NA

BMI	LUAD	rs10942267	G	A	-0.0156	689084	3.9E-17	NA
BMI	LUAD	rs10953740	G	A	-0.0153	684419	1E-18	NA
BMI	LUAD	rs10962550	C	G	0.0182	690579	6.2E-16	rs4961741
BMI	LUAD	rs10968114	C	A	-0.0113	686025	6.1E-11	NA
BMI	LUAD	rs10971709	T	C	0.0132	688312	6.2E-10	NA
BMI	LUAD	rs10984756	G	C	0.0174	689917	1.1E-09	NA
BMI	LUAD	rs11030618	T	C	0.011	690005	2.4E-10	NA
BMI	LUAD	rs11084553	G	A	-0.021	691103	1.8E-18	NA
BMI	LUAD	rs11105839	A	T	-0.0109	781573	1.1E-10	rs10777258
BMI	LUAD	rs11115176	C	T	-0.0121	792384	2E-10	NA
BMI	LUAD	rs11118308	G	A	-0.0101	794625	4.8E-10	NA
BMI	LUAD	rs1112613	A	G	-0.0133	682816	3.4E-09	NA
BMI	LUAD	rs11150911	C	A	-0.0133	781716	4.7E-13	NA
BMI	LUAD	rs11165643	T	C	0.0206	792657	1.4E-35	rs1973993
BMI	LUAD	rs11170468	C	A	-0.0123	795265	1.9E-10	NA
BMI	LUAD	rs11173522	A	C	0.0128	691593	1.1E-09	NA
BMI	LUAD	rs11185111	A	G	-0.0129	686508	7.7E-12	NA
BMI	LUAD	rs11251352	G	A	0.0109	690804	7E-10	NA
BMI	LUAD	rs11496125	T	C	0.0169	684574	3E-22	NA
BMI	LUAD	rs11505821	T	A	0.0311	758322	2.7E-19	NA
BMI	LUAD	rs11538	G	A	0.0135	692349	3.3E-09	NA
BMI	LUAD	rs1158805	A	C	-0.0137	691776	1.2E-14	NA
BMI	LUAD	rs11609659	C	T	-0.0154	679177	2.2E-14	NA
BMI	LUAD	rs11611246	T	G	0.024	779823	5E-32	NA
BMI	LUAD	rs11615578	T	C	0.013	669422	8.1E-11	NA
BMI	LUAD	rs11656076	A	G	-0.0142	691283	5.6E-12	NA
BMI	LUAD	rs11672660	T	C	-0.034	768426	1.7E-60	NA
BMI	LUAD	rs11713193	A	G	0.0239	692159	2.4E-44	NA
BMI	LUAD	rs11736228	T	A	-0.0139	691580	4.1E-12	NA
BMI	LUAD	rs11738695	A	C	0.0097	691380	2E-08	NA

BMI	LUAD	rs11739877	T	C	0.0117	692540	6.6E-11	NA
BMI	LUAD	rs11781699	C	T	0.0132	784642	3.1E-10	NA
BMI	LUAD	rs11855853	T	C	-0.0145	682564	2.4E-13	NA
BMI	LUAD	rs1187352	C	T	0.0119	688522	6E-11	NA
BMI	LUAD	rs11880870	G	A	-0.0189	717350	1E-28	NA
BMI	LUAD	rs11889536	G	A	-0.0189	688977	6.4E-15	NA
BMI	LUAD	rs11908637	A	G	-0.012	691443	4.9E-09	NA
BMI	LUAD	rs11945861	A	G	-0.0148	682451	5E-13	NA
BMI	LUAD	rs11951673	T	C	-0.0123	792278	1.1E-13	NA
BMI	LUAD	rs12033257	G	A	-0.0146	664083	2.4E-15	NA
BMI	LUAD	rs12041258	C	T	-0.0146	688602	9.5E-13	NA
BMI	LUAD	rs12044597	G	A	0.0143	789125	1.7E-18	NA
BMI	LUAD	rs12049202	T	C	0.024	691566	1E-28	NA
BMI	LUAD	rs12098284	T	C	0.0178	686167	1.8E-11	NA
BMI	LUAD	rs12150665	C	T	-0.0162	795501	1.6E-22	NA
BMI	LUAD	rs1218822	A	G	0.0168	794711	1.9E-22	NA
BMI	LUAD	rs12299814	A	C	-0.0157	687962	5.2E-15	NA
BMI	LUAD	rs12328930	C	T	0.0098	690521	1.8E-08	NA
BMI	LUAD	rs12334877	A	G	-0.0144	683820	7.7E-11	NA
BMI	LUAD	rs12364470	G	T	0.0178	787411	1.1E-15	NA
BMI	LUAD	rs12369179	T	C	-0.0359	674260	2.5E-31	NA
BMI	LUAD	rs12416812	A	G	0.0111	793338	6.1E-12	NA
BMI	LUAD	rs1241986	A	G	-0.0139	687757	1.1E-08	NA
BMI	LUAD	rs12422552	C	G	-0.0134	689543	1.6E-11	NA
BMI	LUAD	rs12429545	A	G	0.0316	778918	9.6E-38	NA
BMI	LUAD	rs12448257	A	G	0.0184	779628	8.1E-20	NA
BMI	LUAD	rs12546578	A	T	0.0146	689192	1E-13	NA
BMI	LUAD	rs12564992	G	A	0.0196	795119	5.3E-14	NA
BMI	LUAD	rs12593036	G	A	-0.0154	686055	3.8E-16	NA
BMI	LUAD	rs12602912	T	C	0.0176	777510	9.9E-18	NA

BMI	LUAD	rs1260326	C	T	0.0105	784462	3.9E-10	NA
BMI	LUAD	rs12629015	G	A	-0.0135	691059	2.1E-09	NA
BMI	LUAD	rs1266874	G	A	0.014	691020	9.8E-15	NA
BMI	LUAD	rs12675063	T	A	0.0156	789771	1.3E-09	NA
BMI	LUAD	rs1268065	A	G	-0.0102	759626	1E-09	NA
BMI	LUAD	rs12680842	G	A	-0.0133	782549	4.4E-14	NA
BMI	LUAD	rs12718572	T	C	-0.0117	686523	3E-11	NA
BMI	LUAD	rs12762034	C	T	0.024	692191	7.3E-14	NA
BMI	LUAD	rs12779328	T	C	0.0105	690736	4.5E-08	NA
BMI	LUAD	rs1285997	G	C	0.0142	684235	1.2E-13	NA
BMI	LUAD	rs12888545	G	A	0.0136	688605	9.1E-12	NA
BMI	LUAD	rs12888955	A	G	-0.0178	691849	1.4E-22	NA
BMI	LUAD	rs12905439	G	C	-0.0118	675205	1.4E-10	NA
BMI	LUAD	rs12914489	A	G	0.0165	795244	3.8E-10	NA
BMI	LUAD	rs12922346	C	G	0.0136	679615	1E-11	NA
BMI	LUAD	rs12933482	G	A	0.0186	691477	4.9E-11	NA
BMI	LUAD	rs12936083	G	A	0.0139	633615	4.1E-13	NA
BMI	LUAD	rs12939549	G	A	-0.018	793950	2.7E-28	NA
BMI	LUAD	rs1296328	C	A	-0.0179	683488	4.9E-24	NA
BMI	LUAD	rs12981256	A	G	0.0142	678327	1.1E-15	NA
BMI	LUAD	rs13021737	G	A	0.0574	789534	7.5E-157	NA
BMI	LUAD	rs13047416	G	C	-0.0154	683228	2.2E-17	rs4817973
BMI	LUAD	rs13069244	A	G	0.0187	791327	3E-09	NA
BMI	LUAD	rs13107325	T	C	0.047	792045	1.1E-47	NA
BMI	LUAD	rs13110266	A	G	-0.0117	791087	1.9E-12	NA
BMI	LUAD	rs13132853	G	A	-0.0142	682543	4.7E-15	NA
BMI	LUAD	rs13147390	C	T	0.0103	681032	1E-08	NA
BMI	LUAD	rs13174863	G	A	0.0192	773762	2.9E-16	NA
BMI	LUAD	rs13184896	T	G	-0.0133	794825	3.3E-16	NA
BMI	LUAD	rs13191362	G	A	-0.0236	792699	5.9E-21	NA



BMI	LUAD	rs1320903	A	G	0.0216	691519	9.2E-32	NA
BMI	LUAD	rs1321432	C	A	0.0201	686481	3.5E-29	NA
BMI	LUAD	rs13240600	G	A	-0.0204	692233	3.5E-17	NA
BMI	LUAD	rs13250058	T	G	0.0112	787870	2.9E-10	NA
BMI	LUAD	rs13263601	C	A	0.0154	686196	2.2E-17	NA
BMI	LUAD	rs1327259	G	A	-0.0155	685922	1.7E-18	NA
BMI	LUAD	rs13287131	C	T	0.0123	683808	6.8E-10	NA
BMI	LUAD	rs1330052	G	C	0.0132	691613	1.5E-13	NA
BMI	LUAD	rs13329567	T	C	-0.0293	793953	1E-50	NA
BMI	LUAD	rs1365466	T	C	-0.0137	791868	3.3E-13	NA
BMI	LUAD	rs1371108	A	C	0.0119	684620	9E-11	NA
BMI	LUAD	rs1409818	T	C	0.0201	690984	2.5E-12	NA
BMI	LUAD	rs1412235	C	G	0.0246	790147	6E-45	NA
BMI	LUAD	rs1421334	C	A	-0.0125	680665	1E-12	NA
BMI	LUAD	rs1430387	C	T	-0.0114	689325	5.8E-11	NA
BMI	LUAD	rs1431659	G	A	-0.0196	689739	6E-24	NA
BMI	LUAD	rs1436344	C	G	0.0141	692017	4.1E-16	rs12695098
BMI	LUAD	rs1445652	A	G	0.0123	682166	4.3E-08	NA
BMI	LUAD	rs1452075	T	C	0.0141	783729	1.3E-14	NA
BMI	LUAD	rs1465900	C	A	-0.0125	779748	4.8E-10	NA
BMI	LUAD	rs1472169	T	C	-0.0139	689945	2.8E-15	NA
BMI	LUAD	rs1476322	A	G	0.0101	692523	5E-09	NA
BMI	LUAD	rs1477199	G	A	0.0228	794442	9.4E-22	NA
BMI	LUAD	rs1492767	T	C	0.0094	794161	1E-08	NA
BMI	LUAD	rs1503526	C	T	0.014	747347	5.5E-17	NA
BMI	LUAD	rs1522569	G	T	-0.0164	689573	2.9E-13	NA
BMI	LUAD	rs1528435	T	C	0.0164	794198	9.1E-23	NA
BMI	LUAD	rs1535660	C	T	-0.0147	690624	5.2E-09	NA
BMI	LUAD	rs1538247	C	T	0.0108	682726	1E-08	NA
BMI	LUAD	rs1552893	G	A	-0.0126	691313	8.1E-11	NA

BMI	LUAD	rs156201	C	G	0.0123	691835	5.8E-10	NA
BMI	LUAD	rs1624134	C	G	0.0101	690572	1.1E-08	rs1657222
BMI	LUAD	rs1656377	C	T	0.0099	691955	1.6E-08	NA
BMI	LUAD	rs1681740	C	A	-0.0115	673459	1.1E-10	NA
BMI	LUAD	rs16849710	G	A	-0.0116	666229	6E-11	NA
BMI	LUAD	rs16851483	T	G	0.0369	692316	3.2E-26	NA
BMI	LUAD	rs16871902	A	G	0.0125	690830	4.6E-13	NA
BMI	LUAD	rs16903285	C	T	0.0331	687944	7.6E-38	NA
BMI	LUAD	rs16953563	A	G	-0.0134	691761	1.5E-11	NA
BMI	LUAD	rs17001561	A	G	0.0151	794327	3.8E-11	NA
BMI	LUAD	rs17014375	G	T	0.0172	690856	1.1E-11	NA
BMI	LUAD	rs17033117	T	C	0.0137	691863	8.9E-10	NA
BMI	LUAD	rs17056301	C	T	0.0118	688085	2.4E-09	NA
BMI	LUAD	rs17113297	T	C	0.0166	686357	2.1E-15	NA
BMI	LUAD	rs17119937	C	T	0.0212	668272	5.6E-09	NA
BMI	LUAD	rs17203016	G	A	0.015	786272	2.1E-13	NA
BMI	LUAD	rs17207196	T	C	-0.0221	668894	2.1E-35	NA
BMI	LUAD	rs17238110	G	A	-0.0353	775505	2E-12	NA
BMI	LUAD	rs17311369	T	C	-0.0104	673102	3.1E-08	NA
BMI	LUAD	rs17399237	C	T	-0.0129	690950	6.7E-14	NA
BMI	LUAD	rs17405819	C	T	-0.0215	795493	4.3E-33	NA
BMI	LUAD	rs17424296	A	G	-0.0108	684366	2.4E-09	NA
BMI	LUAD	rs17425707	C	T	0.0167	688867	4.4E-09	NA
BMI	LUAD	rs17446257	A	G	0.0153	690630	2.9E-09	NA
BMI	LUAD	rs17499593	G	C	0.0125	691663	1.1E-08	NA
BMI	LUAD	rs17513613	C	T	0.0186	789575	3.6E-26	NA
BMI	LUAD	rs175165	G	T	-0.0103	690545	5.2E-09	NA
BMI	LUAD	rs17535749	A	G	0.015	777038	2.5E-08	NA
BMI	LUAD	rs17551974	A	C	-0.0141	691115	1.9E-10	NA
BMI	LUAD	rs17636031	C	T	0.016	782807	1.2E-17	NA

BMI	LUAD	rs17663412	A	C	0.0157	691018	6.1E-09	NA
BMI	LUAD	rs17710386	C	T	0.0126	783810	1E-12	NA
BMI	LUAD	rs17724992	G	A	-0.0183	785851	1E-22	NA
BMI	LUAD	rs17789218	C	T	0.013	793904	7.4E-12	NA
BMI	LUAD	rs17806379	T	C	-0.0258	690043	1.5E-30	NA
BMI	LUAD	rs1784460	A	T	0.0132	680042	9E-14	rs7925100
BMI	LUAD	rs1804528	A	G	0.0109	518856	3E-08	NA
BMI	LUAD	rs1830074	C	T	0.0115	689911	1.4E-09	NA
BMI	LUAD	rs1836303	G	A	0.0116	688991	5.3E-11	NA
BMI	LUAD	rs1843328	A	C	-0.0099	686814	7.9E-09	NA
BMI	LUAD	rs1863652	A	G	-0.0115	692539	1.4E-10	NA
BMI	LUAD	rs1884389	T	C	-0.0103	683669	4E-09	NA
BMI	LUAD	rs1885728	A	G	0.0108	682316	1E-08	NA
BMI	LUAD	rs1891216	G	T	0.0107	685079	2.4E-09	NA
BMI	LUAD	rs1896767	A	G	-0.0109	686262	2.4E-10	NA
BMI	LUAD	rs1927790	C	T	0.0148	794326	1.8E-19	NA
BMI	LUAD	rs1928295	C	T	-0.0141	793649	5.4E-18	NA
BMI	LUAD	rs1937683	T	C	0.0109	692539	3.2E-09	NA
BMI	LUAD	rs1948080	G	T	-0.0137	690633	1.1E-14	NA
BMI	LUAD	rs1982441	T	G	0.0175	687705	7E-12	NA
BMI	LUAD	rs1982725	T	C	0.0097	683155	3.3E-08	NA
BMI	LUAD	rs1993709	G	A	0.0331	786001	1.9E-57	NA
BMI	LUAD	rs2007231	T	C	-0.0104	691969	5.2E-09	NA
BMI	LUAD	rs200810	C	T	-0.0136	793699	5.5E-16	NA
BMI	LUAD	rs2009416	T	C	-0.0121	691741	1.1E-11	NA
BMI	LUAD	rs2033529	G	A	0.0205	792112	1.9E-30	NA
BMI	LUAD	rs2051559	C	T	0.0176	689307	5E-12	NA
BMI	LUAD	rs2065418	G	T	-0.0166	691707	3.6E-20	NA
BMI	LUAD	rs208015	C	T	-0.0356	691575	1.4E-25	NA
BMI	LUAD	rs2124499	C	G	-0.0123	785955	3.4E-13	NA

BMI	LUAD	rs2143253	A	G	-0.0188	684760	1.1E-12	NA
BMI	LUAD	rs215634	G	A	-0.0152	681296	2.6E-17	NA
BMI	LUAD	rs2162524	C	T	0.0155	691302	4.1E-17	NA
BMI	LUAD	rs217671	G	A	0.0144	691456	1.3E-13	NA
BMI	LUAD	rs2228213	A	G	-0.0139	795595	4.6E-16	NA
BMI	LUAD	rs2235564	T	C	0.0131	691544	3.7E-13	NA
BMI	LUAD	rs2246012	C	T	0.0158	795598	3.1E-13	NA
BMI	LUAD	rs226000	T	C	0.0119	793480	3.6E-08	NA
BMI	LUAD	rs2283093	T	C	0.0127	691773	3.1E-09	NA
BMI	LUAD	rs2285178	C	T	0.0112	638268	9.4E-09	NA
BMI	LUAD	rs2306537	G	A	0.0133	691923	8.7E-13	NA
BMI	LUAD	rs2307111	C	T	-0.0265	795430	1.6E-58	NA
BMI	LUAD	rs2317299	C	T	-0.0106	677983	1.3E-09	NA
BMI	LUAD	rs2325036	C	A	-0.0181	790870	3.6E-27	NA
BMI	LUAD	rs2357760	A	G	0.0145	791053	6.8E-17	NA
BMI	LUAD	rs2361988	C	T	-0.0155	690251	5.2E-15	NA
BMI	LUAD	rs2365389	T	C	-0.0174	783625	1.3E-25	NA
BMI	LUAD	rs2367112	G	T	-0.0119	794305	2.3E-13	NA
BMI	LUAD	rs2411182	A	G	0.0123	691730	7.7E-11	NA
BMI	LUAD	rs2423668	C	T	-0.0105	527352	2.8E-08	NA
BMI	LUAD	rs2425840	C	A	0.0119	681680	1.6E-11	NA
BMI	LUAD	rs2429150	C	A	0.0111	686276	2.7E-10	NA
BMI	LUAD	rs2479958	G	A	-0.0154	664268	1.5E-17	NA
BMI	LUAD	rs2481665	C	T	-0.0161	795247	7.2E-23	NA
BMI	LUAD	rs2543132	C	G	0.0146	688326	5E-11	NA
BMI	LUAD	rs2600226	T	C	-0.0116	685285	3.7E-10	NA
BMI	LUAD	rs2605603	A	G	-0.0103	790857	2.5E-10	NA
BMI	LUAD	rs2608703	A	C	0.0142	686700	1.9E-16	NA
BMI	LUAD	rs262130	T	C	0.0127	679542	1.8E-08	NA
BMI	LUAD	rs2693826	A	G	-0.0137	690808	2E-15	NA

BMI	LUAD	rs2694047	G	A	0.0188	690295	3.9E-21	NA
BMI	LUAD	rs273504	G	A	0.0153	690672	4.4E-18	NA
BMI	LUAD	rs2744974	T	C	0.0249	789647	1.4E-45	NA
BMI	LUAD	rs2791653	G	A	-0.0141	795271	1.3E-13	NA
BMI	LUAD	rs2820311	G	A	0.0235	691876	4.1E-38	NA
BMI	LUAD	rs2832283	A	G	0.0115	792324	5.8E-09	NA
BMI	LUAD	rs2836964	C	T	-0.011	692353	1.3E-09	NA
BMI	LUAD	rs2861683	C	A	-0.0144	691163	1.3E-16	NA
BMI	LUAD	rs2868975	A	G	-0.0143	690613	2.2E-10	NA
BMI	LUAD	rs287104	A	G	0.0115	787307	4.4E-11	NA
BMI	LUAD	rs2875762	C	G	0.0139	685199	1.2E-11	NA
BMI	LUAD	rs2907948	A	G	-0.0141	794299	1.3E-13	NA
BMI	LUAD	rs2931434	T	C	-0.0104	690664	1.4E-08	NA
BMI	LUAD	rs2943465	C	T	0.0248	686547	2E-10	NA
BMI	LUAD	rs294704	T	G	-0.0113	690036	4E-09	NA
BMI	LUAD	rs3007105	T	C	0.0142	785488	1.1E-17	NA
BMI	LUAD	rs326896	T	C	-0.0128	690324	2.8E-13	NA
BMI	LUAD	rs331966	C	A	0.0112	687189	3.2E-10	NA
BMI	LUAD	rs33500	T	C	-0.0167	689500	4.3E-14	NA
BMI	LUAD	rs339991	G	A	0.0124	686476	1.2E-12	NA
BMI	LUAD	rs349088	A	C	-0.0128	684401	1.8E-13	NA
BMI	LUAD	rs355777	C	G	0.0153	689978	1.4E-18	rs355772
BMI	LUAD	rs3731695	C	T	0.0116	793581	7.9E-13	NA
BMI	LUAD	rs3732084	C	T	0.0107	691763	1.1E-09	NA
BMI	LUAD	rs3736485	G	A	-0.0134	790404	2.5E-16	NA
BMI	LUAD	rs3749897	T	C	0.0122	638224	8.4E-12	NA
BMI	LUAD	rs3754963	T	A	-0.0123	691535	3.3E-10	NA
BMI	LUAD	rs3764835	A	G	-0.0141	689505	3.1E-09	NA
BMI	LUAD	rs3772882	A	C	0.0127	691912	6.6E-13	NA
BMI	LUAD	rs3800229	T	G	0.0175	792474	1.4E-22	NA

BMI	LUAD	rs3800637	C	T	0.0115	682001	5.1E-10	NA
BMI	LUAD	rs3806114	A	G	-0.0113	778855	3.4E-10	NA
BMI	LUAD	rs3806572	A	G	-0.0145	687646	1.6E-14	NA
BMI	LUAD	rs3807645	A	G	-0.0166	683086	2.4E-15	NA
BMI	LUAD	rs380857	A	C	-0.0151	691507	3.6E-08	NA
BMI	LUAD	rs3814883	T	C	0.0232	685519	1.1E-40	NA
BMI	LUAD	rs3828783	A	G	-0.0165	792749	5.6E-15	NA
BMI	LUAD	rs3829849	T	C	0.0098	793851	5.9E-09	NA
BMI	LUAD	rs38314	A	G	-0.012	689782	4.7E-12	NA
BMI	LUAD	rs3844598	G	A	0.0095	690704	3.8E-08	NA
BMI	LUAD	rs3902951	G	T	0.0134	773819	7E-12	NA
BMI	LUAD	rs3904244	A	T	0.0155	691180	4.3E-10	NA
BMI	LUAD	rs391300	C	T	-0.0119	791120	3.1E-12	NA
BMI	LUAD	rs3935648	G	C	-0.0125	629303	6.8E-09	NA
BMI	LUAD	rs3977755	T	C	-0.0135	731529	5.9E-13	NA
BMI	LUAD	rs40067	A	G	-0.0266	681695	7.1E-30	NA
BMI	LUAD	rs4012234	G	T	0.0141	689653	9.9E-16	NA
BMI	LUAD	rs4072917	A	G	0.0115	684720	6.9E-11	NA
BMI	LUAD	rs4148155	G	A	-0.0188	794889	5E-13	NA
BMI	LUAD	rs4148866	T	C	0.0098	676418	4E-08	NA
BMI	LUAD	rs4237643	G	T	-0.0223	692491	4.3E-33	NA
BMI	LUAD	rs427943	C	A	0.017	712095	7.3E-23	NA
BMI	LUAD	rs429343	G	A	-0.015	689345	6.8E-18	NA
BMI	LUAD	rs4307239	G	A	0.0115	687289	3.9E-11	NA
BMI	LUAD	rs4310573	T	C	0.0116	682567	3.5E-08	NA
BMI	LUAD	rs4358081	C	A	0.0097	690038	1.5E-08	NA
BMI	LUAD	rs4414033	A	G	0.0129	672697	1.4E-12	NA
BMI	LUAD	rs4430672	C	T	-0.0127	691400	3.9E-09	NA
BMI	LUAD	rs4482463	A	C	-0.0331	635414	2.8E-23	NA
BMI	LUAD	rs4495304	C	T	-0.0194	774211	5E-09	NA

BMI	LUAD	rs4516268	A	C	-0.0217	786617	5.2E-25	NA
BMI	LUAD	rs4518345	A	G	-0.0117	688609	1E-09	NA
BMI	LUAD	rs4556997	A	C	0.0197	792972	6.9E-17	NA
BMI	LUAD	rs4589691	G	C	0.0141	688253	4.7E-09	NA
BMI	LUAD	rs4639527	G	A	0.0172	691706	3.3E-20	NA
BMI	LUAD	rs4653017	T	C	0.0122	686378	4.5E-11	NA
BMI	LUAD	rs4660443	T	C	0.0164	687234	6.8E-15	NA
BMI	LUAD	rs4671328	G	T	-0.0219	679487	2.2E-36	NA
BMI	LUAD	rs4722398	T	C	0.0158	692509	3.6E-10	NA
BMI	LUAD	rs4740619	C	T	-0.0186	794491	2.3E-30	NA
BMI	LUAD	rs4757144	A	G	0.0169	690082	5.6E-22	NA
BMI	LUAD	rs4783830	A	G	-0.0105	675527	2.4E-08	NA
BMI	LUAD	rs4786903	G	A	0.0125	680139	3.5E-10	NA
BMI	LUAD	rs4800191	C	G	0.0103	785353	2.5E-09	rs8099193
BMI	LUAD	rs4813619	T	G	-0.0108	622760	2.3E-09	NA
BMI	LUAD	rs4818225	G	A	0.0117	688274	2.3E-10	NA
BMI	LUAD	rs4820408	G	T	-0.0151	794185	2.1E-19	NA
BMI	LUAD	rs4842491	T	C	0.0098	795312	4E-08	NA
BMI	LUAD	rs4851029	G	T	0.0121	689752	1.7E-12	NA
BMI	LUAD	rs4858193	C	T	-0.0129	686850	1.6E-11	NA
BMI	LUAD	rs4864201	C	T	-0.0141	795263	1.5E-16	NA
BMI	LUAD	rs4880341	T	C	-0.0118	689012	1.1E-11	NA
BMI	LUAD	rs4906908	G	T	0.0103	691345	2.5E-09	NA
BMI	LUAD	rs491711	C	A	-0.0115	685113	1.1E-09	NA
BMI	LUAD	rs4929923	C	T	0.0181	794933	7.2E-27	NA
BMI	LUAD	rs4936175	C	T	0.0122	692569	1.4E-12	NA
BMI	LUAD	rs4937870	G	A	-0.0109	683154	8.8E-09	NA
BMI	LUAD	rs4952843	G	A	-0.0131	692482	6.8E-14	NA
BMI	LUAD	rs4954638	C	A	-0.0118	689971	2.9E-09	NA
BMI	LUAD	rs4968656	G	A	0.0116	675153	8.2E-10	NA

BMI	LUAD	rs4981693	A	G	0.0206	689120	6.9E-24	NA
BMI	LUAD	rs4986044	T	C	-0.0164	787219	3.3E-23	NA
BMI	LUAD	rs538579	C	G	0.0137	688452	1.3E-13	NA
BMI	LUAD	rs543874	G	A	0.0475	795504	1.2E-122	NA
BMI	LUAD	rs559231	T	G	0.0135	685154	2.4E-14	NA
BMI	LUAD	rs577525	C	T	0.0166	690616	9.7E-22	NA
BMI	LUAD	rs592483	T	C	-0.0147	781871	2E-18	NA
BMI	LUAD	rs6050446	G	A	0.0343	766287	4.4E-13	NA
BMI	LUAD	rs6235	G	C	0.0175	691708	1.5E-19	NA
BMI	LUAD	rs6265	T	C	-0.0412	795458	1E-86	NA
BMI	LUAD	rs6443750	C	T	0.0148	776837	3.2E-12	NA
BMI	LUAD	rs6448587	C	A	-0.0167	691097	2.3E-13	NA
BMI	LUAD	rs645040	T	G	0.0171	795579	2.5E-18	NA
BMI	LUAD	rs6461115	G	A	-0.0144	791735	1.2E-13	NA
BMI	LUAD	rs6471941	A	G	0.0156	793986	3.1E-13	NA
BMI	LUAD	rs6500208	A	G	0.014	781931	4.1E-12	NA
BMI	LUAD	rs6512302	C	G	0.0142	686053	2.1E-12	NA
BMI	LUAD	rs6545714	A	G	-0.0191	793368	9.1E-31	NA
BMI	LUAD	rs6556301	T	G	-0.0111	734744	4.1E-10	NA
BMI	LUAD	rs6561943	T	C	0.0119	793951	4.2E-10	NA
BMI	LUAD	rs657452	G	A	-0.0188	767846	7.2E-29	NA
BMI	LUAD	rs6587552	G	A	-0.0173	689723	1.6E-17	NA
BMI	LUAD	rs6591407	A	C	-0.0118	794246	1.9E-08	NA
BMI	LUAD	rs6593688	G	A	0.0137	691779	8.6E-15	NA
BMI	LUAD	rs663129	A	G	0.0545	788948	1.6E-178	NA
BMI	LUAD	rs6673081	C	T	-0.01	677818	1.8E-08	NA
BMI	LUAD	rs6692586	G	A	-0.0192	690921	1.1E-16	NA
BMI	LUAD	rs6712	C	G	0.0138	688469	4.4E-08	NA
BMI	LUAD	rs6764533	A	G	0.0116	690832	1.4E-10	NA
BMI	LUAD	rs6772756	G	A	-0.0104	681709	4E-08	NA



