

Supplementary Table SI. Overview of the data sources of the exposures and outcome used in the MR Study

Phenotype	GWAS ID	Consortium	Simple Size	Number of SNPs	Population
BWM	ukb-a-267	Neale lab	331,315	10,894,596	European
K/HOA	ebi-a-GCST007092	MRC-IEU	417,596	3, 265,359	European
KOA	ebi-a-GCST007090	MRC-IEU	403,124	29,999,696	European
HOA	ebi-a-GCST007091	MRC-IEU	393,873	29,771,219	European

BWM – Whole body water mass, K/HOA – Total osteoarthritis, KOA – Knee osteoarthritis, HOA – Hip osteoarthritis, GWAS – genome-wide association studies.

Supplementary Table SII. Detailed information of SNPs used in BWM and K/HOA MR analyses

N	SNP	EA	OA	F	beta.exp	se.exp	pval.exp	samplesize.exp	beta.out	se.out	pval.out	samplesize.out	palindromic+ambiguous	non-confounders
1	rs1006399	A	G	11.8588	-0.00848835	0.00154747	4.13E-08	331315	-0.0044	0.0076	0.5622	417596	TRUE	TRUE
2	rs10111935	A	G	58.4159	0.0208	0.00170377	2.86E-34	331315	0.0245	0.0084	0.00353297	417596	TRUE	TRUE
3	rs10203320	C	T	21.1063	0.0120136	0.00164994	3.32E-13	331315	0.0249	0.0081	0.002238	417596	TRUE	TRUE
4	rs1022523	A	G	26.3826	0.014141	0.00172613	2.57E-16	331315	0.0063	0.0085	0.4602	417596	TRUE	TRUE
5	rs10236214	T	C	64.8429	0.0206246	0.00161339	2.07E-37	331315	0.0034	0.008	0.668499	417596	TRUE	TRUE
6	rs10237306	T	G	19.5263	0.0111822	0.0015839	1.67E-12	331315	0.023	0.0078	0.00327997	417596	TRUE	TRUE
7	rs10260993	C	T	15.1095	-0.0120902	0.0019486	5.49E-10	331315	0.0116	0.0096	0.2287	417596	TRUE	TRUE
8	rs1047891	A	C	43.7006	0.0174715	0.0016536	4.34E-26	331315	0.0154	0.0082	0.0585504	417596	TRUE	TRUE
9	rs10746837	A	G	17.7304	-0.010485	0.00156713	2.23E-11	331315	0.0152	0.0077	0.05	417596	TRUE	TRUE
10	rs10770705	C	A	12.2863	-0.00908323	0.00162329	2.20E-08	331315	-0.0176	0.008	0.02828	417596	TRUE	TRUE
11	rs10775348	C	A	25.9641	0.0136843	0.00168557	4.74E-16	331315	0.0392	0.0083	2.57E-06	417596	TRUE	TRUE
12	rs10798945	T	C	17.1680	0.0117756	0.00178304	4.00E-11	331315	-0.0197	0.0088	0.0250398	417596	TRUE	TRUE
13	rs10843139	C	T	23.2250	-0.0129856	0.00168797	1.44E-14	331315	-0.0156	0.0083	0.0625201	417596	TRUE	TRUE
14	rs10931008	C	T	23.3750	-0.012497	0.00162088	1.26E-14	331315	-0.0227	0.008	0.004622	417596	TRUE	TRUE
15	rs10990621	C	A	29.8341	0.0183843	0.00210862	2.83E-18	331315	-0.0042	0.0104	0.6834	417596	TRUE	TRUE
16	rs10995366	A	G	15.5595	-0.011169	0.0017817	3.65E-10	331315	0.0106	0.0088	0.2268	417596	TRUE	TRUE
17	rs11013045	C	T	12.8633	-0.00902416	0.00157765	1.07E-08	331315	-0.0185	0.0078	0.0174799	417596	TRUE	TRUE
18	rs11014285	A	G	29.9965	0.0181022	0.00209589	5.79E-18	331315	0.0102	0.0103	0.3254	417596	TRUE	TRUE
19	rs11060406	T	C	13.7178	-0.0239083	0.0041389	7.63E-09	331315	-0.0237	0.0204	0.2446	417596	TRUE	TRUE
20	rs11071182	C	A	13.2701	0.0133565	0.00230442	6.80E-09	331315	0.0311	0.0114	0.00620098	417596	TRUE	TRUE
21	rs11098675	C	A	25.6171	-0.0158132	0.00195536	6.13E-16	331315	-0.0147	0.0096	0.1273	417596	TRUE	TRUE
22	rs11158820	C	A	14.4705	-0.0100785	0.00167543	1.80E-09	331315	-0.012	0.0083	0.147	417596	TRUE	TRUE
23	rs111632154	C	T	29.6523	-0.0311316	0.00362639	9.14E-18	331315	-0.0096	0.0179	0.5916	417596	TRUE	TRUE
24	rs111901479	A	G	31.1674	0.0241904	0.00271035	4.47E-19	331315	0.0117	0.0134	0.3821	417596	TRUE	TRUE
25	rs11217863	A	G	16.4792	-0.0155812	0.00240263	8.88E-11	331315	0.0101	0.0119	0.3962	417596	TRUE	TRUE
26	rs11245450	A	G	16.2178	-0.0100145	0.00157097	1.84E-10	331315	-0.0154	0.0078	0.0474198	417596	TRUE	TRUE
27	rs112957890	C	A	18.6930	0.0120225	0.00175604	7.59E-12	331315	0.0032	0.0087	0.7086	417596	TRUE	TRUE
28	rs113171806	C	T	11.9734	0.0132527	0.00240373	3.52E-08	331315	-0.019	0.0119	0.11	417596	TRUE	TRUE
29	rs113457986	C	A	15.0453	0.0391814	0.00644817	1.23E-09	331315	-0.0233	0.0318	0.4648	417596	TRUE	TRUE
30	rs114056237	A	G	36.3517	-0.0679815	0.00706285	6.30E-22	331315	-0.0571	0.0348	0.1006	417596	TRUE	TRUE
31	rs11545482	T	C	16.7156	-0.0351562	0.00537378	6.07E-11	331315	-0.0379	0.0268	0.1584	417596	TRUE	TRUE
32	rs11580196	C	A	13.3939	-0.0118976	0.00204192	5.66E-09	331315	0.0017	0.0101	0.8668	417596	TRUE	TRUE
33	rs11594322	C	A	21.7612	-0.0168296	0.00226716	1.15E-13	331315	0.0104	0.0112	0.3533	417596	TRUE	TRUE
34	rs116165844	T	G	14.8233	-0.013733	0.00223287	7.74E-10	331315	-0.0165	0.011	0.134	417596	TRUE	TRUE
35	rs11655578	T	G	12.3137	0.010572	0.00189293	2.34E-08	331315	-0.0032	0.0094	0.7363	417596	TRUE	TRUE
36	rs11658134	A	G	19.6623	-0.0108981	0.00154271	1.62E-12	331315	-0.0046	0.0076	0.544201	417596	TRUE	TRUE
37	rs11717749	T	C	17.1404	0.0159423	0.00240634	3.48E-11	331315	0.0022	0.0119	0.8537	417596	TRUE	TRUE
38	rs117543413	T	C	18.9394	-0.0403387	0.00587993	6.88E-12	331315	-0.0329	0.0292	0.2592	417596	TRUE	TRUE
39	rs11855017	A	C	15.6926	0.0125813	0.00198919	2.54E-10	331315	-0.0126	0.0098	0.1994	417596	TRUE	TRUE

40	rs12072845	A	G	33.3885	-0.0145293	0.00157663	3.12E-20	331315	-0.0045	0.0078	0.5645	417596	TRUE	TRUE
41	rs12073468	T	C	15.2571	0.0114117	0.00182904	4.40E-10	331315	0.0196	0.009	0.0301599	417596	TRUE	TRUE
42	rs12216497	T	C	19.6469	-0.0109751	0.00155374	1.62E-12	331315	0.0028	0.0077	0.7175	417596	TRUE	TRUE
43	rs1228024	A	C	19.6526	-0.0115055	0.00162482	1.43E-12	331315	-0.0369	0.008	4.30E-06	417596	TRUE	TRUE
44	rs12347137	C	A	65.8922	-0.0247555	0.00190967	2.02E-38	331315	-0.0148	0.0094	0.1159	417596	TRUE	TRUE
45	rs12500748	C	A	14.0780	-0.00928223	0.0015498	2.11E-09	331315	0.0086	0.0076	0.2596	417596	TRUE	TRUE
46	rs12619348	T	C	13.3947	-0.0133815	0.00229235	5.30E-09	331315	-0.0112	0.0113	0.3227	417596	TRUE	TRUE
47	rs12643353	C	T	12.5096	-0.0175716	0.00311524	1.70E-08	331315	-0.0257	0.0154	0.0949598	417596	TRUE	TRUE
48	rs12700901	A	C	13.8888	-0.00932185	0.00157306	3.11E-09	331315	0.0029	0.0078	0.7126	417596	TRUE	TRUE
49	rs12713004	G	A	45.6978	0.0186144	0.0017242	3.63E-27	331315	-0.0069	0.0085	0.4213	417596	TRUE	TRUE
50	rs12889702	C	A	13.1247	0.00961834	0.00166552	7.70E-09	331315	0.001	0.0082	0.9034	417596	TRUE	TRUE
51	rs12906197	T	C	25.4742	-0.012543	0.00156524	1.12E-15	331315	-0.004	0.0077	0.6074	417596	TRUE	TRUE
52	rs13294021	A	G	19.9855	-0.0110353	0.00154235	8.39E-13	331315	-0.0041	0.0076	0.5865	417596	TRUE	TRUE
53	rs13430869	T	G	32.0956	0.0160228	0.00177371	1.67E-19	331315	0.0313	0.0087	0.000334603	417596	TRUE	TRUE
54	rs1374370	A	G	19.2086	0.0116666	0.00166749	2.63E-12	331315	0.0046	0.0082	0.5767	417596	TRUE	TRUE
55	rs1376750	T	C	11.8133	0.0121166	0.00220646	3.99E-08	331315	0.0152	0.0109	0.1619	417596	TRUE	TRUE
56	rs139590892	A	G	12.4949	-0.0119235	0.00211414	1.70E-08	331315	0.0201	0.0104	0.0538295	417596	TRUE	TRUE
57	rs1407031	T	C	14.1099	-0.00941992	0.00157451	2.20E-09	331315	-0.0193	0.0078	0.01299	417596	TRUE	TRUE
58	rs1431663	C	A	11.7742	-0.00852468	0.00156159	4.79E-08	331315	0.005	0.0077	0.514301	417596	TRUE	TRUE
59	rs143986132	G	A	14.5270	-0.0341007	0.00591442	8.14E-09	331315	-0.0905	0.0291	0.001893	417596	TRUE	TRUE
60	rs147110934	T	G	16.3384	-0.0323759	0.00501275	1.06E-10	331315	0.0093	0.0248	0.7085	417596	TRUE	TRUE
61	rs149229890	T	G	14.8194	0.0449353	0.00758101	3.08E-09	331315	0.0475	0.0375	0.2047	417596	TRUE	TRUE
62	rs153560	A	G	18.7420	0.0108819	0.00158582	6.80E-12	331315	0.0215	0.0078	0.00590405	417596	TRUE	TRUE
63	rs1542224	C	T	28.2897	0.014574	0.00172049	2.45E-17	331315	0.0107	0.0085	0.2079	417596	TRUE	TRUE
64	rs1591806	G	A	44.0420	0.0163392	0.0015547	7.88E-26	331315	-0.026	0.0077	0.000697301	417596	TRUE	TRUE
65	rs161799	G	A	12.4426	-0.00913195	0.0016323	2.21E-08	331315	-0.0014	0.008	0.8638	417596	TRUE	TRUE
66	rs16869017	T	C	16.8726	0.0180354	0.0027764	8.26E-11	331315	0.0276	0.0137	0.0437996	417596	TRUE	TRUE
67	rs16892552	G	A	26.0210	-0.0145102	0.00177996	3.59E-16	331315	0.006	0.0088	0.4942	417596	TRUE	TRUE
68	rs16942324	A	C	26.6406	-0.0396722	0.00480809	1.57E-16	331315	0.0372	0.0235	0.1139	417596	TRUE	TRUE
69	rs17056859	A	G	12.4076	0.0093044	0.00165509	1.89E-08	331315	0.0062	0.0082	0.4493	417596	TRUE	TRUE
70	rs17197114	C	T	16.5850	0.0130948	0.00202957	1.11E-10	331315	0.0127	0.01	0.2058	417596	TRUE	TRUE
71	rs17363646	G	A	17.2694	0.0149569	0.00225222	3.12E-11	331315	0.012	0.0111	0.278	417596	TRUE	TRUE
72	rs17741497	A	G	15.2751	-0.0101256	0.00164398	7.32E-10	331315	0.0039	0.0081	0.6277	417596	TRUE	TRUE
73	rs1805165	A	C	11.9775	-0.00945047	0.00170732	3.11E-08	331315	-0.0072	0.0084	0.3906	417596	TRUE	TRUE
74	rs1815518	T	C	24.9828	0.0161287	0.00202997	1.94E-15	331315	-0.0048	0.01	0.636	417596	TRUE	TRUE
75	rs183041	A	G	25.3969	0.0138801	0.00172681	9.16E-16	331315	0.0191	0.0085	0.0248199	417596	TRUE	TRUE
76	rs1837367	A	G	13.2364	0.00894219	0.00154682	7.43E-09	331315	0.0064	0.0076	0.4012	417596	TRUE	TRUE
77	rs1881975	G	A	23.1921	-0.01376	0.00179882	2.02E-14	331315	0.0202	0.0089	0.0228902	417596	TRUE	TRUE
78	rs1887855	C	T	12.6940	-0.00991637	0.0017416	1.24E-08	331315	-7.00E-04	0.0086	0.9387	417596	TRUE	TRUE
79	rs1910252	T	C	24.3892	0.0163808	0.00207798	3.20E-15	331315	0.0042	0.0102	0.6829	417596	TRUE	TRUE
80	rs1927635	C	T	15.4548	0.0100959	0.00162544	5.26E-10	331315	0.0132	0.008	0.09941	417596	TRUE	TRUE
81	rs1952527	C	T	22.0777	-0.0123125	0.0016413	6.32E-14	331315	7.00E-04	0.0081	0.9314	417596	TRUE	TRUE
82	rs2073272	A	G	14.2168	-0.00992957	0.00165469	1.96E-09	331315	-0.0068	0.0082	0.4078	417596	TRUE	TRUE
83	rs2118663	C	T	12.7958	-0.0111592	0.00195553	1.15E-08	331315	-0.0082	0.0096	0.3962	417596	TRUE	TRUE