BMI	LUAD	rs6785245	C	T	0.0132	692250	4E-14	NA
BMI	LUAD	rs6804842	G	A	0.0156	789179	3.6E-21	NA
BMI	LUAD	rs6841761	T	G	-0.0131	793477	6.4E-16	NA
BMI	LUAD	rs685870	C	T	0.012	688423	2.4E-10	NA
BMI	LUAD	rs6985109	A	G	-0.0177	793993	1.5E-26	NA
BMI	LUAD	rs7024334	G	T	-0.0138	782431	3.1E-12	NA
BMI	LUAD	rs7025938	G	C	0.0166	691581	3.7E-19	NA
BMI	LUAD	rs7037266	A	C	-0.0112	691603	3.5E-10	NA
BMI	LUAD	rs705217	G	T	-0.0102	688609	9.3E-09	NA
BMI	LUAD	rs705704	A	G	-0.0131	743597	1.9E-13	NA
BMI	LUAD	rs7084454	A	G	0.0193	678564	4E-25	NA
BMI	LUAD	rs709400	G	A	-0.015	795379	4.6E-19	NA
BMI	LUAD	rs7102454	C	T	0.0158	691134	2.4E-18	NA
BMI	LUAD	rs7117238	A	G	-0.0131	788879	2.5E-09	NA
BMI	LUAD	rs7124681	A	C	0.0263	795474	3.2E-58	NA
BMI	LUAD	rs7138803	A	G	0.03	795588	2.3E-71	NA
BMI	LUAD	rs7144011	T	G	0.0282	794117	5.2E-47	NA
BMI	LUAD	rs7148846	G	T	0.0124	687940	2.2E-08	NA
BMI	LUAD	rs7172627	G	A	0.0117	690458	1.1E-11	NA
BMI	LUAD	rs7181498	C	T	-0.0163	690980	1E-19	NA
BMI	LUAD	rs7196720	C	T	-0.0129	689863	7.3E-14	NA
BMI	LUAD	rs7206608	G	C	0.0132	689058	1.3E-12	NA
BMI	LUAD	rs7222349	A	G	0.0115	692215	3.3E-10	NA
BMI	LUAD	rs7239575	C	T	-0.0202	692313	7.4E-32	NA
BMI	LUAD	rs7318817	T	C	-0.0155	691917	2.7E-18	NA
BMI	LUAD	rs7334078	C	T	-0.0121	688374	2.2E-10	NA
BMI	LUAD	rs7358465	T	C	0.0103	686935	3E-08	NA
BMI	LUAD	rs7488867	T	C	-0.0204	635746	8.4E-24	NA
BMI	LUAD	rs7498665	G	A	0.0271	790299	5.6E-60	NA
BMI	LUAD	rs7519259	A	G	0.0125	681362	3.8E-13	NA

BMI	LUAD	rs7535528	A	G	-0.0152	632868	1.4E-16	NA
BMI	LUAD	rs754635	G	C	0.0198	690346	2.2E-13	NA
BMI	LUAD	rs7550711	T	C	0.0649	769184	3.2E-38	NA
BMI	LUAD	rs7557796	C	T	-0.016	692414	2.3E-19	NA
BMI	LUAD	rs756717	A	G	-0.0148	771976	5.4E-18	NA
BMI	LUAD	rs7599312	A	G	-0.0186	780823	6.9E-24	NA
BMI	LUAD	rs7615297	G	C	-0.0149	689710	5.7E-10	NA
BMI	LUAD	rs7626079	T	C	0.011	692571	1.6E-09	NA
BMI	LUAD	rs7637852	G	A	-0.0139	691815	1.7E-13	NA
BMI	LUAD	rs7640424	T	C	-0.0136	790612	2.3E-14	NA
BMI	LUAD	rs765875	T	C	-0.0121	690961	3E-12	NA
BMI	LUAD	rs7683836	A	G	-0.0114	686968	6.3E-11	NA
BMI	LUAD	rs7685048	T	C	-0.0101	692398	4.1E-09	NA
BMI	LUAD	rs768840	A	G	0.0114	677485	2E-10	NA
BMI	LUAD	rs769449	A	G	-0.0254	566857	2.3E-20	NA
BMI	LUAD	rs7694732	G	A	-0.0099	690622	8.7E-09	NA
BMI	LUAD	rs7703576	C	T	0.0103	690818	4.8E-08	NA
BMI	LUAD	rs7704281	A	G	0.0271	788585	6.5E-11	NA
BMI	LUAD	rs7715256	T	G	-0.0166	795302	2.2E-24	NA
BMI	LUAD	rs7724675	A	G	-0.0119	691968	9.5E-09	NA
BMI	LUAD	rs7730004	T	C	0.0148	690164	9.1E-16	NA
BMI	LUAD	rs7730898	A	G	0.0168	792975	4.5E-20	NA
BMI	LUAD	rs774246	G	A	0.0153	690818	5.4E-10	NA
BMI	LUAD	rs7761673	A	T	-0.0126	691716	1.9E-09	NA
BMI	LUAD	rs7780752	C	T	0.0139	690830	1E-14	NA
BMI	LUAD	rs7788008	A	G	-0.0157	690410	1.1E-19	NA
BMI	LUAD	rs7811342	C	T	-0.0197	676265	1.1E-11	NA
BMI	LUAD	rs7819514	A	G	-0.0107	684955	5.7E-09	NA
BMI	LUAD	rs7826312	C	T	0.0104	785343	4.9E-10	NA
BMI	LUAD	rs7844647	C	T	-0.0123	793703	2.8E-11	NA

BMI	LUAD	rs7869771	C	A	-0.014	679436	4.9E-13	NA
BMI	LUAD	rs7871866	C	G	0.0187	683494	2.3E-14	NA
BMI	LUAD	rs7899106	G	A	0.0331	793689	1E-18	NA
BMI	LUAD	rs7903146	T	C	-0.0181	795624	1.3E-23	NA
BMI	LUAD	rs7925214	T	C	0.0147	677603	4.4E-17	NA
BMI	LUAD	rs7970953	A	G	0.0135	788417	9.8E-14	NA
BMI	LUAD	rs7983065	T	C	-0.0148	690924	8.9E-18	NA
BMI	LUAD	rs7998796	G	A	0.0105	689430	1.1E-08	NA
BMI	LUAD	rs8027205	G	C	-0.0108	685725	1.4E-09	rs1021985
BMI	LUAD	rs8036040	A	C	0.0109	691068	2.7E-10	NA
BMI	LUAD	rs8047395	A	G	0.0642	788856	1E-200	NA
BMI	LUAD	rs806600	G	A	-0.0095	691791	3.3E-08	NA
BMI	LUAD	rs8071182	A	G	0.0133	771437	2.1E-09	NA
BMI	LUAD	rs8090983	G	A	0.0118	682470	2E-10	NA
BMI	LUAD	rs8097672	T	A	0.02	686063	8.4E-16	NA
BMI	LUAD	rs8097783	A	G	-0.0389	795408	7.2E-36	NA
BMI	LUAD	rs8123881	G	A	0.0196	793018	4.4E-16	NA
BMI	LUAD	rs8181823	C	A	0.0127	691345	4.1E-10	NA
BMI	LUAD	rs818524	C	T	0.0106	670078	3.4E-08	NA
BMI	LUAD	rs8192675	C	T	0.0152	795515	1.4E-17	NA
BMI	LUAD	rs825688	T	C	-0.0095	686144	4.7E-08	NA
BMI	LUAD	rs845084	A	G	0.014	685413	1.3E-12	NA
BMI	LUAD	rs852056	C	T	-0.0128	691874	1.8E-10	NA
BMI	LUAD	rs865809	G	A	-0.0127	689186	5.4E-10	NA
BMI	LUAD	rs872281	T	C	-0.0151	685310	4.7E-11	NA
BMI	LUAD	rs876605	G	A	-0.0108	692586	3.4E-08	NA
BMI	LUAD	rs879620	T	C	0.0231	688377	5.3E-38	NA
BMI	LUAD	rs889398	T	C	-0.0196	789694	1.3E-32	NA
BMI	LUAD	rs895330	G	C	-0.0201	684271	5.5E-19	NA
BMI	LUAD	rs901630	T	C	-0.0146	794597	1.9E-18	NA

BMI	LUAD	rs902695	A	G	-0.0103	678635	2.2E-09	NA
BMI	LUAD	rs9294260	A	G	0.0147	783533	1.8E-19	NA
BMI	LUAD	rs9300422	G	A	-0.0103	795011	4E-09	NA
BMI	LUAD	rs930295	C	A	-0.0211	690522	1E-19	NA
BMI	LUAD	rs9304665	A	T	0.0229	689470	2.9E-29	NA
BMI	LUAD	rs934224	T	C	0.0107	692568	4.7E-08	NA
BMI	LUAD	rs9362662	G	A	-0.0112	683953	1.2E-10	NA
BMI	LUAD	rs9367368	C	T	-0.0121	786723	1E-11	NA
BMI	LUAD	rs9370261	T	C	0.0231	690051	3.4E-08	NA
BMI	LUAD	rs9375702	T	C	-0.0115	690564	7.9E-10	NA
BMI	LUAD	rs9379827	A	C	-0.0132	795072	6.9E-12	NA
BMI	LUAD	rs9408882	A	G	-0.0093	794283	1.3E-08	NA
BMI	LUAD	rs946824	C	T	-0.0206	689849	1.1E-15	NA
BMI	LUAD	rs947612	A	G	-0.0116	692596	5.6E-09	NA
BMI	LUAD	rs9478671	G	A	0.012	688072	1.7E-08	NA
BMI	LUAD	rs9522285	A	G	0.0127	690681	2.5E-13	NA
BMI	LUAD	rs9538162	C	T	-0.0156	690345	4.8E-19	NA
BMI	LUAD	rs9547153	G	A	0.0098	775400	8.7E-09	NA
BMI	LUAD	rs9571687	A	C	-0.0129	690974	2.8E-12	NA
BMI	LUAD	rs9615905	T	C	0.011	690274	2.7E-10	NA
BMI	LUAD	rs962273	C	T	0.0137	692594	2.6E-13	NA
BMI	LUAD	rs9650755	G	A	0.0154	691183	2.8E-15	NA
BMI	LUAD	rs9688431	C	T	-0.0231	789356	2.4E-11	NA
BMI	LUAD	rs977747	G	T	-0.0169	793546	1.3E-24	NA
BMI	LUAD	rs9783858	T	C	0.0091	770874	3.3E-08	NA
BMI	LUAD	rs9806742	A	G	0.0208	692509	1.4E-15	NA
BMI	LUAD	rs9816226	T	A	0.0323	778333	1.6E-52	NA
BMI	LUAD	rs9845966	G	T	-0.0105	778076	2.5E-10	NA
BMI	LUAD	rs987237	G	A	0.0409	795612	9.3E-84	NA
BMI	LUAD	rs9926784	C	T	-0.0258	789617	9.9E-35	NA

BMI	LUAD	rs9927848	A	C	-0.0122	687060	6.4E-10	NA
BMI	LUAD	rs9951619	G	T	0.0156	772643	1.4E-15	NA
BMI	LUAD	rs998732	G	A	-0.0171	793852	2E-14	NA
BMI	LUAD	rs9989141	T	C	0.0162	752768	3.6E-21	NA
BMI	LUAD	rs999889	A	G	-0.0108	690572	1.4E-08	NA
Type 2 diabetes	LUAD	rs10077431	A	C	-0.0487	62892	4.75E-08	NA
Type 2 diabetes	LUAD	rs10087241	A	G	-0.0475	62892	2.8E-09	NA
Type 2 diabetes	LUAD	rs10100265	C	A	-0.0491	62892	6.29E-10	NA
Type 2 diabetes	LUAD	rs10114341	C	T	-0.0409	62892	1.15E-08	NA
Type 2 diabetes	LUAD	rs10401969	C	T	0.0921	62892	4.13E-12	NA
Type 2 diabetes	LUAD	rs1050226	G	A	-0.0491	62892	3.34E-11	NA
Type 2 diabetes	LUAD	rs1061813	A	G	-0.0429	62892	3.37E-09	NA
Type 2 diabetes	LUAD	rs1063355	G	T	0.0709	62892	3.72E-19	NA
Type 2 diabetes	LUAD	rs10740322	A	G	0.0477	62892	2.11E-08	NA
Type 2 diabetes	LUAD	rs10811661	C	T	-0.1569	62892	4.13E-58	NA
Type 2 diabetes	LUAD	rs10830963	G	C	0.0909	62892	5.85E-30	NA
Type 2 diabetes	LUAD	rs10842994	T	C	-0.0755	62892	1.02E-16	NA
Type 2 diabetes	LUAD	rs10974438	C	A	0.0591	62892	3.01E-15	NA
Type 2 diabetes	LUAD	rs11098676	C	T	0.054	62892	2.03E-08	NA
Type 2 diabetes	LUAD	rs11107116	T	G	0.0467	62892	3.75E-08	NA
Type 2 diabetes	LUAD	rs1111875	T	C	-0.0948	62892	3.61E-39	NA
Type 2 diabetes	LUAD	rs11257655	T	C	0.0737	62892	1.97E-17	NA
Type 2 diabetes	LUAD	rs1127655	T	C	-0.0438	62892	2.47E-08	NA
Type 2 diabetes	LUAD	rs11708067	G	A	-0.0965	62892	5.93E-29	NA
Type 2 diabetes	LUAD	rs11925227	A	G	-0.0534	62892	2.25E-08	NA
Type 2 diabetes	LUAD	rs11926707	C	T	0.0463	62892	1.69E-08	NA
Type 2 diabetes	LUAD	rs12088739	G	A	-0.0884	62892	9.79E-12	NA
Type 2 diabetes	LUAD	rs12299509	G	A	0.0467	62892	2.09E-10	NA
Type 2 diabetes	LUAD	rs12617659	T	C	-0.0685	62892	2.83E-11	NA
Type 2 diabetes	LUAD	rs12910825	G	A	0.0517	62892	2.16E-12	NA

Type 2 diabetes	LUAD	rs12945601	C	T	-0.048	62892	1.72E-09	NA
Type 2 diabetes	LUAD	rs12970134	A	G	0.0555	62892	5.31E-12	NA
Type 2 diabetes	LUAD	rs13239186	T	C	0.0539	62892	2.7E-10	NA
Type 2 diabetes	LUAD	rs13330951	G	A	-0.0456	62892	1.54E-08	NA
Type 2 diabetes	LUAD	rs13389219	T	C	-0.0722	62892	2.11E-22	NA
Type 2 diabetes	LUAD	rs1359790	A	G	-0.0796	62892	2.8E-23	NA
Type 2 diabetes	LUAD	rs1496653	G	A	-0.0769	62892	2.57E-18	NA
Type 2 diabetes	LUAD	rs1552224	C	A	-0.1034	62892	8.64E-25	NA
Type 2 diabetes	LUAD	rs16988333	G	A	-0.0745	62892	9.17E-09	NA
Type 2 diabetes	LUAD	rs17086692	T	G	-0.0467	62892	2.48E-08	NA
Type 2 diabetes	LUAD	rs17168486	T	C	0.0742	62892	2.18E-15	NA
Type 2 diabetes	LUAD	rs17405722	A	G	0.087	62892	2.28E-09	NA
Type 2 diabetes	LUAD	rs17411031	G	C	-0.045	62892	3.04E-08	NA
Type 2 diabetes	LUAD	rs1758632	G	C	0.0491	62892	1.36E-09	rs1785509
Type 2 diabetes	LUAD	rs17631783	T	C	-0.0487	62892	3.95E-08	NA
Type 2 diabetes	LUAD	rs17791513	G	A	-0.1027	62892	4.61E-12	NA
Type 2 diabetes	LUAD	rs1801214	T	C	0.0903	62892	5.52E-34	NA
Type 2 diabetes	LUAD	rs1899951	T	C	-0.1118	62892	1.64E-24	NA
Type 2 diabetes	LUAD	rs2237892	T	C	-0.096	62892	8.75E-10	NA
Type 2 diabetes	LUAD	rs2246618	T	C	0.0513	62892	1.2E-09	NA
Type 2 diabetes	LUAD	rs2261181	T	C	0.0985	62892	9.18E-17	NA
Type 2 diabetes	LUAD	rs2294120	G	A	-0.0443	62892	1.62E-08	NA
Type 2 diabetes	LUAD	rs2296173	G	A	0.065	62892	7.66E-14	NA
Type 2 diabetes	LUAD	rs2299383	T	C	0.0412	62892	1.49E-08	NA
Type 2 diabetes	LUAD	rs243019	C	T	0.0566	62892	2.29E-15	NA
Type 2 diabetes	LUAD	rs2493394	G	A	0.073	62892	1.15E-10	NA
Type 2 diabetes	LUAD	rs2796441	A	G	-0.0715	62892	1.96E-22	NA
Type 2 diabetes	LUAD	rs2820426	G	A	0.0521	62892	1.3E-12	NA
Type 2 diabetes	LUAD	rs2867125	C	T	0.0601	62892	4.33E-10	NA
Type 2 diabetes	LUAD	rs2908282	A	G	0.0552	62892	4.25E-09	NA

Type 2 diabetes	LUAD	rs2925979	C	T	-0.0534	62892	9.06E-12	NA
Type 2 diabetes	LUAD	rs2943656	G	A	0.0902	62892	6.7E-34	NA
Type 2 diabetes	LUAD	rs3217992	T	C	0.0527	62892	7.23E-13	NA
Type 2 diabetes	LUAD	rs340874	C	T	0.0626	62892	8.41E-18	NA
Type 2 diabetes	LUAD	rs348330	A	G	-0.0487	62892	1.86E-09	NA
Type 2 diabetes	LUAD	rs3756784	G	T	0.0505	62892	2.59E-08	NA
Type 2 diabetes	LUAD	rs3802177	A	G	-0.1217	62892	2.32E-52	NA
Type 2 diabetes	LUAD	rs459193	G	A	0.0711	62892	8.81E-18	NA
Type 2 diabetes	LUAD	rs4622883	G	A	-0.0435	62892	3.02E-08	NA
Type 2 diabetes	LUAD	rs4686471	C	T	0.0534	62892	4.28E-11	NA
Type 2 diabetes	LUAD	rs4812829	A	G	0.0532	62892	2.44E-08	NA
Type 2 diabetes	LUAD	rs4823182	G	A	0.0482	62892	3.36E-10	NA
Type 2 diabetes	LUAD	rs4865796	A	G	0.053	62892	1.33E-11	NA
Type 2 diabetes	LUAD	rs516946	C	T	0.0824	62892	3.16E-22	NA
Type 2 diabetes	LUAD	rs5215	T	C	-0.0678	62892	2.09E-20	NA
Type 2 diabetes	LUAD	rs55966194	G	C	-0.0526	62892	2.25E-09	NA
Type 2 diabetes	LUAD	rs576674	A	G	-0.0654	62892	1.79E-11	NA
Type 2 diabetes	LUAD	rs6059662	G	A	0.0446	62892	1.51E-08	NA
Type 2 diabetes	LUAD	rs61953351	T	G	-0.07	62892	1.98E-14	NA
Type 2 diabetes	LUAD	rs622217	C	T	-0.0485	62892	3.13E-10	NA
Type 2 diabetes	LUAD	rs6515236	C	A	-0.0504	62892	3.34E-08	NA
Type 2 diabetes	LUAD	rs67232546	T	C	0.0596	62892	4.66E-10	NA
Type 2 diabetes	LUAD	rs6767484	G	A	0.1209	62892	2.7E-56	NA
Type 2 diabetes	LUAD	rs6785040	C	T	-0.0633	62892	1.26E-08	NA
Type 2 diabetes	LUAD	rs6795735	T	C	-0.0558	62892	1.63E-14	NA
Type 2 diabetes	LUAD	rs6878122	A	G	-0.0564	62892	1.19E-12	NA
Type 2 diabetes	LUAD	rs6960043	C	T	0.064	62892	3.61E-19	NA
Type 2 diabetes	LUAD	rs7144011	T	G	0.0482	62892	1.64E-08	NA
Type 2 diabetes	LUAD	rs7177055	A	G	0.0647	62892	2.75E-16	NA
Type 2 diabetes	LUAD	rs7240767	C	T	0.0451	62892	2.16E-08	NA

Type 2 diabetes	LUAD	rs72802358	C	G	-0.1168	62892	1.97E-18	NA
Type 2 diabetes	LUAD	rs72892910	T	G	0.0648	62892	6.43E-11	NA
Type 2 diabetes	LUAD	rs735949	C	T	-0.0711	62892	1.95E-11	NA
Type 2 diabetes	LUAD	rs753270	C	T	0.0528	62892	2.7E-11	NA
Type 2 diabetes	LUAD	rs7561798	G	A	0.04	62892	2.79E-08	NA
Type 2 diabetes	LUAD	rs7572970	G	A	0.059	62892	1.39E-11	NA
Type 2 diabetes	LUAD	rs7607777	T	G	-0.137	62892	9.4E-28	NA
Type 2 diabetes	LUAD	rs7674212	T	G	-0.0465	62892	6.18E-10	NA
Type 2 diabetes	LUAD	rs7685296	T	C	-0.0511	62892	2.32E-10	NA
Type 2 diabetes	LUAD	rs7729395	T	C	0.1373	62892	1.1E-17	NA
Type 2 diabetes	LUAD	rs7756992	G	A	0.1297	62892	6E-62	NA
Type 2 diabetes	LUAD	rs7786095	G	A	-0.0743	62892	9.64E-09	NA
Type 2 diabetes	LUAD	rs780094	C	T	0.0692	62892	5.16E-21	NA
Type 2 diabetes	LUAD	rs7845219	C	T	-0.0422	62892	4.54E-09	NA
Type 2 diabetes	LUAD	rs7903146	T	C	0.3059	62892	1E-200	NA
Type 2 diabetes	LUAD	rs7929543	C	A	0.0828	62892	2.2E-09	NA
Type 2 diabetes	LUAD	rs7955901	T	C	-0.0444	62892	7.16E-10	NA
Type 2 diabetes	LUAD	rs8068804	A	G	0.0587	62892	4.41E-14	NA
Type 2 diabetes	LUAD	rs8108269	G	T	0.0644	62892	3.11E-16	NA
Type 2 diabetes	LUAD	rs825476	T	C	0.0524	62892	6.8E-13	NA
Type 2 diabetes	LUAD	rs840967	A	C	-0.0497	62892	5.44E-10	NA
Type 2 diabetes	LUAD	rs849135	A	G	-0.0999	62892	1.04E-43	NA
Type 2 diabetes	LUAD	rs853974	C	T	-0.0601	62892	7.86E-12	NA
Type 2 diabetes	LUAD	rs9369425	A	G	-0.0546	62892	1.13E-10	NA
Type 2 diabetes	LUAD	rs963740	T	A	-0.0479	62892	2.23E-08	NA
Type 2 diabetes	LUAD	rs9844972	C	G	0.0956	62892	1.03E-10	NA
Type 2 diabetes	LUAD	rs9894220	G	A	-0.0585	62892	1.52E-13	NA
Type 2 diabetes	LUAD	rs9928094	G	A	0.1045	62892	3.59E-47	NA
Type 2 diabetes	LUAD	rs993380	G	A	-0.0507	62892	4.59E-10	NA
Type 2 diabetes	LUAD	rs9940149	A	G	-0.058	62892	9.29E-10	NA



Smoking initiation	LUAD	rs10001365	A	G	-0.02499	632802	6.65E-12	NA
Smoking initiation	LUAD	rs10114490	A	G	-0.02551	632802	1.81E-08	NA
Smoking initiation	LUAD	rs10159545	G	C	0.02625	632802	1.84E-12	NA
Smoking initiation	LUAD	rs10233018	G	A	0.027069	632802	2.75E-14	NA
Smoking initiation	LUAD	rs10260968	A	G	-0.02032	632802	1.75E-08	NA
Smoking initiation	LUAD	rs10279261	A	G	-0.02142	632802	5E-09	NA
Smoking initiation	LUAD	rs10498846	T	C	0.02061	632802	6.62E-09	NA
Smoking initiation	LUAD	rs1050847	T	C	-0.02162	632802	1.67E-09	NA
Smoking initiation	LUAD	rs10905461	C	T	-0.02396	632802	7.35E-09	NA
Smoking initiation	LUAD	rs11057005	G	A	-0.02093	632802	4.85E-09	NA
Smoking initiation	LUAD	rs11078713	G	A	-0.02017	632802	2.23E-08	NA
Smoking initiation	LUAD	rs1154693	G	A	0.032622	632802	3.12E-11	NA
Smoking initiation	LUAD	rs11658881	G	A	0.020136	632802	2.43E-08	NA
Smoking initiation	LUAD	rs11712680	C	A	-0.02705	632802	3.51E-09	NA
Smoking initiation	LUAD	rs117143374	C	T	0.02929	632802	2.76E-08	NA
Smoking initiation	LUAD	rs11872397	A	G	-0.02477	632802	1.43E-09	NA
Smoking initiation	LUAD	rs12025237	C	A	-0.033	632802	6.52E-10	NA
Smoking initiation	LUAD	rs12042107	C	T	-0.02228	632802	4.22E-10	NA
Smoking initiation	LUAD	rs12112638	G	A	-0.02453	632802	1.34E-09	NA
Smoking initiation	LUAD	rs12186738	T	G	-0.03326	632802	3.42E-11	NA
Smoking initiation	LUAD	rs12333760	C	T	-0.02905	632802	1.44E-09	NA
Smoking initiation	LUAD	rs12356821	C	G	0.03937	632802	6.27E-15	NA
Smoking initiation	LUAD	rs12441907	A	C	-0.02921	632802	1.06E-10	NA
Smoking initiation	LUAD	rs12474587	T	G	0.027633	632802	1.25E-14	NA
Smoking initiation	LUAD	rs12545053	G	A	0.020281	632802	2.43E-08	NA
Smoking initiation	LUAD	rs12632110	G	A	-0.02338	632802	4.78E-10	NA
Smoking initiation	LUAD	rs13030994	A	G	0.036093	632802	3.56E-24	NA
Smoking initiation	LUAD	rs13145728	C	G	-0.02325	632802	2.14E-10	NA
Smoking initiation	LUAD	rs13261666	T	G	-0.02689	632802	3.9E-14	NA
Smoking initiation	LUAD	rs134529	C	T	-0.01998	632802	4.85E-08	NA

Smoking initiation	LUAD	rs1385108	T	C	0.024662	632802	3E-09	NA
Smoking initiation	LUAD	rs1435741	A	G	0.029415	632802	2.64E-16	NA
Smoking initiation	LUAD	rs1445649	C	T	0.023993	632802	1.68E-11	NA
Smoking initiation	LUAD	rs1555445	T	A	0.022555	632802	3.65E-09	NA
Smoking initiation	LUAD	rs1565735	A	T	-0.03762	632802	3.42E-17	NA
Smoking initiation	LUAD	rs1869243	C	T	0.019741	632802	2.97E-08	NA
Smoking initiation	LUAD	rs1899896	T	C	0.026448	632802	1.04E-11	NA
Smoking initiation	LUAD	rs1971318	T	C	0.028507	632802	7.06E-09	NA
Smoking initiation	LUAD	rs2046850	T	C	-0.02481	632802	3.03E-08	NA
Smoking initiation	LUAD	rs2050586	C	G	-0.02055	632802	3E-08	NA
Smoking initiation	LUAD	rs2107300	G	C	-0.0272	632802	3.27E-08	NA
Smoking initiation	LUAD	rs2140114	T	C	-0.02326	632802	4.7E-10	NA
Smoking initiation	LUAD	rs222449	T	A	-0.02532	632802	1.08E-08	rs222440
Smoking initiation	LUAD	rs2378662	A	G	0.020948	632802	4.16E-09	NA
Smoking initiation	LUAD	rs240963	C	T	-0.04104	632802	2.16E-17	NA
Smoking initiation	LUAD	rs2631024	G	A	-0.02296	632802	1.18E-08	NA
Smoking initiation	LUAD	rs266047	A	G	-0.03051	632802	3.36E-16	NA
Smoking initiation	LUAD	rs3001723	A	G	0.033512	632802	8.12E-18	NA
Smoking initiation	LUAD	rs301805	G	T	0.021468	632802	2.8E-09	NA
Smoking initiation	LUAD	rs35702515	T	G	0.025244	632802	2.43E-09	NA
Smoking initiation	LUAD	rs3800227	G	A	0.022812	632802	1.93E-08	NA
Smoking initiation	LUAD	rs3801289	C	A	-0.02206	632802	3.74E-09	NA
Smoking initiation	LUAD	rs3904512	A	G	-0.02116	632802	3.23E-09	NA
Smoking initiation	LUAD	rs4044321	G	A	-0.02784	632802	6.08E-14	NA
Smoking initiation	LUAD	rs4236259	G	T	-0.02477	632802	3.35E-12	NA
Smoking initiation	LUAD	rs4352629	T	C	-0.02753	632802	1.22E-14	NA
Smoking initiation	LUAD	rs4523689	G	A	-0.02061	632802	1.55E-08	NA
Smoking initiation	LUAD	rs4543592	C	T	0.021931	632802	7.46E-10	NA
Smoking initiation	LUAD	rs4674993	G	A	-0.02521	632802	1.32E-08	NA
Smoking initiation	LUAD	rs4759228	C	G	-0.02169	632802	3.58E-08	NA

Smoking initiation	LUAD	rs4781977	C	T	-0.02387	632802	4.54E-08	NA
Smoking initiation	LUAD	rs4785836	C	T	-0.02047	632802	2.26E-08	NA
Smoking initiation	LUAD	rs578584	T	A	0.02868	632802	1.5E-15	rs528301
Smoking initiation	LUAD	rs6265	T	C	-0.03179	632802	3.77E-12	NA
Smoking initiation	LUAD	rs6433897	C	T	0.022448	632802	3.16E-08	NA
Smoking initiation	LUAD	rs66680800	T	G	-0.02027	632802	2.83E-08	NA
Smoking initiation	LUAD	rs6669839	T	C	0.026004	632802	3.36E-09	NA
Smoking initiation	LUAD	rs6728726	C	T	0.035449	632802	6.73E-14	NA
Smoking initiation	LUAD	rs6788098	T	A	-0.03135	632802	1.91E-17	NA
Smoking initiation	LUAD	rs6893752	G	A	-0.0241	632802	3.25E-09	NA
Smoking initiation	LUAD	rs7197072	T	C	-0.02477	632802	2.77E-09	NA
Smoking initiation	LUAD	rs7224742	T	C	-0.02071	632802	1.43E-08	NA
Smoking initiation	LUAD	rs72789632	T	C	-0.03289	632802	5.02E-10	NA
Smoking initiation	LUAD	rs72896886	C	G	-0.02689	632802	2.75E-08	NA
Smoking initiation	LUAD	rs7322872	T	C	-0.02557	632802	3.58E-09	NA
Smoking initiation	LUAD	rs7555507	T	C	-0.02414	632802	1.14E-11	NA
Smoking initiation	LUAD	rs76214862	C	A	-0.02499	632802	3.99E-08	NA
Smoking initiation	LUAD	rs7929518	G	A	0.024238	632802	1.56E-08	NA
Smoking initiation	LUAD	rs7938812	G	T	0.043791	632802	2.71E-33	NA
Smoking initiation	LUAD	rs7969559	G	A	-0.02438	632802	7.31E-10	NA
Smoking initiation	LUAD	rs9401770	A	G	0.027731	632802	3.47E-12	NA
Smoking initiation	LUAD	rs962625	G	A	0.023718	632802	4.37E-09	NA
Smoking initiation	LUAD	rs993700	C	T	-0.02593	632802	1.53E-09	NA
Alcoholic drinks per week	LUAD	rs10085696	G	A	-0.01605	535056	1.24E-10	NA
Alcoholic drinks per week	LUAD	rs11860773	C	T	-0.01501	515422	8.35E-10	NA
Alcoholic drinks per week	LUAD	rs1229984	C	T	0.188115	514602	1E-200	NA
Alcoholic drinks per week	LUAD	rs1260326	C	T	0.023812	532340	3.33E-33	NA
Alcoholic drinks per week	LUAD	rs13107325	T	C	-0.03645	528164	1.23E-20	NA
Alcoholic drinks per week	LUAD	rs13332432	G	C	0.014005	516946	5.94E-11	NA
Alcoholic drinks per week	LUAD	rs1387766	A	G	-0.01083	535067	4.79E-08	NA

Alcoholic drinks per week	LUAD	rs153106	C	T	-0.01361	531637	3.63E-12	NA
Alcoholic drinks per week	LUAD	rs16854020	A	G	0.018083	533501	4.82E-10	NA
Alcoholic drinks per week	LUAD	rs17542254	G	A	0.013142	533884	8.96E-10	NA
Alcoholic drinks per week	LUAD	rs2049045	C	G	-0.01377	532726	3.97E-08	NA
Alcoholic drinks per week	LUAD	rs2299409	A	G	-0.01055	534249	4.8E-08	NA
Alcoholic drinks per week	LUAD	rs28601761	G	C	0.011299	523035	7.6E-09	rs112875651
Alcoholic drinks per week	LUAD	rs28680958	A	G	-0.01358	532042	9.78E-09	NA
Alcoholic drinks per week	LUAD	rs28712821	A	G	0.028334	525616	1.1E-46	NA
Alcoholic drinks per week	LUAD	rs28732378	G	A	-0.01673	530009	2.24E-14	NA
Alcoholic drinks per week	LUAD	rs28929474	T	C	-0.04768	528430	2.39E-11	NA
Alcoholic drinks per week	LUAD	rs331939	A	G	-0.0119	536700	4.5E-09	NA
Alcoholic drinks per week	LUAD	rs34121753	G	A	0.011069	518183	1.39E-08	NA
Alcoholic drinks per week	LUAD	rs4309187	C	A	0.014791	531063	1.37E-12	NA
Alcoholic drinks per week	LUAD	rs4752999	T	C	-0.01456	529379	2.03E-12	NA
Alcoholic drinks per week	LUAD	rs494904	C	T	0.015085	531073	1.41E-14	NA
Alcoholic drinks per week	LUAD	rs55872084	T	G	0.012731	529669	1.98E-08	NA
Alcoholic drinks per week	LUAD	rs55932213	G	A	0.012477	515956	1.8E-08	NA
Alcoholic drinks per week	LUAD	rs6106989	A	G	0.010899	520623	3.81E-08	NA
Alcoholic drinks per week	LUAD	rs6739804	C	T	-0.01297	532202	4.72E-10	NA
Alcoholic drinks per week	LUAD	rs676388	C	T	0.015098	531996	5.49E-15	NA
Alcoholic drinks per week	LUAD	rs75120545	T	C	-0.03279	474779	7.59E-09	NA
Alcoholic drinks per week	LUAD	rs78234152	A	G	0.027654	534076	2.18E-19	NA
Alcoholic drinks per week	LUAD	rs79616692	C	G	0.018809	529527	2.38E-09	NA
Alcoholic drinks per week	LUAD	rs962961	T	C	-0.01219	533853	2.78E-09	NA
Smoking initiation	LUCA	rs10001365	A	G	-0.02499	632802	6.65E-12	NA
Smoking initiation	LUCA	rs10114490	A	G	-0.02551	632802	1.81E-08	NA
Smoking initiation	LUCA	rs10159545	G	C	0.02625	632802	1.84E-12	NA
Smoking initiation	LUCA	rs10233018	G	A	0.027069	632802	2.75E-14	NA
Smoking initiation	LUCA	rs10260968	A	G	-0.02032	632802	1.75E-08	NA
Smoking initiation	LUCA	rs10279261	A	G	-0.02142	632802	5E-09	NA

Smoking initiation	LUCA	rs10498846	T	C	0.02061	632802	6.62E-09	NA
Smoking initiation	LUCA	rs1050847	T	C	-0.02162	632802	1.67E-09	NA
Smoking initiation	LUCA	rs10905461	C	T	-0.02396	632802	7.35E-09	NA
Smoking initiation	LUCA	rs11057005	G	A	-0.02093	632802	4.85E-09	NA
Smoking initiation	LUCA	rs11078713	G	A	-0.02017	632802	2.23E-08	NA
Smoking initiation	LUCA	rs1154693	G	A	0.032622	632802	3.12E-11	NA
Smoking initiation	LUCA	rs11658881	G	A	0.020136	632802	2.43E-08	NA
Smoking initiation	LUCA	rs11712680	C	A	-0.02705	632802	3.51E-09	NA
Smoking initiation	LUCA	rs117143374	C	T	0.02929	632802	2.76E-08	NA
Smoking initiation	LUCA	rs11872397	A	G	-0.02477	632802	1.43E-09	NA
Smoking initiation	LUCA	rs12025237	C	A	-0.033	632802	6.52E-10	NA
Smoking initiation	LUCA	rs12042107	C	T	-0.02228	632802	4.22E-10	NA
Smoking initiation	LUCA	rs12112638	G	A	-0.02453	632802	1.34E-09	NA
Smoking initiation	LUCA	rs12186738	T	G	-0.03326	632802	3.42E-11	NA
Smoking initiation	LUCA	rs12333760	C	T	-0.02905	632802	1.44E-09	NA
Smoking initiation	LUCA	rs12356821	C	G	0.03937	632802	6.27E-15	NA
Smoking initiation	LUCA	rs12441907	A	C	-0.02921	632802	1.06E-10	NA
Smoking initiation	LUCA	rs12474587	T	G	0.027633	632802	1.25E-14	NA
Smoking initiation	LUCA	rs12545053	G	A	0.020281	632802	2.43E-08	NA
Smoking initiation	LUCA	rs12632110	G	A	-0.02338	632802	4.78E-10	NA
Smoking initiation	LUCA	rs13030994	A	G	0.036093	632802	3.56E-24	NA
Smoking initiation	LUCA	rs13145728	C	G	-0.02325	632802	2.14E-10	NA
Smoking initiation	LUCA	rs13261666	T	G	-0.02689	632802	3.9E-14	NA
Smoking initiation	LUCA	rs134529	C	T	-0.01998	632802	4.85E-08	NA
Smoking initiation	LUCA	rs1385108	T	C	0.024662	632802	3E-09	NA
Smoking initiation	LUCA	rs1435741	A	G	0.029415	632802	2.64E-16	NA
Smoking initiation	LUCA	rs1445649	C	T	0.023993	632802	1.68E-11	NA
Smoking initiation	LUCA	rs1555445	T	A	0.022555	632802	3.65E-09	NA
Smoking initiation	LUCA	rs1565735	A	T	-0.03762	632802	3.42E-17	NA
Smoking initiation	LUCA	rs1869243	C	T	0.019741	632802	2.97E-08	NA

Smoking initiation	LUCA	rs1899896	T	C	0.026448	632802	1.04E-11	NA
Smoking initiation	LUCA	rs1971318	T	C	0.028507	632802	7.06E-09	NA
Smoking initiation	LUCA	rs2046850	T	C	-0.02481	632802	3.03E-08	NA
Smoking initiation	LUCA	rs2050586	C	G	-0.02055	632802	3E-08	NA
Smoking initiation	LUCA	rs2107300	G	C	-0.0272	632802	3.27E-08	NA
Smoking initiation	LUCA	rs2140114	T	C	-0.02326	632802	4.7E-10	NA
Smoking initiation	LUCA	rs222449	T	A	-0.02532	632802	1.08E-08	rs222440
Smoking initiation	LUCA	rs2378662	A	G	0.020948	632802	4.16E-09	NA
Smoking initiation	LUCA	rs240963	C	T	-0.04104	632802	2.16E-17	NA
Smoking initiation	LUCA	rs2631024	G	A	-0.02296	632802	1.18E-08	NA
Smoking initiation	LUCA	rs266047	A	G	-0.03051	632802	3.36E-16	NA
Smoking initiation	LUCA	rs3001723	A	G	0.033512	632802	8.12E-18	NA
Smoking initiation	LUCA	rs301805	G	T	0.021468	632802	2.8E-09	NA
Smoking initiation	LUCA	rs35702515	T	G	0.025244	632802	2.43E-09	NA
Smoking initiation	LUCA	rs3800227	G	A	0.022812	632802	1.93E-08	NA
Smoking initiation	LUCA	rs3801289	C	A	-0.02206	632802	3.74E-09	NA
Smoking initiation	LUCA	rs3904512	A	G	-0.02116	632802	3.23E-09	NA
Smoking initiation	LUCA	rs4044321	G	A	-0.02784	632802	6.08E-14	NA
Smoking initiation	LUCA	rs4236259	G	T	-0.02477	632802	3.35E-12	NA
Smoking initiation	LUCA	rs4352629	T	C	-0.02753	632802	1.22E-14	NA
Smoking initiation	LUCA	rs4523689	G	A	-0.02061	632802	1.55E-08	NA
Smoking initiation	LUCA	rs4543592	C	T	0.021931	632802	7.46E-10	NA
Smoking initiation	LUCA	rs4674993	G	A	-0.02521	632802	1.32E-08	NA
Smoking initiation	LUCA	rs4759228	C	G	-0.02169	632802	3.58E-08	NA
Smoking initiation	LUCA	rs4781977	C	T	-0.02387	632802	4.54E-08	NA
Smoking initiation	LUCA	rs4785836	C	T	-0.02047	632802	2.26E-08	NA
Smoking initiation	LUCA	rs578584	T	A	0.02868	632802	1.5E-15	rs528301
Smoking initiation	LUCA	rs6265	T	C	-0.03179	632802	3.77E-12	NA
Smoking initiation	LUCA	rs6433897	C	T	0.022448	632802	3.16E-08	NA
Smoking initiation	LUCA	rs66680800	T	G	-0.02027	632802	2.83E-08	NA

Smoking initiation	LUCA	rs6669839	T	C	0.026004	632802	3.36E-09	NA
Smoking initiation	LUCA	rs6728726	C	T	0.035449	632802	6.73E-14	NA
Smoking initiation	LUCA	rs6788098	T	A	-0.03135	632802	1.91E-17	NA
Smoking initiation	LUCA	rs6893752	G	A	-0.0241	632802	3.25E-09	NA
Smoking initiation	LUCA	rs7197072	T	C	-0.02477	632802	2.77E-09	NA
Smoking initiation	LUCA	rs7224742	T	C	-0.02071	632802	1.43E-08	NA
Smoking initiation	LUCA	rs72789632	T	C	-0.03289	632802	5.02E-10	NA
Smoking initiation	LUCA	rs72896886	C	G	-0.02689	632802	2.75E-08	NA
Smoking initiation	LUCA	rs7322872	T	C	-0.02557	632802	3.58E-09	NA
Smoking initiation	LUCA	rs7555507	T	C	-0.02414	632802	1.14E-11	NA
Smoking initiation	LUCA	rs76214862	C	A	-0.02499	632802	3.99E-08	NA
Smoking initiation	LUCA	rs7929518	G	A	0.024238	632802	1.56E-08	NA
Smoking initiation	LUCA	rs7938812	G	T	0.043791	632802	2.71E-33	NA
Smoking initiation	LUCA	rs7969559	G	A	-0.02438	632802	7.31E-10	NA
Smoking initiation	LUCA	rs9401770	A	G	0.027731	632802	3.47E-12	NA
Smoking initiation	LUCA	rs962625	G	A	0.023718	632802	4.37E-09	NA
Smoking initiation	LUCA	rs993700	C	T	-0.02593	632802	1.53E-09	NA
BMI	LUCA	rs10009336	T	C	-0.014	794766	2.2E-10	NA
BMI	LUCA	rs1006896	C	A	-0.0234	691892	5.5E-18	NA
BMI	LUCA	rs10132280	A	C	-0.0223	786578	5.6E-35	NA
BMI	LUCA	rs10169594	C	T	0.0121	685712	2E-11	NA
BMI	LUCA	rs10182181	G	A	0.0325	792111	6.7E-90	NA
BMI	LUCA	rs10192119	G	T	0.0166	795369	3E-14	NA
BMI	LUCA	rs10197031	C	T	0.0166	691479	1.9E-18	NA
BMI	LUCA	rs10243319	C	T	-0.0107	690936	1.2E-09	NA
BMI	LUCA	rs10247983	A	G	0.0201	672411	1.7E-09	NA
BMI	LUCA	rs10248136	T	C	-0.0097	686892	2E-08	NA
BMI	LUCA	rs10269783	A	G	0.0133	790551	1.4E-15	NA
BMI	LUCA	rs10408324	T	C	-0.0124	690737	9.5E-11	NA
BMI	LUCA	rs10478110	C	A	0.01	680441	9.6E-09	NA

BMI	LUCA	rs1048932	A	C	-0.016	795167	3.8E-22	NA
BMI	LUCA	rs10492229	T	C	0.0142	794845	7.7E-14	NA
BMI	LUCA	rs10510419	T	G	-0.0177	789318	2.2E-14	NA
BMI	LUCA	rs10518694	A	C	0.0146	690554	3.3E-09	NA
BMI	LUCA	rs1064213	A	G	0.012	692576	2.4E-12	NA
BMI	LUCA	rs10733051	G	A	-0.0097	781928	2.9E-09	NA
BMI	LUCA	rs10742752	C	T	0.0124	792704	1.1E-13	NA
BMI	LUCA	rs10747488	A	C	-0.0123	689295	1.2E-09	NA
BMI	LUCA	rs10750215	T	G	0.0108	788895	1.3E-10	NA
BMI	LUCA	rs1075901	C	T	0.0121	794789	1.2E-13	NA
BMI	LUCA	rs10768994	C	T	-0.0114	791685	6.4E-12	NA
BMI	LUCA	rs10795422	G	A	0.0139	692108	9.3E-14	NA
BMI	LUCA	rs10811871	G	A	-0.0108	686376	1.6E-09	NA
BMI	LUCA	rs10832778	G	C	0.0125	783042	1.3E-13	NA
BMI	LUCA	rs10858334	G	C	0.0143	672640	2.7E-08	NA
BMI	LUCA	rs10867256	T	C	-0.0118	689493	8.7E-12	NA
BMI	LUCA	rs10878946	T	C	-0.0141	685707	3.6E-13	NA
BMI	LUCA	rs10914462	G	A	-0.0112	689808	1.5E-10	NA
BMI	LUCA	rs10915840	A	G	-0.0118	684857	1.3E-09	NA
BMI	LUCA	rs10920678	G	A	-0.0155	788624	1.5E-21	NA
BMI	LUCA	rs10938397	G	A	0.0324	793518	3.4E-86	NA
BMI	LUCA	rs10942267	G	A	-0.0156	689084	3.9E-17	NA
BMI	LUCA	rs10953740	G	A	-0.0153	684419	1E-18	NA
BMI	LUCA	rs10962550	C	G	0.0182	690579	6.2E-16	rs4961741
BMI	LUCA	rs10968114	C	A	-0.0113	686025	6.1E-11	NA
BMI	LUCA	rs10971709	T	C	0.0132	688312	6.2E-10	NA
BMI	LUCA	rs10984756	G	C	0.0174	689917	1.1E-09	NA
BMI	LUCA	rs11030618	T	C	0.011	690005	2.4E-10	NA
BMI	LUCA	rs11084553	G	A	-0.021	691103	1.8E-18	NA
BMI	LUCA	rs11105839	A	T	-0.0109	781573	1.1E-10	rs10777258



BMI	LUCA	rs11115176	C	T	-0.0121	792384	2E-10	NA
BMI	LUCA	rs11118308	G	A	-0.0101	794625	4.8E-10	NA
BMI	LUCA	rs1112613	A	G	-0.0133	682816	3.4E-09	NA
BMI	LUCA	rs11150911	C	A	-0.0133	781716	4.7E-13	NA
BMI	LUCA	rs11165643	T	C	0.0206	792657	1.4E-35	rs1973993
BMI	LUCA	rs11170468	C	A	-0.0123	795265	1.9E-10	NA
BMI	LUCA	rs11173522	A	C	0.0128	691593	1.1E-09	NA
BMI	LUCA	rs11185111	A	G	-0.0129	686508	7.7E-12	NA
BMI	LUCA	rs11251352	G	A	0.0109	690804	7E-10	NA
BMI	LUCA	rs11496125	T	C	0.0169	684574	3E-22	NA
BMI	LUCA	rs11505821	T	A	0.0311	758322	2.7E-19	NA
BMI	LUCA	rs11538	G	A	0.0135	692349	3.3E-09	NA
BMI	LUCA	rs1158805	A	C	-0.0137	691776	1.2E-14	NA
BMI	LUCA	rs11609659	C	T	-0.0154	679177	2.2E-14	NA
BMI	LUCA	rs11611246	T	G	0.024	779823	5E-32	NA
BMI	LUCA	rs11615578	T	C	0.013	669422	8.1E-11	NA
BMI	LUCA	rs11656076	A	G	-0.0142	691283	5.6E-12	NA
BMI	LUCA	rs11672660	T	C	-0.034	768426	1.7E-60	NA
BMI	LUCA	rs11713193	A	G	0.0239	692159	2.4E-44	NA
BMI	LUCA	rs11736228	T	A	-0.0139	691580	4.1E-12	NA
BMI	LUCA	rs11738695	A	C	0.0097	691380	2E-08	NA
BMI	LUCA	rs11739877	T	C	0.0117	692540	6.6E-11	NA
BMI	LUCA	rs11781699	C	T	0.0132	784642	3.1E-10	NA
BMI	LUCA	rs11855853	T	C	-0.0145	682564	2.4E-13	NA
BMI	LUCA	rs1187352	C	T	0.0119	688522	6E-11	NA
BMI	LUCA	rs11880870	G	A	-0.0189	717350	1E-28	NA
BMI	LUCA	rs11889536	G	A	-0.0189	688977	6.4E-15	NA
BMI	LUCA	rs11908637	A	G	-0.012	691443	4.9E-09	NA
BMI	LUCA	rs11945861	A	G	-0.0148	682451	5E-13	NA
BMI	LUCA	rs11951673	T	C	-0.0123	792278	1.1E-13	NA

BMI	LUCA	rs12033257	G	A	-0.0146	664083	2.4E-15	NA
BMI	LUCA	rs12041258	C	T	-0.0146	688602	9.5E-13	NA
BMI	LUCA	rs12044597	G	A	0.0143	789125	1.7E-18	NA
BMI	LUCA	rs12049202	T	C	0.024	691566	1E-28	NA
BMI	LUCA	rs12098284	T	C	0.0178	686167	1.8E-11	NA
BMI	LUCA	rs12150665	C	T	-0.0162	795501	1.6E-22	NA
BMI	LUCA	rs1218822	A	G	0.0168	794711	1.9E-22	NA
BMI	LUCA	rs12299814	A	C	-0.0157	687962	5.2E-15	NA
BMI	LUCA	rs12328930	C	T	0.0098	690521	1.8E-08	NA
BMI	LUCA	rs12334877	A	G	-0.0144	683820	7.7E-11	NA
BMI	LUCA	rs12364470	G	T	0.0178	787411	1.1E-15	NA
BMI	LUCA	rs12369179	T	C	-0.0359	674260	2.5E-31	NA
BMI	LUCA	rs12416812	A	G	0.0111	793338	6.1E-12	NA
BMI	LUCA	rs1241986	A	G	-0.0139	687757	1.1E-08	NA
BMI	LUCA	rs12422552	C	G	-0.0134	689543	1.6E-11	NA
BMI	LUCA	rs12429545	A	G	0.0316	778918	9.6E-38	NA
BMI	LUCA	rs12448257	A	G	0.0184	779628	8.1E-20	NA
BMI	LUCA	rs12546578	A	T	0.0146	689192	1E-13	NA
BMI	LUCA	rs12564992	G	A	0.0196	795119	5.3E-14	NA
BMI	LUCA	rs12593036	G	A	-0.0154	686055	3.8E-16	NA
BMI	LUCA	rs12602912	T	C	0.0176	777510	9.9E-18	NA
BMI	LUCA	rs1260326	C	T	0.0105	784462	3.9E-10	NA
BMI	LUCA	rs12629015	G	A	-0.0135	691059	2.1E-09	NA
BMI	LUCA	rs1266874	G	A	0.014	691020	9.8E-15	NA
BMI	LUCA	rs12675063	T	A	0.0156	789771	1.3E-09	NA
BMI	LUCA	rs1268065	A	G	-0.0102	759626	1E-09	NA
BMI	LUCA	rs12680842	G	A	-0.0133	782549	4.4E-14	NA
BMI	LUCA	rs12718572	T	C	-0.0117	686523	3E-11	NA
BMI	LUCA	rs12762034	C	T	0.024	692191	7.3E-14	NA
BMI	LUCA	rs12779328	T	C	0.0105	690736	4.5E-08	NA

BMI	LUCA	rs1285997	G	C	0.0142	684235	1.2E-13	NA
BMI	LUCA	rs12888545	G	A	0.0136	688605	9.1E-12	NA
BMI	LUCA	rs12888955	A	G	-0.0178	691849	1.4E-22	NA
BMI	LUCA	rs12905439	G	C	-0.0118	675205	1.4E-10	NA
BMI	LUCA	rs12914489	A	G	0.0165	795244	3.8E-10	NA
BMI	LUCA	rs12922346	C	G	0.0136	679615	1E-11	NA
BMI	LUCA	rs12933482	G	A	0.0186	691477	4.9E-11	NA
BMI	LUCA	rs12936083	G	A	0.0139	633615	4.1E-13	NA
BMI	LUCA	rs12939549	G	A	-0.018	793950	2.7E-28	NA
BMI	LUCA	rs1296328	C	A	-0.0179	683488	4.9E-24	NA
BMI	LUCA	rs12981256	A	G	0.0142	678327	1.1E-15	NA
BMI	LUCA	rs13021737	G	A	0.0574	789534	7.5E-157	NA
BMI	LUCA	rs13047416	G	C	-0.0154	683228	2.2E-17	rs4817973
BMI	LUCA	rs13069244	A	G	0.0187	791327	3E-09	NA
BMI	LUCA	rs13107325	T	C	0.047	792045	1.1E-47	NA
BMI	LUCA	rs13110266	A	G	-0.0117	791087	1.9E-12	NA
BMI	LUCA	rs13132853	G	A	-0.0142	682543	4.7E-15	NA
BMI	LUCA	rs13147390	C	T	0.0103	681032	1E-08	NA
BMI	LUCA	rs13174863	G	A	0.0192	773762	2.9E-16	NA
BMI	LUCA	rs13184896	T	G	-0.0133	794825	3.3E-16	NA
BMI	LUCA	rs13191362	G	A	-0.0236	792699	5.9E-21	NA
BMI	LUCA	rs1320903	A	G	0.0216	691519	9.2E-32	NA
BMI	LUCA	rs1321432	C	A	0.0201	686481	3.5E-29	NA
BMI	LUCA	rs13240600	G	A	-0.0204	692233	3.5E-17	NA
BMI	LUCA	rs13250058	T	G	0.0112	787870	2.9E-10	NA
BMI	LUCA	rs13263601	C	A	0.0154	686196	2.2E-17	NA
BMI	LUCA	rs1327259	G	A	-0.0155	685922	1.7E-18	NA
BMI	LUCA	rs13287131	C	T	0.0123	683808	6.8E-10	NA
BMI	LUCA	rs1330052	G	C	0.0132	691613	1.5E-13	NA
BMI	LUCA	rs13329567	T	C	-0.0293	793953	1E-50	NA

BMI	LUCA	rs1365466	T	C	-0.0137	791868	3.3E-13	NA
BMI	LUCA	rs1371108	A	C	0.0119	684620	9E-11	NA
BMI	LUCA	rs1409818	T	C	0.0201	690984	2.5E-12	NA
BMI	LUCA	rs1412235	C	G	0.0246	790147	6E-45	NA
BMI	LUCA	rs1421334	C	A	-0.0125	680665	1E-12	NA
BMI	LUCA	rs1430387	C	T	-0.0114	689325	5.8E-11	NA
BMI	LUCA	rs1431659	G	A	-0.0196	689739	6E-24	NA
BMI	LUCA	rs1436344	C	G	0.0141	692017	4.1E-16	rs12695098
BMI	LUCA	rs1445652	A	G	0.0123	682166	4.3E-08	NA
BMI	LUCA	rs1452075	T	C	0.0141	783729	1.3E-14	NA
BMI	LUCA	rs1465900	C	A	-0.0125	779748	4.8E-10	NA
BMI	LUCA	rs1472169	T	C	-0.0139	689945	2.8E-15	NA
BMI	LUCA	rs1476322	A	G	0.0101	692523	5E-09	NA
BMI	LUCA	rs1477199	G	A	0.0228	794442	9.4E-22	NA
BMI	LUCA	rs1492767	T	C	0.0094	794161	1E-08	NA
BMI	LUCA	rs1503526	C	T	0.014	747347	5.5E-17	NA
BMI	LUCA	rs1522569	G	T	-0.0164	689573	2.9E-13	NA
BMI	LUCA	rs1528435	T	C	0.0164	794198	9.1E-23	NA
BMI	LUCA	rs1535660	C	T	-0.0147	690624	5.2E-09	NA
BMI	LUCA	rs1538247	C	T	0.0108	682726	1E-08	NA
BMI	LUCA	rs1552893	G	A	-0.0126	691313	8.1E-11	NA
BMI	LUCA	rs156201	C	G	0.0123	691835	5.8E-10	NA
BMI	LUCA	rs1624134	C	G	0.0101	690572	1.1E-08	rs1657222
BMI	LUCA	rs1656377	C	T	0.0099	691955	1.6E-08	NA
BMI	LUCA	rs1681740	C	A	-0.0115	673459	1.1E-10	NA
BMI	LUCA	rs16849710	G	A	-0.0116	666229	6E-11	NA
BMI	LUCA	rs16851483	T	G	0.0369	692316	3.2E-26	NA
BMI	LUCA	rs16871902	A	G	0.0125	690830	4.6E-13	NA
BMI	LUCA	rs16903285	C	T	0.0331	687944	7.6E-38	NA
BMI	LUCA	rs16953563	A	G	-0.0134	691761	1.5E-11	NA

BMI	LUCA	rs17001561	A	G	0.0151	794327	3.8E-11	NA
BMI	LUCA	rs17014375	G	T	0.0172	690856	1.1E-11	NA
BMI	LUCA	rs17033117	T	C	0.0137	691863	8.9E-10	NA
BMI	LUCA	rs17056301	C	T	0.0118	688085	2.4E-09	NA
BMI	LUCA	rs17113297	T	C	0.0166	686357	2.1E-15	NA
BMI	LUCA	rs17119937	C	T	0.0212	668272	5.6E-09	NA
BMI	LUCA	rs17203016	G	A	0.015	786272	2.1E-13	NA
BMI	LUCA	rs17207196	T	C	-0.0221	668894	2.1E-35	NA
BMI	LUCA	rs17238110	G	A	-0.0353	775505	2E-12	NA
BMI	LUCA	rs17311369	T	C	-0.0104	673102	3.1E-08	NA
BMI	LUCA	rs17399237	C	T	-0.0129	690950	6.7E-14	NA
BMI	LUCA	rs17405819	C	T	-0.0215	795493	4.3E-33	NA
BMI	LUCA	rs17424296	A	G	-0.0108	684366	2.4E-09	NA
BMI	LUCA	rs17425707	C	T	0.0167	688867	4.4E-09	NA
BMI	LUCA	rs17446257	A	G	0.0153	690630	2.9E-09	NA
BMI	LUCA	rs17499593	G	C	0.0125	691663	1.1E-08	NA
BMI	LUCA	rs17513613	C	T	0.0186	789575	3.6E-26	NA
BMI	LUCA	rs175165	G	T	-0.0103	690545	5.2E-09	NA
BMI	LUCA	rs17535749	A	G	0.015	777038	2.5E-08	NA
BMI	LUCA	rs17551974	A	C	-0.0141	691115	1.9E-10	NA
BMI	LUCA	rs17636031	C	T	0.016	782807	1.2E-17	NA
BMI	LUCA	rs17663412	A	C	0.0157	691018	6.1E-09	NA
BMI	LUCA	rs17710386	C	T	0.0126	783810	1E-12	NA
BMI	LUCA	rs17724992	G	A	-0.0183	785851	1E-22	NA
BMI	LUCA	rs17789218	C	T	0.013	793904	7.4E-12	NA
BMI	LUCA	rs17806379	T	C	-0.0258	690043	1.5E-30	NA
BMI	LUCA	rs1784460	A	T	0.0132	680042	9E-14	rs7925100
BMI	LUCA	rs1804528	A	G	0.0109	518856	3E-08	NA
BMI	LUCA	rs1830074	C	T	0.0115	689911	1.4E-09	NA
BMI	LUCA	rs1836303	G	A	0.0116	688991	5.3E-11	NA