84	rs2134963	A	C	16.1737	-0.0107265	0.00167005	1.34E-10	331315	0.0014	0.0082	0.8617	417596	TRUE	TRUE
85	rs2140046	C	T	27.6895	-0.0134384	0.0015985	4.23E-17	331315	0.0068	0.0079	0.3913	417596	TRUE	TRUE
86	rs2197563	A	G	18.1603	0.0106677	0.0015701	1.09E-11	331315	0.0082	0.0078	0.2908	417596	TRUE	TRUE
87	rs2229840	T	C	41.5255	0.0215606	0.00209492	7.74E-25	331315	0.0445	0.0103	1.72E-05	417596	TRUE	TRUE
88	rs2230033	A	G	29.5770	-0.013477	0.00155033	3.54E-18	331315	0.0019	0.0077	0.8002	417596	TRUE	TRUE
89	rs2230793	G	T	14.0071	0.0117236	0.00195889	2.17E-09	331315	0.0092	0.0097	0.3437	417596	TRUE	TRUE
90	rs2252720	T	C	27.7879	-0.013816	0.00165247	6.25E-17	331315	-0.0029	0.0081	0.7179	417596	TRUE	TRUE
91	rs2265309	C	T	22.4641	-0.0116521	0.00153991	3.84E-14	331315	-0.0059	0.0076	0.4374	417596	TRUE	TRUE
92	rs2274116	T	C	13.7923	-0.0096047	0.00162789	3.64E-09	331315	0.007	0.008	0.3858	417596	TRUE	TRUE
93	rs2280940	T	C	19.3304	0.0116835	0.00168263	3.83E-12	331315	0.0195	0.0083	0.0190801	417596	TRUE	TRUE
94	rs2281175	C	T	20.3409	0.0112834	0.00164824	7.62E-12	331315	0.0276	0.0086	0.001339	417596	TRUE	TRUE
95	rs2296316	C	T	18.9108	-0.0107114	0.00155384	5.45E-12	331315	0.0112	0.0077	0.1448	417596	TRUE	TRUE
96	rs2305758	T	C	13.1635	0.00989563	0.00170337	6.27E-09	331315	0.0064	0.0084	0.4462	417596	TRUE	TRUE
97	rs2346177	A	G	11.7123	0.00841187	0.00153806	4.53E-08	331315	0.0133	0.0076	0.0805694	417596	TRUE	TRUE
98	rs2395792	G	T	32.4641	-0.03397	0.00382897	7.23E-19	331315	0.0088	0.0188	0.6388	417596	TRUE	TRUE
99	rs2396348	T	C	19.7739	0.0118885	0.00167692	1.35E-12	331315	-0.0014	0.0083	0.8684	417596	TRUE	TRUE
100	rs2455561	G	T	25.3814	-0.0124004	0.00154091	8.48E-16	331315	0.009	0.0076	0.2347	417596	TRUE	TRUE
101	rs2457982	A	G	13.8547	0.010207	0.0017354	4.07E-09	331315	0.0068	0.0085	0.4273	417596	TRUE	TRUE
102	rs247008	G	A	33.6993	0.0151627	0.00164507	3.07E-20	331315	-0.0157	0.0081	0.0526999	417596	TRUE	TRUE
103	rs2476998	T	C	12.5433	0.00964888	0.00170613	1.56E-08	331315	-0.0035	0.0084	0.681299	417596	TRUE	TRUE
104	rs2539999	C	T	38.8298	0.016943	0.00170538	2.95E-23	331315	-0.0074	0.0084	0.3792	417596	TRUE	TRUE
105	rs254963	G	A	15.3248	-0.00967402	0.00155833	5.37E-10	331315	-0.0114	0.0077	0.1396	417596	TRUE	TRUE
106	rs2592831	C	T	24.8648	0.0129725	0.00162774	1.60E-15	331315	0.0431	0.008	8.30E-08	417596	TRUE	TRUE
107	rs2602713	C	A	17.2981	0.0103011	0.00156377	4.48E-11	331315	-0.0065	0.0077	0.3973	417596	TRUE	TRUE
108	rs2647239	G	A	48.1801	-0.0172125	0.0015629	3.34E-28	331315	0.0041	0.0077	0.5918	417596	TRUE	TRUE
109	rs2663125	C	T	12.5992	-0.00943152	0.00166362	1.44E-08	331315	0.0068	0.0082	0.4049	417596	TRUE	TRUE
110	rs281385	G	A	13.2439	-0.0137171	0.00236016	6.18E-09	331315	-0.026	0.0117	0.0258399	417596	TRUE	TRUE
111	rs28391281	C	T	15.2436	-0.00962359	0.00154401	4.59E-10	331315	0.0023	0.0076	0.7647	417596	TRUE	TRUE
112	rs284315	G	A	18.0892	-0.0104497	0.00153768	1.08E-11	331315	0.001	0.0076	0.8918	417596	TRUE	TRUE
113	rs28457693	G	A	46.7258	0.0271464	0.00249534	1.47E-27	331315	-0.0375	0.0123	0.00230202	417596	TRUE	TRUE
114	rs2856666	T	G	73.0026	-0.0213674	0.00156589	2.20E-42	331315	-0.0105	0.0077	0.1744	417596	TRUE	TRUE
115	rs28592876	A	G	23.0083	0.0146125	0.00191144	2.10E-14	331315	-0.0353	0.0094	0.000179498	417596	TRUE	TRUE
116	rs2866719	T	C	11.9909	0.00880903	0.001599	3.61E-08	331315	0.0174	0.0079	0.0278202	417596	TRUE	TRUE
117	rs2885697	T	G	59.4971	-0.0200651	0.00162842	7.04E-35	331315	0.0042	0.008	0.5991	417596	TRUE	TRUE
118	rs28929474	T	C	15.4889	0.0341754	0.00544114	3.37E-10	331315	-0.1254	0.0271	3.84E-06	417596	TRUE	TRUE
119	rs2897968	A	G	38.7931	0.0156543	0.00157622	3.06E-23	331315	0.0085	0.0078	0.276	417596	TRUE	TRUE
120	rs2900208	A	C	27.3709	0.0134274	0.00160948	7.29E-17	331315	0.013	0.0079	0.1031	417596	TRUE	TRUE
121	rs292168	G	A	33.2647	-0.014254	0.00155229	4.23E-20	331315	0.0085	0.0077	0.2681	417596	TRUE	TRUE
122	rs299370	C	T	14.3128	-0.0100787	0.00167152	1.64E-09	331315	0.0129	0.0082	0.1187	417596	TRUE	TRUE
123	rs30235	T	C	12.8860	0.00896746	0.00156751	1.06E-08	331315	0.0135	0.0077	0.0808109	417596	TRUE	TRUE
124	rs3099282	G	A	11.8291	-0.0104151	0.00190009	4.22E-08	331315	-0.0012	0.0094	0.9018	417596	TRUE	TRUE
125	rs310302	A	G	12.7000	-0.00887743	0.00156266	1.34E-08	331315	-0.0071	0.0077	0.3587	417596	TRUE	TRUE
126	rs3110496	G	A	12.4827	0.0093671	0.00165851	1.63E-08	331315	0.0117	0.0082	0.1509	417596	TRUE	TRUE
127	rs3116201	A	G	19.0998	-0.0181734	0.00260695	3.15E-12	331315	-0.0261	0.0128	0.0419498	417596	TRUE	TRUE

128	rs324010	A	G	12.2635	-0.0086475	0.00155036	2.44E-08	331315	-0.004	0.0076	0.5995	417596	TRUE	TRUE
129	rs33967909	A	G	25.2730	0.0150482	0.00187545	1.03E-15	331315	-0.0076	0.0093	0.413	417596	TRUE	TRUE
130	rs34028346	A	G	12.0190	0.0121751	0.00221394	3.82E-08	331315	0.0156	0.011	0.1568	417596	TRUE	TRUE
131	rs34060476	G	A	25.6732	0.0182568	0.00225771	6.17E-16	331315	-0.0034	0.0112	0.759	417596	TRUE	TRUE
132	rs343954	C	T	16.6721	0.013271	0.00204735	9.06E-11	331315	0.001	0.0101	0.9239	417596	TRUE	TRUE
133	rs34693680	T	C	13.7878	0.0134122	0.00225933	2.92E-09	331315	0.0103	0.0112	0.3581	417596	TRUE	TRUE
134	rs34776209	T	C	41.4353	-0.0183028	0.00178279	1.01E-24	331315	0.0136	0.0088	0.1221	417596	TRUE	TRUE
135	rs34851615	A	G	12.2053	-0.00897631	0.00160613	2.29E-08	331315	0.007	0.0079	0.3764	417596	TRUE	TRUE
136	rs34879158	C	A	58.3710	-0.0213421	0.00175178	3.89E-34	331315	0.0038	0.0086	0.663599	417596	TRUE	TRUE
137	rs35233301	G	A	17.0776	0.0112632	0.0017054	4.00E-11	331315	0.0068	0.0084	0.4223	417596	TRUE	TRUE
138	rs35276559	T	C	11.7301	-0.00930587	0.00169833	4.27E-08	331315	9.00E-04	0.0084	0.9103	417596	TRUE	TRUE
139	rs35506085	A	G	36.9937	-0.0193812	0.00200976	5.27E-22	331315	-0.0254	0.0099	0.0102601	417596	TRUE	TRUE
140	rs35665085	A	G	12.8019	-0.0190626	0.00333286	1.07E-08	331315	0.0019	0.0165	0.9096	417596	TRUE	TRUE
141	rs35710322	C	T	24.6979	0.0123008	0.00154919	2.03E-15	331315	-0.0138	0.0077	0.0720294	417596	TRUE	TRUE
142	rs35756741	T	C	19.5502	-0.0187868	0.00267242	2.07E-12	331315	0.007	0.0132	0.593999	417596	TRUE	TRUE
143	rs35804313	T	C	14.6538	-0.0114399	0.00188417	1.27E-09	331315	-0.0067	0.0093	0.4703	417596	TRUE	TRUE
144	rs36000545	G	A	34.6591	-0.0148077	0.00159354	1.52E-20	331315	-0.0189	0.0079	0.0160901	417596	TRUE	TRUE
145	rs36100359	A	G	12.3310	-0.0124045	0.00220801	1.93E-08	331315	-0.0068	0.0109	0.5353	417596	TRUE	TRUE
146	rs3738449	A	G	20.1598	-0.0117182	0.00163242	7.06E-13	331315	-0.0344	0.0081	1.94E-05	417596	TRUE	TRUE
147	rs374335	G	A	18.3694	-0.0112987	0.00165624	9.00E-12	331315	-0.0049	0.0082	0.5464	417596	TRUE	TRUE
148	rs3765351	T	C	20.4677	-0.0111529	0.00154244	4.82E-13	331315	0.0163	0.0076	0.0322998	417596	TRUE	TRUE
149	rs3783256	C	T	14.2193	-0.00969916	0.0016154	1.92E-09	331315	-3.00E-04	0.008	0.9704	417596	TRUE	TRUE
150	rs3800963	A	G	13.1690	-0.0090052	0.00155415	6.87E-09	331315	2.00E-04	0.0077	0.974	417596	TRUE	TRUE
151	rs3809570	A	C	21.9333	0.0134113	0.00179815	8.78E-14	331315	-3.00E-04	0.0088	0.972	417596	TRUE	TRUE
152	rs3818416	C	A	30.3220	0.015979	0.00182267	1.85E-18	331315	0.0043	0.009	0.6282	417596	TRUE	TRUE
153	rs3843751	T	C	27.5975	-0.0136704	0.00163008	5.04E-17	331315	-0.0308	0.008	0.0001268	417596	TRUE	TRUE
154	rs4073717	T	G	35.0229	-0.0181421	0.00192006	3.45E-21	331315	-0.0391	0.0095	3.72E-05	417596	TRUE	TRUE
155	rs4076108	T	A	12.8349	0.0102232	0.0017931	1.19E-08	331315	-0.0051	0.0089	0.5652	417596	TRUE	TRUE
156	rs41311445	C	A	33.1068	-0.0238964	0.0026015	4.11E-20	331315	0.02	0.0129	0.1214	417596	TRUE	TRUE
157	rs4282339	A	G	32.5663	-0.0173175	0.00189604	6.67E-20	331315	0.0027	0.0094	0.775001	417596	TRUE	TRUE
158	rs4341996	C	A	13.1618	-0.0109268	0.00189155	7.63E-09	331315	-0.0084	0.0093	0.368	417596	TRUE	TRUE
159	rs4627713	C	T	18.1719	0.0318107	0.00468329	1.10E-11	331315	0.021	0.0232	0.3654	417596	TRUE	TRUE
160	rs4635681	G	A	13.1293	0.0122532	0.00211506	6.91E-09	331315	-0.0076	0.0105	0.4689	417596	TRUE	TRUE
161	rs4752689	A	G	21.0970	0.0114439	0.00155936	2.16E-13	331315	0.0088	0.0077	0.2527	417596	TRUE	TRUE
162	rs475591	C	T	19.2660	0.0109187	0.00155909	2.51E-12	331315	0.0147	0.0077	0.0559899	417596	TRUE	TRUE
163	rs4845852	T	C	30.0242	-0.0153989	0.0017588	2.04E-18	331315	-0.0201	0.0087	0.0209199	417596	TRUE	TRUE
164	rs4951261	C	A	30.5678	0.013888	0.00156975	9.01E-19	331315	-0.0047	0.0078	0.5454	417596	TRUE	TRUE
165	rs4980067	A	C	22.9934	-0.0117815	0.00153901	1.93E-14	331315	-0.007	0.0076	0.3579	417596	TRUE	TRUE
166	rs4980826	A	C	11.7410	0.00861605	0.00157229	4.26E-08	331315	-0.0012	0.0078	0.8766	417596	TRUE	TRUE
167	rs4985148	C	A	17.7710	-0.0112239	0.00166439	1.55E-11	331315	6.00E-04	0.0082	0.9459	417596	TRUE	TRUE
168	rs55681913	C	T	50.1699	0.027963	0.00251109	8.50E-29	331315	0.0097	0.0124	0.4353	417596	TRUE	TRUE
169	rs55758152	A	G	20.2718	0.0117712	0.00165826	1.26E-12	331315	0.0087	0.0082	0.289	417596	TRUE	TRUE
170	rs55831773	T	C	26.8394	-0.0159788	0.0019668	4.52E-16	331315	-0.0127	0.0097	0.1887	417596	TRUE	TRUE
171	rs57126421	G	A	12.7596	-0.0103413	0.00182261	1.40E-08	331315	-0.0289	0.009	0.001274	417596	TRUE	TRUE

172	rs5752989	A	G	16.9910	-0.0102372	0.0015538	4.45E-11	331315	-0.0135	0.0077	0.0777893	417596	TRUE	TRUE
173	rs599004	T	C	27.6181	-0.0143947	0.00171238	4.25E-17	331315	-0.0155	0.0085	0.0667298	417596	TRUE	TRUE
174	rs60077625	A	G	29.2710	0.0142973	0.00165441	5.55E-18	331315	0.0126	0.0082	0.1227	417596	TRUE	TRUE
175	rs6032233	C	T	16.5060	0.0126779	0.00195557	9.01E-11	331315	0.0199	0.0097	0.0390598	417596	TRUE	TRUE
176	rs60804050	A	G	14.0381	-0.0105786	0.00176665	2.13E-09	331315	0.0078	0.0087	0.3692	417596	TRUE	TRUE
177	rs6081869	G	T	16.2187	-0.0101581	0.0015994	2.14E-10	331315	-0.0104	0.0079	0.1881	417596	TRUE	TRUE
178	rs6085659	G	A	14.4737	-0.00952081	0.0015633	1.13E-09	331315	0.0079	0.0077	0.3035	417596	TRUE	TRUE
179	rs61729527	T	C	20.2853	-0.0251117	0.00349498	6.73E-13	331315	0.0283	0.0172	0.1003	417596	TRUE	TRUE
180	rs61862463	G	A	12.8924	0.0290963	0.00516773	1.80E-08	331315	0.0044	0.0254	0.8619	417596	TRUE	TRUE
181	rs62070645	A	C	74.3535	-0.0238885	0.00173292	3.22E-43	331315	-0.0276	0.0086	0.00128401	417596	TRUE	TRUE
182	rs62275882	A	G	15.6930	-0.0140022	0.00221596	2.64E-10	331315	-0.0098	0.0109	0.3696	417596	TRUE	TRUE
183	rs62515437	T	G	47.8638	0.0203257	0.00183796	2.01E-28	331315	6.00E-04	0.0091	0.9445	417596	TRUE	TRUE
184	rs62621812	A	G	33.3965	0.0493727	0.0055704	7.80E-19	331315	0.006	0.0275	0.8264	417596	TRUE	TRUE
185	rs662115	T	C	15.6803	0.00978267	0.00155082	2.83E-10	331315	0.0174	0.0077	0.0234601	417596	TRUE	TRUE
186	rs67551338	T	C	24.6665	0.0253903	0.0032343	4.16E-15	331315	0.012	0.016	0.4515	417596	TRUE	TRUE
187	rs6762578	A	G	30.3493	0.0162886	0.00185869	1.90E-18	331315	-0.0153	0.0092	0.0946804	417596	TRUE	TRUE
188	rs6821305	C	A	24.1386	0.0123344	0.00157208	4.31E-15	331315	0.0077	0.0078	0.3208	417596	TRUE	TRUE
189	rs6873192	G	A	24.9236	-0.0122729	0.00154125	1.69E-15	331315	-0.0091	0.0076	0.2317	417596	TRUE	TRUE
190	rs6874142	G	T	26.6388	0.0201449	0.0025518	2.93E-15	331315	0.0278	0.0126	0.0276503	417596	TRUE	TRUE
191	rs6975015	A	G	22.1973	0.0179897	0.00239876	6.42E-14	331315	-0.017	0.0118	0.1503	417596	TRUE	TRUE
192	rs6995599	T	C	51.8372	-0.019177	0.00166833	1.42E-30	331315	2.00E-04	0.0082	0.9803	417596	TRUE	TRUE
193	rs7077783	T	C	18.2527	-0.0149542	0.00219516	9.62E-12	331315	-0.0103	0.0108	0.3409	417596	TRUE	TRUE
194	rs7129320	A	G	51.2853	-0.0235202	0.00205608	2.69E-30	331315	-0.0179	0.0102	0.0790096	417596	TRUE	TRUE
195	rs7134283	A	G	20.6055	-0.0123681	0.00171091	4.88E-13	331315	0.0024	0.0084	0.773101	417596	TRUE	TRUE
196	rs71373536	A	G	33.0259	-0.0162291	0.0017703	4.87E-20	331315	0.0222	0.0087	0.0110999	417596	TRUE	TRUE
197	rs71393968	A	G	19.4803	0.0260154	0.00369115	1.82E-12	331315	0.0093	0.0185	0.6127	417596	TRUE	TRUE
198	rs71414738	T	C	12.9271	0.0115849	0.00201733	9.33E-09	331315	-9.00E-04	0.01	0.928	417596	TRUE	TRUE
199	rs7205337	G	A	27.1716	0.0158347	0.00190613	9.83E-17	331315	-0.0018	0.0094	0.8489	417596	TRUE	TRUE
200	rs7229351	A	G	17.1622	-0.0105462	0.00159231	3.52E-11	331315	-0.0102	0.0079	0.197	417596	TRUE	TRUE
201	rs723149	G	A	26.7831	-0.0128193	0.00155076	1.38E-16	331315	0.0027	0.0077	0.7289	417596	TRUE	TRUE
202	rs7250927	C	T	17.3401	-0.0107125	0.00161966	3.75E-11	331315	-0.0039	0.008	0.6264	417596	TRUE	TRUE
203	rs72656010	C	T	94.8889	-0.0354813	0.00228572	2.53E-54	331315	-0.0132	0.0113	0.2425	417596	TRUE	TRUE
204	rs72675793	T	C	13.8486	-0.0112115	0.00188624	2.79E-09	331315	-0.0119	0.0093	0.2	417596	TRUE	TRUE
205	rs72828807	A	G	13.0170	0.0099192	0.00172541	8.99E-09	331315	0.0158	0.0085	0.0634995	417596	TRUE	TRUE
206	rs72885917	C	A	62.5547	-0.0224054	0.00177205	1.23E-36	331315	0.001	0.0088	0.9071	417596	TRUE	TRUE
207	rs7305516	G	A	18.9157	-0.0106859	0.00154824	5.14E-12	331315	0.0045	0.0076	0.5596	417596	TRUE	TRUE
208	rs73619441	G	T	21.7731	-0.0164832	0.00221597	1.02E-13	331315	-0.0065	0.011	0.555801	417596	TRUE	TRUE
209	rs74048171	A	C	12.8025	-0.0100494	0.00175997	1.13E-08	331315	-0.0015	0.0087	0.8601	417596	TRUE	TRUE
210	rs74494415	T	C	23.2421	-0.0301577	0.00394717	2.17E-14	331315	-0.0369	0.0195	0.0577604	417596	TRUE	TRUE
211	rs74565893	T	C	12.1991	-0.0407803	0.00732004	2.53E-08	331315	-0.0036	0.0352	0.9189	417596	TRUE	TRUE
212	rs7628343	C	T	13.5317	0.0154738	0.00263489	4.29E-09	331315	0.0196	0.013	0.1312	417596	TRUE	TRUE
213	rs76513770	C	T	22.7575	-0.0174781	0.002295	2.63E-14	331315	-0.0231	0.0114	0.0436898	417596	TRUE	TRUE
214	rs7728690	T	C	19.3639	-0.0111135	0.00157966	1.99E-12	331315	-0.0214	0.0078	0.00612999	417596	TRUE	TRUE
215	rs7731023	G	A	15.1552	0.00967784	0.0015554	4.91E-10	331315	-0.014	0.0077	0.0690701	417596	TRUE	TRUE