BMI	LUCA	rs1843328	A	C	-0.0099	686814	7.9E-09	NA
BMI	LUCA	rs1863652	A	G	-0.0115	692539	1.4E-10	NA
BMI	LUCA	rs1884389	T	C	-0.0103	683669	4E-09	NA
BMI	LUCA	rs1885728	A	G	0.0108	682316	1E-08	NA
BMI	LUCA	rs1891216	G	T	0.0107	685079	2.4E-09	NA
BMI	LUCA	rs1896767	A	G	-0.0109	686262	2.4E-10	NA
BMI	LUCA	rs1927790	C	T	0.0148	794326	1.8E-19	NA
BMI	LUCA	rs1928295	C	T	-0.0141	793649	5.4E-18	NA
BMI	LUCA	rs1937683	T	C	0.0109	692539	3.2E-09	NA
BMI	LUCA	rs1948080	G	T	-0.0137	690633	1.1E-14	NA
BMI	LUCA	rs1982441	T	G	0.0175	687705	7E-12	NA
BMI	LUCA	rs1982725	T	C	0.0097	683155	3.3E-08	NA
BMI	LUCA	rs1993709	G	A	0.0331	786001	1.9E-57	NA
BMI	LUCA	rs2007231	T	C	-0.0104	691969	5.2E-09	NA
BMI	LUCA	rs200810	C	T	-0.0136	793699	5.5E-16	NA
BMI	LUCA	rs2009416	T	C	-0.0121	691741	1.1E-11	NA
BMI	LUCA	rs2033529	G	A	0.0205	792112	1.9E-30	NA
BMI	LUCA	rs2051559	C	T	0.0176	689307	5E-12	NA
BMI	LUCA	rs2065418	G	T	-0.0166	691707	3.6E-20	NA
BMI	LUCA	rs208015	C	T	-0.0356	691575	1.4E-25	NA
BMI	LUCA	rs2124499	C	G	-0.0123	785955	3.4E-13	NA
BMI	LUCA	rs2143253	A	G	-0.0188	684760	1.1E-12	NA
BMI	LUCA	rs215634	G	A	-0.0152	681296	2.6E-17	NA
BMI	LUCA	rs2162524	C	T	0.0155	691302	4.1E-17	NA
BMI	LUCA	rs217671	G	A	0.0144	691456	1.3E-13	NA
BMI	LUCA	rs2228213	A	G	-0.0139	795595	4.6E-16	NA
BMI	LUCA	rs2235564	T	C	0.0131	691544	3.7E-13	NA
BMI	LUCA	rs2246012	C	T	0.0158	795598	3.1E-13	NA
BMI	LUCA	rs226000	T	C	0.0119	793480	3.6E-08	NA
BMI	LUCA	rs2283093	T	C	0.0127	691773	3.1E-09	NA

BMI	LUCA	rs2285178	C	T	0.0112	638268	9.4E-09	NA
BMI	LUCA	rs2306537	G	A	0.0133	691923	8.7E-13	NA
BMI	LUCA	rs2307111	C	T	-0.0265	795430	1.6E-58	NA
BMI	LUCA	rs2317299	C	T	-0.0106	677983	1.3E-09	NA
BMI	LUCA	rs2325036	C	A	-0.0181	790870	3.6E-27	NA
BMI	LUCA	rs2357760	A	G	0.0145	791053	6.8E-17	NA
BMI	LUCA	rs2361988	C	T	-0.0155	690251	5.2E-15	NA
BMI	LUCA	rs2365389	T	C	-0.0174	783625	1.3E-25	NA
BMI	LUCA	rs2367112	G	T	-0.0119	794305	2.3E-13	NA
BMI	LUCA	rs2411182	A	G	0.0123	691730	7.7E-11	NA
BMI	LUCA	rs2423668	C	T	-0.0105	527352	2.8E-08	NA
BMI	LUCA	rs2425840	C	A	0.0119	681680	1.6E-11	NA
BMI	LUCA	rs2429150	C	A	0.0111	686276	2.7E-10	NA
BMI	LUCA	rs2479958	G	A	-0.0154	664268	1.5E-17	NA
BMI	LUCA	rs2481665	C	T	-0.0161	795247	7.2E-23	NA
BMI	LUCA	rs2543132	C	G	0.0146	688326	5E-11	NA
BMI	LUCA	rs2600226	T	C	-0.0116	685285	3.7E-10	NA
BMI	LUCA	rs2605603	A	G	-0.0103	790857	2.5E-10	NA
BMI	LUCA	rs2608703	A	C	0.0142	686700	1.9E-16	NA
BMI	LUCA	rs262130	T	C	0.0127	679542	1.8E-08	NA
BMI	LUCA	rs2693826	A	G	-0.0137	690808	2E-15	NA
BMI	LUCA	rs2694047	G	A	0.0188	690295	3.9E-21	NA
BMI	LUCA	rs273504	G	A	0.0153	690672	4.4E-18	NA
BMI	LUCA	rs2744974	T	C	0.0249	789647	1.4E-45	NA
BMI	LUCA	rs2791653	G	A	-0.0141	795271	1.3E-13	NA
BMI	LUCA	rs2820311	G	A	0.0235	691876	4.1E-38	NA
BMI	LUCA	rs2832283	A	G	0.0115	792324	5.8E-09	NA
BMI	LUCA	rs2836964	C	T	-0.011	692353	1.3E-09	NA
BMI	LUCA	rs2861683	C	A	-0.0144	691163	1.3E-16	NA
BMI	LUCA	rs2868975	A	G	-0.0143	690613	2.2E-10	NA

BMI	LUCA	rs287104	A	G	0.0115	787307	4.4E-11	NA
BMI	LUCA	rs2875762	C	G	0.0139	685199	1.2E-11	NA
BMI	LUCA	rs2907948	A	G	-0.0141	794299	1.3E-13	NA
BMI	LUCA	rs2931434	T	C	-0.0104	690664	1.4E-08	NA
BMI	LUCA	rs2943465	C	T	0.0248	686547	2E-10	NA
BMI	LUCA	rs294704	T	G	-0.0113	690036	4E-09	NA
BMI	LUCA	rs3007105	T	C	0.0142	785488	1.1E-17	NA
BMI	LUCA	rs326896	T	C	-0.0128	690324	2.8E-13	NA
BMI	LUCA	rs331966	C	A	0.0112	687189	3.2E-10	NA
BMI	LUCA	rs33500	T	C	-0.0167	689500	4.3E-14	NA
BMI	LUCA	rs339991	G	A	0.0124	686476	1.2E-12	NA
BMI	LUCA	rs349088	A	C	-0.0128	684401	1.8E-13	NA
BMI	LUCA	rs355777	C	G	0.0153	689978	1.4E-18	rs355772
BMI	LUCA	rs3731695	C	T	0.0116	793581	7.9E-13	NA
BMI	LUCA	rs3732084	C	T	0.0107	691763	1.1E-09	NA
BMI	LUCA	rs3736485	G	A	-0.0134	790404	2.5E-16	NA
BMI	LUCA	rs3749897	T	C	0.0122	638224	8.4E-12	NA
BMI	LUCA	rs3754963	T	A	-0.0123	691535	3.3E-10	NA
BMI	LUCA	rs3764835	A	G	-0.0141	689505	3.1E-09	NA
BMI	LUCA	rs3772882	A	C	0.0127	691912	6.6E-13	NA
BMI	LUCA	rs3800229	T	G	0.0175	792474	1.4E-22	NA
BMI	LUCA	rs3800637	C	T	0.0115	682001	5.1E-10	NA
BMI	LUCA	rs3806114	A	G	-0.0113	778855	3.4E-10	NA
BMI	LUCA	rs3806572	A	G	-0.0145	687646	1.6E-14	NA
BMI	LUCA	rs3807645	A	G	-0.0166	683086	2.4E-15	NA
BMI	LUCA	rs380857	A	C	-0.0151	691507	3.6E-08	NA
BMI	LUCA	rs3814883	T	C	0.0232	685519	1.1E-40	NA
BMI	LUCA	rs3828783	A	G	-0.0165	792749	5.6E-15	NA
BMI	LUCA	rs3829849	T	C	0.0098	793851	5.9E-09	NA
BMI	LUCA	rs38314	A	G	-0.012	689782	4.7E-12	NA



BMI	LUCA	rs3844598	G	A	0.0095	690704	3.8E-08	NA
BMI	LUCA	rs3902951	G	T	0.0134	773819	7E-12	NA
BMI	LUCA	rs3904244	A	T	0.0155	691180	4.3E-10	NA
BMI	LUCA	rs391300	C	T	-0.0119	791120	3.1E-12	NA
BMI	LUCA	rs3935648	G	C	-0.0125	629303	6.8E-09	NA
BMI	LUCA	rs3977755	T	C	-0.0135	731529	5.9E-13	NA
BMI	LUCA	rs40067	A	G	-0.0266	681695	7.1E-30	NA
BMI	LUCA	rs4012234	G	T	0.0141	689653	9.9E-16	NA
BMI	LUCA	rs4072917	A	G	0.0115	684720	6.9E-11	NA
BMI	LUCA	rs4148155	G	A	-0.0188	794889	5E-13	NA
BMI	LUCA	rs4148866	T	C	0.0098	676418	4E-08	NA
BMI	LUCA	rs4237643	G	T	-0.0223	692491	4.3E-33	NA
BMI	LUCA	rs427943	C	A	0.017	712095	7.3E-23	NA
BMI	LUCA	rs429343	G	A	-0.015	689345	6.8E-18	NA
BMI	LUCA	rs4307239	G	A	0.0115	687289	3.9E-11	NA
BMI	LUCA	rs4310573	T	C	0.0116	682567	3.5E-08	NA
BMI	LUCA	rs4358081	C	A	0.0097	690038	1.5E-08	NA
BMI	LUCA	rs4414033	A	G	0.0129	672697	1.4E-12	NA
BMI	LUCA	rs4430672	C	T	-0.0127	691400	3.9E-09	NA
BMI	LUCA	rs4482463	A	C	-0.0331	635414	2.8E-23	NA
BMI	LUCA	rs4495304	C	T	-0.0194	774211	5E-09	NA
BMI	LUCA	rs4516268	A	C	-0.0217	786617	5.2E-25	NA
BMI	LUCA	rs4518345	A	G	-0.0117	688609	1E-09	NA
BMI	LUCA	rs4556997	A	C	0.0197	792972	6.9E-17	NA
BMI	LUCA	rs4589691	G	C	0.0141	688253	4.7E-09	NA
BMI	LUCA	rs4639527	G	A	0.0172	691706	3.3E-20	NA
BMI	LUCA	rs4653017	T	C	0.0122	686378	4.5E-11	NA
BMI	LUCA	rs4660443	T	C	0.0164	687234	6.8E-15	NA
BMI	LUCA	rs4671328	G	T	-0.0219	679487	2.2E-36	NA
BMI	LUCA	rs4722398	T	C	0.0158	692509	3.6E-10	NA

BMI	LUCA	rs4740619	C	T	-0.0186	794491	2.3E-30	NA
BMI	LUCA	rs4757144	A	G	0.0169	690082	5.6E-22	NA
BMI	LUCA	rs4783830	A	G	-0.0105	675527	2.4E-08	NA
BMI	LUCA	rs4786903	G	A	0.0125	680139	3.5E-10	NA
BMI	LUCA	rs4800191	C	G	0.0103	785353	2.5E-09	rs8099193
BMI	LUCA	rs4813619	T	G	-0.0108	622760	2.3E-09	NA
BMI	LUCA	rs4818225	G	A	0.0117	688274	2.3E-10	NA
BMI	LUCA	rs4820408	G	T	-0.0151	794185	2.1E-19	NA
BMI	LUCA	rs4842491	T	C	0.0098	795312	4E-08	NA
BMI	LUCA	rs4851029	G	T	0.0121	689752	1.7E-12	NA
BMI	LUCA	rs4858193	C	T	-0.0129	686850	1.6E-11	NA
BMI	LUCA	rs4864201	C	T	-0.0141	795263	1.5E-16	NA
BMI	LUCA	rs4880341	T	C	-0.0118	689012	1.1E-11	NA
BMI	LUCA	rs4906908	G	T	0.0103	691345	2.5E-09	NA
BMI	LUCA	rs491711	C	A	-0.0115	685113	1.1E-09	NA
BMI	LUCA	rs4929923	C	T	0.0181	794933	7.2E-27	NA
BMI	LUCA	rs4936175	C	T	0.0122	692569	1.4E-12	NA
BMI	LUCA	rs4937870	G	A	-0.0109	683154	8.8E-09	NA
BMI	LUCA	rs4952843	G	A	-0.0131	692482	6.8E-14	NA
BMI	LUCA	rs4954638	C	A	-0.0118	689971	2.9E-09	NA
BMI	LUCA	rs4968656	G	A	0.0116	675153	8.2E-10	NA
BMI	LUCA	rs4981693	A	G	0.0206	689120	6.9E-24	NA
BMI	LUCA	rs4986044	T	C	-0.0164	787219	3.3E-23	NA
BMI	LUCA	rs538579	C	G	0.0137	688452	1.3E-13	NA
BMI	LUCA	rs543874	G	A	0.0475	795504	1.2E-122	NA
BMI	LUCA	rs559231	T	G	0.0135	685154	2.4E-14	NA
BMI	LUCA	rs577525	C	T	0.0166	690616	9.7E-22	NA
BMI	LUCA	rs592483	T	C	-0.0147	781871	2E-18	NA
BMI	LUCA	rs6050446	G	A	0.0343	766287	4.4E-13	NA
BMI	LUCA	rs6235	G	C	0.0175	691708	1.5E-19	NA

BMI	LUCA	rs6265	T	C	-0.0412	795458	1E-86	NA
BMI	LUCA	rs6443750	C	T	0.0148	776837	3.2E-12	NA
BMI	LUCA	rs6448587	C	A	-0.0167	691097	2.3E-13	NA
BMI	LUCA	rs645040	T	G	0.0171	795579	2.5E-18	NA
BMI	LUCA	rs6461115	G	A	-0.0144	791735	1.2E-13	NA
BMI	LUCA	rs6471941	A	G	0.0156	793986	3.1E-13	NA
BMI	LUCA	rs6500208	A	G	0.014	781931	4.1E-12	NA
BMI	LUCA	rs6512302	C	G	0.0142	686053	2.1E-12	NA
BMI	LUCA	rs6545714	A	G	-0.0191	793368	9.1E-31	NA
BMI	LUCA	rs6556301	T	G	-0.0111	734744	4.1E-10	NA
BMI	LUCA	rs6561943	T	C	0.0119	793951	4.2E-10	NA
BMI	LUCA	rs657452	G	A	-0.0188	767846	7.2E-29	NA
BMI	LUCA	rs6587552	G	A	-0.0173	689723	1.6E-17	NA
BMI	LUCA	rs6591407	A	C	-0.0118	794246	1.9E-08	NA
BMI	LUCA	rs6593688	G	A	0.0137	691779	8.6E-15	NA
BMI	LUCA	rs663129	A	G	0.0545	788948	1.6E-178	NA
BMI	LUCA	rs6673081	C	T	-0.01	677818	1.8E-08	NA
BMI	LUCA	rs6692586	G	A	-0.0192	690921	1.1E-16	NA
BMI	LUCA	rs6712	C	G	0.0138	688469	4.4E-08	NA
BMI	LUCA	rs6764533	A	G	0.0116	690832	1.4E-10	NA
BMI	LUCA	rs6772756	G	A	-0.0104	681709	4E-08	NA
BMI	LUCA	rs6785245	C	T	0.0132	692250	4E-14	NA
BMI	LUCA	rs6804842	G	A	0.0156	789179	3.6E-21	NA
BMI	LUCA	rs6841761	T	G	-0.0131	793477	6.4E-16	NA
BMI	LUCA	rs685870	C	T	0.012	688423	2.4E-10	NA
BMI	LUCA	rs6985109	A	G	-0.0177	793993	1.5E-26	NA
BMI	LUCA	rs7024334	G	T	-0.0138	782431	3.1E-12	NA
BMI	LUCA	rs7025938	G	C	0.0166	691581	3.7E-19	NA
BMI	LUCA	rs7037266	A	C	-0.0112	691603	3.5E-10	NA
BMI	LUCA	rs705217	G	T	-0.0102	688609	9.3E-09	NA

BMI	LUCA	rs705704	A	G	-0.0131	743597	1.9E-13	NA
BMI	LUCA	rs7084454	A	G	0.0193	678564	4E-25	NA
BMI	LUCA	rs709400	G	A	-0.015	795379	4.6E-19	NA
BMI	LUCA	rs7102454	C	T	0.0158	691134	2.4E-18	NA
BMI	LUCA	rs7117238	A	G	-0.0131	788879	2.5E-09	NA
BMI	LUCA	rs7124681	A	C	0.0263	795474	3.2E-58	NA
BMI	LUCA	rs7138803	A	G	0.03	795588	2.3E-71	NA
BMI	LUCA	rs7144011	T	G	0.0282	794117	5.2E-47	NA
BMI	LUCA	rs7148846	G	T	0.0124	687940	2.2E-08	NA
BMI	LUCA	rs7172627	G	A	0.0117	690458	1.1E-11	NA
BMI	LUCA	rs7181498	C	T	-0.0163	690980	1E-19	NA
BMI	LUCA	rs7196720	C	T	-0.0129	689863	7.3E-14	NA
BMI	LUCA	rs7206608	G	C	0.0132	689058	1.3E-12	NA
BMI	LUCA	rs7222349	A	G	0.0115	692215	3.3E-10	NA
BMI	LUCA	rs7239575	C	T	-0.0202	692313	7.4E-32	NA
BMI	LUCA	rs7318817	T	C	-0.0155	691917	2.7E-18	NA
BMI	LUCA	rs7334078	C	T	-0.0121	688374	2.2E-10	NA
BMI	LUCA	rs7358465	T	C	0.0103	686935	3E-08	NA
BMI	LUCA	rs7488867	T	C	-0.0204	635746	8.4E-24	NA
BMI	LUCA	rs7498665	G	A	0.0271	790299	5.6E-60	NA
BMI	LUCA	rs7519259	A	G	0.0125	681362	3.8E-13	NA
BMI	LUCA	rs7535528	A	G	-0.0152	632868	1.4E-16	NA
BMI	LUCA	rs754635	G	C	0.0198	690346	2.2E-13	NA
BMI	LUCA	rs7550711	T	C	0.0649	769184	3.2E-38	NA
BMI	LUCA	rs7557796	C	T	-0.016	692414	2.3E-19	NA
BMI	LUCA	rs756717	A	G	-0.0148	771976	5.4E-18	NA
BMI	LUCA	rs7599312	A	G	-0.0186	780823	6.9E-24	NA
BMI	LUCA	rs7615297	G	C	-0.0149	689710	5.7E-10	NA
BMI	LUCA	rs7626079	T	C	0.011	692571	1.6E-09	NA
BMI	LUCA	rs7637852	G	A	-0.0139	691815	1.7E-13	NA

BMI	LUCA	rs7640424	T	C	-0.0136	790612	2.3E-14	NA
BMI	LUCA	rs765875	T	C	-0.0121	690961	3E-12	NA
BMI	LUCA	rs7683836	A	G	-0.0114	686968	6.3E-11	NA
BMI	LUCA	rs7685048	T	C	-0.0101	692398	4.1E-09	NA
BMI	LUCA	rs768840	A	G	0.0114	677485	2E-10	NA
BMI	LUCA	rs769449	A	G	-0.0254	566857	2.3E-20	NA
BMI	LUCA	rs7694732	G	A	-0.0099	690622	8.7E-09	NA
BMI	LUCA	rs7703576	C	T	0.0103	690818	4.8E-08	NA
BMI	LUCA	rs7704281	A	G	0.0271	788585	6.5E-11	NA
BMI	LUCA	rs7715256	T	G	-0.0166	795302	2.2E-24	NA
BMI	LUCA	rs7724675	A	G	-0.0119	691968	9.5E-09	NA
BMI	LUCA	rs7730004	T	C	0.0148	690164	9.1E-16	NA
BMI	LUCA	rs7730898	A	G	0.0168	792975	4.5E-20	NA
BMI	LUCA	rs774246	G	A	0.0153	690818	5.4E-10	NA
BMI	LUCA	rs7761673	A	T	-0.0126	691716	1.9E-09	NA
BMI	LUCA	rs7780752	C	T	0.0139	690830	1E-14	NA
BMI	LUCA	rs7788008	A	G	-0.0157	690410	1.1E-19	NA
BMI	LUCA	rs7811342	C	T	-0.0197	676265	1.1E-11	NA
BMI	LUCA	rs7819514	A	G	-0.0107	684955	5.7E-09	NA
BMI	LUCA	rs7826312	C	T	0.0104	785343	4.9E-10	NA
BMI	LUCA	rs7844647	C	T	-0.0123	793703	2.8E-11	NA
BMI	LUCA	rs7869771	C	A	-0.014	679436	4.9E-13	NA
BMI	LUCA	rs7871866	C	G	0.0187	683494	2.3E-14	NA
BMI	LUCA	rs7899106	G	A	0.0331	793689	1E-18	NA
BMI	LUCA	rs7903146	T	C	-0.0181	795624	1.3E-23	NA
BMI	LUCA	rs7925214	T	C	0.0147	677603	4.4E-17	NA
BMI	LUCA	rs7970953	A	G	0.0135	788417	9.8E-14	NA
BMI	LUCA	rs7983065	T	C	-0.0148	690924	8.9E-18	NA
BMI	LUCA	rs7998796	G	A	0.0105	689430	1.1E-08	NA
BMI	LUCA	rs8027205	G	C	-0.0108	685725	1.4E-09	rs1021985

BMI	LUCA	rs8036040	A	C	0.0109	691068	2.7E-10	NA
BMI	LUCA	rs8047395	A	G	0.0642	788856	1E-200	NA
BMI	LUCA	rs806600	G	A	-0.0095	691791	3.3E-08	NA
BMI	LUCA	rs8071182	A	G	0.0133	771437	2.1E-09	NA
BMI	LUCA	rs8090983	G	A	0.0118	682470	2E-10	NA
BMI	LUCA	rs8097672	T	A	0.02	686063	8.4E-16	NA
BMI	LUCA	rs8097783	A	G	-0.0389	795408	7.2E-36	NA
BMI	LUCA	rs8123881	G	A	0.0196	793018	4.4E-16	NA
BMI	LUCA	rs8181823	C	A	0.0127	691345	4.1E-10	NA
BMI	LUCA	rs818524	C	T	0.0106	670078	3.4E-08	NA
BMI	LUCA	rs8192675	C	T	0.0152	795515	1.4E-17	NA
BMI	LUCA	rs825688	T	C	-0.0095	686144	4.7E-08	NA
BMI	LUCA	rs845084	A	G	0.014	685413	1.3E-12	NA
BMI	LUCA	rs852056	C	T	-0.0128	691874	1.8E-10	NA
BMI	LUCA	rs865809	G	A	-0.0127	689186	5.4E-10	NA
BMI	LUCA	rs872281	T	C	-0.0151	685310	4.7E-11	NA
BMI	LUCA	rs876605	G	A	-0.0108	692586	3.4E-08	NA
BMI	LUCA	rs879620	T	C	0.0231	688377	5.3E-38	NA
BMI	LUCA	rs889398	T	C	-0.0196	789694	1.3E-32	NA
BMI	LUCA	rs895330	G	C	-0.0201	684271	5.5E-19	NA
BMI	LUCA	rs901630	T	C	-0.0146	794597	1.9E-18	NA
BMI	LUCA	rs902695	A	G	-0.0103	678635	2.2E-09	NA
BMI	LUCA	rs9294260	A	G	0.0147	783533	1.8E-19	NA
BMI	LUCA	rs9300422	G	A	-0.0103	795011	4E-09	NA
BMI	LUCA	rs930295	C	A	-0.0211	690522	1E-19	NA
BMI	LUCA	rs9304665	A	T	0.0229	689470	2.9E-29	NA
BMI	LUCA	rs934224	T	C	0.0107	692568	4.7E-08	NA
BMI	LUCA	rs9362662	G	A	-0.0112	683953	1.2E-10	NA
BMI	LUCA	rs9367368	C	T	-0.0121	786723	1E-11	NA
BMI	LUCA	rs9370261	T	C	0.0231	690051	3.4E-08	NA

BMI	LUCA	rs9375702	T	C	-0.0115	690564	7.9E-10	NA
BMI	LUCA	rs9379827	A	C	-0.0132	795072	6.9E-12	NA
BMI	LUCA	rs9408882	A	G	-0.0093	794283	1.3E-08	NA
BMI	LUCA	rs946824	C	T	-0.0206	689849	1.1E-15	NA
BMI	LUCA	rs947612	A	G	-0.0116	692596	5.6E-09	NA
BMI	LUCA	rs9478671	G	A	0.012	688072	1.7E-08	NA
BMI	LUCA	rs9522285	A	G	0.0127	690681	2.5E-13	NA
BMI	LUCA	rs9538162	C	T	-0.0156	690345	4.8E-19	NA
BMI	LUCA	rs9547153	G	A	0.0098	775400	8.7E-09	NA
BMI	LUCA	rs9571687	A	C	-0.0129	690974	2.8E-12	NA
BMI	LUCA	rs9615905	T	C	0.011	690274	2.7E-10	NA
BMI	LUCA	rs962273	C	T	0.0137	692594	2.6E-13	NA
BMI	LUCA	rs9650755	G	A	0.0154	691183	2.8E-15	NA
BMI	LUCA	rs9688431	C	T	-0.0231	789356	2.4E-11	NA
BMI	LUCA	rs977747	G	T	-0.0169	793546	1.3E-24	NA
BMI	LUCA	rs9783858	T	C	0.0091	770874	3.3E-08	NA
BMI	LUCA	rs9806742	A	G	0.0208	692509	1.4E-15	NA
BMI	LUCA	rs9816226	T	A	0.0323	778333	1.6E-52	NA
BMI	LUCA	rs9845966	G	T	-0.0105	778076	2.5E-10	NA
BMI	LUCA	rs987237	G	A	0.0409	795612	9.3E-84	NA
BMI	LUCA	rs9926784	C	T	-0.0258	789617	9.9E-35	NA
BMI	LUCA	rs9927848	A	C	-0.0122	687060	6.4E-10	NA
BMI	LUCA	rs9951619	G	T	0.0156	772643	1.4E-15	NA
BMI	LUCA	rs998732	G	A	-0.0171	793852	2E-14	NA
BMI	LUCA	rs9989141	T	C	0.0162	752768	3.6E-21	NA
BMI	LUCA	rs999889	A	G	-0.0108	690572	1.4E-08	NA
Type 2 diabetes	LUCA	rs10077431	A	C	-0.0487	62892	4.75E-08	NA
Type 2 diabetes	LUCA	rs10087241	A	G	-0.0475	62892	2.8E-09	NA
Type 2 diabetes	LUCA	rs10100265	C	A	-0.0491	62892	6.29E-10	NA
Type 2 diabetes	LUCA	rs10114341	C	T	-0.0409	62892	1.15E-08	NA

Type 2 diabetes	LUCA	rs10401969	C	T	0.0921	62892	4.13E-12	NA
Type 2 diabetes	LUCA	rs1050226	G	A	-0.0491	62892	3.34E-11	NA
Type 2 diabetes	LUCA	rs1061813	A	G	-0.0429	62892	3.37E-09	NA
Type 2 diabetes	LUCA	rs1063355	G	T	0.0709	62892	3.72E-19	NA
Type 2 diabetes	LUCA	rs10740322	A	G	0.0477	62892	2.11E-08	NA
Type 2 diabetes	LUCA	rs10811661	C	T	-0.1569	62892	4.13E-58	NA
Type 2 diabetes	LUCA	rs10830963	G	C	0.0909	62892	5.85E-30	NA
Type 2 diabetes	LUCA	rs10842994	T	C	-0.0755	62892	1.02E-16	NA
Type 2 diabetes	LUCA	rs10974438	C	A	0.0591	62892	3.01E-15	NA
Type 2 diabetes	LUCA	rs11098676	C	T	0.054	62892	2.03E-08	NA
Type 2 diabetes	LUCA	rs11107116	T	G	0.0467	62892	3.75E-08	NA
Type 2 diabetes	LUCA	rs1111875	T	C	-0.0948	62892	3.61E-39	NA
Type 2 diabetes	LUCA	rs11257655	T	C	0.0737	62892	1.97E-17	NA
Type 2 diabetes	LUCA	rs1127655	T	C	-0.0438	62892	2.47E-08	NA
Type 2 diabetes	LUCA	rs11708067	G	A	-0.0965	62892	5.93E-29	NA
Type 2 diabetes	LUCA	rs11925227	A	G	-0.0534	62892	2.25E-08	NA
Type 2 diabetes	LUCA	rs11926707	C	T	0.0463	62892	1.69E-08	NA
Type 2 diabetes	LUCA	rs12088739	G	A	-0.0884	62892	9.79E-12	NA
Type 2 diabetes	LUCA	rs12299509	G	A	0.0467	62892	2.09E-10	NA
Type 2 diabetes	LUCA	rs12617659	T	C	-0.0685	62892	2.83E-11	NA
Type 2 diabetes	LUCA	rs12910825	G	A	0.0517	62892	2.16E-12	NA
Type 2 diabetes	LUCA	rs12945601	C	T	-0.048	62892	1.72E-09	NA
Type 2 diabetes	LUCA	rs12970134	A	G	0.0555	62892	5.31E-12	NA
Type 2 diabetes	LUCA	rs13239186	T	C	0.0539	62892	2.7E-10	NA
Type 2 diabetes	LUCA	rs13330951	G	A	-0.0456	62892	1.54E-08	NA
Type 2 diabetes	LUCA	rs13389219	T	C	-0.0722	62892	2.11E-22	NA
Type 2 diabetes	LUCA	rs1359790	A	G	-0.0796	62892	2.8E-23	NA
Type 2 diabetes	LUCA	rs1496653	G	A	-0.0769	62892	2.57E-18	NA
Type 2 diabetes	LUCA	rs1552224	C	A	-0.1034	62892	8.64E-25	NA
Type 2 diabetes	LUCA	rs16988333	G	A	-0.0745	62892	9.17E-09	NA