216	rs7781964	A	G	18.3275	0.0135631	0.00198647	8.64E-12	331315	0.0129	0.0098	0.1882	417596	TRUE	TRUE
217	rs78378222	G	T	65.8953	0.0894865	0.00700475	2.30E-37	331315	-0.0128	0.0347	0.712901	417596	TRUE	TRUE
218	rs78964719	T	G	12.3410	0.016706	0.00297805	2.03E-08	331315	-0.009	0.0146	0.538	417596	TRUE	TRUE
219	rs7910087	C	T	24.1747	-0.0121466	0.00155589	5.88E-15	331315	-0.0113	0.0077	0.1409	417596	TRUE	TRUE
220	rs7977788	A	G	79.3307	0.0262057	0.00184142	6.05E-46	331315	0.0224	0.0091	0.0138599	417596	TRUE	TRUE
221	rs79883557	T	C	15.8998	-0.0179512	0.00282156	1.99E-10	331315	-0.0348	0.0139	0.0121899	417596	TRUE	TRUE
222	rs7994814	T	C	20.2526	0.0111984	0.00157722	1.25E-12	331315	0.0205	0.0078	0.00845999	417596	TRUE	TRUE
223	rs8007058	A	G	11.9582	0.0101722	0.00184333	3.42E-08	331315	0.0209	0.0091	0.0215501	417596	TRUE	TRUE
224	rs8007644	A	G	13.8751	0.00937902	0.00158957	3.63E-09	331315	0.0095	0.0078	0.2255	417596	TRUE	TRUE
225	rs8059189	A	G	20.4932	-0.0113465	0.0016098	1.81E-12	331315	-0.0125	0.0079	0.115	417596	TRUE	TRUE
226	rs836519	T	C	15.2899	0.0121006	0.00193754	4.23E-10	331315	0.0122	0.0096	0.2034	417596	TRUE	TRUE
227	rs9314420	G	A	12.9600	-0.00894176	0.00155832	9.58E-09	331315	0.0074	0.0077	0.3373	417596	TRUE	TRUE
228	rs931874	T	C	13.8509	0.00942687	0.00160064	3.88E-09	331315	0.0057	0.0079	0.4678	417596	TRUE	TRUE
229	rs9327336	C	T	14.6150	0.0098783	0.00161768	1.02E-09	331315	0.0167	0.008	0.0369803	417596	TRUE	TRUE
230	rs9341808	A	C	28.2964	-0.0130793	0.00154384	2.42E-17	331315	0.0177	0.0076	0.0204	417596	TRUE	TRUE
231	rs9379084	A	G	15.4264	-0.0150024	0.00248339	1.53E-09	331315	-0.0171	0.0122	0.1606	417596	TRUE	TRUE
232	rs9380508	T	C	18.9471	0.0128668	0.00185591	4.13E-12	331315	-0.0383	0.0091	2.82E-05	417596	TRUE	TRUE
233	rs9449197	C	T	16.3632	-0.0101045	0.00156691	1.13E-10	331315	0.0087	0.0077	0.2577	417596	TRUE	TRUE
234	rs9512661	T	C	13.0474	-0.00887726	0.00155013	1.02E-08	331315	-7.00E-04	0.0077	0.9272	417596	TRUE	TRUE
235	rs9915532	G	A	24.8966	-0.016281	0.00204075	1.49E-15	331315	0.0031	0.0101	0.760599	417596	TRUE	TRUE
236	rs9925273	G	A	16.4976	-0.0128818	0.0019897	9.54E-11	331315	0.0018	0.0099	0.853	417596	TRUE	TRUE
237	rs9960148	T	G	12.6933	-0.00895994	0.00157669	1.33E-08	331315	-0.011	0.0078	0.1596	417596	TRUE	TRUE
238	rs9960619	T	C	12.2529	0.00904846	0.00161874	2.27E-08	331315	0.0065	0.008	0.4178	417596	TRUE	TRUE
239	rs9985795	C	T	13.6789	-0.00909336	0.00154348	3.83E-09	331315	-0.0165	0.0076	0.03059	417596	TRUE	TRUE
240	rs10024321	C	G	-	-0.00954669	0.00153873	5.50161E-10	331315	-0.0143	0.0076	0.0609102	417596	FALSE	TRUE
241	rs10094200	G	C	-	-0.0129361	0.00168827	1.83105E-14	331315	0.0145	0.0084	0.0821297	417596	FALSE	TRUE
242	rs10104303	A	T	-	0.00951898	0.00155325	8.88464E-10	331315	0.0411	0.0077	8.68001E-08	417596	FALSE	TRUE
243	rs10170971	C	G	-	-0.00945659	0.00154533	9.3994E-10	331315	-0.0134	0.0076	0.0796599	417596	FALSE	TRUE
244	rs1043413	G	C	-	0.0092768	0.00157565	3.92229E-09	331315	0.0144	0.0078	0.0646994	417596	FALSE	TRUE
245	rs10767735	C	G	-	-0.0094908	0.00157642	1.74096E-09	331315	-0.0272	0.0078	0.000489103	417596	FALSE	TRUE
246	rs10883560	G	C	-	0.0180905	0.00155515	2.85E-31	331315	0.0053	0.0077	0.4899	417596	FALSE	TRUE
247	rs10958683	G	C	-	-0.0102312	0.00182152	1.94617E-08	331315	-0.0003	0.009	0.972	417596	FALSE	TRUE
248	rs10982888	A	T	-	-0.0160784	0.00245593	5.88844E-11	331315	-0.0048	0.0121	0.6887	417596	FALSE	TRUE
249	rs1111818	C	G	-	0.009505	0.00159696	2.65289E-09	331315	0.0032	0.0079	0.6886	417596	FALSE	TRUE
250	rs111640872	C	G	-	0.0150985	0.00163829	3.10E-20	331315	0.0126	0.0081	0.1186	417596	FALSE	TRUE
251	rs111964059	A	T	-	0.0155878	0.00276875	1.80439E-08	331315	0.0112	0.0137	0.4152	417596	FALSE	TRUE
252	rs11233117	G	C	-	-0.00932836	0.0015461	1.60646E-09	331315	-0.009	0.0076	0.2384	417596	FALSE	TRUE
253	rs115574684	A	T	-	0.0221987	0.00399546	2.76255E-08	331315	0.0259	0.0196	0.1863	417596	FALSE	TRUE
254	rs116072427	C	G	-	-0.0241349	0.00300296	9.23E-16	331315	0.0375	0.0148	0.01153	417596	FALSE	TRUE
255	rs11667280	G	C	-	-0.0112003	0.00191244	4.73086E-09	331315	-0.0207	0.0094	0.0286398	417596	FALSE	TRUE
256	rs11678716	C	G	-	-0.0214599	0.00304844	1.93152E-12	331315	0.059	0.0151	9.25998E-05	417596	FALSE	TRUE
257	rs12448561	C	G	-	0.00996439	0.00156296	1.83E-10	331315	-0.0055	0.0077	0.4795	417596	FALSE	TRUE
258	rs12452505	G	C	-	-0.0187585	0.00222043	2.97E-17	331315	-0.0011	0.0109	0.9181	417596	FALSE	TRUE
259	rs13264909	T	A	-	-0.0102317	0.00155581	4.83E-11	331315	-0.0193	0.0077	0.01181	417596	FALSE	TRUE

260	rs141403611	G	C	-	-0.0145164	0.00261367	2.79E-08	331315	-0.0117	0.0129	0.3651	417596	FALSE	TRUE
261	rs1478575	A	T	-	0.0200223	0.00165766	1.39E-33	331315	0.0141	0.0082	0.0848907	417596	FALSE	TRUE
262	rs1573891	C	G	-	-0.022984	0.00213016	3.89E-27	331315	0.0197	0.0105	0.0612407	417596	FALSE	TRUE
263	rs17454369	C	G	-	0.0224029	0.0033445	2.11E-11	331315	0.0094	0.0166	0.5689	417596	FALSE	TRUE
264	rs2270894	G	C	-	-0.01643	0.00197771	9.80E-17	331315	-0.0071	0.0097	0.463	417596	FALSE	TRUE
265	rs2296505	C	G	-	0.00965919	0.00166316	6.34E-09	331315	0.0071	0.0082	0.3872	417596	FALSE	TRUE
266	rs252758	A	T	-	-0.0168645	0.00178314	3.17E-21	331315	-0.0168	0.0088	0.0560106	417596	FALSE	TRUE
267	rs252937	G	C	-	-0.00951262	0.0016556	9.16E-09	331315	-0.0142	0.0082	0.0811204	417596	FALSE	TRUE
268	rs2812208	C	G	-	0.0758365	0.00531898	4.14E-46	331315	-0.0147	0.0264	0.5784	417596	FALSE	TRUE
269	rs2968669	G	C	-	0.00934637	0.00154674	1.52E-09	331315	0.0012	0.0076	0.8739	417596	FALSE	TRUE
270	rs3212260	T	A	-	0.0134153	0.00175643	2.22E-14	331315	0.0062	0.0087	0.4741	417596	FALSE	TRUE
271	rs3749387	T	C	-	0.0130495	0.00156232	6.70E-17	331315	0.026	0.0077	0.000732993	417596	FALSE	TRUE
272	rs3771382	T	C	-	0.0130495	0.00156232	6.70E-17	331315	-0.152	0.1598	0.3414	417596	FALSE	TRUE
273	rs4076108	T	A	-	0.0102232	0.0017931	1.19E-08	331315	-0.0051	0.0089	0.5652	417596	FALSE	TRUE
274	rs4865956	C	G	-	0.0185571	0.00169714	7.99E-28	331315	0.0145	0.0084	0.0848594	417596	FALSE	TRUE
275	rs490683	A	T	-	-0.0109322	0.0016779	7.26E-11	331315	0.0043	0.0083	0.6046	417596	FALSE	TRUE
276	rs545608	C	G	-	0.0263681	0.00189369	4.65E-44	331315	0.031	0.0094	0.00092809	417596	FALSE	TRUE
277	rs58857770	G	C	-	-0.0120727	0.00157337	1.68E-14	331315	-0.0139	0.0078	0.0733196	417596	FALSE	TRUE
278	rs607472	G	C	-	0.0117579	0.0015636	5.50E-14	331315	0.0036	0.0077	0.6407	417596	FALSE	TRUE
279	rs61941043	T	A	-	0.0489423	0.00795625	7.69E-10	331315	0.0563	0.039	0.1488	417596	FALSE	TRUE
280	rs6235	G	C	-	0.0160082	0.00173607	2.96E-20	331315	0.041	0.0086	1.69E-06	417596	FALSE	TRUE
281	rs6505781	C	G	-	-0.00972453	0.00176019	3.30E-08	331315	5.00E-04	0.0087	0.9533	417596	FALSE	TRUE
282	rs667515	C	G	-	-0.0102005	0.00158384	1.19E-10	331315	-0.0104	0.0078	0.1855	417596	FALSE	TRUE
283	rs7148516	A	T	-	-0.00929853	0.00167174	2.67E-08	331315	-0.0181	0.0083	0.0282202	417596	FALSE	TRUE
284	rs72801843	A	T	-	0.016132	0.00167432	5.73E-22	331315	-0.0206	0.0083	0.0126999	417596	FALSE	TRUE
285	rs730536	C	G	-	-0.00937864	0.00170164	3.56E-08	331315	-0.0087	0.0084	0.3007	417596	FALSE	TRUE
286	rs75570992	C	G	-	0.016804	0.00303844	3.20E-08	331315	-0.0014	0.015	0.9262	417596	FALSE	TRUE
287	rs7624428	A	T	-	0.010614	0.00174326	1.14E-09	331315	0.0194	0.0086	0.0239199	417596	FALSE	TRUE
288	rs7652177	G	C	-	0.0150354	0.00153728	1.37E-22	331315	-0.0013	0.0076	0.8647	417596	FALSE	TRUE
289	rs7709645	C	G	-	-0.0107378	0.00153866	2.98E-12	331315	-0.0074	0.0076	0.3276	417596	FALSE	TRUE
290	rs7740107	A	T	-	-0.0287685	0.00174108	2.64E-61	331315	-0.0045	0.0086	0.597901	417596	FALSE	TRUE
291	rs7814495	C	G	-	0.0128042	0.00225355	1.33E-08	331315	0.0252	0.0111	0.0233201	417596	FALSE	TRUE
292	rs78812993	C	G	-	-0.022563	0.00349726	1.11E-10	331315	-0.025	0.0173	0.1481	417596	FALSE	TRUE
293	rs8123912	C	G	-	0.011373	0.00185224	8.26E-10	331315	0.0107	0.0092	0.244	417596	FALSE	TRUE
294	rs933807	C	G	-	-0.0106982	0.00154403	4.25E-12	331315	0.0035	0.0076	0.6442	417596	FALSE	TRUE
295	rs9379130	C	G	-	0.0184877	0.00154704	6.57E-33	331315	-0.0212	0.0076	0.00556096	417596	FALSE	TRUE
296	rs9381350	A	T	-	0.0096487	0.0016228	2.76E-09	331315	-0.0314	0.008	9.16E-05	417596	FALSE	TRUE
297	rs946197	C	G	-	0.0156371	0.00183355	1.49E-17	331315	-0.0086	0.009	0.3406	417596	FALSE	TRUE
298	rs9480947	G	C	-	-0.0144859	0.00156424	2.04E-20	331315	0.0134	0.0077	0.0826304	417596	FALSE	TRUE
299	rs981002	A	T	-	-0.0111814	0.0017396	1.30E-10	331315	-7.00E-04	0.0086	0.9382	417596	FALSE	TRUE
300	rs3740591	T	C	-	0.0130495	0.0077	0.000732993	331315	0.026	0.00156232	6.70E-17	417596	FALSE	TRUE
301	rs10485622	G	A	-	-0.0186356	0.00194495	9.62E-22	331315	-0.0216	0.0096	0.0244	417596	TRUE	FALSE
302	rs1064213	A	G	-	0.0115614	0.00153996	6.04E-14	331315	0.0192	0.0076	0.0116201	417596	TRUE	FALSE
303	rs10748128	T	G	-	0.0114874	0.00161805	1.25E-12	331315	0.0297	0.008	0.0002044	417596	TRUE	FALSE

304	rs10938398	A	G	-	0.0113743	0.00155668	2.74E-13	331315	0.0097	0.0077	0.2056	417596	TRUE	FALSE
305	rs11030119	A	G	-	0.0168607	0.00166541	4.36E-24	331315	0.0195	0.0082	0.0179399	417596	TRUE	FALSE
306	rs11065979	T	C	-	-0.0151051	0.00155368	2.44E-22	331315	0.0047	0.0077	0.5389	417596	TRUE	FALSE
307	rs11205617	A	G	-	0.0105812	0.00164858	1.38E-10	331315	-0.007	0.0081	0.393	417596	TRUE	FALSE
308	rs11613961	C	T	-	0.0156846	0.00273705	1.00E-08	331315	-0.0135	0.0135	0.3196	417596	TRUE	FALSE
309	rs11689727	A	C	-	-0.0113124	0.00163517	4.58E-12	331315	-0.0189	0.0081	0.0189601	417596	TRUE	FALSE
310	rs11803905	T	C	-	0.0101829	0.0017273	3.74E-09	331315	0.0086	0.0085	0.3154	417596	TRUE	FALSE
311	rs11880992	A	G	-	0.014673	0.00156502	6.92E-21	331315	0.0029	0.0077	0.7042	417596	TRUE	FALSE
312	rs11951673	T	C	-	-0.00881874	0.00157129	2.00E-08	331315	-0.0035	0.0078	0.651199	417596	TRUE	FALSE
313	rs12140153	T	G	-	-0.0163781	0.00266774	8.30E-10	331315	-0.0363	0.0133	0.006221	417596	TRUE	FALSE
314	rs12209223	A	C	-	0.0175154	0.0025496	6.44E-12	331315	0.0527	0.0126	2.77E-05	417596	TRUE	FALSE
315	rs12375196	A	C	-	0.00853923	0.00156379	4.75E-08	331315	0.0111	0.0077	0.1505	417596	TRUE	FALSE
316	rs1260326	C	T	-	0.021322	0.00157247	7.14E-42	331315	0.0244	0.0078	0.00171199	417596	TRUE	FALSE
317	rs12682601	A	C	-	-0.0109551	0.0016539	3.51E-11	331315	-0.0051	0.0082	0.5295	417596	TRUE	FALSE
318	rs12813149	A	G	-	-0.00978579	0.00179313	4.84E-08	331315	0.0205	0.0089	0.02088	417596	TRUE	FALSE
319	rs1286138	G	T	-	0.0112964	0.0016415	5.92E-12	331315	0.011	0.0081	0.176	417596	TRUE	FALSE
320	rs12879423	G	A	-	0.0149981	0.00165869	1.54E-19	331315	0.0267	0.0082	0.00111099	417596	TRUE	FALSE
321	rs13124829	G	A	-	0.00908827	0.00165201	3.77E-08	331315	0.0106	0.0082	0.1938	417596	TRUE	FALSE
322	rs13247154	A	G	-	0.0120602	0.00159811	4.48E-14	331315	0.0073	0.0079	0.3536	417596	TRUE	FALSE
323	rs1351394	C	T	-	-0.0270405	0.00153924	4.70E-69	331315	-0.0143	0.0076	0.0593294	417596	TRUE	FALSE
324	rs1412234	C	T	-	0.0107522	0.00164135	5.73E-11	331315	0.0143	0.0081	0.0785995	417596	TRUE	FALSE
325	rs143384	G	A	-	0.0374839	0.00156539	1.32E-126	331315	-0.0634	0.0077	2.42E-16	417596	TRUE	FALSE
326	rs1472852	A	C	-	-0.0323174	0.00211587	1.19E-52	331315	0.0205	0.0105	0.0494595	417596	TRUE	FALSE
327	rs1521624	A	C	-	-0.0092871	0.00154768	1.97E-09	331315	-0.0079	0.0076	0.3031	417596	TRUE	FALSE
328	rs1582931	A	G	-	-0.0204767	0.00155262	1.05E-39	331315	0.0084	0.0077	0.2716	417596	TRUE	FALSE
329	rs1765133	T	C	-	-0.0109715	0.001833	2.16E-09	331315	-0.0144	0.0091	0.1128	417596	TRUE	FALSE
330	rs1878528	G	A	-	0.0126383	0.00166275	2.95E-14	331315	0.0257	0.0082	0.00178	417596	TRUE	FALSE
331	rs1941697	A	G	-	0.00851379	0.00154385	3.50E-08	331315	0.0108	0.0076	0.1567	417596	TRUE	FALSE
332	rs197372	C	T	-	0.0101254	0.00166279	1.13E-09	331315	0.0095	0.0082	0.2458	417596	TRUE	FALSE
333	rs204993	G	A	-	0.0148641	0.00164755	1.86E-19	331315	0.0167	0.0082	0.0410299	417596	TRUE	FALSE
334	rs216193	G	A	-	-0.00924644	0.00158481	5.40E-09	331315	-0.036	0.0078	4.12E-06	417596	TRUE	FALSE
335	rs2282231	T	C	-	0.0147697	0.00188649	4.92E-15	331315	0.0212	0.0093	0.0230001	417596	TRUE	FALSE
336	rs2307111	C	T	-	-0.0182283	0.00157618	6.30E-31	331315	-0.0125	0.0078	0.1069	417596	TRUE	FALSE
337	rs2411453	G	T	-	-0.0123217	0.00156941	4.14E-15	331315	-0.0081	0.0078	0.2981	417596	TRUE	FALSE
338	rs2540034	T	C	-	0.0147276	0.00157944	1.12E-20	331315	0.0058	0.0078	0.4533	417596	TRUE	FALSE
339	rs2678204	G	T	-	0.0123815	0.00162327	2.40E-14	331315	0.0111	0.008	0.1675	417596	TRUE	FALSE
340	rs2733287	C	A	-	0.00924327	0.00153994	1.95E-09	331315	-0.0178	0.0076	0.0190401	417596	TRUE	FALSE
341	rs2744965	T	C	-	0.0389837	0.00221792	3.99E-69	331315	0.0167	0.0109	0.1266	417596	TRUE	FALSE
342	rs2815753	A	G	-	0.00974532	0.00156844	5.19E-10	331315	0.0172	0.0078	0.0267602	417596	TRUE	FALSE
343	rs3118914	T	G	-	-0.0315989	0.00186554	2.50E-64	331315	-0.0218	0.0092	0.0179602	417596	TRUE	FALSE
344	rs34517439	A	C	-	0.0357399	0.00235836	7.36E-52	331315	0.0248	0.0117	0.0336001	417596	TRUE	FALSE
345	rs357501	A	G	-	0.0106497	0.00159473	2.42E-11	331315	0.0164	0.0079	0.0370903	417596	TRUE	FALSE
346	rs3759094	T	C	-	-0.0125754	0.00162844	1.15E-14	331315	-0.0062	0.008	0.4434	417596	TRUE	FALSE
347	rs3778157	C	T	-	0.0123553	0.00204975	1.66E-09	331315	0.0059	0.0101	0.5634	417596	TRUE	FALSE

348	rs3798519	C	A	-	0.0210874	0.00201244	1.09E-25	331315	0.0218	0.0099	0.0276401	417596	TRUE	FALSE
349	rs3803286	G	A	-	-0.00955458	0.00162946	4.53E-09	331315	-0.0152	0.008	0.0591194	417596	TRUE	FALSE
350	rs3810291	A	G	-	0.0171036	0.00164423	2.44E-25	331315	0.0215	0.0081	0.00803304	417596	TRUE	FALSE
351	rs3814877	T	G	-	0.0235538	0.00156738	5.04E-51	331315	0.0221	0.0078	0.00441205	417596	TRUE	FALSE
352	rs3845344	T	C	-	0.00904904	0.00157462	9.10E-09	331315	0.0172	0.0078	0.02688	417596	TRUE	FALSE
353	rs42044	G	T	-	0.0281779	0.00173298	2.01E-59	331315	0.0217	0.0085	0.01126	417596	TRUE	FALSE
354	rs4235012	C	T	-	0.00898725	0.00155433	7.39E-09	331315	0.0059	0.0077	0.4424	417596	TRUE	FALSE
355	rs4472800	T	G	-	0.0100657	0.00158025	1.90E-10	331315	0.0063	0.0078	0.4211	417596	TRUE	FALSE
356	rs4782286	A	G	-	-0.0122703	0.00189123	8.71E-11	331315	-0.0147	0.0093	0.1162	417596	TRUE	FALSE
357	rs4819021	C	T	-	-0.0100104	0.00155343	1.16E-10	331315	-2.00E-04	0.0077	0.983	417596	TRUE	FALSE
358	rs4858697	G	A	-	0.0125887	0.00156235	7.81E-16	331315	0.0066	0.0077	0.3909	417596	TRUE	FALSE
359	rs55726687	A	G	-	0.0148579	0.00188362	3.08E-15	331315	0.0263	0.0093	0.00460204	417596	TRUE	FALSE
360	rs55872725	T	C	-	0.0369921	0.00156728	4.57E-123	331315	0.046	0.0077	2.82E-09	417596	TRUE	FALSE
361	rs57635800	A	G	-	0.012878	0.00170438	4.17E-14	331315	0.0052	0.0084	0.5365	417596	TRUE	FALSE
362	rs57636386	C	T	-	-0.0247446	0.00278629	6.67E-19	331315	-0.0072	0.0138	0.601501	417596	TRUE	FALSE
363	rs6142059	C	T	-	0.0110302	0.00154011	7.97E-13	331315	0.0069	0.0076	0.3649	417596	TRUE	FALSE
364	rs62107261	C	T	-	-0.0539524	0.00360199	1.05E-50	331315	-0.0801	0.0179	7.42E-06	417596	TRUE	FALSE
365	rs62246314	A	G	-	0.0140569	0.00254924	3.51E-08	331315	0.0235	0.0126	0.0611294	417596	TRUE	FALSE
366	rs6445198	T	G	-	-0.00936245	0.00156285	2.09E-09	331315	-0.0219	0.0077	0.00458596	417596	TRUE	FALSE
367	rs6470764	T	C	-	-0.0170442	0.00191036	4.60E-19	331315	-0.022	0.0094	0.01948	417596	TRUE	FALSE
368	rs6570509	T	G	-	-0.0176228	0.00170565	5.09E-25	331315	0.001	0.0084	0.9098	417596	TRUE	FALSE
369	rs66922415	G	A	-	0.0440473	0.00181242	2.37E-130	331315	0.0354	0.009	7.99E-05	417596	TRUE	FALSE
370	rs6800021	A	G	-	0.014209	0.00155601	6.78E-20	331315	0.028	0.0077	0.000272898	417596	TRUE	FALSE
371	rs7047694	A	G	-	0.0115334	0.00165756	3.46E-12	331315	0.0011	0.0082	0.8886	417596	TRUE	FALSE
372	rs7132908	A	G	-	0.0165129	0.00158299	1.80E-25	331315	0.0229	0.0078	0.00336001	417596	TRUE	FALSE
373	rs7141420	T	C	-	0.011669	0.00154884	4.93E-14	331315	0.0132	0.0076	0.0836007	417596	TRUE	FALSE
374	rs7214743	G	A	-	-0.0159085	0.00163304	2.02E-22	331315	-0.0168	0.0081	0.0379001	417596	TRUE	FALSE
375	rs7235010	A	G	-	0.026424	0.00186597	1.65E-45	331315	0.0039	0.0092	0.6687	417596	TRUE	FALSE
376	rs724016	G	A	-	0.0297998	0.00154572	8.96E-83	331315	-0.0098	0.0076	0.2	417596	TRUE	FALSE
377	rs73052033	C	T	-	-0.0161202	0.00198951	5.40E-16	331315	-0.0273	0.0098	0.00534798	417596	TRUE	FALSE
378	rs7559547	T	C	-	0.0320141	0.00202458	2.67E-56	331315	0.0276	0.01	0.00582304	417596	TRUE	FALSE
379	rs76798800	T	G	-	0.0228731	0.00174032	1.91E-39	331315	0.024	0.0086	0.00530298	417596	TRUE	FALSE
380	rs768023	A	G	-	0.0191756	0.00159082	1.88E-33	331315	0.0234	0.0079	0.00292301	417596	TRUE	FALSE
381	rs76895963	G	T	-	0.102526	0.00596594	3.66E-66	331315	0.0382	0.0288	0.1851	417596	TRUE	FALSE
382	rs7730885	G	A	-	0.0149181	0.00160342	1.36E-20	331315	0.0096	0.0079	0.2237	417596	TRUE	FALSE
383	rs815341	G	A	-	0.00946113	0.00160055	3.40E-09	331315	0.0061	0.0079	0.4431	417596	TRUE	FALSE
384	rs9540493	G	A	-	-0.00871756	0.00155168	1.93E-08	331315	-0.0103	0.0077	0.1768	417596	TRUE	FALSE
385	rs9554333	C	T	-	0.00960379	0.00156362	8.16E-10	331315	0.0068	0.0077	0.3792	417596	TRUE	FALSE
386	rs9826759	T	C	-	0.0146334	0.0016199	1.67E-19	331315	0.0285	0.008	0.000357503	417596	TRUE	FALSE
387	rs9861443	C	A	-	0.0118634	0.00171196	4.22E-12	331315	0.0201	0.0085	0.0174301	417596	TRUE	FALSE
388	rs10483727	C	T	-	-0.021772	0.00157965	3.33E-43	331315	-0.0123	0.0078	0.1143	417596	TRUE	FALSE
389	rs10847415	C	T	-	0.0147258	0.00167676	1.61E-18	331315	0.0273	0.0076	0.0116201	417596	TRUE	FALSE
390	rs11023199	G	A	-	-0.00897464	0.00161186	2.58E-08	331315	0.02	0.0079	0.0120301	417596	TRUE	FALSE
391	rs11065015	T	C	-	-0.0315496	0.00161186	2.58E-08	331315	0.0095	0.0236	0.6883	417596	TRUE	FALSE

392	rs115912456	G	A	-	0.025465	0.00387095	4.76E-11	331315	-0.0535	0.0191	0.00510105	417596	TRUE	FALSE
393	rs2005172	C	A	-	0.0235828	0.00162098	6.18E-48	331315	0.0011	0.008	0.8871	417596	TRUE	FALSE
394	rs2102278	G	A	-	0.0109377	0.00164935	3.33E-11	331315	0.0111	0.0083	0.1837	417596	TRUE	FALSE
395	rs2142331	T	C	-	-0.0133875	0.00157329	1.76E-17	331315	-0.0236	0.0078	0.00237001	417596	TRUE	FALSE
396	rs2482357	A	G	-	-0.0095013	0.00155486	9.93E-10	331315	-0.0206	0.0077	0.00716292	417596	TRUE	FALSE
397	rs2533879	A	G	-	-0.0217897	0.0016767	1.32E-38	331315	-7.00E-04	0.0083	0.9284	417596	TRUE	FALSE
398	rs2979655	G	T	-	0.0121365	0.00210678	8.38E-09	331315	-0.0142	0.0104	0.1703	417596	TRUE	FALSE
399	rs35874463	G	A	-	0.0214922	0.00329106	6.56E-11	331315	0.022	0.0164	0.1794	417596	TRUE	FALSE
400	rs3853252	A	G	-	0.0161298	0.0015503	2.39E-25	331315	-0.0171	0.0077	0.02516	417596	TRUE	FALSE
401	rs41271299	T	C	-	0.0427021	0.00347472	1.05E-34	331315	0.0214	0.0171	0.2121	417596	TRUE	FALSE
402	rs4240326	G	A	-	-0.02204	0.00154401	3.26E-46	331315	-0.013	0.0076	0.0879792	417596	TRUE	FALSE
403	rs57153895	G	A	-	-0.0118157	0.00153639	1.47E-14	331315	0.0207	0.0076	0.00634995	417596	TRUE	FALSE
404	rs5742915	C	T	-	0.0092877	0.00154276	1.74E-09	331315	-0.001	0.0076	0.899	417596	TRUE	FALSE
405	rs59985551	T	C	-	-0.0177351	0.00184272	6.35E-22	331315	-0.0416	0.0091	4.66E-06	417596	TRUE	FALSE
406	rs62621197	T	C	-	-0.0362979	0.00425744	1.52E-17	331315	0.0089	0.0208	0.6664	417596	TRUE	FALSE
407	rs6902789	A	G	-	0.00981781	0.00160043	8.55E-10	331315	0.0168	0.0079	0.0336698	417596	TRUE	FALSE
408	rs7080472	T	G	-	0.0155313	0.00156055	2.48E-23	331315	-0.0059	0.0077	0.4467	417596	TRUE	FALSE
409	rs71385734	G	T	-	-0.0240063	0.00206222	2.59E-31	331315	0.0017	0.0102	0.8709	417596	TRUE	FALSE
410	rs72699870	C	T	-	0.0128125	0.00194612	4.60E-11	331315	-0.0186	0.0096	0.0527704	417596	TRUE	FALSE
411	rs7298201	T	C	-	0.0101731	0.0015629	7.57E-11	331315	0.0203	0.0077	0.00827809	417596	TRUE	FALSE
412	rs73175572	G	A	-	0.0275272	0.00246583	6.23E-29	331315	0.0094	0.0122	0.4383	417596	TRUE	FALSE
413	rs7460093	A	G	-	0.00923236	0.0015554	2.93E-09	331315	0.0143	0.0077	0.0617206	417596	TRUE	FALSE
414	rs7584391	A	G	-	-0.0114329	0.00197719	7.37E-09	331315	-0.0114	0.0098	0.2431	417596	TRUE	FALSE
415	rs76889265	C	T	-	-0.0185269	0.00263152	1.92E-12	331315	-0.0145	0.013	0.2663	417596	TRUE	FALSE
416	rs7952436	T	C	-	-0.0325551	0.00278497	1.46E-31	331315	-0.0655	0.0138	2.08E-06	417596	TRUE	FALSE
417	rs849136	G	A	-	-0.0130766	0.00170123	1.52E-14	331315	-0.024	0.0084	0.00425197	417596	TRUE	FALSE
418	rs9951619	G	T	-	0.0131162	0.00183731	9.43E-13	331315	-1.00E-04	0.0091	0.9871	417596	TRUE	FALSE

K/HOA – knee and hip osteoarthritis, EA – effect allele, OA – Other allele, Beta – the effect size of the SNP, SE – standard error, EXP – exposure, out – outcome, rs – reference single-nucleotide polymorphism, SNP – single-nucleotide polymorphism, palindromic + ambiguous – TRUE means SNP was not palindromic or ambiguous, non-confounders – TRUE means SNP was not related to confounding factors.