Type 2 diabetes	LUCA	rs17086692	T	G	-0.0467	62892	2.48E-08	NA
Type 2 diabetes	LUCA	rs17168486	T	C	0.0742	62892	2.18E-15	NA
Type 2 diabetes	LUCA	rs17405722	A	G	0.087	62892	2.28E-09	NA
Type 2 diabetes	LUCA	rs17411031	G	C	-0.045	62892	3.04E-08	NA
Type 2 diabetes	LUCA	rs1758632	G	C	0.0491	62892	1.36E-09	rs1785509
Type 2 diabetes	LUCA	rs17631783	T	C	-0.0487	62892	3.95E-08	NA
Type 2 diabetes	LUCA	rs17791513	G	A	-0.1027	62892	4.61E-12	NA
Type 2 diabetes	LUCA	rs1801214	T	C	0.0903	62892	5.52E-34	NA
Type 2 diabetes	LUCA	rs1899951	T	C	-0.1118	62892	1.64E-24	NA
Type 2 diabetes	LUCA	rs2237892	T	C	-0.096	62892	8.75E-10	NA
Type 2 diabetes	LUCA	rs2246618	T	C	0.0513	62892	1.2E-09	NA
Type 2 diabetes	LUCA	rs2261181	T	C	0.0985	62892	9.18E-17	NA
Type 2 diabetes	LUCA	rs2294120	G	A	-0.0443	62892	1.62E-08	NA
Type 2 diabetes	LUCA	rs2296173	G	A	0.065	62892	7.66E-14	NA
Type 2 diabetes	LUCA	rs2299383	T	C	0.0412	62892	1.49E-08	NA
Type 2 diabetes	LUCA	rs243019	C	T	0.0566	62892	2.29E-15	NA
Type 2 diabetes	LUCA	rs2493394	G	A	0.073	62892	1.15E-10	NA
Type 2 diabetes	LUCA	rs2796441	A	G	-0.0715	62892	1.96E-22	NA
Type 2 diabetes	LUCA	rs2820426	G	A	0.0521	62892	1.3E-12	NA
Type 2 diabetes	LUCA	rs2867125	C	T	0.0601	62892	4.33E-10	NA
Type 2 diabetes	LUCA	rs2908282	A	G	0.0552	62892	4.25E-09	NA
Type 2 diabetes	LUCA	rs2925979	C	T	-0.0534	62892	9.06E-12	NA
Type 2 diabetes	LUCA	rs2943656	G	A	0.0902	62892	6.7E-34	NA
Type 2 diabetes	LUCA	rs3217992	T	C	0.0527	62892	7.23E-13	NA
Type 2 diabetes	LUCA	rs340874	C	T	0.0626	62892	8.41E-18	NA
Type 2 diabetes	LUCA	rs348330	A	G	-0.0487	62892	1.86E-09	NA
Type 2 diabetes	LUCA	rs3756784	G	T	0.0505	62892	2.59E-08	NA
Type 2 diabetes	LUCA	rs3802177	A	G	-0.1217	62892	2.32E-52	NA
Type 2 diabetes	LUCA	rs459193	G	A	0.0711	62892	8.81E-18	NA
Type 2 diabetes	LUCA	rs4622883	G	A	-0.0435	62892	3.02E-08	NA

Type 2 diabetes	LUCA	rs4686471	C	T	0.0534	62892	4.28E-11	NA
Type 2 diabetes	LUCA	rs4812829	A	G	0.0532	62892	2.44E-08	NA
Type 2 diabetes	LUCA	rs4823182	G	A	0.0482	62892	3.36E-10	NA
Type 2 diabetes	LUCA	rs4865796	A	G	0.053	62892	1.33E-11	NA
Type 2 diabetes	LUCA	rs516946	C	T	0.0824	62892	3.16E-22	NA
Type 2 diabetes	LUCA	rs5215	T	C	-0.0678	62892	2.09E-20	NA
Type 2 diabetes	LUCA	rs55966194	G	C	-0.0526	62892	2.25E-09	NA
Type 2 diabetes	LUCA	rs576674	A	G	-0.0654	62892	1.79E-11	NA
Type 2 diabetes	LUCA	rs6059662	G	A	0.0446	62892	1.51E-08	NA
Type 2 diabetes	LUCA	rs61953351	T	G	-0.07	62892	1.98E-14	NA
Type 2 diabetes	LUCA	rs622217	C	T	-0.0485	62892	3.13E-10	NA
Type 2 diabetes	LUCA	rs6515236	C	A	-0.0504	62892	3.34E-08	NA
Type 2 diabetes	LUCA	rs67232546	T	C	0.0596	62892	4.66E-10	NA
Type 2 diabetes	LUCA	rs6767484	G	A	0.1209	62892	2.7E-56	NA
Type 2 diabetes	LUCA	rs6785040	C	T	-0.0633	62892	1.26E-08	NA
Type 2 diabetes	LUCA	rs6795735	T	C	-0.0558	62892	1.63E-14	NA
Type 2 diabetes	LUCA	rs6878122	A	G	-0.0564	62892	1.19E-12	NA
Type 2 diabetes	LUCA	rs6960043	C	T	0.064	62892	3.61E-19	NA
Type 2 diabetes	LUCA	rs7144011	T	G	0.0482	62892	1.64E-08	NA
Type 2 diabetes	LUCA	rs7177055	A	G	0.0647	62892	2.75E-16	NA
Type 2 diabetes	LUCA	rs7240767	C	T	0.0451	62892	2.16E-08	NA
Type 2 diabetes	LUCA	rs72802358	C	G	-0.1168	62892	1.97E-18	NA
Type 2 diabetes	LUCA	rs72892910	T	G	0.0648	62892	6.43E-11	NA
Type 2 diabetes	LUCA	rs735949	C	T	-0.0711	62892	1.95E-11	NA
Type 2 diabetes	LUCA	rs753270	C	T	0.0528	62892	2.7E-11	NA
Type 2 diabetes	LUCA	rs7561798	G	A	0.04	62892	2.79E-08	NA
Type 2 diabetes	LUCA	rs7572970	G	A	0.059	62892	1.39E-11	NA
Type 2 diabetes	LUCA	rs7607777	T	G	-0.137	62892	9.4E-28	NA
Type 2 diabetes	LUCA	rs7674212	T	G	-0.0465	62892	6.18E-10	NA
Type 2 diabetes	LUCA	rs7685296	T	C	-0.0511	62892	2.32E-10	NA

Type 2 diabetes	LUCA	rs7729395	T	C	0.1373	62892	1.1E-17	NA
Type 2 diabetes	LUCA	rs7756992	G	A	0.1297	62892	6E-62	NA
Type 2 diabetes	LUCA	rs7786095	G	A	-0.0743	62892	9.64E-09	NA
Type 2 diabetes	LUCA	rs780094	C	T	0.0692	62892	5.16E-21	NA
Type 2 diabetes	LUCA	rs7845219	C	T	-0.0422	62892	4.54E-09	NA
Type 2 diabetes	LUCA	rs7903146	T	C	0.3059	62892	1E-200	NA
Type 2 diabetes	LUCA	rs7929543	C	A	0.0828	62892	2.2E-09	NA
Type 2 diabetes	LUCA	rs7955901	T	C	-0.0444	62892	7.16E-10	NA
Type 2 diabetes	LUCA	rs8068804	A	G	0.0587	62892	4.41E-14	NA
Type 2 diabetes	LUCA	rs8108269	G	T	0.0644	62892	3.11E-16	NA
Type 2 diabetes	LUCA	rs825476	T	C	0.0524	62892	6.8E-13	NA
Type 2 diabetes	LUCA	rs840967	A	C	-0.0497	62892	5.44E-10	NA
Type 2 diabetes	LUCA	rs849135	A	G	-0.0999	62892	1.04E-43	NA
Type 2 diabetes	LUCA	rs853974	C	T	-0.0601	62892	7.86E-12	NA
Type 2 diabetes	LUCA	rs9369425	A	G	-0.0546	62892	1.13E-10	NA
Type 2 diabetes	LUCA	rs963740	T	A	-0.0479	62892	2.23E-08	NA
Type 2 diabetes	LUCA	rs9844972	C	G	0.0956	62892	1.03E-10	NA
Type 2 diabetes	LUCA	rs9894220	G	A	-0.0585	62892	1.52E-13	NA
Type 2 diabetes	LUCA	rs9928094	G	A	0.1045	62892	3.59E-47	NA
Type 2 diabetes	LUCA	rs993380	G	A	-0.0507	62892	4.59E-10	NA
Type 2 diabetes	LUCA	rs9940149	A	G	-0.058	62892	9.29E-10	NA
Alcoholic drinks per week	LUCA	rs10085696	G	A	-0.01605	535056	1.24E-10	NA
Alcoholic drinks per week	LUCA	rs11860773	C	T	-0.01501	515422	8.35E-10	NA
Alcoholic drinks per week	LUCA	rs1229984	C	T	0.188115	514602	1E-200	NA
Alcoholic drinks per week	LUCA	rs1260326	C	T	0.023812	532340	3.33E-33	NA
Alcoholic drinks per week	LUCA	rs13107325	T	C	-0.03645	528164	1.23E-20	NA
Alcoholic drinks per week	LUCA	rs13332432	G	C	0.014005	516946	5.94E-11	NA
Alcoholic drinks per week	LUCA	rs1387766	A	G	-0.01083	535067	4.79E-08	NA
Alcoholic drinks per week	LUCA	rs153106	C	T	-0.01361	531637	3.63E-12	NA
Alcoholic drinks per week	LUCA	rs16854020	A	G	0.018083	533501	4.82E-10	NA

Alcoholic drinks per week	LUCA	rs17542254	G	A	0.013142	533884	8.96E-10	NA
Alcoholic drinks per week	LUCA	rs2049045	C	G	-0.01377	532726	3.97E-08	NA
Alcoholic drinks per week	LUCA	rs2299409	A	G	-0.01055	534249	4.8E-08	NA
Alcoholic drinks per week	LUCA	rs28601761	G	C	0.011299	523035	7.6E-09	rs112875651
Alcoholic drinks per week	LUCA	rs28680958	A	G	-0.01358	532042	9.78E-09	NA
Alcoholic drinks per week	LUCA	rs28712821	A	G	0.028334	525616	1.1E-46	NA
Alcoholic drinks per week	LUCA	rs28732378	G	A	-0.01673	530009	2.24E-14	NA
Alcoholic drinks per week	LUCA	rs28929474	T	C	-0.04768	528430	2.39E-11	NA
Alcoholic drinks per week	LUCA	rs331939	A	G	-0.0119	536700	4.5E-09	NA
Alcoholic drinks per week	LUCA	rs34121753	G	A	0.011069	518183	1.39E-08	NA
Alcoholic drinks per week	LUCA	rs4309187	C	A	0.014791	531063	1.37E-12	NA
Alcoholic drinks per week	LUCA	rs4752999	T	C	-0.01456	529379	2.03E-12	NA
Alcoholic drinks per week	LUCA	rs494904	C	T	0.015085	531073	1.41E-14	NA
Alcoholic drinks per week	LUCA	rs55872084	T	G	0.012731	529669	1.98E-08	NA
Alcoholic drinks per week	LUCA	rs55932213	G	A	0.012477	515956	1.8E-08	NA
Alcoholic drinks per week	LUCA	rs6106989	A	G	0.010899	520623	3.81E-08	NA
Alcoholic drinks per week	LUCA	rs6739804	C	T	-0.01297	532202	4.72E-10	NA
Alcoholic drinks per week	LUCA	rs676388	C	T	0.015098	531996	5.49E-15	NA
Alcoholic drinks per week	LUCA	rs75120545	T	C	-0.03279	474779	7.59E-09	NA
Alcoholic drinks per week	LUCA	rs78234152	A	G	0.027654	534076	2.18E-19	NA
Alcoholic drinks per week	LUCA	rs79616692	C	G	0.018809	529527	2.38E-09	NA
Alcoholic drinks per week	LUCA	rs962961	T	C	-0.01219	533853	2.78E-09	NA
BMI	LUSC	rs10009336	T	C	-0.014	794766	2.2E-10	NA
BMI	LUSC	rs1006896	C	A	-0.0234	691892	5.5E-18	NA
BMI	LUSC	rs10132280	A	C	-0.0223	786578	5.6E-35	NA
BMI	LUSC	rs10169594	C	T	0.0121	685712	2E-11	NA
BMI	LUSC	rs10182181	G	A	0.0325	792111	6.7E-90	NA
BMI	LUSC	rs10192119	G	T	0.0166	795369	3E-14	NA
BMI	LUSC	rs10197031	C	T	0.0166	691479	1.9E-18	NA
BMI	LUSC	rs10243319	C	T	-0.0107	690936	1.2E-09	NA

BMI	LUSC	rs10247983	A	G	0.0201	672411	1.7E-09	NA
BMI	LUSC	rs10248136	T	C	-0.0097	686892	2E-08	NA
BMI	LUSC	rs10269783	A	G	0.0133	790551	1.4E-15	NA
BMI	LUSC	rs10408324	T	C	-0.0124	690737	9.5E-11	NA
BMI	LUSC	rs10478110	C	A	0.01	680441	9.6E-09	NA
BMI	LUSC	rs1048932	A	C	-0.016	795167	3.8E-22	NA
BMI	LUSC	rs10492229	T	C	0.0142	794845	7.7E-14	NA
BMI	LUSC	rs10510419	T	G	-0.0177	789318	2.2E-14	NA
BMI	LUSC	rs10518694	A	C	0.0146	690554	3.3E-09	NA
BMI	LUSC	rs1064213	A	G	0.012	692576	2.4E-12	NA
BMI	LUSC	rs10733051	G	A	-0.0097	781928	2.9E-09	NA
BMI	LUSC	rs10742752	C	T	0.0124	792704	1.1E-13	NA
BMI	LUSC	rs10747488	A	C	-0.0123	689295	1.2E-09	NA
BMI	LUSC	rs10750215	T	G	0.0108	788895	1.3E-10	NA
BMI	LUSC	rs1075901	C	T	0.0121	794789	1.2E-13	NA
BMI	LUSC	rs10768994	C	T	-0.0114	791685	6.4E-12	NA
BMI	LUSC	rs10795422	G	A	0.0139	692108	9.3E-14	NA
BMI	LUSC	rs10811871	G	A	-0.0108	686376	1.6E-09	NA
BMI	LUSC	rs10832778	G	C	0.0125	783042	1.3E-13	NA
BMI	LUSC	rs10858334	G	C	0.0143	672640	2.7E-08	NA
BMI	LUSC	rs10867256	T	C	-0.0118	689493	8.7E-12	NA
BMI	LUSC	rs10878946	T	C	-0.0141	685707	3.6E-13	NA
BMI	LUSC	rs10914462	G	A	-0.0112	689808	1.5E-10	NA
BMI	LUSC	rs10915840	A	G	-0.0118	684857	1.3E-09	NA
BMI	LUSC	rs10920678	G	A	-0.0155	788624	1.5E-21	NA
BMI	LUSC	rs10938397	G	A	0.0324	793518	3.4E-86	NA
BMI	LUSC	rs10942267	G	A	-0.0156	689084	3.9E-17	NA
BMI	LUSC	rs10953740	G	A	-0.0153	684419	1E-18	NA
BMI	LUSC	rs10962550	C	G	0.0182	690579	6.2E-16	rs4961741
BMI	LUSC	rs10968114	C	A	-0.0113	686025	6.1E-11	NA

BMI	LUSC	rs10971709	T	C	0.0132	688312	6.2E-10	NA
BMI	LUSC	rs10984756	G	C	0.0174	689917	1.1E-09	NA
BMI	LUSC	rs11030618	T	C	0.011	690005	2.4E-10	NA
BMI	LUSC	rs11084553	G	A	-0.021	691103	1.8E-18	NA
BMI	LUSC	rs11105839	A	T	-0.0109	781573	1.1E-10	rs11105842
BMI	LUSC	rs11115176	C	T	-0.0121	792384	2E-10	NA
BMI	LUSC	rs11118308	G	A	-0.0101	794625	4.8E-10	NA
BMI	LUSC	rs1112613	A	G	-0.0133	682816	3.4E-09	NA
BMI	LUSC	rs11150911	C	A	-0.0133	781716	4.7E-13	NA
BMI	LUSC	rs11165643	T	C	0.0206	792657	1.4E-35	rs1973993
BMI	LUSC	rs11170468	C	A	-0.0123	795265	1.9E-10	NA
BMI	LUSC	rs11173522	A	C	0.0128	691593	1.1E-09	NA
BMI	LUSC	rs11185111	A	G	-0.0129	686508	7.7E-12	NA
BMI	LUSC	rs11251352	G	A	0.0109	690804	7E-10	NA
BMI	LUSC	rs11496125	T	C	0.0169	684574	3E-22	NA
BMI	LUSC	rs11505821	T	A	0.0311	758322	2.7E-19	NA
BMI	LUSC	rs11538	G	A	0.0135	692349	3.3E-09	NA
BMI	LUSC	rs1158805	A	C	-0.0137	691776	1.2E-14	NA
BMI	LUSC	rs11609659	C	T	-0.0154	679177	2.2E-14	NA
BMI	LUSC	rs11611246	T	G	0.024	779823	5E-32	NA
BMI	LUSC	rs11615578	T	C	0.013	669422	8.1E-11	NA
BMI	LUSC	rs11656076	A	G	-0.0142	691283	5.6E-12	NA
BMI	LUSC	rs11672660	T	C	-0.034	768426	1.7E-60	NA
BMI	LUSC	rs11713193	A	G	0.0239	692159	2.4E-44	NA
BMI	LUSC	rs11736228	T	A	-0.0139	691580	4.1E-12	NA
BMI	LUSC	rs11738695	A	C	0.0097	691380	2E-08	NA
BMI	LUSC	rs11739877	T	C	0.0117	692540	6.6E-11	NA
BMI	LUSC	rs11781699	C	T	0.0132	784642	3.1E-10	NA
BMI	LUSC	rs11855853	T	C	-0.0145	682564	2.4E-13	NA
BMI	LUSC	rs1187352	C	T	0.0119	688522	6E-11	NA

BMI	LUSC	rs11880870	G	A	-0.0189	717350	1E-28	NA
BMI	LUSC	rs11889536	G	A	-0.0189	688977	6.4E-15	NA
BMI	LUSC	rs11908637	A	G	-0.012	691443	4.9E-09	NA
BMI	LUSC	rs11945861	A	G	-0.0148	682451	5E-13	NA
BMI	LUSC	rs11951673	T	C	-0.0123	792278	1.1E-13	NA
BMI	LUSC	rs12033257	G	A	-0.0146	664083	2.4E-15	NA
BMI	LUSC	rs12041258	C	T	-0.0146	688602	9.5E-13	NA
BMI	LUSC	rs12044597	G	A	0.0143	789125	1.7E-18	NA
BMI	LUSC	rs12049202	T	C	0.024	691566	1E-28	NA
BMI	LUSC	rs12098284	T	C	0.0178	686167	1.8E-11	NA
BMI	LUSC	rs12150665	C	T	-0.0162	795501	1.6E-22	NA
BMI	LUSC	rs1218822	A	G	0.0168	794711	1.9E-22	NA
BMI	LUSC	rs12299814	A	C	-0.0157	687962	5.2E-15	NA
BMI	LUSC	rs12328930	C	T	0.0098	690521	1.8E-08	NA
BMI	LUSC	rs12334877	A	G	-0.0144	683820	7.7E-11	NA
BMI	LUSC	rs12364470	G	T	0.0178	787411	1.1E-15	NA
BMI	LUSC	rs12369179	T	C	-0.0359	674260	2.5E-31	NA
BMI	LUSC	rs12416812	A	G	0.0111	793338	6.1E-12	NA
BMI	LUSC	rs1241986	A	G	-0.0139	687757	1.1E-08	NA
BMI	LUSC	rs12422552	C	G	-0.0134	689543	1.6E-11	NA
BMI	LUSC	rs12429545	A	G	0.0316	778918	9.6E-38	NA
BMI	LUSC	rs12448257	A	G	0.0184	779628	8.1E-20	NA
BMI	LUSC	rs12546578	A	T	0.0146	689192	1E-13	NA
BMI	LUSC	rs12564992	G	A	0.0196	795119	5.3E-14	NA
BMI	LUSC	rs12593036	G	A	-0.0154	686055	3.8E-16	NA
BMI	LUSC	rs12602912	T	C	0.0176	777510	9.9E-18	NA
BMI	LUSC	rs1260326	C	T	0.0105	784462	3.9E-10	NA
BMI	LUSC	rs12629015	G	A	-0.0135	691059	2.1E-09	NA
BMI	LUSC	rs1266874	G	A	0.014	691020	9.8E-15	NA
BMI	LUSC	rs12675063	T	A	0.0156	789771	1.3E-09	NA

BMI	LUSC	rs1268065	A	G	-0.0102	759626	1E-09	NA
BMI	LUSC	rs12680842	G	A	-0.0133	782549	4.4E-14	NA
BMI	LUSC	rs12718572	T	C	-0.0117	686523	3E-11	NA
BMI	LUSC	rs12762034	C	T	0.024	692191	7.3E-14	NA
BMI	LUSC	rs12779328	T	C	0.0105	690736	4.5E-08	NA
BMI	LUSC	rs1285997	G	C	0.0142	684235	1.2E-13	NA
BMI	LUSC	rs12888545	G	A	0.0136	688605	9.1E-12	NA
BMI	LUSC	rs12888955	A	G	-0.0178	691849	1.4E-22	NA
BMI	LUSC	rs12905439	G	C	-0.0118	675205	1.4E-10	NA
BMI	LUSC	rs12914489	A	G	0.0165	795244	3.8E-10	NA
BMI	LUSC	rs12922346	C	G	0.0136	679615	1E-11	NA
BMI	LUSC	rs12933482	G	A	0.0186	691477	4.9E-11	NA
BMI	LUSC	rs12936083	G	A	0.0139	633615	4.1E-13	NA
BMI	LUSC	rs12939549	G	A	-0.018	793950	2.7E-28	NA
BMI	LUSC	rs1296328	C	A	-0.0179	683488	4.9E-24	NA
BMI	LUSC	rs12981256	A	G	0.0142	678327	1.1E-15	NA
BMI	LUSC	rs13021737	G	A	0.0574	789534	7.5E-157	NA
BMI	LUSC	rs13047416	G	C	-0.0154	683228	2.2E-17	rs4817973
BMI	LUSC	rs13069244	A	G	0.0187	791327	3E-09	NA
BMI	LUSC	rs13107325	T	C	0.047	792045	1.1E-47	NA
BMI	LUSC	rs13110266	A	G	-0.0117	791087	1.9E-12	NA
BMI	LUSC	rs13132853	G	A	-0.0142	682543	4.7E-15	NA
BMI	LUSC	rs13147390	C	T	0.0103	681032	1E-08	NA
BMI	LUSC	rs13174863	G	A	0.0192	773762	2.9E-16	NA
BMI	LUSC	rs13184896	T	G	-0.0133	794825	3.3E-16	NA
BMI	LUSC	rs13191362	G	A	-0.0236	792699	5.9E-21	NA
BMI	LUSC	rs1320903	A	G	0.0216	691519	9.2E-32	NA
BMI	LUSC	rs1321432	C	A	0.0201	686481	3.5E-29	NA
BMI	LUSC	rs13240600	G	A	-0.0204	692233	3.5E-17	NA
BMI	LUSC	rs13250058	T	G	0.0112	787870	2.9E-10	NA



BMI	LUSC	rs13263601	C	A	0.0154	686196	2.2E-17	NA
BMI	LUSC	rs1327259	G	A	-0.0155	685922	1.7E-18	NA
BMI	LUSC	rs13287131	C	T	0.0123	683808	6.8E-10	NA
BMI	LUSC	rs1330052	G	C	0.0132	691613	1.5E-13	NA
BMI	LUSC	rs13329567	T	C	-0.0293	793953	1E-50	NA
BMI	LUSC	rs1365466	T	C	-0.0137	791868	3.3E-13	NA
BMI	LUSC	rs1371108	A	C	0.0119	684620	9E-11	NA
BMI	LUSC	rs1409818	T	C	0.0201	690984	2.5E-12	NA
BMI	LUSC	rs1412235	C	G	0.0246	790147	6E-45	NA
BMI	LUSC	rs1421334	C	A	-0.0125	680665	1E-12	NA
BMI	LUSC	rs1430387	C	T	-0.0114	689325	5.8E-11	NA
BMI	LUSC	rs1431659	G	A	-0.0196	689739	6E-24	NA
BMI	LUSC	rs1436344	C	G	0.0141	692017	4.1E-16	rs12695098
BMI	LUSC	rs1445652	A	G	0.0123	682166	4.3E-08	NA
BMI	LUSC	rs1452075	T	C	0.0141	783729	1.3E-14	NA
BMI	LUSC	rs1465900	C	A	-0.0125	779748	4.8E-10	NA
BMI	LUSC	rs1472169	T	C	-0.0139	689945	2.8E-15	NA
BMI	LUSC	rs1476322	A	G	0.0101	692523	5E-09	NA
BMI	LUSC	rs1477199	G	A	0.0228	794442	9.4E-22	NA
BMI	LUSC	rs1492767	T	C	0.0094	794161	1E-08	NA
BMI	LUSC	rs1503526	C	T	0.014	747347	5.5E-17	NA
BMI	LUSC	rs1522569	G	T	-0.0164	689573	2.9E-13	NA
BMI	LUSC	rs1528435	T	C	0.0164	794198	9.1E-23	NA
BMI	LUSC	rs1535660	C	T	-0.0147	690624	5.2E-09	NA
BMI	LUSC	rs1538247	C	T	0.0108	682726	1E-08	NA
BMI	LUSC	rs1552893	G	A	-0.0126	691313	8.1E-11	NA
BMI	LUSC	rs156201	C	G	0.0123	691835	5.8E-10	NA
BMI	LUSC	rs1656377	C	T	0.0099	691955	1.6E-08	NA
BMI	LUSC	rs1681740	C	A	-0.0115	673459	1.1E-10	NA
BMI	LUSC	rs16849710	G	A	-0.0116	666229	6E-11	NA

BMI	LUSC	rs16851483	T	G	0.0369	692316	3.2E-26	NA
BMI	LUSC	rs16871902	A	G	0.0125	690830	4.6E-13	NA
BMI	LUSC	rs16903285	C	T	0.0331	687944	7.6E-38	NA
BMI	LUSC	rs16953563	A	G	-0.0134	691761	1.5E-11	NA
BMI	LUSC	rs17001561	A	G	0.0151	794327	3.8E-11	NA
BMI	LUSC	rs17014375	G	T	0.0172	690856	1.1E-11	NA
BMI	LUSC	rs17033117	T	C	0.0137	691863	8.9E-10	NA
BMI	LUSC	rs17056301	C	T	0.0118	688085	2.4E-09	NA
BMI	LUSC	rs17113297	T	C	0.0166	686357	2.1E-15	NA
BMI	LUSC	rs17119937	C	T	0.0212	668272	5.6E-09	NA
BMI	LUSC	rs17203016	G	A	0.015	786272	2.1E-13	NA
BMI	LUSC	rs17207196	T	C	-0.0221	668894	2.1E-35	NA
BMI	LUSC	rs17238110	G	A	-0.0353	775505	2E-12	NA
BMI	LUSC	rs17311369	T	C	-0.0104	673102	3.1E-08	NA
BMI	LUSC	rs17399237	C	T	-0.0129	690950	6.7E-14	NA
BMI	LUSC	rs17405819	C	T	-0.0215	795493	4.3E-33	NA
BMI	LUSC	rs17424296	A	G	-0.0108	684366	2.4E-09	NA
BMI	LUSC	rs17425707	C	T	0.0167	688867	4.4E-09	NA
BMI	LUSC	rs17446257	A	G	0.0153	690630	2.9E-09	NA
BMI	LUSC	rs17499593	G	C	0.0125	691663	1.1E-08	NA
BMI	LUSC	rs17513613	C	T	0.0186	789575	3.6E-26	NA
BMI	LUSC	rs175165	G	T	-0.0103	690545	5.2E-09	NA
BMI	LUSC	rs17535749	A	G	0.015	777038	2.5E-08	NA
BMI	LUSC	rs17551974	A	C	-0.0141	691115	1.9E-10	NA
BMI	LUSC	rs17636031	C	T	0.016	782807	1.2E-17	NA
BMI	LUSC	rs17663412	A	C	0.0157	691018	6.1E-09	NA
BMI	LUSC	rs17710386	C	T	0.0126	783810	1E-12	NA
BMI	LUSC	rs17724992	G	A	-0.0183	785851	1E-22	NA
BMI	LUSC	rs17789218	C	T	0.013	793904	7.4E-12	NA
BMI	LUSC	rs17806379	T	C	-0.0258	690043	1.5E-30	NA

BMI	LUSC	rs1784460	A	T	0.0132	680042	9E-14	rs7925100
BMI	LUSC	rs1804528	A	G	0.0109	518856	3E-08	NA
BMI	LUSC	rs1830074	C	T	0.0115	689911	1.4E-09	NA
BMI	LUSC	rs1836303	G	A	0.0116	688991	5.3E-11	NA
BMI	LUSC	rs1843328	A	C	-0.0099	686814	7.9E-09	NA
BMI	LUSC	rs1863652	A	G	-0.0115	692539	1.4E-10	NA
BMI	LUSC	rs1884389	T	C	-0.0103	683669	4E-09	NA
BMI	LUSC	rs1885728	A	G	0.0108	682316	1E-08	NA
BMI	LUSC	rs1891216	G	T	0.0107	685079	2.4E-09	NA
BMI	LUSC	rs1896767	A	G	-0.0109	686262	2.4E-10	NA
BMI	LUSC	rs1927790	C	T	0.0148	794326	1.8E-19	NA
BMI	LUSC	rs1928295	C	T	-0.0141	793649	5.4E-18	NA
BMI	LUSC	rs1937683	T	C	0.0109	692539	3.2E-09	NA
BMI	LUSC	rs1948080	G	T	-0.0137	690633	1.1E-14	NA
BMI	LUSC	rs1982441	T	G	0.0175	687705	7E-12	NA
BMI	LUSC	rs1982725	T	C	0.0097	683155	3.3E-08	NA
BMI	LUSC	rs1993709	G	A	0.0331	786001	1.9E-57	NA
BMI	LUSC	rs2007231	T	C	-0.0104	691969	5.2E-09	NA
BMI	LUSC	rs200810	C	T	-0.0136	793699	5.5E-16	NA
BMI	LUSC	rs2009416	T	C	-0.0121	691741	1.1E-11	NA
BMI	LUSC	rs2033529	G	A	0.0205	792112	1.9E-30	NA
BMI	LUSC	rs2051559	C	T	0.0176	689307	5E-12	NA
BMI	LUSC	rs2065418	G	T	-0.0166	691707	3.6E-20	NA
BMI	LUSC	rs208015	C	T	-0.0356	691575	1.4E-25	NA
BMI	LUSC	rs2124499	C	G	-0.0123	785955	3.4E-13	NA
BMI	LUSC	rs2143253	A	G	-0.0188	684760	1.1E-12	NA
BMI	LUSC	rs215634	G	A	-0.0152	681296	2.6E-17	NA
BMI	LUSC	rs2162524	C	T	0.0155	691302	4.1E-17	NA
BMI	LUSC	rs217671	G	A	0.0144	691456	1.3E-13	NA
BMI	LUSC	rs2228213	A	G	-0.0139	795595	4.6E-16	NA

BMI	LUSC	rs2235564	T	C	0.0131	691544	3.7E-13	NA
BMI	LUSC	rs2246012	C	T	0.0158	795598	3.1E-13	NA
BMI	LUSC	rs226000	T	C	0.0119	793480	3.6E-08	NA
BMI	LUSC	rs2283093	T	C	0.0127	691773	3.1E-09	NA
BMI	LUSC	rs2285178	C	T	0.0112	638268	9.4E-09	NA
BMI	LUSC	rs2306537	G	A	0.0133	691923	8.7E-13	NA
BMI	LUSC	rs2307111	C	T	-0.0265	795430	1.6E-58	NA
BMI	LUSC	rs2317299	C	T	-0.0106	677983	1.3E-09	NA
BMI	LUSC	rs2325036	C	A	-0.0181	790870	3.6E-27	NA
BMI	LUSC	rs2357760	A	G	0.0145	791053	6.8E-17	NA
BMI	LUSC	rs2361988	C	T	-0.0155	690251	5.2E-15	NA
BMI	LUSC	rs2365389	T	C	-0.0174	783625	1.3E-25	NA
BMI	LUSC	rs2367112	G	T	-0.0119	794305	2.3E-13	NA
BMI	LUSC	rs2411182	A	G	0.0123	691730	7.7E-11	NA
BMI	LUSC	rs2423668	C	T	-0.0105	527352	2.8E-08	NA
BMI	LUSC	rs2425840	C	A	0.0119	681680	1.6E-11	NA
BMI	LUSC	rs2429150	C	A	0.0111	686276	2.7E-10	NA
BMI	LUSC	rs2479958	G	A	-0.0154	664268	1.5E-17	NA
BMI	LUSC	rs2481665	C	T	-0.0161	795247	7.2E-23	NA
BMI	LUSC	rs2543132	C	G	0.0146	688326	5E-11	NA
BMI	LUSC	rs2600226	T	C	-0.0116	685285	3.7E-10	NA
BMI	LUSC	rs2605603	A	G	-0.0103	790857	2.5E-10	NA
BMI	LUSC	rs2608703	A	C	0.0142	686700	1.9E-16	NA
BMI	LUSC	rs262130	T	C	0.0127	679542	1.8E-08	NA
BMI	LUSC	rs2693826	A	G	-0.0137	690808	2E-15	NA
BMI	LUSC	rs2694047	G	A	0.0188	690295	3.9E-21	NA
BMI	LUSC	rs273504	G	A	0.0153	690672	4.4E-18	NA
BMI	LUSC	rs2744974	T	C	0.0249	789647	1.4E-45	NA
BMI	LUSC	rs2791653	G	A	-0.0141	795271	1.3E-13	NA
BMI	LUSC	rs2820311	G	A	0.0235	691876	4.1E-38	NA

BMI	LUSC	rs2832283	A	G	0.0115	792324	5.8E-09	NA
BMI	LUSC	rs2836964	C	T	-0.011	692353	1.3E-09	NA
BMI	LUSC	rs2861683	C	A	-0.0144	691163	1.3E-16	NA
BMI	LUSC	rs2868975	A	G	-0.0143	690613	2.2E-10	NA
BMI	LUSC	rs287104	A	G	0.0115	787307	4.4E-11	NA
BMI	LUSC	rs2875762	C	G	0.0139	685199	1.2E-11	NA
BMI	LUSC	rs2907948	A	G	-0.0141	794299	1.3E-13	NA
BMI	LUSC	rs2931434	T	C	-0.0104	690664	1.4E-08	NA
BMI	LUSC	rs2943465	C	T	0.0248	686547	2E-10	NA
BMI	LUSC	rs294704	T	G	-0.0113	690036	4E-09	NA
BMI	LUSC	rs3007105	T	C	0.0142	785488	1.1E-17	NA
BMI	LUSC	rs326896	T	C	-0.0128	690324	2.8E-13	NA
BMI	LUSC	rs331966	C	A	0.0112	687189	3.2E-10	NA
BMI	LUSC	rs33500	T	C	-0.0167	689500	4.3E-14	NA
BMI	LUSC	rs339991	G	A	0.0124	686476	1.2E-12	NA
BMI	LUSC	rs349088	A	C	-0.0128	684401	1.8E-13	NA
BMI	LUSC	rs355777	C	G	0.0153	689978	1.4E-18	rs355772
BMI	LUSC	rs3731695	C	T	0.0116	793581	7.9E-13	NA
BMI	LUSC	rs3732084	C	T	0.0107	691763	1.1E-09	NA
BMI	LUSC	rs3736485	G	A	-0.0134	790404	2.5E-16	NA
BMI	LUSC	rs3749897	T	C	0.0122	638224	8.4E-12	NA
BMI	LUSC	rs3754963	T	A	-0.0123	691535	3.3E-10	NA
BMI	LUSC	rs3764835	A	G	-0.0141	689505	3.1E-09	NA
BMI	LUSC	rs3772882	A	C	0.0127	691912	6.6E-13	NA
BMI	LUSC	rs3800229	T	G	0.0175	792474	1.4E-22	NA
BMI	LUSC	rs3800637	C	T	0.0115	682001	5.1E-10	NA
BMI	LUSC	rs3806114	A	G	-0.0113	778855	3.4E-10	NA
BMI	LUSC	rs3806572	A	G	-0.0145	687646	1.6E-14	NA
BMI	LUSC	rs3807645	A	G	-0.0166	683086	2.4E-15	NA
BMI	LUSC	rs380857	A	C	-0.0151	691507	3.6E-08	NA

BMI	LUSC	rs3814883	T	C	0.0232	685519	1.1E-40	NA
BMI	LUSC	rs3828783	A	G	-0.0165	792749	5.6E-15	NA
BMI	LUSC	rs3829849	T	C	0.0098	793851	5.9E-09	NA
BMI	LUSC	rs38314	A	G	-0.012	689782	4.7E-12	NA
BMI	LUSC	rs3844598	G	A	0.0095	690704	3.8E-08	NA
BMI	LUSC	rs3902951	G	T	0.0134	773819	7E-12	NA
BMI	LUSC	rs3904244	A	T	0.0155	691180	4.3E-10	NA
BMI	LUSC	rs391300	C	T	-0.0119	791120	3.1E-12	NA
BMI	LUSC	rs3935648	G	C	-0.0125	629303	6.8E-09	NA
BMI	LUSC	rs3977755	T	C	-0.0135	731529	5.9E-13	NA
BMI	LUSC	rs40067	A	G	-0.0266	681695	7.1E-30	NA
BMI	LUSC	rs4012234	G	T	0.0141	689653	9.9E-16	NA
BMI	LUSC	rs4072917	A	G	0.0115	684720	6.9E-11	NA
BMI	LUSC	rs4148155	G	A	-0.0188	794889	5E-13	NA
BMI	LUSC	rs4148866	T	C	0.0098	676418	4E-08	NA
BMI	LUSC	rs4237643	G	T	-0.0223	692491	4.3E-33	NA
BMI	LUSC	rs427943	C	A	0.017	712095	7.3E-23	NA
BMI	LUSC	rs429343	G	A	-0.015	689345	6.8E-18	NA
BMI	LUSC	rs4307239	G	A	0.0115	687289	3.9E-11	NA
BMI	LUSC	rs4310573	T	C	0.0116	682567	3.5E-08	NA
BMI	LUSC	rs4358081	C	A	0.0097	690038	1.5E-08	NA
BMI	LUSC	rs4414033	A	G	0.0129	672697	1.4E-12	NA
BMI	LUSC	rs4430672	C	T	-0.0127	691400	3.9E-09	NA
BMI	LUSC	rs4482463	A	C	-0.0331	635414	2.8E-23	NA
BMI	LUSC	rs4495304	C	T	-0.0194	774211	5E-09	NA
BMI	LUSC	rs4516268	A	C	-0.0217	786617	5.2E-25	NA
BMI	LUSC	rs4518345	A	G	-0.0117	688609	1E-09	NA
BMI	LUSC	rs4556997	A	C	0.0197	792972	6.9E-17	NA
BMI	LUSC	rs4589691	G	C	0.0141	688253	4.7E-09	NA
BMI	LUSC	rs4639527	G	A	0.0172	691706	3.3E-20	NA

BMI	LUSC	rs4653017	T	C	0.0122	686378	4.5E-11	NA
BMI	LUSC	rs4660443	T	C	0.0164	687234	6.8E-15	NA
BMI	LUSC	rs4671328	G	T	-0.0219	679487	2.2E-36	NA
BMI	LUSC	rs4722398	T	C	0.0158	692509	3.6E-10	NA
BMI	LUSC	rs4740619	C	T	-0.0186	794491	2.3E-30	NA
BMI	LUSC	rs4757144	A	G	0.0169	690082	5.6E-22	NA
BMI	LUSC	rs4783830	A	G	-0.0105	675527	2.4E-08	NA
BMI	LUSC	rs4786903	G	A	0.0125	680139	3.5E-10	NA
BMI	LUSC	rs4800191	C	G	0.0103	785353	2.5E-09	rs8099193
BMI	LUSC	rs4813619	T	G	-0.0108	622760	2.3E-09	NA
BMI	LUSC	rs4818225	G	A	0.0117	688274	2.3E-10	NA
BMI	LUSC	rs4820408	G	T	-0.0151	794185	2.1E-19	NA
BMI	LUSC	rs4842491	T	C	0.0098	795312	4E-08	NA
BMI	LUSC	rs4851029	G	T	0.0121	689752	1.7E-12	NA
BMI	LUSC	rs4858193	C	T	-0.0129	686850	1.6E-11	NA
BMI	LUSC	rs4864201	C	T	-0.0141	795263	1.5E-16	NA
BMI	LUSC	rs4880341	T	C	-0.0118	689012	1.1E-11	NA
BMI	LUSC	rs4906908	G	T	0.0103	691345	2.5E-09	NA
BMI	LUSC	rs491711	C	A	-0.0115	685113	1.1E-09	NA
BMI	LUSC	rs4929923	C	T	0.0181	794933	7.2E-27	NA
BMI	LUSC	rs4936175	C	T	0.0122	692569	1.4E-12	NA
BMI	LUSC	rs4937870	G	A	-0.0109	683154	8.8E-09	NA
BMI	LUSC	rs4952843	G	A	-0.0131	692482	6.8E-14	NA
BMI	LUSC	rs4954638	C	A	-0.0118	689971	2.9E-09	NA
BMI	LUSC	rs4968656	G	A	0.0116	675153	8.2E-10	NA
BMI	LUSC	rs4981693	A	G	0.0206	689120	6.9E-24	NA
BMI	LUSC	rs4986044	T	C	-0.0164	787219	3.3E-23	NA
BMI	LUSC	rs538579	C	G	0.0137	688452	1.3E-13	NA
BMI	LUSC	rs543874	G	A	0.0475	795504	1.2E-122	NA
BMI	LUSC	rs559231	T	G	0.0135	685154	2.4E-14	NA

BMI	LUSC	rs577525	C	T	0.0166	690616	9.7E-22	NA
BMI	LUSC	rs592483	T	C	-0.0147	781871	2E-18	NA
BMI	LUSC	rs6050446	G	A	0.0343	766287	4.4E-13	NA
BMI	LUSC	rs6235	G	C	0.0175	691708	1.5E-19	NA
BMI	LUSC	rs6265	T	C	-0.0412	795458	1E-86	NA
BMI	LUSC	rs6443750	C	T	0.0148	776837	3.2E-12	NA
BMI	LUSC	rs6448587	C	A	-0.0167	691097	2.3E-13	NA
BMI	LUSC	rs645040	T	G	0.0171	795579	2.5E-18	NA
BMI	LUSC	rs6461115	G	A	-0.0144	791735	1.2E-13	NA
BMI	LUSC	rs6471941	A	G	0.0156	793986	3.1E-13	NA
BMI	LUSC	rs6500208	A	G	0.014	781931	4.1E-12	NA
BMI	LUSC	rs6512302	C	G	0.0142	686053	2.1E-12	NA
BMI	LUSC	rs6545714	A	G	-0.0191	793368	9.1E-31	NA
BMI	LUSC	rs6556301	T	G	-0.0111	734744	4.1E-10	NA
BMI	LUSC	rs6561943	T	C	0.0119	793951	4.2E-10	NA
BMI	LUSC	rs657452	G	A	-0.0188	767846	7.2E-29	NA
BMI	LUSC	rs6587552	G	A	-0.0173	689723	1.6E-17	NA
BMI	LUSC	rs6591407	A	C	-0.0118	794246	1.9E-08	NA
BMI	LUSC	rs6593688	G	A	0.0137	691779	8.6E-15	NA
BMI	LUSC	rs663129	A	G	0.0545	788948	1.6E-178	NA
BMI	LUSC	rs6673081	C	T	-0.01	677818	1.8E-08	NA
BMI	LUSC	rs6692586	G	A	-0.0192	690921	1.1E-16	NA
BMI	LUSC	rs6712	C	G	0.0138	688469	4.4E-08	NA
BMI	LUSC	rs6764533	A	G	0.0116	690832	1.4E-10	NA
BMI	LUSC	rs6772756	G	A	-0.0104	681709	4E-08	NA
BMI	LUSC	rs6785245	C	T	0.0132	692250	4E-14	NA
BMI	LUSC	rs6804842	G	A	0.0156	789179	3.6E-21	NA
BMI	LUSC	rs6841761	T	G	-0.0131	793477	6.4E-16	NA
BMI	LUSC	rs685870	C	T	0.012	688423	2.4E-10	NA
BMI	LUSC	rs6985109	A	G	-0.0177	793993	1.5E-26	NA



BMI	LUSC	rs7024334	G	T	-0.0138	782431	3.1E-12	NA
BMI	LUSC	rs7025938	G	C	0.0166	691581	3.7E-19	NA
BMI	LUSC	rs7037266	A	C	-0.0112	691603	3.5E-10	NA
BMI	LUSC	rs705217	G	T	-0.0102	688609	9.3E-09	NA
BMI	LUSC	rs705704	A	G	-0.0131	743597	1.9E-13	NA
BMI	LUSC	rs7084454	A	G	0.0193	678564	4E-25	NA
BMI	LUSC	rs709400	G	A	-0.015	795379	4.6E-19	NA
BMI	LUSC	rs7102454	C	T	0.0158	691134	2.4E-18	NA
BMI	LUSC	rs7117238	A	G	-0.0131	788879	2.5E-09	NA
BMI	LUSC	rs7124681	A	C	0.0263	795474	3.2E-58	NA
BMI	LUSC	rs7138803	A	G	0.03	795588	2.3E-71	NA
BMI	LUSC	rs7144011	T	G	0.0282	794117	5.2E-47	NA
BMI	LUSC	rs7148846	G	T	0.0124	687940	2.2E-08	NA
BMI	LUSC	rs7172627	G	A	0.0117	690458	1.1E-11	NA
BMI	LUSC	rs7181498	C	T	-0.0163	690980	1E-19	NA
BMI	LUSC	rs7196720	C	T	-0.0129	689863	7.3E-14	NA
BMI	LUSC	rs7206608	G	C	0.0132	689058	1.3E-12	NA
BMI	LUSC	rs7222349	A	G	0.0115	692215	3.3E-10	NA
BMI	LUSC	rs7239575	C	T	-0.0202	692313	7.4E-32	NA
BMI	LUSC	rs7318817	T	C	-0.0155	691917	2.7E-18	NA
BMI	LUSC	rs7334078	C	T	-0.0121	688374	2.2E-10	NA
BMI	LUSC	rs7358465	T	C	0.0103	686935	3E-08	NA
BMI	LUSC	rs7488867	T	C	-0.0204	635746	8.4E-24	NA
BMI	LUSC	rs7498665	G	A	0.0271	790299	5.6E-60	NA
BMI	LUSC	rs7519259	A	G	0.0125	681362	3.8E-13	NA
BMI	LUSC	rs7535528	A	G	-0.0152	632868	1.4E-16	NA
BMI	LUSC	rs754635	G	C	0.0198	690346	2.2E-13	NA
BMI	LUSC	rs7550711	T	C	0.0649	769184	3.2E-38	NA
BMI	LUSC	rs7557796	C	T	-0.016	692414	2.3E-19	NA
BMI	LUSC	rs756717	A	G	-0.0148	771976	5.4E-18	NA

BMI	LUSC	rs7599312	A	G	-0.0186	780823	6.9E-24	NA
BMI	LUSC	rs7615297	G	C	-0.0149	689710	5.7E-10	NA
BMI	LUSC	rs7626079	T	C	0.011	692571	1.6E-09	NA
BMI	LUSC	rs7637852	G	A	-0.0139	691815	1.7E-13	NA
BMI	LUSC	rs7640424	T	C	-0.0136	790612	2.3E-14	NA
BMI	LUSC	rs765875	T	C	-0.0121	690961	3E-12	NA
BMI	LUSC	rs7683836	A	G	-0.0114	686968	6.3E-11	NA
BMI	LUSC	rs7685048	T	C	-0.0101	692398	4.1E-09	NA
BMI	LUSC	rs768840	A	G	0.0114	677485	2E-10	NA
BMI	LUSC	rs769449	A	G	-0.0254	566857	2.3E-20	NA
BMI	LUSC	rs7694732	G	A	-0.0099	690622	8.7E-09	NA
BMI	LUSC	rs7703576	C	T	0.0103	690818	4.8E-08	NA
BMI	LUSC	rs7704281	A	G	0.0271	788585	6.5E-11	NA
BMI	LUSC	rs7715256	T	G	-0.0166	795302	2.2E-24	NA
BMI	LUSC	rs7724675	A	G	-0.0119	691968	9.5E-09	NA
BMI	LUSC	rs7730004	T	C	0.0148	690164	9.1E-16	NA
BMI	LUSC	rs7730898	A	G	0.0168	792975	4.5E-20	NA
BMI	LUSC	rs774246	G	A	0.0153	690818	5.4E-10	NA
BMI	LUSC	rs7761673	A	T	-0.0126	691716	1.9E-09	NA
BMI	LUSC	rs7780752	C	T	0.0139	690830	1E-14	NA
BMI	LUSC	rs7788008	A	G	-0.0157	690410	1.1E-19	NA
BMI	LUSC	rs7811342	C	T	-0.0197	676265	1.1E-11	NA
BMI	LUSC	rs7819514	A	G	-0.0107	684955	5.7E-09	NA
BMI	LUSC	rs7826312	C	T	0.0104	785343	4.9E-10	NA
BMI	LUSC	rs7844647	C	T	-0.0123	793703	2.8E-11	NA
BMI	LUSC	rs7869771	C	A	-0.014	679436	4.9E-13	NA
BMI	LUSC	rs7871866	C	G	0.0187	683494	2.3E-14	NA
BMI	LUSC	rs7899106	G	A	0.0331	793689	1E-18	NA
BMI	LUSC	rs7903146	T	C	-0.0181	795624	1.3E-23	NA
BMI	LUSC	rs7925214	T	C	0.0147	677603	4.4E-17	NA

BMI	LUSC	rs7970953	A	G	0.0135	788417	9.8E-14	NA
BMI	LUSC	rs7983065	T	C	-0.0148	690924	8.9E-18	NA
BMI	LUSC	rs7998796	G	A	0.0105	689430	1.1E-08	NA
BMI	LUSC	rs8027205	G	C	-0.0108	685725	1.4E-09	rs1021985
BMI	LUSC	rs8036040	A	C	0.0109	691068	2.7E-10	NA
BMI	LUSC	rs8047395	A	G	0.0642	788856	1E-200	NA
BMI	LUSC	rs806600	G	A	-0.0095	691791	3.3E-08	NA
BMI	LUSC	rs8071182	A	G	0.0133	771437	2.1E-09	NA
BMI	LUSC	rs8090983	G	A	0.0118	682470	2E-10	NA
BMI	LUSC	rs8097672	T	A	0.02	686063	8.4E-16	NA
BMI	LUSC	rs8097783	A	G	-0.0389	795408	7.2E-36	NA
BMI	LUSC	rs8123881	G	A	0.0196	793018	4.4E-16	NA
BMI	LUSC	rs8181823	C	A	0.0127	691345	4.1E-10	NA
BMI	LUSC	rs818524	C	T	0.0106	670078	3.4E-08	NA
BMI	LUSC	rs8192675	C	T	0.0152	795515	1.4E-17	NA
BMI	LUSC	rs825688	T	C	-0.0095	686144	4.7E-08	NA
BMI	LUSC	rs845084	A	G	0.014	685413	1.3E-12	NA
BMI	LUSC	rs852056	C	T	-0.0128	691874	1.8E-10	NA
BMI	LUSC	rs865809	G	A	-0.0127	689186	5.4E-10	NA
BMI	LUSC	rs872281	T	C	-0.0151	685310	4.7E-11	NA
BMI	LUSC	rs876605	G	A	-0.0108	692586	3.4E-08	NA
BMI	LUSC	rs879620	T	C	0.0231	688377	5.3E-38	NA
BMI	LUSC	rs889398	T	C	-0.0196	789694	1.3E-32	NA
BMI	LUSC	rs895330	G	C	-0.0201	684271	5.5E-19	NA
BMI	LUSC	rs901630	T	C	-0.0146	794597	1.9E-18	NA
BMI	LUSC	rs902695	A	G	-0.0103	678635	2.2E-09	NA
BMI	LUSC	rs9294260	A	G	0.0147	783533	1.8E-19	NA
BMI	LUSC	rs9300422	G	A	-0.0103	795011	4E-09	NA
BMI	LUSC	rs930295	C	A	-0.0211	690522	1E-19	NA
BMI	LUSC	rs9304665	A	T	0.0229	689470	2.9E-29	NA

BMI	LUSC	rs934224	T	C	0.0107	692568	4.7E-08	NA
BMI	LUSC	rs9362662	G	A	-0.0112	683953	1.2E-10	NA
BMI	LUSC	rs9367368	C	T	-0.0121	786723	1E-11	NA
BMI	LUSC	rs9370261	T	C	0.0231	690051	3.4E-08	NA
BMI	LUSC	rs9375702	T	C	-0.0115	690564	7.9E-10	NA
BMI	LUSC	rs9379827	A	C	-0.0132	795072	6.9E-12	NA
BMI	LUSC	rs9408882	A	G	-0.0093	794283	1.3E-08	NA
BMI	LUSC	rs946824	C	T	-0.0206	689849	1.1E-15	NA
BMI	LUSC	rs947612	A	G	-0.0116	692596	5.6E-09	NA
BMI	LUSC	rs9478671	G	A	0.012	688072	1.7E-08	NA
BMI	LUSC	rs9522285	A	G	0.0127	690681	2.5E-13	NA
BMI	LUSC	rs9538162	C	T	-0.0156	690345	4.8E-19	NA
BMI	LUSC	rs9547153	G	A	0.0098	775400	8.7E-09	NA
BMI	LUSC	rs9571687	A	C	-0.0129	690974	2.8E-12	NA
BMI	LUSC	rs9615905	T	C	0.011	690274	2.7E-10	NA
BMI	LUSC	rs962273	C	T	0.0137	692594	2.6E-13	NA
BMI	LUSC	rs9650755	G	A	0.0154	691183	2.8E-15	NA
BMI	LUSC	rs9688431	C	T	-0.0231	789356	2.4E-11	NA
BMI	LUSC	rs977747	G	T	-0.0169	793546	1.3E-24	NA
BMI	LUSC	rs9783858	T	C	0.0091	770874	3.3E-08	NA
BMI	LUSC	rs9806742	A	G	0.0208	692509	1.4E-15	NA
BMI	LUSC	rs9816226	T	A	0.0323	778333	1.6E-52	NA
BMI	LUSC	rs9845966	G	T	-0.0105	778076	2.5E-10	NA
BMI	LUSC	rs987237	G	A	0.0409	795612	9.3E-84	NA
BMI	LUSC	rs9926784	C	T	-0.0258	789617	9.9E-35	NA
BMI	LUSC	rs9927848	A	C	-0.0122	687060	6.4E-10	NA
BMI	LUSC	rs9951619	G	T	0.0156	772643	1.4E-15	NA
BMI	LUSC	rs998732	G	A	-0.0171	793852	2E-14	NA
BMI	LUSC	rs9989141	T	C	0.0162	752768	3.6E-21	NA
BMI	LUSC	rs999889	A	G	-0.0108	690572	1.4E-08	NA

Type 2 diabetes	LUSC	rs10077431	A	C	-0.0487	62892	4.75E-08	NA
Type 2 diabetes	LUSC	rs10087241	A	G	-0.0475	62892	2.8E-09	NA
Type 2 diabetes	LUSC	rs10100265	C	A	-0.0491	62892	6.29E-10	NA
Type 2 diabetes	LUSC	rs10114341	C	T	-0.0409	62892	1.15E-08	NA
Type 2 diabetes	LUSC	rs10401969	C	T	0.0921	62892	4.13E-12	NA
Type 2 diabetes	LUSC	rs1050226	G	A	-0.0491	62892	3.34E-11	NA
Type 2 diabetes	LUSC	rs1061813	A	G	-0.0429	62892	3.37E-09	NA
Type 2 diabetes	LUSC	rs1063355	G	T	0.0709	62892	3.72E-19	NA
Type 2 diabetes	LUSC	rs10740322	A	G	0.0477	62892	2.11E-08	NA
Type 2 diabetes	LUSC	rs10811661	C	T	-0.1569	62892	4.13E-58	NA
Type 2 diabetes	LUSC	rs10830963	G	C	0.0909	62892	5.85E-30	NA
Type 2 diabetes	LUSC	rs10842994	T	C	-0.0755	62892	1.02E-16	NA
Type 2 diabetes	LUSC	rs10974438	C	A	0.0591	62892	3.01E-15	NA
Type 2 diabetes	LUSC	rs11098676	C	T	0.054	62892	2.03E-08	NA
Type 2 diabetes	LUSC	rs11107116	T	G	0.0467	62892	3.75E-08	NA
Type 2 diabetes	LUSC	rs1111875	T	C	-0.0948	62892	3.61E-39	NA
Type 2 diabetes	LUSC	rs11257655	T	C	0.0737	62892	1.97E-17	NA
Type 2 diabetes	LUSC	rs1127655	T	C	-0.0438	62892	2.47E-08	NA
Type 2 diabetes	LUSC	rs11708067	G	A	-0.0965	62892	5.93E-29	NA
Type 2 diabetes	LUSC	rs11925227	A	G	-0.0534	62892	2.25E-08	NA
Type 2 diabetes	LUSC	rs11926707	C	T	0.0463	62892	1.69E-08	NA
Type 2 diabetes	LUSC	rs12088739	G	A	-0.0884	62892	9.79E-12	NA
Type 2 diabetes	LUSC	rs12299509	G	A	0.0467	62892	2.09E-10	NA
Type 2 diabetes	LUSC	rs12617659	T	C	-0.0685	62892	2.83E-11	NA
Type 2 diabetes	LUSC	rs12910825	G	A	0.0517	62892	2.16E-12	NA
Type 2 diabetes	LUSC	rs12945601	C	T	-0.048	62892	1.72E-09	NA
Type 2 diabetes	LUSC	rs12970134	A	G	0.0555	62892	5.31E-12	NA
Type 2 diabetes	LUSC	rs13239186	T	C	0.0539	62892	2.7E-10	NA
Type 2 diabetes	LUSC	rs13330951	G	A	-0.0456	62892	1.54E-08	NA
Type 2 diabetes	LUSC	rs13389219	T	C	-0.0722	62892	2.11E-22	NA

Type 2 diabetes	LUSC	rs1359790	A	G	-0.0796	62892	2.8E-23	NA
Type 2 diabetes	LUSC	rs1496653	G	A	-0.0769	62892	2.57E-18	NA
Type 2 diabetes	LUSC	rs1552224	C	A	-0.1034	62892	8.64E-25	NA
Type 2 diabetes	LUSC	rs16988333	G	A	-0.0745	62892	9.17E-09	NA
Type 2 diabetes	LUSC	rs17086692	T	G	-0.0467	62892	2.48E-08	NA
Type 2 diabetes	LUSC	rs17168486	T	C	0.0742	62892	2.18E-15	NA
Type 2 diabetes	LUSC	rs17405722	A	G	0.087	62892	2.28E-09	NA
Type 2 diabetes	LUSC	rs17411031	G	C	-0.045	62892	3.04E-08	NA
Type 2 diabetes	LUSC	rs1758632	G	C	0.0491	62892	1.36E-09	rs1785509
Type 2 diabetes	LUSC	rs17631783	T	C	-0.0487	62892	3.95E-08	NA
Type 2 diabetes	LUSC	rs17791513	G	A	-0.1027	62892	4.61E-12	NA
Type 2 diabetes	LUSC	rs1801214	T	C	0.0903	62892	5.52E-34	NA
Type 2 diabetes	LUSC	rs1899951	T	C	-0.1118	62892	1.64E-24	NA
Type 2 diabetes	LUSC	rs2237892	T	C	-0.096	62892	8.75E-10	NA
Type 2 diabetes	LUSC	rs2246618	T	C	0.0513	62892	1.2E-09	NA
Type 2 diabetes	LUSC	rs2261181	T	C	0.0985	62892	9.18E-17	NA
Type 2 diabetes	LUSC	rs2294120	G	A	-0.0443	62892	1.62E-08	NA
Type 2 diabetes	LUSC	rs2296173	G	A	0.065	62892	7.66E-14	NA
Type 2 diabetes	LUSC	rs2299383	T	C	0.0412	62892	1.49E-08	NA
Type 2 diabetes	LUSC	rs243019	C	T	0.0566	62892	2.29E-15	NA
Type 2 diabetes	LUSC	rs2493394	G	A	0.073	62892	1.15E-10	NA
Type 2 diabetes	LUSC	rs2796441	A	G	-0.0715	62892	1.96E-22	NA
Type 2 diabetes	LUSC	rs2820426	G	A	0.0521	62892	1.3E-12	NA
Type 2 diabetes	LUSC	rs2867125	C	T	0.0601	62892	4.33E-10	NA
Type 2 diabetes	LUSC	rs2908282	A	G	0.0552	62892	4.25E-09	NA
Type 2 diabetes	LUSC	rs2925979	C	T	-0.0534	62892	9.06E-12	NA
Type 2 diabetes	LUSC	rs2943656	G	A	0.0902	62892	6.7E-34	NA
Type 2 diabetes	LUSC	rs3217992	T	C	0.0527	62892	7.23E-13	NA
Type 2 diabetes	LUSC	rs340874	C	T	0.0626	62892	8.41E-18	NA
Type 2 diabetes	LUSC	rs348330	A	G	-0.0487	62892	1.86E-09	NA