Supplementary Table SIII. Detailed information of SNPs used in BWM and KOA MR analyses

N	SNP	EA	OA	F	beta.exp	se.exp	pval.exp	samplesize.exp	beta.out	se.out	pval.out	samplesi	palindromic+	non-confounders
												ze.out	ambiguours	
1	rs1006399	A	G	11.8598	-0.00848835	0.00154747	4.13E-08	331315	-0.0106	0.0093	0.2543	403124	TRUE	TRUE
2	rs10111935	A	G	58.4159	0.0208	0.00170377	2.86E-34	331315	0.0273	0.0103	0.00796398	403124	TRUE	TRUE
3	rs10203320	C	T	21.1063	0.0120136	0.00164994	3.32E-13	331315	0.0238	0.01	0.0167498	403124	TRUE	TRUE
4	rs1022523	A	G	26.3826	0.014141	0.00172613	2.57E-16	331315	0.0029	0.0104	0.7778	403124	TRUE	TRUE
5	rs10260993	G	T	15.1096	-0.0120902	0.0019486	5.49E-10	331315	0.0136	0.0117	0.2481	403124	TRUE	TRUE
6	rs1047891	A	C	43.7006	0.0174715	0.0016536	4.34E-26	331315	0.0222	0.01	0.0255399	403124	TRUE	TRUE
7	rs10746837	A	G	17.7304	-0.010485	0.00156713	2.23E-11	331315	0.0167	0.0095	0.0782492	403124	TRUE	TRUE
8	rs10770705	C	A	12.286	-0.00908323	0.00162329	2.20E-08	331315	-0.0226	0.0098	0.02123	403124	TRUE	TRUE
9	rs10775348	G	A	25.9641	0.0136843	0.00168557	4.74E-16	331315	0.0368	0.0102	0.000299199	403124	TRUE	TRUE
10	rs10798945	T	C	17.168	0.0117756	0.00178304	4.00E-11	331315	-0.0226	0.0108	0.0357199	403124	TRUE	TRUE
11	rs10843139	G	T	23.225	-0.0129856	0.00168797	1.44E-14	331315	-0.0309	0.0102	0.00247799	403124	TRUE	TRUE
12	rs10931008	C	T	23.375	-0.012497	0.00162088	1.26E-14	331315	-0.0324	0.0098	0.000909201	403124	TRUE	TRUE
13	rs10990621	G	A	29.8341	0.0183843	0.00210862	2.83E-18	331315	-0.0143	0.0127	0.2616	403124	TRUE	TRUE
14	rs10995366	A	G	15.5595	-0.011169	0.0017817	3.65E-10	331315	0.0266	0.0107	0.0131401	403124	TRUE	TRUE
15	rs11013045	G	T	12.8633	-0.00902416	0.00157765	1.07E-08	331315	-0.0054	0.0095	0.5674	403124	TRUE	TRUE
16	rs11014285	A	G	29.9965	0.0181022	0.00209589	5.79E-18	331315	0.0083	0.0126	0.5115	403124	TRUE	TRUE
17	rs11060406	T	C	13.7178	-0.0239083	0.0041389	7.63E-09	331315	-0.0251	0.0248	0.3126	403124	TRUE	TRUE
18	rs11071182	G	A	13.2701	0.0133565	0.00230442	6.80E-09	331315	0.0416	0.0139	0.002733	403124	TRUE	TRUE
19	rs11098675	G	A	25.6170	-0.0158132	0.00195536	6.13E-16	331315	-0.011	0.0118	0.3522	403124	TRUE	TRUE
20	rs11158820	G	A	14.4705	-0.0100785	0.00167543	1.80E-09	331315	-0.0125	0.0101	0.2158	403124	TRUE	TRUE
21	rs111901479	A	G	31.1674	0.0241904	0.00271035	4.47E-19	331315	-0.0015	0.0164	0.9288	403124	TRUE	TRUE
22	rs11217863	A	G	16.4792	-0.0155812	0.00240263	8.88E-11	331315	0.0195	0.0145	0.1793	403124	TRUE	TRUE
23	rs11245450	A	G	16.2178	-0.0100145	0.00157097	1.84E-10	331315	-0.0275	0.0095	0.00373999	403124	TRUE	TRUE
24	rs112957890	G	A	18.6930	0.0120225	0.00175604	7.59E-12	331315	0.0012	0.0106	0.9062	403124	TRUE	TRUE
25	rs113171806	C	T	11.9734	0.0132527	0.00240373	3.52E-08	331315	-0.0255	0.0145	0.0789205	403124	TRUE	TRUE
26	rs113457986	G	A	15.0453	0.0391814	0.00644817	1.23E-09	331315	-0.0024	0.0387	0.9497	403124	TRUE	TRUE
27	rs114056237	A	G	36.3517	-0.0679815	0.00706285	6.30E-22	331315	-0.0329	0.0423	0.4375	403124	TRUE	TRUE
28	rs11545482	T	C	16.7156	-0.0351562	0.00537378	6.07E-11	331315	-0.0212	0.0328	0.518	403124	TRUE	TRUE
29	rs11580196	G	A	13.3939	-0.0118976	0.00204192	5.66E-09	331315	0.0026	0.0123	0.8323	403124	TRUE	TRUE
30	rs11594322	C	A	21.7612	-0.0168296	0.00226716	1.15E-13	331315	0.0157	0.0136	0.2504	403124	TRUE	TRUE
31	rs116165844	T	G	14.8233	-0.013733	0.00223287	7.74E-10	331315	-0.0275	0.0135	0.0411396	403124	TRUE	TRUE
32	rs11655578	T	G	12.3137	0.010572	0.00189293	2.34E-08	331315	-0.0041	0.0114	0.7202	403124	TRUE	TRUE
33	rs11658134	A	G	19.6623	-0.0108981	0.00154271	1.62E-12	331315	-0.0096	0.0093	0.3	403124	TRUE	TRUE
34	rs11717749	T	C	17.1404	0.0159423	0.00240634	3.48E-11	331315	0.0016	0.0145	0.9141	403124	TRUE	TRUE
35	rs117543413	T	C	18.9394	-0.0403387	0.00587993	6.88E-12	331315	-0.0531	0.0356	0.136	403124	TRUE	TRUE
36	rs11855017	A	C	15.6926	0.0125813	0.00198919	2.54E-10	331315	-0.0118	0.012	0.3267	403124	TRUE	TRUE
37	rs12072845	A	G	33.3885	-0.0145293	0.00157663	3.12E-20	331315	8.00E-04	0.0095	0.9326	403124	TRUE	TRUE
38	rs12073468	T	C	15.2571	0.0114117	0.00182904	4.40E-10	331315	0.0212	0.011	0.0547495	403124	TRUE	TRUE

39	rs12209223	A	C	18.6468	0.0175154	0.0025496	6.44E-12	331315	-0.0044	0.0154	0.774599	403124	TRUE	TRUE
40	rs12216497	T	C	19.6469	-0.0109751	0.00155374	1.62E-12	331315	0.0029	0.0094	0.7539	403124	TRUE	TRUE
41	rs1228024	A	C	19.6526	-0.0115055	0.00162482	1.43E-12	331315	-0.0221	0.0098	0.0240702	403124	TRUE	TRUE
42	rs12347137	C	A	65.8922	-0.0247555	0.00190967	2.02E-38	331315	-0.0052	0.0115	0.654	403124	TRUE	TRUE
43	rs12500748	C	A	14.0780	-0.00928223	0.0015498	2.11E-09	331315	0.0129	0.0093	0.1666	403124	TRUE	TRUE
44	rs12619348	T	C	13.3947	-0.0133815	0.00229235	5.30E-09	331315	-0.0062	0.0138	0.6536	403124	TRUE	TRUE
45	rs12643353	C	T	12.5096	-0.0175716	0.00311524	1.70E-08	331315	-0.0295	0.0188	0.1177	403124	TRUE	TRUE
46	rs12700901	A	C	13.8888	-0.00932185	0.00157306	3.11E-09	331315	0.005	0.0095	0.5989	403124	TRUE	TRUE
47	rs12889702	C	A	13.1247	0.00961834	0.00166552	7.70E-09	331315	-0.0036	0.01	0.7195	403124	TRUE	TRUE
48	rs12906197	T	C	25.4742	-0.012543	0.00156524	1.12E-15	331315	-0.0058	0.0094	0.5372	403124	TRUE	TRUE
49	rs13294021	A	G	19.9855	-0.0110353	0.00154235	8.39E-13	331315	-0.0021	0.0093	0.821	403124	TRUE	TRUE
50	rs13430869	T	G	32.0956	0.0160228	0.00177371	1.67E-19	331315	0.0351	0.0107	0.000984895	403124	TRUE	TRUE
51	rs1374370	A	G	19.2086	0.0116666	0.00166749	2.63E-12	331315	-0.0093	0.0101	0.3544	403124	TRUE	TRUE
52	rs1376750	T	C	11.8133	0.0121166	0.00220646	3.99E-08	331315	0.029	0.0133	0.0291501	403124	TRUE	TRUE
53	rs139590892	A	G	12.4965	-0.0119235	0.00211414	1.70E-08	331315	0.0119	0.0128	0.3494	403124	TRUE	TRUE
54	rs1407031	T	C	14.1099	-0.00941992	0.00157451	2.20E-09	331315	-0.0105	0.0095	0.2706	403124	TRUE	TRUE
55	rs1431663	C	A	11.7742	-0.00852468	0.00156159	4.79E-08	331315	0.0029	0.0094	0.7613	403124	TRUE	TRUE
56	rs143986132	G	A	14.5270	-0.0341007	0.00591442	8.14E-09	331315	-0.0536	0.0354	0.1307	403124	TRUE	TRUE
57	rs147110934	T	G	16.3384	-0.0323759	0.00501275	1.06E-10	331315	-0.0427	0.0304	0.1602	403124	TRUE	TRUE
58	rs149229890	T	G	14.8194	0.0449353	0.00758101	3.08E-09	331315	0.0633	0.0457	0.1664	403124	TRUE	TRUE
59	rs153560	A	G	18.7420	0.0108819	0.00158582	6.80E-12	331315	0.0305	0.0096	0.00142298	403124	TRUE	TRUE
60	rs1542224	C	T	28.2897	0.014574	0.00172049	2.45E-17	331315	0.019	0.0104	0.0666807	403124	TRUE	TRUE
61	rs1591806	G	A	44.0420	0.0163392	0.0015547	7.88E-26	331315	-0.0271	0.0094	0.00384999	403124	TRUE	TRUE
62	rs161799	G	A	12.4426	-0.00913195	0.0016323	2.21E-08	331315	-0.0049	0.0098	0.6157	403124	TRUE	TRUE
63	rs16869017	T	C	16.8726	0.0180354	0.0027764	8.26E-11	331315	0.0405	0.0167	0.0154899	403124	TRUE	TRUE
64	rs16892552	G	A	26.0210	-0.0145102	0.00177996	3.59E-16	331315	6.00E-04	0.0107	0.9538	403124	TRUE	TRUE
65	rs16942324	A	C	26.6406	-0.0396722	0.00480809	1.57E-16	331315	0.0197	0.0287	0.4934	403124	TRUE	TRUE
66	rs17056859	A	G	12.4076	0.0093044	0.00165509	1.89E-08	331315	0.0039	0.01	0.692901	403124	TRUE	TRUE
67	rs17197114	C	T	16.5850	0.0130948	0.00202957	1.11E-10	331315	0.0114	0.0122	0.3502	403124	TRUE	TRUE
68	rs17363646	G	A	17.2694	0.0149569	0.00225222	3.12E-11	331315	0.022	0.0136	0.1042	403124	TRUE	TRUE
69	rs17741497	A	G	15.2751	-0.0101256	0.00164398	7.32E-10	331315	0.0022	0.0099	0.8245	403124	TRUE	TRUE
70	rs1805165	A	C	11.9775	-0.00945047	0.00170732	3.11E-08	331315	-0.0045	0.0103	0.6659	403124	TRUE	TRUE
71	rs1815518	T	C	24.9828	0.0161287	0.00202997	1.94E-15	331315	-7.00E-04	0.0122	0.9546	403124	TRUE	TRUE
72	rs183041	A	G	25.3969	0.0138801	0.00172681	9.16E-16	331315	0.0172	0.0104	0.097949	403124	TRUE	TRUE
73	rs1837367	A	G	13.2364	0.00894219	0.00154682	7.43E-09	331315	0.0043	0.0093	0.648	403124	TRUE	TRUE
74	rs1881975	G	A	23.1921	-0.01376	0.00179882	2.02E-14	331315	0.0169	0.0109	0.1192	403124	TRUE	TRUE
75	rs1887855	C	T	12.6940	-0.00991637	0.0017416	1.24E-08	331315	0.0035	0.0105	0.737099	403124	TRUE	TRUE
76	rs1910252	T	C	24.3891	0.0163808	0.00207798	3.20E-15	331315	0.0018	0.0125	0.8831	403124	TRUE	TRUE
77	rs1927635	C	T	15.4548	0.0100959	0.00162544	5.26E-10	331315	0.0243	0.0098	0.0131801	403124	TRUE	TRUE
78	rs1952527	C	T	22.0777	-0.0123125	0.0016413	6.32E-14	331315	-0.0168	0.0099	0.0895406	403124	TRUE	TRUE
79	rs2005172	C	A	84.6978	0.0235828	0.00162098	6.18E-48	331315	-0.0031	0.0098	0.7503	403124	TRUE	TRUE
80	rs2073272	A	G	14.2168	-0.00992957	0.00165469	1.96E-09	331315	-0.0093	0.01	0.3494	403124	TRUE	TRUE
81	rs2118663	C	T	12.7958	-0.0111592	0.00195553	1.15E-08	331315	-0.0071	0.0118	0.5459	403124	TRUE	TRUE
82	rs2134963	A	C	16.1737	-0.0107265	0.00167005	1.34E-10	331315	-0.0042	0.0101	0.68	403124	TRUE	TRUE
83	rs2140046	C	T	27.6895	-0.0134384	0.0015985	4.23E-17	331315	0.0134	0.0096	0.1629	403124	TRUE	TRUE

84	rs2197563	A	G	18.1603	0.0106677	0.0015701	1.09E-11	331315	0.0188	0.0095	0.0473195	403124	TRUE	TRUE
85	rs2229840	T	C	41.5255	0.0215606	0.00209492	7.74E-25	331315	0.0299	0.0126	0.01789	403124	TRUE	TRUE
86	rs2230033	A	G	29.5770	-0.013477	0.00155033	3.54E-18	331315	0.0086	0.0094	0.3581	403124	TRUE	TRUE
87	rs2230793	G	T	14.0071	0.0117236	0.00195889	2.17E-09	331315	0.008	0.0118	0.497	403124	TRUE	TRUE
88	rs2252720	T	C	27.7879	-0.013816	0.00165247	6.25E-17	331315	-0.0031	0.0099	0.752101	403124	TRUE	TRUE
89	rs2265309	C	T	22.4641	-0.0116521	0.00153991	3.84E-14	331315	-0.0054	0.0093	0.561399	403124	TRUE	TRUE
90	rs2274116	T	C	13.7923	-0.0096047	0.00162789	3.64E-09	331315	0.008	0.0098	0.4179	403124	TRUE	TRUE
91	rs2280940	T	C	19.3304	0.0116835	0.00168263	3.83E-12	331315	0.0163	0.0101	0.1086	403124	TRUE	TRUE
92	rs2281175	C	T	20.3409	0.0112834	0.00164824	7.62E-12	331315	0.0374	0.0104	0.000340197	403124	TRUE	TRUE
93	rs2296316	C	T	18.9108	-0.0107114	0.00155384	5.45E-12	331315	0.0249	0.0094	0.00789005	403124	TRUE	TRUE
94	rs2305758	T	C	13.1635	0.00989563	0.00170337	6.27E-09	331315	0.0088	0.0103	0.3942	403124	TRUE	TRUE
95	rs2346177	A	G	11.7122	0.00841187	0.00153806	4.53E-08	331315	0.0154	0.0093	0.0972792	403124	TRUE	TRUE
96	rs2395792	G	T	32.4641	-0.03397	0.00382897	7.23E-19	331315	-0.0042	0.023	0.8539	403124	TRUE	TRUE
97	rs2396348	T	C	19.7739	0.0118885	0.00167692	1.35E-12	331315	-0.0055	0.0101	0.5835	403124	TRUE	TRUE
98	rs2455561	G	T	25.3814	-0.0124004	0.00154091	8.48E-16	331315	0.0099	0.0093	0.2866	403124	TRUE	TRUE
99	rs2457982	A	G	13.8547	0.010207	0.0017354	4.07E-09	331315	0.0077	0.0104	0.459501	403124	TRUE	TRUE
100	rs247008	G	A	33.6993	0.0151627	0.00164507	3.07E-20	331315	-0.0153	0.0099	0.1234	403124	TRUE	TRUE
101	rs2476998	T	C	12.5433	0.00964888	0.00170613	1.56E-08	331315	0.0083	0.0103	0.4217	403124	TRUE	TRUE
102	rs2539999	C	T	38.8298	0.016943	0.00170538	2.95E-23	331315	-0.0175	0.0103	0.0888096	403124	TRUE	TRUE
103	rs254963	G	A	15.3278	-0.00967402	0.00155833	5.37E-10	331315	-0.011	0.0094	0.2395	403124	TRUE	TRUE
104	rs2592831	C	T	24.8648	0.0129725	0.00162774	1.60E-15	331315	0.05	0.0098	3.56E-07	403124	TRUE	TRUE
105	rs2602713	C	A	17.2981	0.0103011	0.00156377	4.48E-11	331315	0.0027	0.0094	0.776699	403124	TRUE	TRUE
106	rs2647239	G	A	48.1801	-0.0172125	0.0015629	3.34E-28	331315	-0.0065	0.0094	0.4912	403124	TRUE	TRUE
107	rs2663125	C	T	12.5992	-0.00943152	0.00166362	1.44E-08	331315	0.0059	0.01	0.5547	403124	TRUE	TRUE
108	rs281385	G	A	13.2439	-0.0137171	0.00236016	6.18E-09	331315	-0.0203	0.0143	0.1544	403124	TRUE	TRUE
109	rs28391281	C	T	15.2436	-0.00962359	0.00154401	4.59E-10	331315	-0.0041	0.0093	0.6609	403124	TRUE	TRUE
110	rs284315	G	A	18.0893	-0.0104497	0.00153768	1.08E-11	331315	-5.00E-04	0.0093	0.9608	403124	TRUE	TRUE
111	rs28457693	G	A	46.7258	0.0271464	0.00249534	1.47E-27	331315	-0.0428	0.015	0.00444304	403124	TRUE	TRUE
112	rs2856666	T	G	73.0026	-0.0213674	0.00156589	2.20E-42	331315	-0.0099	0.0094	0.293	403124	TRUE	TRUE
113	rs28592876	A	G	23.0083	0.0146125	0.00191144	2.10E-14	331315	-0.0628	0.0115	5.11E-08	403124	TRUE	TRUE
114	rs2866719	T	C	11.9909	0.00880903	0.001599	3.61E-08	331315	0.0142	0.0096	0.141	403124	TRUE	TRUE
115	rs2885697	T	G	59.4971	-0.0200651	0.00162842	7.04E-35	331315	0.0014	0.0098	0.8832	403124	TRUE	TRUE
116	rs28929474	T	C	15.4889	0.0341754	0.00544114	3.37E-10	331315	-0.1249	0.0331	0.000163399	403124	TRUE	TRUE
117	rs2897968	A	G	38.7931	0.0156543	0.00157622	3.06E-23	331315	0.0153	0.0095	0.1078	403124	TRUE	TRUE
118	rs2900208	A	C	27.3709	0.0134274	0.00160948	7.29E-17	331315	0.0228	0.0097	0.01883	403124	TRUE	TRUE
119	rs292168	G	A	33.2647	-0.014254	0.00155229	4.23E-20	331315	0.0099	0.0094	0.2889	403124	TRUE	TRUE
120	rs299370	C	T	14.3128	-0.0100787	0.00167152	1.64E-09	331315	0.0139	0.0101	0.1664	403124	TRUE	TRUE
121	rs30235	T	C	12.8859	0.00896746	0.00156751	1.06E-08	331315	0.0027	0.0095	0.774599	403124	TRUE	TRUE
122	rs3099282	G	A	11.8291	-0.0104151	0.00190009	4.22E-08	331315	0.0023	0.0114	0.8421	403124	TRUE	TRUE
123	rs310302	A	G	12.7000	-0.00887743	0.00156266	1.34E-08	331315	-0.0155	0.0094	0.1	403124	TRUE	TRUE
124	rs3110496	G	A	12.4827	0.0093671	0.00165851	1.63E-08	331315	0.0245	0.01	0.0143499	403124	TRUE	TRUE
125	rs3116201	A	G	19.0998	-0.0181734	0.00260695	3.15E-12	331315	-0.0231	0.0157	0.14	403124	TRUE	TRUE
126	rs324010	A	G	12.2635	-0.0086475	0.00155036	2.44E-08	331315	-0.0053	0.0093	0.5696	403124	TRUE	TRUE
127	rs33967909	A	G	25.2730	0.0150482	0.00187545	1.03E-15	331315	-0.0089	0.0113	0.4298	403124	TRUE	TRUE
128	rs34028346	A	G	12.0190	0.0121751	0.00221394	3.82E-08	331315	0.0094	0.0134	0.4832	403124	TRUE	TRUE