Type 2 diabetes	LUSC	rs3756784	G	T	0.0505	62892	2.59E-08	NA
Type 2 diabetes	LUSC	rs3802177	A	G	-0.1217	62892	2.32E-52	NA
Type 2 diabetes	LUSC	rs459193	G	A	0.0711	62892	8.81E-18	NA
Type 2 diabetes	LUSC	rs4622883	G	A	-0.0435	62892	3.02E-08	NA
Type 2 diabetes	LUSC	rs4686471	C	T	0.0534	62892	4.28E-11	NA
Type 2 diabetes	LUSC	rs4812829	A	G	0.0532	62892	2.44E-08	NA
Type 2 diabetes	LUSC	rs4823182	G	A	0.0482	62892	3.36E-10	NA
Type 2 diabetes	LUSC	rs4865796	A	G	0.053	62892	1.33E-11	NA
Type 2 diabetes	LUSC	rs516946	C	T	0.0824	62892	3.16E-22	NA
Type 2 diabetes	LUSC	rs5215	T	C	-0.0678	62892	2.09E-20	NA
Type 2 diabetes	LUSC	rs55966194	G	C	-0.0526	62892	2.25E-09	NA
Type 2 diabetes	LUSC	rs576674	A	G	-0.0654	62892	1.79E-11	NA
Type 2 diabetes	LUSC	rs6059662	G	A	0.0446	62892	1.51E-08	NA
Type 2 diabetes	LUSC	rs61953351	T	G	-0.07	62892	1.98E-14	NA
Type 2 diabetes	LUSC	rs622217	C	T	-0.0485	62892	3.13E-10	NA
Type 2 diabetes	LUSC	rs6515236	C	A	-0.0504	62892	3.34E-08	NA
Type 2 diabetes	LUSC	rs67232546	T	C	0.0596	62892	4.66E-10	NA
Type 2 diabetes	LUSC	rs6767484	G	A	0.1209	62892	2.7E-56	NA
Type 2 diabetes	LUSC	rs6785040	C	T	-0.0633	62892	1.26E-08	NA
Type 2 diabetes	LUSC	rs6795735	T	C	-0.0558	62892	1.63E-14	NA
Type 2 diabetes	LUSC	rs6878122	A	G	-0.0564	62892	1.19E-12	NA
Type 2 diabetes	LUSC	rs6960043	C	T	0.064	62892	3.61E-19	NA
Type 2 diabetes	LUSC	rs7144011	T	G	0.0482	62892	1.64E-08	NA
Type 2 diabetes	LUSC	rs7177055	A	G	0.0647	62892	2.75E-16	NA
Type 2 diabetes	LUSC	rs7240767	C	T	0.0451	62892	2.16E-08	NA
Type 2 diabetes	LUSC	rs72802358	C	G	-0.1168	62892	1.97E-18	NA
Type 2 diabetes	LUSC	rs72892910	T	G	0.0648	62892	6.43E-11	NA
Type 2 diabetes	LUSC	rs735949	C	T	-0.0711	62892	1.95E-11	NA
Type 2 diabetes	LUSC	rs753270	C	T	0.0528	62892	2.7E-11	NA
Type 2 diabetes	LUSC	rs7561798	G	A	0.04	62892	2.79E-08	NA

Type 2 diabetes	LUSC	rs7572970	G	A	0.059	62892	1.39E-11	NA
Type 2 diabetes	LUSC	rs7607777	T	G	-0.137	62892	9.4E-28	NA
Type 2 diabetes	LUSC	rs7674212	T	G	-0.0465	62892	6.18E-10	NA
Type 2 diabetes	LUSC	rs7685296	T	C	-0.0511	62892	2.32E-10	NA
Type 2 diabetes	LUSC	rs7729395	T	C	0.1373	62892	1.1E-17	NA
Type 2 diabetes	LUSC	rs7756992	G	A	0.1297	62892	6E-62	NA
Type 2 diabetes	LUSC	rs7786095	G	A	-0.0743	62892	9.64E-09	NA
Type 2 diabetes	LUSC	rs780094	C	T	0.0692	62892	5.16E-21	NA
Type 2 diabetes	LUSC	rs7845219	C	T	-0.0422	62892	4.54E-09	NA
Type 2 diabetes	LUSC	rs7903146	T	C	0.3059	62892	1E-200	NA
Type 2 diabetes	LUSC	rs7929543	C	A	0.0828	62892	2.2E-09	NA
Type 2 diabetes	LUSC	rs7955901	T	C	-0.0444	62892	7.16E-10	NA
Type 2 diabetes	LUSC	rs8068804	A	G	0.0587	62892	4.41E-14	NA
Type 2 diabetes	LUSC	rs8108269	G	T	0.0644	62892	3.11E-16	NA
Type 2 diabetes	LUSC	rs825476	T	C	0.0524	62892	6.8E-13	NA
Type 2 diabetes	LUSC	rs840967	A	C	-0.0497	62892	5.44E-10	NA
Type 2 diabetes	LUSC	rs849135	A	G	-0.0999	62892	1.04E-43	NA
Type 2 diabetes	LUSC	rs853974	C	T	-0.0601	62892	7.86E-12	NA
Type 2 diabetes	LUSC	rs9369425	A	G	-0.0546	62892	1.13E-10	NA
Type 2 diabetes	LUSC	rs963740	T	A	-0.0479	62892	2.23E-08	NA
Type 2 diabetes	LUSC	rs9844972	C	G	0.0956	62892	1.03E-10	NA
Type 2 diabetes	LUSC	rs9894220	G	A	-0.0585	62892	1.52E-13	NA
Type 2 diabetes	LUSC	rs9928094	G	A	0.1045	62892	3.59E-47	NA
Type 2 diabetes	LUSC	rs993380	G	A	-0.0507	62892	4.59E-10	NA
Type 2 diabetes	LUSC	rs9940149	A	G	-0.058	62892	9.29E-10	NA
Alcoholic drinks per week	LUSC	rs10085696	G	A	-0.01605	535056	1.24E-10	NA
Alcoholic drinks per week	LUSC	rs11860773	C	T	-0.01501	515422	8.35E-10	NA
Alcoholic drinks per week	LUSC	rs1229984	C	T	0.188115	514602	1E-200	NA
Alcoholic drinks per week	LUSC	rs1260326	C	T	0.023812	532340	3.33E-33	NA
Alcoholic drinks per week	LUSC	rs13107325	T	C	-0.03645	528164	1.23E-20	NA



Alcoholic drinks per week	LUSC	rs13332432	G	C	0.014005	516946	5.94E-11	NA
Alcoholic drinks per week	LUSC	rs1387766	A	G	-0.01083	535067	4.79E-08	NA
Alcoholic drinks per week	LUSC	rs153106	C	T	-0.01361	531637	3.63E-12	NA
Alcoholic drinks per week	LUSC	rs16854020	A	G	0.018083	533501	4.82E-10	NA
Alcoholic drinks per week	LUSC	rs17542254	G	A	0.013142	533884	8.96E-10	NA
Alcoholic drinks per week	LUSC	rs2049045	C	G	-0.01377	532726	3.97E-08	NA
Alcoholic drinks per week	LUSC	rs2299409	A	G	-0.01055	534249	4.8E-08	NA
Alcoholic drinks per week	LUSC	rs28601761	G	C	0.011299	523035	7.6E-09	rs112875651
Alcoholic drinks per week	LUSC	rs28680958	A	G	-0.01358	532042	9.78E-09	NA
Alcoholic drinks per week	LUSC	rs28712821	A	G	0.028334	525616	1.1E-46	NA
Alcoholic drinks per week	LUSC	rs28732378	G	A	-0.01673	530009	2.24E-14	NA
Alcoholic drinks per week	LUSC	rs28929474	T	C	-0.04768	528430	2.39E-11	NA
Alcoholic drinks per week	LUSC	rs331939	A	G	-0.0119	536700	4.5E-09	NA
Alcoholic drinks per week	LUSC	rs34121753	G	A	0.011069	518183	1.39E-08	NA
Alcoholic drinks per week	LUSC	rs4309187	C	A	0.014791	531063	1.37E-12	NA
Alcoholic drinks per week	LUSC	rs4752999	T	C	-0.01456	529379	2.03E-12	NA
Alcoholic drinks per week	LUSC	rs494904	C	T	0.015085	531073	1.41E-14	NA
Alcoholic drinks per week	LUSC	rs55872084	T	G	0.012731	529669	1.98E-08	NA
Alcoholic drinks per week	LUSC	rs55932213	G	A	0.012477	515956	1.8E-08	NA
Alcoholic drinks per week	LUSC	rs6106989	A	G	0.010899	520623	3.81E-08	NA
Alcoholic drinks per week	LUSC	rs6739804	C	T	-0.01297	532202	4.72E-10	NA
Alcoholic drinks per week	LUSC	rs676388	C	T	0.015098	531996	5.49E-15	NA
Alcoholic drinks per week	LUSC	rs75120545	T	C	-0.03279	474779	7.59E-09	NA
Alcoholic drinks per week	LUSC	rs78234152	A	G	0.027654	534076	2.18E-19	NA
Alcoholic drinks per week	LUSC	rs79616692	C	G	0.018809	529527	2.38E-09	NA
Alcoholic drinks per week	LUSC	rs962961	T	C	-0.01219	533853	2.78E-09	NA
Smoking initiation	LUSC	rs10001365	A	G	-0.02499	632802	6.65E-12	NA
Smoking initiation	LUSC	rs10114490	A	G	-0.02551	632802	1.81E-08	NA
Smoking initiation	LUSC	rs10159545	G	C	0.02625	632802	1.84E-12	NA
Smoking initiation	LUSC	rs10233018	G	A	0.027069	632802	2.75E-14	NA

Smoking initiation	LUSC	rs10260968	A	G	-0.02032	632802	1.75E-08	NA
Smoking initiation	LUSC	rs10279261	A	G	-0.02142	632802	5E-09	NA
Smoking initiation	LUSC	rs10498846	T	C	0.02061	632802	6.62E-09	NA
Smoking initiation	LUSC	rs1050847	T	C	-0.02162	632802	1.67E-09	NA
Smoking initiation	LUSC	rs10905461	C	T	-0.02396	632802	7.35E-09	NA
Smoking initiation	LUSC	rs11057005	G	A	-0.02093	632802	4.85E-09	NA
Smoking initiation	LUSC	rs11078713	G	A	-0.02017	632802	2.23E-08	NA
Smoking initiation	LUSC	rs1154693	G	A	0.032622	632802	3.12E-11	NA
Smoking initiation	LUSC	rs11658881	G	A	0.020136	632802	2.43E-08	NA
Smoking initiation	LUSC	rs11712680	C	A	-0.02705	632802	3.51E-09	NA
Smoking initiation	LUSC	rs117143374	C	T	0.02929	632802	2.76E-08	NA
Smoking initiation	LUSC	rs11872397	A	G	-0.02477	632802	1.43E-09	NA
Smoking initiation	LUSC	rs12025237	C	A	-0.033	632802	6.52E-10	NA
Smoking initiation	LUSC	rs12042107	C	T	-0.02228	632802	4.22E-10	NA
Smoking initiation	LUSC	rs12112638	G	A	-0.02453	632802	1.34E-09	NA
Smoking initiation	LUSC	rs12186738	T	G	-0.03326	632802	3.42E-11	NA
Smoking initiation	LUSC	rs12333760	C	T	-0.02905	632802	1.44E-09	NA
Smoking initiation	LUSC	rs12356821	C	G	0.03937	632802	6.27E-15	NA
Smoking initiation	LUSC	rs12441907	A	C	-0.02921	632802	1.06E-10	NA
Smoking initiation	LUSC	rs12474587	T	G	0.027633	632802	1.25E-14	NA
Smoking initiation	LUSC	rs12545053	G	A	0.020281	632802	2.43E-08	NA
Smoking initiation	LUSC	rs12632110	G	A	-0.02338	632802	4.78E-10	NA
Smoking initiation	LUSC	rs13030994	A	G	0.036093	632802	3.56E-24	NA
Smoking initiation	LUSC	rs13145728	C	G	-0.02325	632802	2.14E-10	NA
Smoking initiation	LUSC	rs13261666	T	G	-0.02689	632802	3.9E-14	NA
Smoking initiation	LUSC	rs134529	C	T	-0.01998	632802	4.85E-08	NA
Smoking initiation	LUSC	rs1385108	T	C	0.024662	632802	3E-09	NA
Smoking initiation	LUSC	rs1435741	A	G	0.029415	632802	2.64E-16	NA
Smoking initiation	LUSC	rs1445649	C	T	0.023993	632802	1.68E-11	NA
Smoking initiation	LUSC	rs1555445	T	A	0.022555	632802	3.65E-09	NA

Smoking initiation	LUSC	rs1565735	A	T	-0.03762	632802	3.42E-17	NA
Smoking initiation	LUSC	rs1869243	C	T	0.019741	632802	2.97E-08	NA
Smoking initiation	LUSC	rs1899896	T	C	0.026448	632802	1.04E-11	NA
Smoking initiation	LUSC	rs1971318	T	C	0.028507	632802	7.06E-09	NA
Smoking initiation	LUSC	rs2046850	T	C	-0.02481	632802	3.03E-08	NA
Smoking initiation	LUSC	rs2050586	C	G	-0.02055	632802	3E-08	NA
Smoking initiation	LUSC	rs2107300	G	C	-0.0272	632802	3.27E-08	NA
Smoking initiation	LUSC	rs2140114	T	C	-0.02326	632802	4.7E-10	NA
Smoking initiation	LUSC	rs222449	T	A	-0.02532	632802	1.08E-08	rs222443
Smoking initiation	LUSC	rs2378662	A	G	0.020948	632802	4.16E-09	NA
Smoking initiation	LUSC	rs240963	C	T	-0.04104	632802	2.16E-17	NA
Smoking initiation	LUSC	rs2631024	G	A	-0.02296	632802	1.18E-08	NA
Smoking initiation	LUSC	rs266047	A	G	-0.03051	632802	3.36E-16	NA
Smoking initiation	LUSC	rs3001723	A	G	0.033512	632802	8.12E-18	NA
Smoking initiation	LUSC	rs301805	G	T	0.021468	632802	2.8E-09	NA
Smoking initiation	LUSC	rs35702515	T	G	0.025244	632802	2.43E-09	NA
Smoking initiation	LUSC	rs3800227	G	A	0.022812	632802	1.93E-08	NA
Smoking initiation	LUSC	rs3801289	C	A	-0.02206	632802	3.74E-09	NA
Smoking initiation	LUSC	rs3904512	A	G	-0.02116	632802	3.23E-09	NA
Smoking initiation	LUSC	rs4044321	G	A	-0.02784	632802	6.08E-14	NA
Smoking initiation	LUSC	rs4236259	G	T	-0.02477	632802	3.35E-12	NA
Smoking initiation	LUSC	rs4352629	T	C	-0.02753	632802	1.22E-14	NA
Smoking initiation	LUSC	rs4523689	G	A	-0.02061	632802	1.55E-08	NA
Smoking initiation	LUSC	rs4543592	C	T	0.021931	632802	7.46E-10	NA
Smoking initiation	LUSC	rs4674993	G	A	-0.02521	632802	1.32E-08	NA
Smoking initiation	LUSC	rs4759228	C	G	-0.02169	632802	3.58E-08	NA
Smoking initiation	LUSC	rs4781977	C	T	-0.02387	632802	4.54E-08	NA
Smoking initiation	LUSC	rs4785836	C	T	-0.02047	632802	2.26E-08	NA
Smoking initiation	LUSC	rs578584	T	A	0.02868	632802	1.5E-15	rs528301
Smoking initiation	LUSC	rs6265	T	C	-0.03179	632802	3.77E-12	NA

Smoking initiation	LUSC	rs6433897	C	T	0.022448	632802	3.16E-08	NA
Smoking initiation	LUSC	rs66680800	T	G	-0.02027	632802	2.83E-08	NA
Smoking initiation	LUSC	rs6669839	T	C	0.026004	632802	3.36E-09	NA
Smoking initiation	LUSC	rs6728726	C	T	0.035449	632802	6.73E-14	NA
Smoking initiation	LUSC	rs6788098	T	A	-0.03135	632802	1.91E-17	NA
Smoking initiation	LUSC	rs6893752	G	A	-0.0241	632802	3.25E-09	NA
Smoking initiation	LUSC	rs7197072	T	C	-0.02477	632802	2.77E-09	NA
Smoking initiation	LUSC	rs7224742	T	C	-0.02071	632802	1.43E-08	NA
Smoking initiation	LUSC	rs72789632	T	C	-0.03289	632802	5.02E-10	NA
Smoking initiation	LUSC	rs72896886	C	G	-0.02689	632802	2.75E-08	NA
Smoking initiation	LUSC	rs7322872	T	C	-0.02557	632802	3.58E-09	NA
Smoking initiation	LUSC	rs7555507	T	C	-0.02414	632802	1.14E-11	NA
Smoking initiation	LUSC	rs76214862	C	A	-0.02499	632802	3.99E-08	NA
Smoking initiation	LUSC	rs7929518	G	A	0.024238	632802	1.56E-08	NA
Smoking initiation	LUSC	rs7938812	G	T	0.043791	632802	2.71E-33	NA
Smoking initiation	LUSC	rs7969559	G	A	-0.02438	632802	7.31E-10	NA
Smoking initiation	LUSC	rs9401770	A	G	0.027731	632802	3.47E-12	NA
Smoking initiation	LUSC	rs962625	G	A	0.023718	632802	4.37E-09	NA
Smoking initiation	LUSC	rs993700	C	T	-0.02593	632802	1.53E-09	NA

SNP, single nucleotide polymorphism; BCAA, branched-chain amino acids; BMI, body mass index; LUCA, lung cancer; LUAD, lung adenocarcinoma; LUSC, lung squamous cell carcinoma.

**Table S3 Characteristics of pleiotropic SNPs found in PhenoScanner database for estimating the casual relationship of circulatory BCAA with LUCA and subtypes**

SNP	Effect allele	Other allele	Trait	Ancestry	Direction	BETA	SE	P value
rs10184004	C	T	Type 2 diabetes	European	+	0.09622	0.01298	1.2e−13
rs10184004	C	T	Diabetes	European	+	0.0034	0.0005301	1.418e−10
rs1260326	C	T	Type 2 diabetes	European	+	0.07696	0.01299	3.7e−09
rs1260326	C	T	C reactive protein	European	NA	NA	NA	5.4e−43
rs1260326	C	T	C reactive protein	European	NA	NA	NA	3.8e−43
rs1260326	C	T	C reactive protein	European	NA	NA	NA	5.41e−09
rs1260326	C	T	C reactive protein	European	NA	NA	NA	3.57e−14
rs1260326	C	T	Alcohol consumption	European	−	−0.028	0.002924	1e−21
rs1260326	C	T	Alcohol consumption	European	+	0.03	0.002977	7e−24
rs1260326	C	T	Alcohol consumption	European	−	−0.048	0.003633	7.599e−40
rs1260326	C	T	Diabetes	European	+	0.003817	0.0005326	7.624e−13
rs1260326	C	T	Diabetes	European	+	0.003066	0.0004829	2.161e−10
rs13389219	C	T	Type 2 diabetes	European	+	0.09622	0.01297	1.2e−13
rs13389219	C	T	Type 2 diabetes	Mixed	NA	NA	NA	1.1e−10
rs13389219	C	T	Type 2 diabetes	Mixed	+	0.06766	0.01181	1e−08
rs13389219	C	T	Diabetes	European	+	0.003392	0.0005328	1.945e−10
rs34894639	C	T	Body mass index	European	+	0.01891	0.002874	4.681e−11
rs2943652	C	T	Type 2 diabetes	European	−	−0.1035	0.01311	3.3e−15
rs2943652	C	T	Type 2 diabetes	European	−	−0.089	0.015	2.4e−09
rs2943652	C	T	Type 2 diabetes	European	−	−0.069	0.013	3e−08

rs2943652	C	T	Type 2 diabetes	Mixed	–	–0.08618	0.01405	1.9e–08
rs2943652	C	T	Body mass index	European	+	0.031	0.0051	1.4e–09
rs2943652	C	T	Body mass index	Mixed	+	0.0236	0.0042	1.968e–08
rs1128249	T	G	Type 2 diabetes	European	–	–0.09803	0.01318	4.4e–14
rs1128249	T	G	Diabetes	European	–	–0.003408	0.0005329	1.602e–10

BCAA, branched-chain amino acids; LUCA, lung cancer.

**Table S4 Effect estimates of circulatory BCAA on LUCA by MVMR analyses**

Model	Exposure	Methods	No. of SNPs	BETA	SE	OR	Lower 95%CI	Upper 95%CI	P value
Leucine + Isoleucine + Valine → LUCA	Leucine	IVW	21	-0.24	0.595	0.786628	0.245073	2.524896	0.686
Leucine + Isoleucine + Valine → LUCA	Leucine	MR Egger	21	-0.249	0.616	0.780	0.233	2.607	0.686
Leucine + Isoleucine + Valine → LUCA	Isoleucine	IVW	21	-0.157	0.71	0.855	0.213	3.437	0.825
Leucine + Isoleucine + Valine → LUCA	Isoleucine	MR Egger	21	-0.181	0.754	0.834	0.190	3.658	0.810
Leucine + Isoleucine + Valine → LUCA	Valine	IVW	21	0.523	0.445	1.687	0.705	4.036	0.240
Leucine + Isoleucine + Valine → LUCA	Valine	MR Egger	21	0.521	0.458	1.684	0.686	4.132	0.255
Leucine + Isoleucine + Valine → LUAD	Leucine	IVW	21	-0.655	0.977	0.519	0.077	3.525	0.503
Leucine + Isoleucine + Valine → LUAD	Leucine	MR Egger	21	-0.72	0.997	0.487	0.069	3.435	0.470
Leucine + Isoleucine + Valine → LUAD	Isoleucine	IVW	21	-0.535	1.176	0.586	0.058	5.871	0.649
Leucine + Isoleucine + Valine → LUAD	Isoleucine	MR Egger	21	-0.747	1.235	0.474	0.042	5.331	0.545
Leucine + Isoleucine + Valine → LUAD	Valine	IVW	21	1.179	0.727	3.251	0.782	13.517	0.105
Leucine + Isoleucine + Valine → LUAD	Valine	MR Egger	21	1.163	0.739	3.200	0.752	13.619	0.115
Leucine + Isoleucine + Valine → LUSC	Leucine	IVW	21	-0.347	0.799	0.707	0.148	3.384	0.664
Leucine + Isoleucine + Valine → LUSC	Leucine	MR Egger	21	-0.439	0.805	0.645	0.133	3.123	0.586
Leucine + Isoleucine + Valine → LUSC	Isoleucine	IVW	21	-0.436	0.922	0.647	0.106	3.940	0.636
Leucine + Isoleucine + Valine → LUSC	Isoleucine	MR Egger	21	-0.649	0.95	0.523	0.081	3.364	0.495
Leucine + Isoleucine + Valine → LUSC	Valine	IVW	21	1.152	0.581	3.165	1.013	9.882	0.048
Leucine + Isoleucine + Valine → LUSC	Valine	MR Egger	21	1.14	0.581	3.127	1.001	9.765	0.050
Leucine + Isoleucine → LUSC	Leucine	IVW	12	-0.049	0.674	0.952	0.254	3.568	0.942

Leucine + Isoleucine → LUSC	Leucine	MR Egger	12	-0.036	0.677	0.965	0.256	3.636	0.957
Leucine + Isoleucine → LUSC	Isoleucine	IVW	12	0.595	0.805	1.813	0.374	8.783	0.460
Leucine + Isoleucine → LUSC	Isoleucine	MR Egger	12	0.674	0.912	1.962	0.328	11.723	0.460
Leucine + Valine → LUSC	Leucine	IVW	17	-0.431	0.643	0.650	0.184	2.292	0.503
Leucine + Valine → LUSC	Leucine	MR Egger	17	-0.535	0.696	0.586	0.150	2.291	0.442
Leucine + Valine → LUSC	Valine	IVW	17	0.971	0.549	2.641	0.900	7.745	0.077
Leucine + Valine → LUSC	Valine	MR Egger	17	0.949	0.552	2.583	0.876	7.621	0.086
Isoleucine + Valine → LUSC	Isoleucine	IVW	17	-0.97	0.775	0.379	0.083	1.732	0.211
Isoleucine + Valine → LUSC	Isoleucine	MR Egger	17	-1.292	0.832	0.275	0.054	1.403	0.120
Isoleucine + Valine → LUSC	Valine	IVW	17	1.181	0.541	3.258	1.128	9.406	0.029
Isoleucine + Valine → LUSC	Valine	MR Egger	17	1.102	0.546	3.010	1.032	8.777	0.044

MVMR, multivariable Mendelian randomization; BCAA, branched-chain amino acids; LUCA, lung cancer; LUAD, lung adenocarcinoma; LUSC, squamous cell lung cancer; IVW, Inverse variance weighted.



**Table S5 Effect estimates (odds ratio, OR) for UVMR analyses**

Exposure	Outcome	Method	No. of SNPs	OR	Lower 95%CI	Upper 95%CI	P value
Leucine	LUCA	MR Egger	10	1.358414	0.695165	2.654464	0.396314
Leucine	LUCA	Weighted median	10	1.323023	0.924326	1.893693	0.126038
Leucine	LUCA	IVW	10	1.241363	0.944734	1.631129	0.120681
Leucine	LUCA	Simple mode	10	0.89226	0.455863	1.746418	0.746973
Leucine	LUCA	Weighted mode	10	1.367276	0.932235	2.005335	0.143864
Leucine	LUAD	MR Egger	9	1.137858	0.367047	3.527395	0.829358
Leucine	LUAD	Weighted median	9	1.21295	0.738582	1.991992	0.445607
Leucine	LUAD	IVW	9	0.978208	0.641485	1.491682	0.918482
Leucine	LUAD	Simple mode	9	1.076602	0.491192	2.359713	0.858324
Leucine	LUAD	Weighted mode	9	1.168378	0.675314	2.021438	0.593164
Leucine	LUSC	MR Egger	10	1.579916	0.572448	4.36046	0.402978
Leucine	LUSC	Weighted median	10	2.067976	1.241198	3.445482	<b>0.005277</b>
Leucine	LUSC	IVW	10	1.924061	1.274072	2.905654	<b>0.00186</b>
Leucine	LUSC	Simple mode	10	2.111278	0.851998	5.231811	0.140973
Leucine	LUSC	Weighted mode	10	2.097622	1.184639	3.714227	<b>0.031647</b>
Isoleucine	LUCA	MR Egger	7	1.224322	0.386649	3.876804	0.744733
Isoleucine	LUCA	Weighted median	7	1.301786	0.871152	1.945294	0.198122
Isoleucine	LUCA	IVW	7	1.32693	0.937103	1.878923	0.110949
Isoleucine	LUCA	Simple mode	7	0.908363	0.465553	1.772351	0.787544
Isoleucine	LUCA	Weighted mode	7	1.332292	0.849649	2.0891	0.257818

Isoleucine	LUAD	MR Egger	6	2.102421	0.365878	12.08099	0.451716
Isoleucine	LUAD	Weighted median	6	1.319081	0.709865	2.451137	0.381022
Isoleucine	LUAD	IVW	6	1.090919	0.659066	1.805743	0.735029
Isoleucine	LUAD	Simple mode	6	1.366255	0.566122	3.297262	0.518443
Isoleucine	LUAD	Weighted mode	6	1.349623	0.686527	2.653185	0.424389
Isoleucine	LUSC	MR Egger	7	1.333874	0.305552	5.822966	0.71736
Isoleucine	LUSC	Weighted median	7	2.401696	1.277644	4.514671	<b>0.006511</b>
Isoleucine	LUSC	IVW	7	1.901773	1.171252	3.087926	<b>0.009344</b>
Isoleucine	LUSC	Simple mode	7	2.607072	0.840301	8.08856	0.148229
Isoleucine	LUSC	Weighted mode	7	2.607072	1.169015	5.814147	0.057717
Valine	LUCA	MR Egger	13	1.1396	0.745048	1.743094	0.558943
Valine	LUCA	Weighted median	13	1.36263	1.015712	1.82804	<b>0.039019</b>
Valine	LUCA	IVW	13	1.324252	1.057976	1.657545	<b>0.014204</b>
Valine	LUCA	Simple mode	13	1.646624	0.962364	2.817407	0.093777
Valine	LUCA	Weighted mode	13	1.388556	1.015797	1.898103	0.06196
Valine	LUAD	MR Egger	12	0.882153	0.439984	1.768688	0.7312
Valine	LUAD	Weighted median	12	1.186083	0.756503	1.859601	0.457003
Valine	LUAD	IVW	12	1.241464	0.876471	1.758453	0.223341
Valine	LUAD	Simple mode	12	1.202262	0.609728	2.370624	0.60546
Valine	LUAD	Weighted mode	12	1.170171	0.749924	1.82592	0.50312
Valine	LUSC	MR Egger	14	1.693869	0.894739	3.206735	0.131534
Valine	LUSC	Weighted median	14	1.837592	1.205683	2.800691	<b>0.004655</b>

Valine	LUSC	IVW	14	1.940488	1.394762	2.699737	<b>8.32E-05</b>
Valine	LUSC	Simple mode	14	1.477067	0.654929	3.331244	0.364342
Valine	LUSC	Weighted mode	14	1.739158	1.117612	2.706368	<b>0.029057</b>
Total BCAA	LUCA	MR Egger	10	1.57299	0.937914	2.638084	0.124303
Total BCAA	LUCA	Weighted median	10	1.335162	0.973369	1.831431	0.073036
Total BCAA	LUCA	IVW	10	1.247604	0.960712	1.62017	0.097043
Total BCAA	LUCA	Simple mode	10	1.403356	0.768974	2.561085	0.298199
Total BCAA	LUCA	Weighted mode	10	1.359639	0.971157	1.903521	0.107152
Total BCAA	LUAD	MR Egger	9	1.265687	0.564498	2.837855	0.585252
Total BCAA	LUAD	Weighted median	9	1.188349	0.742831	1.901071	0.471611
Total BCAA	LUAD	IVW	9	1.112635	0.748754	1.653357	0.597385
Total BCAA	LUAD	Simple mode	9	1.153096	0.517042	2.571611	0.736749
Total BCAA	LUAD	Weighted mode	9	1.173591	0.741407	1.857704	0.513831
Total BCAA	LUSC	MR Egger	9	1.632295	0.714389	3.729605	0.283228
Total BCAA	LUSC	Weighted median	9	1.944951	1.224978	3.088084	<b>0.004798</b>
Total BCAA	LUSC	IVW	9	1.865587	1.266813	2.747379	<b>0.001591</b>
Total BCAA	LUSC	Simple mode	9	2.044148	0.954013	4.379961	0.103217
Total BCAA	LUSC	Weighted mode	9	1.974262	1.228559	3.172587	<b>0.022824</b>
Leucine	Type 2 diabetes	MR Egger	5	1.910609	1.325299	2.754418	<b>0.040372</b>
Leucine	Type 2 diabetes	Weighted median	5	1.332437	1.124291	1.579119	<b>0.000927</b>
Leucine	Type 2 diabetes	IVW	5	1.270339	1.039859	1.551902	<b>0.019147</b>
Leucine	Type 2 diabetes	Simple mode	5	1.286409	0.950553	1.740931	0.178121