129	rs34060476	G	A	25.6732	0.0182568	0.00225771	6.17E-16	331315	-0.0077	0.0136	0.574101	403124	TRUE	TRUE
130	rs343954	C	T	16.6721	0.013271	0.00204735	9.06E-11	331315	-0.0025	0.0124	0.8373	403124	TRUE	TRUE
131	rs34693680	T	C	13.7878	0.0134122	0.00225933	2.92E-09	331315	0.0256	0.0136	0.0609397	403124	TRUE	TRUE
132	rs34776209	T	C	41.4353	-0.0183028	0.00178279	1.01E-24	331315	0.0265	0.0108	0.0136499	403124	TRUE	TRUE
133	rs34851615	A	G	12.2053	-0.00897631	0.00160613	2.29E-08	331315	0.0019	0.0097	0.843	403124	TRUE	TRUE
134	rs34879158	C	A	58.3710	-0.0213421	0.00175178	3.89E-34	331315	0.0067	0.0106	0.5278	403124	TRUE	TRUE
135	rs35233301	G	A	17.0776	0.0112632	0.0017054	4.00E-11	331315	0.0209	0.0103	0.0418697	403124	TRUE	TRUE
136	rs35276559	T	C	11.7301	-0.00930587	0.00169833	4.27E-08	331315	0.0091	0.0102	0.3751	403124	TRUE	TRUE
137	rs35506085	A	G	36.9934	-0.0193812	0.00200976	5.27E-22	331315	-0.0337	0.0121	0.00533102	403124	TRUE	TRUE
138	rs35665085	A	G	12.8019	-0.0190626	0.00333286	1.07E-08	331315	-0.0242	0.0201	0.2296	403124	TRUE	TRUE
139	rs35710322	C	T	24.6979	0.0123008	0.00154919	2.03E-15	331315	-0.0349	0.0093	0.000189898	403124	TRUE	TRUE
140	rs35756741	T	C	19.5503	-0.0187868	0.00267242	2.07E-12	331315	-4.00E-04	0.0161	0.9802	403124	TRUE	TRUE
141	rs35804313	T	C	14.6538	-0.0114399	0.00188417	1.27E-09	331315	-0.0043	0.0113	0.705	403124	TRUE	TRUE
142	rs36000545	G	A	34.6591	-0.0148077	0.00159354	1.52E-20	331315	-0.0225	0.0096	0.0192602	403124	TRUE	TRUE
143	rs36100359	A	G	12.3310	-0.0124045	0.00220801	1.93E-08	331315	0.0148	0.0133	0.266	403124	TRUE	TRUE
144	rs3738449	A	G	20.1598	-0.0117182	0.00163242	7.06E-13	331315	-0.0362	0.0098	0.000237799	403124	TRUE	TRUE
145	rs374335	G	A	18.3694	-0.0112987	0.00165624	9.00E-12	331315	0.0038	0.01	0.7048	403124	TRUE	TRUE
146	rs3765351	T	C	20.4677	-0.0111529	0.00154244	4.82E-13	331315	0.0151	0.0093	0.1045	403124	TRUE	TRUE
147	rs3783256	C	T	14.2193	-0.00969916	0.0016154	1.92E-09	331315	-0.0115	0.0097	0.2396	403124	TRUE	TRUE
148	rs3800963	A	G	13.1690	-0.0090052	0.00155415	6.87E-09	331315	-0.0011	0.0094	0.9071	403124	TRUE	TRUE
149	rs3809570	A	C	21.9333	0.0134113	0.00179815	8.78E-14	331315	-0.0043	0.0109	0.6948	403124	TRUE	TRUE
150	rs3818416	C	A	30.3220	0.015979	0.00182267	1.85E-18	331315	0.015	0.011	0.1727	403124	TRUE	TRUE
151	rs3843751	T	C	27.5875	-0.0136704	0.00163008	5.04E-17	331315	-0.0422	0.0098	1.76E-05	403124	TRUE	TRUE
152	rs4073717	T	G	35.0329	-0.0181421	0.00192006	3.45E-21	331315	-0.024	0.0116	0.0386403	403124	TRUE	TRUE
153	rs4076108	T	A	12.8349	0.0102232	0.0017931	1.19E-08	331315	-0.0064	0.0108	0.552199	403124	TRUE	TRUE
154	rs41311445	C	A	33.1068	-0.0238964	0.0026015	4.11E-20	331315	0.0305	0.0158	0.0532795	403124	TRUE	TRUE
155	rs4282339	A	G	32.5663	-0.0173175	0.00189604	6.67E-20	331315	5.00E-04	0.0114	0.9678	403124	TRUE	TRUE
156	rs4341996	C	A	13.1618	-0.0109268	0.00189155	7.63E-09	331315	-0.0068	0.0114	0.55	403124	TRUE	TRUE
157	rs4627713	C	T	18.1719	0.0318107	0.00468329	1.10E-11	331315	-0.0086	0.0283	0.762	403124	TRUE	TRUE
158	rs4635681	G	A	13.1293	0.0122532	0.00211506	6.91E-09	331315	-0.012	0.0128	0.3473	403124	TRUE	TRUE
159	rs4752689	A	G	21.0969	0.0114439	0.00155936	2.16E-13	331315	0.0237	0.0094	0.0115699	403124	TRUE	TRUE
160	rs475591	C	T	19.2661	0.0109187	0.00155909	2.51E-12	331315	0.0125	0.0094	0.1855	403124	TRUE	TRUE
161	rs4845852	T	C	30.0242	-0.0153989	0.0017588	2.04E-18	331315	-0.0242	0.0106	0.0226898	403124	TRUE	TRUE
162	rs4951261	C	A	30.5678	0.013888	0.00156975	9.01E-19	331315	-0.0031	0.0095	0.743901	403124	TRUE	TRUE
163	rs4980067	A	C	22.9935	-0.0117815	0.00153901	1.93E-14	331315	-0.0045	0.0093	0.630199	403124	TRUE	TRUE
164	rs4985148	C	A	17.7710	-0.0112239	0.00166439	1.55E-11	331315	0.0018	0.01	0.8592	403124	TRUE	TRUE
165	rs55681913	C	T	50.1699	0.027963	0.00251109	8.50E-29	331315	0.013	0.0152	0.3931	403124	TRUE	TRUE
166	rs55758152	A	G	20.2719	0.0117712	0.00165826	1.26E-12	331315	0.0047	0.01	0.641	403124	TRUE	TRUE
167	rs55831773	T	C	26.8394	-0.0159788	0.0019668	4.52E-16	331315	-0.0067	0.0118	0.569399	403124	TRUE	TRUE
168	rs57126421	G	A	12.7596	-0.0103413	0.00182261	1.40E-08	331315	-0.0324	0.011	0.003133	403124	TRUE	TRUE
169	rs5752989	A	G	16.9910	-0.0102372	0.0015538	4.45E-11	331315	-0.0256	0.0094	0.00627307	403124	TRUE	TRUE
170	rs599004	T	C	27.6181	-0.0143947	0.00171238	4.25E-17	331315	-0.0202	0.0103	0.0502805	403124	TRUE	TRUE
171	rs6032233	C	T	16.5059	0.0126779	0.00195557	9.01E-11	331315	0.0226	0.0118	0.0555802	403124	TRUE	TRUE
172	rs60804050	A	G	14.0381	-0.0105786	0.00176665	2.13E-09	331315	0.0158	0.0106	0.1373	403124	TRUE	TRUE
173	rs6081869	G	T	16.2187	-0.0101581	0.0015994	2.14E-10	331315	-0.0094	0.0096	0.3303	403124	TRUE	TRUE

174	rs6085659	G	A	14.4737	-0.00952081	0.0015633	1.13E-09	331315	0.0094	0.0094	0.3187	403124	TRUE	TRUE
175	rs61729527	T	C	20.2853	-0.0251117	0.00349498	6.73E-13	331315	0.0322	0.021	0.1248	403124	TRUE	TRUE
176	rs61862463	G	A	12.8924	0.0290963	0.00516773	1.80E-08	331315	1.00E-04	0.0311	0.9967	403124	TRUE	TRUE
177	rs62070645	A	C	74.3545	-0.0238885	0.00173292	3.22E-43	331315	-0.0336	0.0104	0.00131999	403124	TRUE	TRUE
178	rs62275882	A	G	15.692951	-0.0140022	0.00221596	2.64E-10	331315	-0.0128	0.0133	0.3388	403124	TRUE	TRUE
179	rs62515437	T	G	47.8638	0.0203257	0.00183796	2.01E-28	331315	0.0071	0.0111	0.5239	403124	TRUE	TRUE
180	rs662115	T	C	15.6803	0.00978267	0.00155082	2.83E-10	331315	0.021	0.0094	0.0249701	403124	TRUE	TRUE
181	rs67551338	T	C	24.6665	0.0253903	0.0032343	4.16E-15	331315	0.0147	0.0195	0.4501	403124	TRUE	TRUE
182	rs6762578	A	G	30.3493	0.0162886	0.00185869	1.90E-18	331315	-0.0044	0.0112	0.693999	403124	TRUE	TRUE
183	rs6821305	C	A	24.1386	0.0123344	0.00157208	4.31E-15	331315	0.0162	0.0095	0.0867301	403124	TRUE	TRUE
184	rs6873192	G	A	24.9236	-0.0122729	0.00154125	1.69E-15	331315	-0.003	0.0093	0.7488	403124	TRUE	TRUE
185	rs6874142	G	T	26.6388	0.0201449	0.0025518	2.93E-15	331315	0.0333	0.0154	0.03094	403124	TRUE	TRUE
186	rs6975015	A	G	22.1973	0.0179897	0.00239876	6.42E-14	331315	-0.0268	0.0144	0.0637705	403124	TRUE	TRUE
187	rs6995599	T	C	51.8372	-0.019177	0.00166833	1.42E-30	331315	-0.0083	0.0101	0.4086	403124	TRUE	TRUE
188	rs7077783	T	C	18.2527	-0.0149542	0.00219516	9.62E-12	331315	-0.0059	0.0132	0.653501	403124	TRUE	TRUE
189	rs7134283	A	G	20.6055	-0.0123681	0.00171091	4.88E-13	331315	0.0041	0.0103	0.691301	403124	TRUE	TRUE
190	rs71373536	A	G	33.0259	-0.0162291	0.0017703	4.87E-20	331315	0.022	0.0107	0.0393496	403124	TRUE	TRUE
191	rs71393968	A	G	19.4803	0.0260154	0.00369115	1.82E-12	331315	0.02	0.0225	0.3756	403124	TRUE	TRUE
192	rs71414738	T	C	12.9271	0.0115849	0.00201733	9.33E-09	331315	-0.0067	0.0122	0.5807	403124	TRUE	TRUE
193	rs7205337	G	A	27.1716	0.0158347	0.00190613	9.83E-17	331315	-0.0061	0.0115	0.5935	403124	TRUE	TRUE
194	rs7229351	A	G	17.1622	-0.0105462	0.00159231	3.52E-11	331315	-0.0192	0.0096	0.0456205	403124	TRUE	TRUE
195	rs723149	G	A	26.7831	-0.0128193	0.00155076	1.38E-16	331315	0.0013	0.0094	0.8878	403124	TRUE	TRUE
196	rs7250927	C	T	17.3402	-0.0107125	0.00161966	3.75E-11	331315	0.0033	0.0098	0.7392	403124	TRUE	TRUE
197	rs72656010	C	T	94.8889	-0.0354813	0.00228572	2.53E-54	331315	-0.0307	0.0138	0.0259102	403124	TRUE	TRUE
198	rs72675793	T	C	13.8486	-0.0112115	0.00188624	2.79E-09	331315	-0.0158	0.0114	0.1638	403124	TRUE	TRUE
199	rs72828807	A	G	13.0169	0.0099192	0.00172541	8.99E-09	331315	0.025	0.0104	0.0160602	403124	TRUE	TRUE
200	rs72885917	C	A	62.5547	-0.0224054	0.00177205	1.23E-36	331315	-0.0082	0.0107	0.4443	403124	TRUE	TRUE
201	rs7305516	G	A	18.9157	-0.0106859	0.00154824	5.14E-12	331315	-0.0036	0.0093	0.699199	403124	TRUE	TRUE
202	rs73619441	G	T	21.7731	-0.0164832	0.00221597	1.02E-13	331315	-0.0114	0.0134	0.3952	403124	TRUE	TRUE
203	rs74048171	A	C	12.8025	-0.0100494	0.00175997	1.13E-08	331315	0.0086	0.0106	0.4188	403124	TRUE	TRUE
204	rs74494415	T	C	23.2421	-0.0301577	0.00394717	2.17E-14	331315	-0.0094	0.0237	0.6904	403124	TRUE	TRUE
205	rs74565893	T	C	12.1991	-0.0407803	0.00732004	2.53E-08	331315	0.0071	0.0431	0.8685	403124	TRUE	TRUE
206	rs7628343	C	T	13.5317	0.0154738	0.00263489	4.29E-09	331315	0.0272	0.0158	0.0865605	403124	TRUE	TRUE
207	rs76513770	C	T	22.7575	-0.0174781	0.002295	2.63E-14	331315	-0.0271	0.014	0.0520295	403124	TRUE	TRUE
208	rs7731023	G	A	15.1552	0.00967784	0.0015554	4.91E-10	331315	-0.0082	0.0094	0.3805	403124	TRUE	TRUE
209	rs7781964	A	G	18.3275	0.0135631	0.00198647	8.64E-12	331315	0.018	0.0119	0.1309	403124	TRUE	TRUE
210	rs78378222	G	T	65.8953	0.0894865	0.00700475	2.30E-37	331315	0.0529	0.0421	0.2088	403124	TRUE	TRUE
211	rs78964719	T	G	12.3410	0.016706	0.00297805	2.03E-08	331315	0.0017	0.0179	0.923	403124	TRUE	TRUE
212	rs7910087	C	T	24.1747	-0.0121466	0.00155589	5.88E-15	331315	-0.0205	0.0094	0.0291501	403124	TRUE	TRUE
213	rs7977788	A	G	79.3307	0.0262057	0.00184142	6.05E-46	331315	0.0389	0.0111	0.0004539	403124	TRUE	TRUE
214	rs79883557	T	C	15.8998	-0.0179512	0.00282156	1.99E-10	331315	0.0028	0.0169	0.8682	403124	TRUE	TRUE
215	rs7994814	T	C	20.2526	0.0111984	0.00157722	1.25E-12	331315	0.0304	0.0095	0.00140001	403124	TRUE	TRUE
216	rs8007058	A	G	11.9582	0.0101722	0.00184333	3.42E-08	331315	0.0253	0.0111	0.02273	403124	TRUE	TRUE
217	rs8059189	A	G	20.4932	-0.0113465	0.0016098	1.81E-12	331315	-0.0179	0.0097	0.0649606	403124	TRUE	TRUE
218	rs836519	T	C	15.2898	0.0121006	0.00193754	4.23E-10	331315	0.0119	0.0117	0.3095	403124	TRUE	TRUE