Leucine	Type 2 diabetes	Weighted mode	5	1.357491	1.16043	1.588015	<b>0.018789</b>
Leucine	Smoking initiation	MR Egger	9	0.904333	0.797277	1.025764	0.161727
Leucine	Smoking initiation	Weighted median	9	0.982939	0.915254	1.05563	0.636406
Leucine	Smoking initiation	IVW	9	0.997548	0.936837	1.062193	0.938919
Leucine	Smoking initiation	Simple mode	9	1.028416	0.895849	1.180601	0.701071
Leucine	Smoking initiation	Weighted mode	9	0.977846	0.907852	1.053236	0.570695
Isoleucine	Type 2 diabetes	MR Egger	4	2.464858	1.250978	4.856622	0.120993
Isoleucine	Type 2 diabetes	Weighted median	4	1.303869	1.064586	1.596934	<b>0.010317</b>
Isoleucine	Type 2 diabetes	IVW	4	1.272887	0.943836	1.716656	0.113831
Isoleucine	Type 2 diabetes	Simple mode	4	1.167174	0.818952	1.663463	0.455334
Isoleucine	Type 2 diabetes	Weighted mode	4	1.389737	1.151809	1.676814	<b>0.041381</b>
Isoleucine	Smoking initiation	MR Egger	6	0.847909	0.700327	1.026592	0.166097
Isoleucine	Smoking initiation	Weighted median	6	0.952445	0.880718	1.030014	0.222575
Isoleucine	Smoking initiation	IVW	6	0.955549	0.893756	1.021614	0.18251
Isoleucine	Smoking initiation	Simple mode	6	0.966537	0.865885	1.07889	0.570585
Isoleucine	Smoking initiation	Weighted mode	6	0.955855	0.876602	1.042272	0.353477
Valine	Type 2 diabetes	MR Egger	7	1.377141	0.945272	2.006318	0.156423
Valine	Type 2 diabetes	Weighted median	7	1.24055	1.076359	1.429787	<b>0.002922</b>
Valine	Type 2 diabetes	IVW	7	1.260026	1.038857	1.52828	<b>0.018919</b>
Valine	Type 2 diabetes	Simple mode	7	0.877305	0.583843	1.318272	0.551893
Valine	Type 2 diabetes	Weighted mode	7	1.295176	1.112856	1.507366	<b>0.015585</b>
Valine	Smoking initiation	MR Egger	14	0.953141	0.882834	1.029048	0.243142

Valine	Smoking initiation	Weighted median	14	0.9743	0.918212	1.033813	0.389403
Valine	Smoking initiation	IVW	14	0.977849	0.935315	1.022318	0.323537
Valine	Smoking initiation	Simple mode	14	1.033687	0.925984	1.153918	0.565179
Valine	Smoking initiation	Weighted mode	14	0.976267	0.916921	1.039455	0.466235
Total BCAA	Type 2 diabetes	MR Egger	5	1.40064	0.818042	2.398156	0.307007
Total BCAA	Type 2 diabetes	Weighted median	5	1.268128	1.092131	1.472487	<b>0.001833</b>
Total BCAA	Type 2 diabetes	IVW	5	1.278354	0.988892	1.652546	0.06083
Total BCAA	Type 2 diabetes	Simple mode	5	0.923088	0.590513	1.44297	0.743208
Total BCAA	Type 2 diabetes	Weighted mode	5	1.299726	1.1162	1.513427	<b>0.027903</b>
Total BCAA	Smoking initiation	MR Egger	10	0.897982	0.808674	0.997152	0.078867
Total BCAA	Smoking initiation	Weighted median	10	0.978339	0.915486	1.045508	0.518026
Total BCAA	Smoking initiation	IVW	10	0.986296	0.923979	1.052815	0.678589
Total BCAA	Smoking initiation	Simple mode	10	1.03437	0.903749	1.183869	0.635429
Total BCAA	Smoking initiation	Weighted mode	10	0.973151	0.909649	1.041085	0.449555
BMI	LUCA	MR Egger	489	1.129533	0.822898	1.550429	0.451357
BMI	LUCA	Weighted median	489	1.181029	0.979966	1.423346	0.080558
BMI	LUCA	IVW	489	1.233358	1.094007	1.390459	<b>0.000606</b>
BMI	LUCA	Simple mode	489	1.1356	0.623631	2.067867	0.677711
BMI	LUCA	Weighted mode	489	1.109599	0.768712	1.601652	0.578905
BMI	LUAD	MR Egger	489	0.769219	0.479303	1.234497	0.277513
BMI	LUAD	Weighted median	489	0.855848	0.652718	1.122194	0.260148
BMI	LUAD	IVW	489	0.955546	0.798275	1.143801	0.620167

BMI	LUAD	Simple mode	489	1.248591	0.488828	3.189218	0.642831
BMI	LUAD	Weighted mode	489	0.637616	0.369542	1.100158	0.106522
BMI	LUSC	MR Egger	488	1.459702	0.929708	2.291827	0.10096
BMI	LUSC	Weighted median	488	1.669121	1.254889	2.220089	<b>0.000431</b>
BMI	LUSC	IVW	488	1.528094	1.288809	1.811806	<b>1.06E-06</b>
BMI	LUSC	Simple mode	488	0.97646	0.416681	2.288259	0.956299
BMI	LUSC	Weighted mode	488	1.563457	0.88997	2.746604	0.120709
Type 2 diabetes	LUCA	MR Egger	115	0.93875	0.817305	1.078241	0.373101
Type 2 diabetes	LUCA	Weighted median	115	0.923978	0.850629	1.003653	0.060986
Type 2 diabetes	LUCA	IVW	115	1.001185	0.941429	1.064735	0.969908
Type 2 diabetes	LUCA	Simple mode	115	1.017467	0.855044	1.210743	0.845625
Type 2 diabetes	LUCA	Weighted mode	115	0.937529	0.85062	1.033317	0.196333
Type 2 diabetes	LUAD	MR Egger	115	0.925608	0.773763	1.107251	0.399567
Type 2 diabetes	LUAD	Weighted median	115	0.953784	0.816783	1.113764	0.549771
Type 2 diabetes	LUAD	IVW	115	0.964123	0.890851	1.043422	0.364937
Type 2 diabetes	LUAD	Simple mode	115	0.935957	0.703453	1.245307	0.6505
Type 2 diabetes	LUAD	Weighted mode	115	0.942774	0.800319	1.110584	0.482205
Type 2 diabetes	LUSC	MR Egger	115	1.094962	0.872778	1.373708	0.434668
Type 2 diabetes	LUSC	Weighted median	115	1.030367	0.906325	1.171385	0.647598
Type 2 diabetes	LUSC	IVW	115	1.071837	0.970027	1.184333	0.173077
Type 2 diabetes	LUSC	Simple mode	115	1.133589	0.858584	1.496679	0.378298
Type 2 diabetes	LUSC	Weighted mode	115	1.004978	0.861046	1.17297	0.949903

Smoking initiation	LUCA	MR Egger	83	1.618608	0.619441	4.229441	0.32869
Smoking initiation	LUCA	Weighted median	83	1.693044	1.315135	2.179549	<b>4.4E-05</b>
Smoking initiation	LUCA	IVW	83	1.612714	1.342615	1.937148	<b>3.22E-07</b>
Smoking initiation	LUCA	Simple mode	83	1.872699	1.015322	3.454076	<b>0.047862</b>
Smoking initiation	LUCA	Weighted mode	83	1.825248	0.952982	3.4959	0.073218
Smoking initiation	LUAD	MR Egger	83	0.881273	0.203837	3.81012	0.86606
Smoking initiation	LUAD	Weighted median	83	1.328356	0.894428	1.972801	0.159398
Smoking initiation	LUAD	IVW	83	1.481918	1.119813	1.961114	<b>0.00593</b>
Smoking initiation	LUAD	Simple mode	83	1.614247	0.552031	4.720379	0.384286
Smoking initiation	LUAD	Weighted mode	83	1.208328	0.470196	3.105211	0.695359
Smoking initiation	LUSC	MR Egger	83	1.589078	0.351005	7.194116	0.549428
Smoking initiation	LUSC	Weighted median	83	2.009276	1.358975	2.97076	<b>0.00047</b>
Smoking initiation	LUSC	IVW	83	1.756439	1.315197	2.345715	<b>0.000135</b>
Smoking initiation	LUSC	Simple mode	83	3.238287	1.285699	8.156266	<b>0.014671</b>
Smoking initiation	LUSC	Weighted mode	83	2.982587	1.215647	7.317772	<b>0.019315</b>
DrnkWK	LUCA	MR Egger	31	1.595853	1.025392	2.483683	<b>0.047352</b>
DrnkWK	LUCA	Weighted median	31	1.698226	1.112035	2.593419	<b>0.014223</b>
DrnkWK	LUCA	IVW	31	1.521754	1.111602	2.083242	<b>0.008785</b>
DrnkWK	LUCA	Simple mode	31	1.600689	0.590733	4.337333	0.362353
DrnkWK	LUCA	Weighted mode	31	1.660986	1.120672	2.461803	<b>0.016991</b>
DrnkWK	LUAD	MR Egger	31	2.232421	1.216443	4.096948	<b>0.014773</b>
DrnkWK	LUAD	Weighted median	31	2.553365	1.482434	4.397952	<b>0.000727</b>

DrnkWK	LUAD	IVW	31	1.939593	1.241517	3.030181	<b>0.00361</b>
DrnkWK	LUAD	Simple mode	31	0.809148	0.135901	4.817632	0.817606
DrnkWK	LUAD	Weighted mode	31	2.42482	1.430421	4.110505	<b>0.00257</b>
DrnkWK	LUSC	MR Egger	31	1.874418	0.964021	3.644572	0.074233
DrnkWK	LUSC	Weighted median	31	1.744667	0.924119	3.293801	0.086052
DrnkWK	LUSC	IVW	31	1.582375	0.982987	2.547247	0.058844
DrnkWK	LUSC	Simple mode	31	0.649564	0.136197	3.097949	0.592283
DrnkWK	LUSC	Weighted mode	31	1.727871	0.959828	3.110495	0.078236

UVMR, univariable Mendelian randomization; BCAA, branched-chain amino acids; BMI, body mass index; DrnkWK, alcoholic drinks per week; LUCA, lung cancer; LUAD, lung adenocarcinoma; LUSC, squamous cell lung cancer; IVW, Inverse variance weighted.



**Table S6 Effect estimates (BETA) for UVMR analyses**

Exposure	Outcome	Method	No. of SNPs	BETA	Lower 95%CI	Upper 95%CI	P value
Leucine	BMI	MR Egger	3	0.025424	-0.0924	0.143245	0.745275
Leucine	BMI	Weighted median	3	0.059805	0.023141	0.096469	<b>0.001388</b>
Leucine	BMI	IVW	3	0.060381	0.02164	0.099122	<b>0.002252</b>
Leucine	BMI	Simple mode	3	0.058647	-0.01358	0.130872	0.252479
Leucine	BMI	Weighted mode	3	0.05969	0.023313	0.096067	0.084595
Leucine	DrnkWK	MR Egger	9	0.080286	0.011799	0.148774	0.055181
Leucine	DrnkWK	Weighted median	9	0.008938	-0.02917	0.047043	0.645693
Leucine	DrnkWK	IVW	9	-0.02028	-0.0661	0.025548	0.385786
Leucine	DrnkWK	Simple mode	9	-0.01889	-0.09087	0.053084	0.620804
Leucine	DrnkWK	Weighted mode	9	0.007623	-0.02851	0.043761	0.690132
Isoleucine	BMI	MR Egger	3	0.210495	-0.51294	0.933934	0.670047
Isoleucine	BMI	Weighted median	3	0.074295	0.022174	0.126417	<b>0.005208</b>
Isoleucine	BMI	IVW	3	0.011839	-0.17155	0.19523	0.899313
Isoleucine	BMI	Simple mode	3	0.0709	-0.00714	0.148943	0.216934
Isoleucine	BMI	Weighted mode	3	0.077946	0.02865	0.127242	0.090245
Isoleucine	DrnkWK	MR Egger	6	0.09804	-0.0058	0.201884	0.137917
Isoleucine	DrnkWK	Weighted median	6	0.016904	-0.02888	0.062685	0.469233
Isoleucine	DrnkWK	IVW	6	-0.00965	-0.04773	0.028442	0.619624
Isoleucine	DrnkWK	Simple mode	6	0.012114	-0.07018	0.094408	0.78452
Isoleucine	DrnkWK	Weighted mode	6	0.016255	-0.03097	0.063476	0.529814
Valine	BMI	MR Egger	7	0.059034	-0.06696	0.185027	0.40056

Valine	BMI	Weighted median	7	0.040956	0.009515	0.072398	<b>0.010676</b>
Valine	BMI	IVW	7	0.036438	-0.02878	0.101654	0.273464
Valine	BMI	Simple mode	7	-0.02399	-0.14773	0.099739	0.71698
Valine	BMI	Weighted mode	7	0.043065	0.010905	0.075226	<b>0.039344</b>
Valine	DrnkWK	MR Egger	14	0.006899	-0.05161	0.065404	0.821109
Valine	DrnkWK	Weighted median	14	0.007149	-0.02436	0.03866	0.656559
Valine	DrnkWK	IVW	14	-0.00532	-0.03827	0.027639	0.751814
Valine	DrnkWK	Simple mode	14	-0.0182	-0.07434	0.037944	0.536251
Valine	DrnkWK	Weighted mode	14	0.006883	-0.026	0.039768	0.688339
Total BCAA	BMI	MR Egger	5	0.039794	-0.12755	0.207136	0.672907
Total BCAA	BMI	Weighted median	5	0.052649	0.018039	0.08726	<b>0.002868</b>
Total BCAA	BMI	IVW	5	0.05416	-0.02671	0.135033	0.189324
Total BCAA	BMI	Simple mode	5	0.051202	-0.05463	0.157033	0.396695
Total BCAA	BMI	Weighted mode	5	0.055153	0.018399	0.091908	<b>0.042341</b>
Total BCAA	DrnkWK	MR Egger	10	0.038389	-0.02641	0.103186	0.279038
Total BCAA	DrnkWK	Weighted median	10	0.009089	-0.02616	0.044334	0.613234
Total BCAA	DrnkWK	IVW	10	-0.0163	-0.05592	0.023312	0.419895
Total BCAA	DrnkWK	Simple mode	10	0.003866	-0.06193	0.069665	0.910846
Total BCAA	DrnkWK	Weighted mode	10	0.010181	-0.02762	0.04798	0.61031

UVMR, univariable Mendelian randomization; BCAA, branched-chain amino acids; BMI, body mass index; DrnkWK, alcoholic drinks per week; IVW, Inverse variance weighted.

**Table S7 Heterogeneity in the primary UVMR analyses**

Exposure	Outcome	Methods	Cochran's Q statistic	Q degrees of freedom	P value	I <sup>2</sup>
Leucine	LUCA	MR Egger	7.84288	8	0.448967	0
Leucine	LUCA	IVW	7.926228	9	0.541597	0
Leucine	LUAD	MR Egger	4.915069	7	0.670327	0
Leucine	LUAD	IVW	4.994739	8	0.758138	0
Leucine	LUSC	MR Egger	4.54765	8	0.804647	0
Leucine	LUSC	IVW	4.720981	9	0.857921	0
Isoleucine	LUCA	MR Egger	7.033893	5	0.218132	0.289156
Isoleucine	LUCA	IVW	7.063459	6	0.315018	0.150558
Isoleucine	LUAD	MR Egger	2.456275	4	0.652482	0
Isoleucine	LUAD	IVW	3.046097	5	0.692879	0
Isoleucine	LUSC	MR Egger	3.765171	5	0.583696	0
Isoleucine	LUSC	IVW	4.014701	6	0.674687	0
Valine	LUCA	MR Egger	7.71461	11	0.738618	0
Valine	LUCA	IVW	8.37991	12	0.754782	0
Valine	LUAD	MR Egger	4.033896	10	0.945805	0
Valine	LUAD	IVW	5.27045	11	0.917365	0
Valine	LUSC	MR Egger	12.15975	12	0.432937	0.013137
Valine	LUSC	IVW	12.40202	13	0.494985	0
Total BCAA	LUCA	MR Egger	8.409195	8	0.394553	0.04866
Total BCAA	LUCA	IVW	9.49715	9	0.392703	0.052347

Total BCAA	LUAD	MR Egger	4.081383	7	0.770357	0
Total BCAA	LUAD	IVW	4.210278	8	0.83767	0
Total BCAA	LUSC	MR Egger	2.673829	7	0.913449	0
Total BCAA	LUSC	IVW	2.80246	8	0.946136	0
Leucine	Type 2 diabetes	MR Egger	2.04711	3	0.562687	0
Leucine	Type 2 diabetes	IVW	7.709928	4	0.102801	0.481188
Leucine	BMI	MR Egger	1.674245	1	0.195691	0.402716
Leucine	BMI	IVW	2.34386	2	0.309768	0.146707
Leucine	Smoking initiation	MR Egger	6.667131	7	0.464341	0
Leucine	Smoking initiation	IVW	9.603641	8	0.293954	0.166983
Leucine	DrnkWK	MR Egger	6.850987	7	0.444558	0
Leucine	DrnkWK	IVW	17.29663	8	0.027164	0.537482
Isoleucine	Type 2 diabetes	MR Egger	3.226513	2	0.199238	0.380136
Isoleucine	Type 2 diabetes	IVW	9.740209	3	0.020909	0.691998
Isoleucine	BMI	MR Egger	28.55251	1	9.12E-08	0.964977
Isoleucine	BMI	IVW	37.71501	2	6.46E-09	0.946971
Isoleucine	Smoking initiation	MR Egger	0.926355	4	0.92075	0
Isoleucine	Smoking initiation	IVW	2.63582	5	0.755916	0
Isoleucine	DrnkWK	MR Egger	0.791943	4	0.939525	0
Isoleucine	DrnkWK	IVW	5.498825	5	0.358075	0.090715
Valine	Type 2 diabetes	MR Egger	13.53299	5	0.018865	0.630532
Valine	Type 2 diabetes	IVW	14.35875	6	0.025876	0.582136

Valine	BMI	MR Egger	31.77045	5	6.6E-06	0.842621
Valine	BMI	IVW	32.90896	6	1.09E-05	0.817679
Valine	Smoking initiation	MR Egger	9.975307	12	0.618127	0
Valine	Smoking initiation	IVW	10.62149	13	0.642493	0
Valine	DrnkWK	MR Egger	23.64705	12	0.022709	0.492537
Valine	DrnkWK	IVW	24.14466	13	0.029825	0.461579
Total BCAA	Type 2 diabetes	MR Egger	12.99861	3	0.00464	0.769206
Total BCAA	Type 2 diabetes	IVW	13.67412	4	0.008411	0.707477
Total BCAA	BMI	MR Egger	26.67939	3	6.87E-06	0.887554
Total BCAA	BMI	IVW	27.04281	4	1.95E-05	0.852086
Total BCAA	Smoking initiation	MR Egger	8.897475	8	0.351019	0.100869
Total BCAA	Smoking initiation	IVW	13.6826	9	0.134072	0.34223
Total BCAA	DrnkWK	MR Egger	11.56822	8	0.171533	0.30845
Total BCAA	DrnkWK	IVW	17.09903	9	0.047188	0.473654
Type 2 diabetes	LUCA	MR Egger	164.0045	113	0.001231	0.310994
Type 2 diabetes	LUCA	IVW	165.5049	114	0.001169	0.311199
Type 2 diabetes	LUAD	MR Egger	116.3515	113	0.395493	0.028805
Type 2 diabetes	LUAD	IVW	116.6062	114	0.414733	0.02235
Type 2 diabetes	LUSC	MR Egger	185.2274	113	2.16E-05	0.389939
Type 2 diabetes	LUSC	IVW	185.2968	114	2.76E-05	0.384771
BMI	LUCA	MR Egger	578.9983	487	0.002545	0.158892
BMI	LUCA	IVW	579.4094	488	0.002702	0.157763

BMI	LUAD	MR Egger	555.6594	487	0.016774	0.123564
BMI	LUAD	IVW	556.7367	488	0.016762	0.123464
BMI	LUSC	MR Egger	497.653	486	0.347468	0.023416
BMI	LUSC	IVW	497.7003	487	0.358787	0.021499
Smoking initiation	LUCA	MR Egger	100.4279	81	0.070719	0.193451
Smoking initiation	LUCA	IVW	100.4279	82	0.081567	0.183494
Smoking initiation	LUAD	MR Egger	100.0928	81	0.073863	0.190751
Smoking initiation	LUAD	IVW	100.7139	82	0.078666	0.185812
Smoking initiation	LUSC	MR Egger	107.1736	81	0.027415	0.244217
Smoking initiation	LUSC	IVW	107.1968	82	0.032393	0.235052
DrnkWK	LUCA	MR Egger	26.4551	29	0.601078	0
DrnkWK	LUCA	IVW	26.5446	30	0.647068	0
DrnkWK	LUAD	MR Egger	30.36037	29	0.396179	0.044807
DrnkWK	LUAD	IVW	30.83957	30	0.423325	0.027224
DrnkWK	LUSC	MR Egger	25.91559	29	0.629999	0
DrnkWK	LUSC	IVW	26.427	30	0.65317	0

UVMR, univariable Mendelian randomization; BCAA, branched-chain amino acids; BMI, body mass index; DrnkWK, alcoholic drinks per week; LUCA, lung cancer; LUAD, lung adenocarcinoma; LUSC, squamous cell lung cancer; IVW, Inverse variance weighted.

**Table S8 MR Egger intercept test of directional pleiotropy in the primary UVMR analyses**

Exposure	Outcome	Intercept	SE	P value
Leucine	LUCA	-0.00584	0.020232	0.78015
Leucine	LUAD	-0.01016	0.036012	0.785909
Leucine	LUSC	0.01291	0.03101	0.688113
Isoleucine	LUCA	0.004477	0.030879	0.890396
Isoleucine	LUAD	-0.0383	0.049869	0.485316
Isoleucine	LUSC	0.019889	0.039816	0.638607
Valine	LUCA	0.010842	0.013292	0.432003
Valine	LUAD	0.02551	0.022941	0.292155
Valine	LUSC	0.009885	0.020215	0.633678
Total BCAA	LUCA	-0.01545	0.015187	0.338761
Total BCAA	LUAD	-0.00887	0.024715	0.730165
Total BCAA	LUSC	0.009551	0.02663	0.730429
Leucine	Type 2 diabetes	-0.02661	0.01118	0.097647
Leucine	BMI	0.002678	0.004235	0.641001
Leucine	Smoking initiation	0.006256	0.003651	0.130321
Leucine	DrnkWK	-0.00641	0.001983	0.014412
Isoleucine	Type 2 diabetes	-0.03858	0.0192	0.182233
Isoleucine	BMI	-0.0107	0.018885	0.671881
Isoleucine	Smoking initiation	0.00678	0.005185	0.261142
Isoleucine	DrnkWK	-0.0061	0.002813	0.09586

Valine	Type 2 diabetes	-0.00576	0.010427	0.604488
Valine	BMI	-0.00154	0.003647	0.689672
Valine	Smoking initiation	0.001905	0.00237	0.437114
Valine	DrnkWK	-0.00091	0.001808	0.624402
Total BCAA	Type 2 diabetes	-0.00597	0.015111	0.719355
Total BCAA	BMI	0.000984	0.004868	0.852729
Total BCAA	Smoking initiation	0.005973	0.00288	0.071755
Total BCAA	DrnkWK	-0.00349	0.001782	0.086227
Type 2 diabetes	LUAD	0.00332	0.006676	0.619947
Type 2 diabetes	LUCA	0.005257	0.00517	0.31143
Type 2 diabetes	LUSC	-0.00174	0.00846	0.837438
BMI	LUAD	0.003809	0.00392	0.331688
BMI	LUCA	0.001541	0.002621	0.55681
BMI	LUSC	0.000803	0.003735	0.829956
Smoking initiation	LUAD	0.013737	0.019376	0.48038
Smoking initiation	LUCA	-9.6E-05	0.012705	0.993966
Smoking initiation	LUSC	0.002648	0.019991	0.894957
DrnkWK	LUAD	-0.00539	0.007965	0.504047
DrnkWK	LUCA	-0.00161	0.005372	0.766944
DrnkWK	LUSC	-0.00586	0.008189	0.480247

UVMR, univariable Mendelian randomization; BCAA, branched-chain amino acids; BMI, body mass index; DrnkWK, alcoholic drinks per week; LUCA, lung cancer; LUAD, lung adenocarcinoma; LUSC, squamous cell lung cancer; IVW, Inverse variance weighted.



**Table S9 MR Steiger directionality test for the causal direction between circulatory BCAA and LUCA**

Exposure	Outcome	SNP_r2.exposure	SNP_r2.outcome	Correct causal direction	Steiger P value
Leucine	LUCA	0.009152042	0.000370435	TRUE	5.32087E-30
Leucine	LUAD	0.008876606	0.000207988	TRUE	7.54556E-24
Leucine	LUSC	0.009152042	0.000728436	TRUE	4.412E-18
Isoleucine	LUCA	0.006294244	0.000369716	TRUE	3.86751E-19
Isoleucine	LUAD	0.006007296	0.000166622	TRUE	3.85915E-16
Isoleucine	LUSC	0.006294244	0.00054056	TRUE	1.55343E-12
Valine	LUCA	0.013208472	0.000509685	TRUE	3.65661E-43
Valine	LUAD	0.012930987	0.000343169	TRUE	2.41338E-33
Valine	LUSC	0.013473243	0.001196877	TRUE	6.71076E-25
Total BCAA	LUCA	0.010428729	0.000446169	TRUE	1.57251E-33
Total BCAA	LUAD	0.010144914	0.00024263	TRUE	5.92782E-27
Total BCAA	LUSC	0.010147735	0.000640401	TRUE	1.6893E-21

BCAA, branched-chain amino acids; LUCA, lung cancer; LUAD, lung adenocarcinoma; LUSC, squamous cell lung cancer.

**Table S10 Association between dietary BCAA intake and odds of elevated BMI ( $\geq 30$  kg/m<sup>2</sup>) by gender, NHANES III**

Characteristic	Male						Female					
	Model 1			Model 2			Model 1			Model 2		
	OR	95% CI	P value	OR	95% CI	P value	OR	95% CI	P value	OR	95% CI	P value
Leucine (g/d)	1.02	1.0, 1.04	0.120	1.05	1.01, 1.09	0.012	1.01	0.99, 1.04	0.407	1.04	1.00, 1.09	0.033
Isoleucine (g/d)	1.03	1.00–1.07	0.078	1.08	1.02–1.14	0.004	1.02	0.97–1.06	0.461	1.07	1.00–1.15	0.054
Valine (g/d)	1.03	0.99–1.06	0.095	1.08	1.02–1.14	0.006	1.01	0.97–1.05	0.591	1.06	0.99–1.13	0.087
Total BCAA (g/d)	1.01	1.00–1.02	0.100	1.02	1.01–1.04	0.007	1.00	0.99–1.02	0.470	1.02	1.00–1.04	0.049
Total BCAA (quartile)			0.562			0.378			0.037			<0.001
Q1 (6.46±1.87)	–	–		–	–		–	–		–	–	
Q2 (10.94±1.09)	0.90	0.63–1.29		0.92	0.64–1.32		1.03	0.87–1.22		1.17	0.97–1.40	
Q3 (15.21±1.45)	1.02	0.72–1.44		1.04	0.72–1.50		1.25	1.05–1.49		1.50	1.25–1.79	
Q4 (25.07±7.36)	1.10	0.83–1.45		1.26	0.87–1.81		1.10	0.86–1.40		1.45	1.04–2.03	

Model 1: adjusted for age, race, education, marital status, annual household income, smoking, and physical activity; Model 2: including model 1, diabetes, TC, TAG, and calories.

**Table S11 Association between dietary BCAA intake and odds of diabetes by gender, NHANES III**

Characteristic	Male						Female					
	Model 1			Model 3			Model 1			Model 3		
	OR	95% CI	P value	OR	95% CI	P value	OR	95% CI	P value	OR	95% CI	P value
Leucine (g/d)	1.00	0.98–1.03	0.785	1.01	0.96–1.05	0.799	0.99	0.97–1.02	0.492	0.99	0.95–1.03	0.630
Isoleucine (g/d)	1.01	0.96–1.05	0.815	1.01	0.93–1.09	0.835	0.98	0.94–1.02	0.369	0.97	0.91–1.04	0.427
Valine (g/d)	1.00	0.96–1.04	0.841	1.01	0.93–1.08	0.872	0.99	0.95–1.03	0.476	0.98	0.92–1.05	0.606
Total BCAA (g/d)	1.00	0.99–1.01	0.809	1.00	0.98–1.02	0.830	1.00	0.98–1.01	0.452	1.0	0.98–1.01	0.563
Total BCAA (quartile)			0.968			0.963			0.011			0.053
Q1 (6.46±1.87)	—	—		—	—		—	—		—	—	
Q2 (10.94±1.09)	1.04	0.79–1.38		1.06	0.79–1.42		1.00	0.86–1.15		0.99	0.84–1.16	
Q3 (15.21±1.45)	1.06	0.81–1.40		1.07	0.79–1.45		1.12	0.92–1.35		1.08	0.88–1.32	
Q4 (25.07±7.36)	1.08	0.79–1.46		1.11	0.74–1.66		0.80	0.65–0.98		0.75	0.54–1.04	

Model 1: adjusted for age, race, education, marital status, annual household income, smoking, and physical activity; Model 3: including model 1, BMI, TC, TAG, and calories.