219	rs9314420	G	A	12.9600	-0.00894176	0.00155832	9.58E-09	331315	-0.0016	0.0094	0.8628	403124	TRUE	TRUE
220	rs931874	T	C	13.8510	0.00942687	0.00160064	3.88E-09	331315	0.004	0.0096	0.677599	403124	TRUE	TRUE
221	rs9327336	C	T	14.6150	0.0098783	0.00161768	1.02E-09	331315	0.0209	0.0098	0.0318999	403124	TRUE	TRUE
222	rs9341808	A	C	28.2964	-0.0130793	0.00154384	2.42E-17	331315	0.02	0.0093	0.0314898	403124	TRUE	TRUE
223	rs9380508	T	C	18.9471	0.0128668	0.00185591	4.13E-12	331315	-0.0234	0.0112	0.0360504	403124	TRUE	TRUE
224	rs9449197	C	T	16.3632	-0.0101045	0.00156691	1.13E-10	331315	0.0061	0.0094	0.520701	403124	TRUE	TRUE
225	rs9512661	T	C	13.0474	-0.00887726	0.00155013	1.02E-08	331315	0.0073	0.0093	0.4337	403124	TRUE	TRUE
226	rs9915532	G	A	24.8966	-0.016281	0.00204075	1.49E-15	331315	-0.0097	0.0124	0.434	403124	TRUE	TRUE
227	rs9925273	G	A	16.4976	-0.0128818	0.0019897	9.54E-11	331315	0.0094	0.012	0.4355	403124	TRUE	TRUE
228	rs9951619	G	T	20.2250	0.0131162	0.00183731	9.43E-13	331315	0.0069	0.0111	0.5332	403124	TRUE	TRUE
229	rs9960148	T	G	12.6933	-0.00895994	0.00157669	1.33E-08	331315	-0.0091	0.0095	0.3376	403124	TRUE	TRUE
230	rs9960619	T	C	12.2529	0.00904846	0.00161874	2.27E-08	331315	0.0059	0.0098	0.5431	403124	TRUE	TRUE
231	rs9985795	C	T	13.6789	-0.00909336	0.00154348	3.83E-09	331315	-0.0178	0.0093	0.0560106	403124	TRUE	TRUE
232	rs10024321	C	G	-	-0.00954669	0.00153873	5.50161E-10	331315	-0.0143	0.0076	0.0609102	417596	FALSE	TRUE
233	rs10094200	G	C	-	-0.0129361	0.00168827	1.83105E-14	331315	0.0145	0.0084	0.0821297	417596	FALSE	TRUE
234	rs10104303	A	T	-	0.00951898	0.00155325	8.88464E-10	331315	0.0411	0.0077	8.68001E-08	417596	FALSE	TRUE
235	rs10170971	C	G	-	-0.00945659	0.00154533	9.3994E-10	331315	-0.0134	0.0076	0.0796599	417596	FALSE	TRUE
236	rs1043413	G	C	-	0.0092768	0.00157565	3.92229E-09	331315	0.0144	0.0078	0.0646994	417596	FALSE	TRUE
237	rs10767735	C	G	-	-0.0094908	0.00157642	1.74096E-09	331315	-0.0272	0.0078	0.000489103	417596	FALSE	TRUE
238	rs10883560	G	C	-	0.0180905	0.00155515	2.85E-31	331315	0.0053	0.0077	0.4899	417596	FALSE	TRUE
239	rs10958683	G	C	-	-0.0102312	0.00182152	1.94617E-08	331315	-0.0003	0.009	0.972	417596	FALSE	TRUE
240	rs10982888	A	T	-	-0.0160784	0.00245593	5.88844E-11	331315	-0.0048	0.0121	0.6887	417596	FALSE	TRUE
241	rs1111818	C	G	-	0.009505	0.00159696	2.65289E-09	331315	0.0032	0.0079	0.6886	417596	FALSE	TRUE
242	rs111640872	C	G	-	0.0150985	0.00163829	3.10E-20	331315	0.0126	0.0081	0.1186	417596	FALSE	TRUE
243	rs111964059	A	T	-	0.0155878	0.00276875	1.80439E-08	331315	0.0112	0.0137	0.4152	417596	FALSE	TRUE
244	rs11233117	G	C	-	-0.00932836	0.0015461	1.60646E-09	331315	-0.009	0.0076	0.2384	417596	FALSE	TRUE
245	rs115574684	A	T	-	0.0221987	0.00399546	2.76255E-08	331315	0.0259	0.0196	0.1863	417596	FALSE	TRUE
246	rs116072427	C	G	-	-0.0241349	0.00300296	9.23E-16	331315	0.0375	0.0148	0.01153	417596	FALSE	TRUE
247	rs11667280	G	C	-	-0.0112003	0.00191244	4.73086E-09	331315	-0.0207	0.0094	0.0286398	417596	FALSE	TRUE
248	rs11678716	C	G	-	-0.0214599	0.00304844	1.93152E-12	331315	0.059	0.0151	9.25998E-05	417596	FALSE	TRUE
249	rs12448561	C	G	-	0.00996439	0.00156296	1.83E-10	331315	-0.0055	0.0077	0.4795	417596	FALSE	TRUE
250	rs12452505	G	C	-	-0.0187585	0.00222043	2.97E-17	331315	-0.0011	0.0109	0.9181	417596	FALSE	TRUE
251	rs13264909	T	A	-	-0.0102317	0.00155581	4.83E-11	331315	-0.0193	0.0077	0.01181	417596	FALSE	TRUE
252	rs141403611	G	C	-	-0.0145164	0.00261367	2.79E-08	331315	-0.0117	0.0129	0.3651	417596	FALSE	TRUE
253	rs1478575	A	T	-	0.0200223	0.00165766	1.39E-33	331315	0.0141	0.0082	0.0848907	417596	FALSE	TRUE
254	rs1573891	C	G	-	-0.022984	0.00213016	3.89E-27	331315	0.0197	0.0105	0.0612407	417596	FALSE	TRUE
255	rs17454369	C	G	-	0.0224029	0.0033445	2.11E-11	331315	0.0094	0.0166	0.5689	417596	FALSE	TRUE
256	rs2270894	G	C	-	-0.01643	0.00197771	9.80E-17	331315	-0.0071	0.0097	0.463	417596	FALSE	TRUE
257	rs2296505	C	G	-	0.00965919	0.00166316	6.34E-09	331315	0.0071	0.0082	0.3872	417596	FALSE	TRUE
258	rs252758	A	T	-	-0.0168645	0.00178314	3.17E-21	331315	-0.0168	0.0088	0.0560106	417596	FALSE	TRUE
259	rs252937	G	C	-	-0.00951262	0.0016556	9.16E-09	331315	-0.0142	0.0082	0.0811204	417596	FALSE	TRUE
260	rs2812208	C	G	-	0.0758365	0.00531898	4.14E-46	331315	-0.0147	0.0264	0.5784	417596	FALSE	TRUE
261	rs2968669	G	C	-	0.00934637	0.00154674	1.52E-09	331315	0.0012	0.0076	0.8739	417596	FALSE	TRUE
262	rs3212260	T	A	-	0.0134153	0.00175643	2.22E-14	331315	0.0062	0.0087	0.4741	417596	FALSE	TRUE
263	rs3749387	T	C	-	0.0130495	0.00156232	6.70E-17	331315	0.026	0.0077	0.000732993	417596	FALSE	TRUE

264	rs3771382	T	C	-	0.0130495	0.00156232	6.70E-17	331315	-0.152	0.1598	0.3414	417596	FALSE	TRUE
265	rs4076108	T	A	-	0.0102232	0.0017931	1.19E-08	331315	-0.0051	0.0089	0.5652	417596	FALSE	TRUE
266	rs4865956	C	G	-	0.0185571	0.00169714	7.99E-28	331315	0.0145	0.0084	0.0848594	417596	FALSE	TRUE
267	rs490683	A	T	-	-0.0109322	0.0016779	7.26E-11	331315	0.0043	0.0083	0.6046	417596	FALSE	TRUE
268	rs545608	C	G	-	0.0263681	0.00189369	4.65E-44	331315	0.031	0.0094	0.00092809	417596	FALSE	TRUE
269	rs58857770	G	C	-	-0.0120727	0.00157337	1.68E-14	331315	-0.0139	0.0078	0.0733196	417596	FALSE	TRUE
270	rs607472	G	C	-	0.0117579	0.0015636	5.50E-14	331315	0.0036	0.0077	0.6407	417596	FALSE	TRUE
271	rs61941043	T	A	-	0.0489423	0.00795625	7.69E-10	331315	0.0563	0.039	0.1488	417596	FALSE	TRUE
272	rs6235	G	C	-	0.0160082	0.00173607	2.96E-20	331315	0.041	0.0086	1.69E-06	417596	FALSE	TRUE
273	rs6505781	C	G	-	-0.00972453	0.00176019	3.30E-08	331315	5.00E-04	0.0087	0.9533	417596	FALSE	TRUE
274	rs667515	C	G	-	-0.0102005	0.00158384	1.19E-10	331315	-0.0104	0.0078	0.1855	417596	FALSE	TRUE
275	rs7148516	A	T	-	-0.00929853	0.00167174	2.67E-08	331315	-0.0181	0.0083	0.0282202	417596	FALSE	TRUE
276	rs72801843	A	T	-	0.016132	0.00167432	5.73E-22	331315	-0.0206	0.0083	0.0126999	417596	FALSE	TRUE
277	rs730536	C	G	-	-0.00937864	0.00170164	3.56E-08	331315	-0.0087	0.0084	0.3007	417596	FALSE	TRUE
278	rs75570992	C	G	-	0.016804	0.00303844	3.20E-08	331315	-0.0014	0.015	0.9262	417596	FALSE	TRUE
279	rs7624428	A	T	-	0.010614	0.00174326	1.14E-09	331315	0.0194	0.0086	0.0239199	417596	FALSE	TRUE
280	rs7652177	G	C	-	0.0150354	0.00153728	1.37E-22	331315	-0.0013	0.0076	0.8647	417596	FALSE	TRUE
281	rs7709645	C	G	-	-0.0107378	0.00153866	2.98E-12	331315	-0.0074	0.0076	0.3276	417596	FALSE	TRUE
282	rs7740107	A	T	-	-0.0287685	0.00174108	2.64E-61	331315	-0.0045	0.0086	0.597901	417596	FALSE	TRUE
283	rs7814495	C	G	-	0.0128042	0.00225355	1.33E-08	331315	0.0252	0.0111	0.0233201	417596	FALSE	TRUE
284	rs78812993	C	G	-	-0.022563	0.00349726	1.11E-10	331315	-0.025	0.0173	0.1481	417596	FALSE	TRUE
285	rs8123912	C	G	-	0.011373	0.00185224	8.26E-10	331315	0.0107	0.0092	0.244	417596	FALSE	TRUE
286	rs933807	C	G	-	-0.0106982	0.00154403	4.25E-12	331315	0.0035	0.0076	0.6442	417596	FALSE	TRUE
287	rs9379130	C	G	-	0.0184877	0.00154704	6.57E-33	331315	-0.0212	0.0076	0.00556096	417596	FALSE	TRUE
288	rs9381350	A	T	-	0.0096487	0.0016228	2.76E-09	331315	-0.0314	0.008	9.16E-05	417596	FALSE	TRUE
289	rs946197	C	G	-	0.0156371	0.00183355	1.49E-17	331315	-0.0086	0.009	0.3406	417596	FALSE	TRUE
290	rs9480947	G	C	-	-0.0144859	0.00156424	2.04E-20	331315	0.0134	0.0077	0.0826304	417596	FALSE	TRUE
291	rs981002	A	T	-	-0.0111814	0.0017396	1.30E-10	331315	-7.00E-04	0.0086	0.9382	417596	FALSE	TRUE
292	rs3740591	T	C	-	0.0130495	0.0077	0.000732993	331315	0.026	0.00156232	6.70E-17	417596	FALSE	TRUE
293	rs10236214	T	C	-	0.0206246	0.00161339	2.07E-37	331315	0.0035	0.0097	0.718399	403124	TRUE	FALSE
294	rs10237306	T	G	-	0.0111822	0.0015839	1.67E-12	331315	0.0196	0.0095	0.0396698	403124	TRUE	FALSE
295	rs10483727	C	T	-	-0.021772	0.00157965	3.33E-43	331315	-0.0092	0.0095	0.3356	403124	TRUE	FALSE
296	rs10485622	G	A	-	-0.0186356	0.00194495	9.62E-22	331315	-0.0319	0.0117	0.00647694	403124	TRUE	FALSE
297	rs1064213	A	G	-	0.0115614	0.00153996	6.04E-14	331315	0.028	0.0093	0.00257798	403124	TRUE	FALSE
298	rs10748128	T	G	-	0.0114874	0.00161805	1.25E-12	331315	0.0298	0.0098	0.00223501	403124	TRUE	FALSE
299	rs10847415	C	T	-	0.0147258	0.00167676	1.61E-18	331315	0.0315	0.0101	0.00183899	403124	TRUE	FALSE
300	rs10938398	A	G	-	0.0113743	0.00155668	2.74E-13	331315	0.012	0.0094	0.1998	403124	TRUE	FALSE
301	rs11023199	G	A	-	-0.00897464	0.00161186	2.58E-08	331315	0.0235	0.0097	0.0153801	403124	TRUE	FALSE
302	rs11030119	A	G	-	0.0168607	0.00166541	4.36E-24	331315	0.0221	0.0101	0.0278298	403124	TRUE	FALSE
303	rs11065015	T	C	-	-0.0315496	0.00481597	5.72E-11	331315	0.0207	0.0289	0.4724	403124	TRUE	FALSE
304	rs11065979	T	C	-	-0.0151051	0.00155368	2.44E-22	331315	-0.0055	0.0094	0.554501	403124	TRUE	FALSE
305	rs111632154	C	T	-	-0.0311316	0.00362639	9.14E-18	331315	-0.0162	0.022	0.4617	403124	TRUE	FALSE
306	rs11205617	A	G	-	0.0105812	0.00164858	1.38E-10	331315	0.0019	0.0099	0.8521	403124	TRUE	FALSE
307	rs115912456	G	A	-	0.025465	0.00387095	4.76E-11	331315	-0.0367	0.0233	0.1151	403124	TRUE	FALSE
308	rs11613961	C	T	-	0.0156846	0.00273705	1.00E-08	331315	0.0017	0.0165	0.919	403124	TRUE	FALSE

309	rs11689727	A	C	-	-0.0113124	0.00163517	4.58E-12	331315	-0.024	0.0099	0.0147299	403124	TRUE	FALSE
310	rs11803905	T	C	-	0.0101829	0.0017273	3.74E-09	331315	0.0056	0.0104	0.590101	403124	TRUE	FALSE
311	rs11880992	A	G	-	0.014673	0.00156502	6.92E-21	331315	0.0235	0.0094	0.0128499	403124	TRUE	FALSE
312	rs11951673	T	C	-	-0.00881874	0.00157129	2.00E-08	331315	-0.0012	0.0095	0.8971	403124	TRUE	FALSE
313	rs12140153	T	G	-	-0.0163781	0.00266774	8.30E-10	331315	-0.0303	0.0162	0.0617305	403124	TRUE	FALSE
314	rs12375196	A	C	-	0.00853923	0.00156379	4.75E-08	331315	0.0124	0.0094	0.1894	403124	TRUE	FALSE
315	rs1260326	C	T	-	0.021322	0.00157247	7.14E-42	331315	0.0245	0.0095	0.00981206	403124	TRUE	FALSE
316	rs12682601	A	C	-	-0.0109551	0.0016539	3.51E-11	331315	-0.009	0.01	0.3684	403124	TRUE	FALSE
317	rs12713004	G	A	-	0.0186144	0.0017242	3.63E-27	331315	-0.0038	0.0104	0.7127	403124	TRUE	FALSE
318	rs12813149	A	G	-	-0.00978579	0.00179313	4.84E-08	331315	0.0101	0.0108	0.3525	403124	TRUE	FALSE
319	rs1286138	G	T	-	0.0112964	0.0016415	5.92E-12	331315	0.0021	0.0099	0.8317	403124	TRUE	FALSE
320	rs12879423	G	A	-	0.0149981	0.00165869	1.54E-19	331315	0.0274	0.01	0.00610506	403124	TRUE	FALSE
321	rs13124829	G	A	-	0.00908827	0.00165201	3.77E-08	331315	0.0103	0.01	0.2998	403124	TRUE	FALSE
322	rs13247154	A	G	-	0.0120602	0.00159811	4.48E-14	331315	0.008	0.0096	0.4091	403124	TRUE	FALSE
323	rs1351394	C	T	-	-0.0270405	0.00153924	4.70E-69	331315	-0.0206	0.0093	0.0266999	403124	TRUE	FALSE
324	rs1412234	C	T	-	0.0107522	0.00164135	5.73E-11	331315	0.0097	0.0099	0.3269	403124	TRUE	FALSE
325	rs143384	G	A	-	0.0374839	0.00156539	1.32E-126	331315	-0.0935	0.0095	4.77E-23	403124	TRUE	FALSE
326	rs1472852	A	C	-	-0.0323174	0.00211587	1.19E-52	331315	0.0247	0.0128	0.0524904	403124	TRUE	FALSE
327	rs1521624	A	C	-	-0.0092871	0.00154768	1.97E-09	331315	-0.0157	0.0093	0.0927193	403124	TRUE	FALSE
328	rs1582931	A	G	-	-0.0204767	0.00155262	1.05E-39	331315	0.01	0.0094	0.2872	403124	TRUE	FALSE
329	rs1765133	T	C	-	-0.0109715	0.001833	2.16E-09	331315	-0.0156	0.0111	0.1579	403124	TRUE	FALSE
330	rs1878528	G	A	-	0.0126383	0.00166275	2.95E-14	331315	0.0205	0.01	0.0407803	403124	TRUE	FALSE
331	rs1941697	A	G	-	0.00851379	0.00154385	3.50E-08	331315	0.0065	0.0093	0.4848	403124	TRUE	FALSE
332	rs197372	C	T	-	0.0101254	0.00166279	1.13E-09	331315	0.0083	0.01	0.4078	403124	TRUE	FALSE
333	rs204993	G	A	-	0.0148641	0.00164755	1.86E-19	331315	0.0314	0.01	0.001629	403124	TRUE	FALSE
334	rs2102278	G	A	-	0.0109377	0.00164935	3.33E-11	331315	-0.0033	0.0102	0.75	403124	TRUE	FALSE
335	rs2142331	T	C	-	-0.0133875	0.00157329	1.76E-17	331315	-0.0272	0.0095	0.004171	403124	TRUE	FALSE
336	rs216193	G	A	-	-0.00924644	0.00158481	5.40E-09	331315	-0.0531	0.0096	2.69E-08	403124	TRUE	FALSE
337	rs2282231	T	C	-	0.0147697	0.00188649	4.92E-15	331315	0.0237	0.0114	0.0368104	403124	TRUE	FALSE
338	rs2307111	C	T	-	-0.0182283	0.00157618	6.30E-31	331315	-0.0245	0.0095	0.01009	403124	TRUE	FALSE
339	rs2411453	G	T	-	-0.0123217	0.00156941	4.14E-15	331315	-0.0074	0.0095	0.4342	403124	TRUE	FALSE
340	rs2482357	A	G	-	-0.0095013	0.00155486	9.93E-10	331315	-0.0269	0.0094	0.00411604	403124	TRUE	FALSE
341	rs2533879	A	G	-	-0.0217897	0.0016767	1.32E-38	331315	-0.0065	0.0101	0.5212	403124	TRUE	FALSE
342	rs2540034	T	C	-	0.0147276	0.00157944	1.12E-20	331315	0.0118	0.0095	0.215	403124	TRUE	FALSE
343	rs2678204	G	T	-	0.0123815	0.00162327	2.40E-14	331315	0.0192	0.0098	0.0500703	403124	TRUE	FALSE
344	rs2733287	C	A	-	0.00924327	0.00153994	1.95E-09	331315	-0.0243	0.0093	0.00882795	403124	TRUE	FALSE
345	rs2744965	T	C	-	0.0389837	0.00221792	3.99E-69	331315	0.0379	0.0133	0.00451502	403124	TRUE	FALSE
346	rs2815753	A	G	-	0.00974532	0.00156844	5.19E-10	331315	0.0138	0.0095	0.1447	403124	TRUE	FALSE
347	rs2979655	G	T	-	0.0121365	0.00210678	8.38E-09	331315	-0.0027	0.0127	0.8289	403124	TRUE	FALSE
348	rs3118914	T	G	-	-0.0315989	0.00186554	2.50E-64	331315	-0.0202	0.0113	0.0725504	403124	TRUE	FALSE
349	rs34517439	A	C	-	0.0357399	0.00235836	7.36E-52	331315	0.0459	0.0143	0.00128201	403124	TRUE	FALSE
350	rs357501	A	G	-	0.0106497	0.00159473	2.42E-11	331315	0.0172	0.0096	0.0738108	403124	TRUE	FALSE
351	rs35874463	G	A	-	0.0214922	0.00329106	6.56E-11	331315	0.0295	0.02	0.141	403124	TRUE	FALSE
352	rs3759094	T	C	-	-0.0125754	0.00162844	1.15E-14	331315	-0.0144	0.0098	0.1433	403124	TRUE	FALSE
353	rs3778157	C	T	-	0.0123553	0.00204975	1.66E-09	331315	0.012	0.0124	0.3337	403124	TRUE	FALSE

354	rs3798519	C	A	-	0.0210874	0.00201244	1.09E-25	331315	0.0194	0.0121	0.1082	403124	TRUE	FALSE
355	rs3803286	G	A	-	-0.00955458	0.00162946	4.53E-09	331315	-0.0339	0.0098	0.000553197	403124	TRUE	FALSE
356	rs3810291	A	G	-	0.0171036	0.00164423	2.44E-25	331315	0.0223	0.0099	0.02426	403124	TRUE	FALSE
357	rs3814877	T	G	-	0.0235538	0.00156738	5.04E-51	331315	0.0221	0.0095	0.0198701	403124	TRUE	FALSE
358	rs3845344	T	C	-	0.00904904	0.00157462	9.10E-09	331315	0.0063	0.0095	0.5048	403124	TRUE	FALSE
359	rs3853252	A	G	-	0.0161298	0.0015503	2.39E-25	331315	-0.0185	0.0094	0.0485099	403124	TRUE	FALSE
360	rs41271299	T	C	-	0.0427021	0.00347472	1.05E-34	331315	1.00E-04	0.021	0.9966	403124	TRUE	FALSE
361	rs42044	G	T	-	0.0281779	0.00173298	2.01E-59	331315	0.0165	0.0104	0.113	403124	TRUE	FALSE
362	rs4235012	C	T	-	0.00898725	0.00155433	7.39E-09	331315	0.0056	0.0094	0.55	403124	TRUE	FALSE
363	rs4240326	G	A	-	-0.02204	0.00154401	3.26E-46	331315	-0.0232	0.0093	0.0129799	403124	TRUE	FALSE
364	rs4472800	T	G	-	0.0100657	0.00158025	1.90E-10	331315	0.0064	0.0095	0.5047	403124	TRUE	FALSE
365	rs4782286	A	G	-	-0.0122703	0.00189123	8.71E-11	331315	-0.0161	0.0114	0.1576	403124	TRUE	FALSE
366	rs4819021	C	T	-	-0.0100104	0.00155343	1.16E-10	331315	-0.0027	0.0094	0.7698	403124	TRUE	FALSE
367	rs4858697	G	A	-	0.0125887	0.00156235	7.81E-16	331315	0.0113	0.0094	0.2329	403124	TRUE	FALSE
368	rs4980826	A	C	-	0.00861605	0.00157229	4.26E-08	331315	-0.0102	0.0095	0.2821	403124	TRUE	FALSE
369	rs55726687	A	G	-	0.0148579	0.00188362	3.08E-15	331315	0.0239	0.0114	0.0352298	403124	TRUE	FALSE
370	rs55872725	T	C	-	0.0369921	0.00156728	4.57E-123	331315	0.0433	0.0095	4.56E-06	403124	TRUE	FALSE
371	rs57153895	G	A	-	-0.0118157	0.00153639	1.47E-14	331315	0.038	0.0093	4.16E-05	403124	TRUE	FALSE
372	rs5742915	C	T	-	0.0092877	0.00154276	1.74E-09	331315	-0.0065	0.0093	0.4848	403124	TRUE	FALSE
373	rs57635800	A	G	-	0.012878	0.00170438	4.17E-14	331315	0.0098	0.0103	0.3413	403124	TRUE	FALSE
374	rs57636386	C	T	-	-0.0247446	0.00278629	6.67E-19	331315	0.0036	0.0168	0.8315	403124	TRUE	FALSE
375	rs59985551	T	C	-	-0.0177351	0.00184272	6.35E-22	331315	-0.0305	0.0111	0.00587598	403124	TRUE	FALSE
376	rs60077625	A	G	-	0.0142973	0.00165441	5.55E-18	331315	0.0195	0.01	0.0505603	403124	TRUE	FALSE
377	rs6142059	C	T	-	0.0110302	0.00154011	7.97E-13	331315	8.00E-04	0.0093	0.9296	403124	TRUE	FALSE
378	rs62107261	C	T	-	-0.0539524	0.00360199	1.05E-50	331315	-0.0773	0.0218	0.000403404	403124	TRUE	FALSE
379	rs62246314	A	G	-	0.0140569	0.00254924	3.51E-08	331315	0.05	0.0153	0.001084	403124	TRUE	FALSE
380	rs62621197	T	C	-	-0.0362979	0.00425744	1.52E-17	331315	0.0026	0.0253	0.9194	403124	TRUE	FALSE
381	rs62621812	A	G	-	0.0493727	0.0055704	7.80E-19	331315	0.0499	0.0335	0.1367	403124	TRUE	FALSE
382	rs6445198	T	G	-	-0.00936245	0.00156285	2.09E-09	331315	-0.0131	0.0094	0.1635	403124	TRUE	FALSE
383	rs6470764	T	C	-	-0.0170442	0.00191036	4.60E-19	331315	0.0088	0.0115	0.4465	403124	TRUE	FALSE
384	rs66922415	G	A	-	0.0440473	0.00181242	2.37E-130	331315	0.0314	0.011	0.00416198	403124	TRUE	FALSE
385	rs6800021	A	G	-	0.014209	0.00155601	6.78E-20	331315	0.0368	0.0094	8.85E-05	403124	TRUE	FALSE
386	rs6902789	A	G	-	0.00981781	0.00160043	8.55E-10	331315	0.0058	0.0096	0.5486	403124	TRUE	FALSE
387	rs7047694	A	G	-	0.0115334	0.00165756	3.46E-12	331315	0.0075	0.01	0.4556	403124	TRUE	FALSE
388	rs7080472	T	G	-	0.0155313	0.00156055	2.48E-23	331315	-0.0033	0.0094	0.727601	403124	TRUE	FALSE
389	rs7129320	A	G	-	-0.0235202	0.00205608	2.69E-30	331315	-0.0015	0.0124	0.9013	403124	TRUE	FALSE
390	rs7132908	A	G	-	0.0165129	0.00158299	1.80E-25	331315	0.0099	0.0095	0.2983	403124	TRUE	FALSE
391	rs71385734	G	T	-	-0.0240063	0.00206222	2.59E-31	331315	0.008	0.0125	0.5185	403124	TRUE	FALSE
392	rs7141420	T	C	-	0.011669	0.00154884	4.93E-14	331315	0.0137	0.0093	0.1412	403124	TRUE	FALSE
393	rs7214743	G	A	-	-0.0159085	0.00163304	2.02E-22	331315	-0.0363	0.0098	0.000224202	403124	TRUE	FALSE
394	rs7235010	A	G	-	0.026424	0.00186597	1.65E-45	331315	1.00E-04	0.0113	0.994	403124	TRUE	FALSE
395	rs724016	G	A	-	0.0297998	0.00154572	8.96E-83	331315	-0.0134	0.0093	0.1496	403124	TRUE	FALSE
396	rs72699870	C	T	-	0.0128125	0.00194612	4.60E-11	331315	-0.0233	0.0117	0.0467595	403124	TRUE	FALSE
397	rs7298201	T	C	-	0.0101731	0.0015629	7.57E-11	331315	0.0103	0.0094	0.2717	403124	TRUE	FALSE
398	rs73052033	C	T	-	-0.0161202	0.00198951	5.40E-16	331315	-0.0315	0.012	0.00858697	403124	TRUE	FALSE

399	rs73175572	G	A	-	0.0275272	0.00246583	6.23E-29	331315	0.0184	0.0149	0.2168	403124	TRUE	FALSE
400	rs7460093	A	G	-	0.00923236	0.0015554	2.93E-09	331315	0.0207	0.0094	0.0272998	403124	TRUE	FALSE
401	rs7559547	T	C	-	0.0320141	0.00202458	2.67E-56	331315	0.0226	0.0122	0.0649307	403124	TRUE	FALSE
402	rs7584391	A	G	-	-0.0114329	0.00197719	7.37E-09	331315	-0.0118	0.0119	0.3236	403124	TRUE	FALSE
403	rs76798800	T	G	-	0.0228731	0.00174032	1.91E-39	331315	0.0382	0.0105	0.000269699	403124	TRUE	FALSE
404	rs768023	A	G	-	0.0191756	0.00159082	1.88E-33	331315	0.0244	0.0096	0.0110999	403124	TRUE	FALSE
405	rs76889265	C	T	-	-0.0185269	0.00263152	1.92E-12	331315	-0.0214	0.0159	0.1796	403124	TRUE	FALSE
406	rs76895963	G	T	-	0.102526	0.00596594	3.66E-66	331315	0.0205	0.0353	0.562101	403124	TRUE	FALSE
407	rs7728690	T	C	-	-0.0111135	0.00157966	1.99E-12	331315	-0.0339	0.0095	0.000369301	403124	TRUE	FALSE
408	rs7730885	G	A	-	0.0149181	0.00160342	1.36E-20	331315	0.0015	0.0097	0.8735	403124	TRUE	FALSE
409	rs7952436	T	C	-	-0.0325551	0.00278497	1.46E-31	331315	-0.0466	0.0168	0.00554498	403124	TRUE	FALSE
410	rs8007644	A	G	-	0.00937902	0.00158957	3.63E-09	331315	0.0189	0.0096	0.0483203	403124	TRUE	FALSE
411	rs815341	G	A	-	0.00946113	0.00160055	3.40E-09	331315	0.001	0.0097	0.9197	403124	TRUE	FALSE
412	rs849136	G	A	-	-0.0130766	0.00170123	1.52E-14	331315	-0.022	0.0103	0.0321004	403124	TRUE	FALSE
413	rs9379084	A	G	-	-0.0150024	0.00248339	1.53E-09	331315	-0.0308	0.0149	0.0391796	403124	TRUE	FALSE
414	rs9540493	G	A	-	-0.00871756	0.00155168	1.93E-08	331315	-0.016	0.0094	0.0869101	403124	TRUE	FALSE
415	rs9554333	C	T	-	0.00960379	0.00156362	8.16E-10	331315	0.0163	0.0094	0.0845707	403124	TRUE	FALSE
416	rs9826759	T	C	-	0.0146334	0.0016199	1.67E-19	331315	0.0275	0.0098	0.00483103	403124	TRUE	FALSE
417	rs9861443	C	A	-	0.0118634	0.00171196	4.22E-12	331315	0.0173	0.0103	0.0929202	403124	TRUE	FALSE
418	rs6570509	T	G	-	-0.0176228	0.00170565	5.09E-25	331315	0.0046	0.0103	0.6566	403124	TRUE	FALSE

K/HOA – knee and hip osteoarthritis, EA – effect allele, OA – Other allele, Beta – the effect size of the SNP, SE – standard error, EXP – exposure, out – outcome, rs – reference

single-nucleotide polymorphism, SNP – single-nucleotide polymorphism, palindromic + ambiguous – TRUE means SNP was not palindromic or ambiguous, non-confounders – TRUE

means SNP was not related to confounding factors.

Supplementary Table SIV. Detailed information of SNPs used in BWM and HOA MR analyses

N	SNP	EA	OA	F	beta.exp	se.exp	pval.exp	samplesize.exp	beta.out	se.out	pval.out	samplesize.out	palindromic+ambiguours	non-confounders
1	rs1006399	A	G	11.8598	-0.00848835	0.00154747	4.13E-08	331315	-0.0041	0.0117	0.723199	393873	TRUE	TRUE
2	rs10111935	A	G	58.4159	0.0208	0.00170377	2.86E-34	331315	0.0284	0.0129	0.02756	393873	TRUE	TRUE
3	rs10203320	C	T	21.1063	0.0120136	0.00164994	3.32E-13	331315	0.0262	0.0125	0.0357396	393873	TRUE	TRUE
4	rs1022523	A	G	26.3826	0.014141	0.00172613	2.57E-16	331315	0.0204	0.0131	0.1197	393873	TRUE	TRUE
5	rs10260993	G	T	15.1096	-0.0120902	0.0019486	5.49E-10	331315	0.0107	0.0147	0.466	393873	TRUE	TRUE
6	rs1047891	A	C	43.7006	0.0174715	0.0016536	4.34E-26	331315	0.0116	0.0125	0.356	393873	TRUE	TRUE
7	rs10746837	A	G	17.7304	-0.010485	0.00156713	2.23E-11	331315	0.016	0.0119	0.1769	393873	TRUE	TRUE
8	rs10770705	C	A	12.2863	-0.00908323	0.00162329	2.20E-08	331315	-0.0089	0.0123	0.4708	393873	TRUE	TRUE
9	rs10775348	G	A	25.9641	0.0136843	0.00168557	4.74E-16	331315	0.0447	0.0128	0.000467498	393873	TRUE	TRUE
10	rs10798945	T	C	17.168	0.0117756	0.00178304	4.00E-11	331315	-0.0194	0.0135	0.1519	393873	TRUE	TRUE
11	rs10843139	G	T	23.225	-0.0129856	0.00168797	1.44E-14	331315	0.0134	0.0128	0.2962	393873	TRUE	TRUE
12	rs10931008	C	T	23.375	-0.012497	0.00162088	1.26E-14	331315	-0.0083	0.0123	0.499001	393873	TRUE	TRUE
13	rs10990621	G	A	29.8341	0.0183843	0.00210862	2.83E-18	331315	0.0089	0.0159	0.578	393873	TRUE	TRUE
14	rs10995366	A	G	15.5595	-0.011169	0.0017817	3.65E-10	331315	-0.0044	0.0135	0.745	393873	TRUE	TRUE
15	rs11013045	G	T	12.8633	-0.00902416	0.00157765	1.07E-08	331315	-0.0375	0.012	0.00170298	393873	TRUE	TRUE
16	rs11014285	A	G	29.9965	0.0181022	0.00209589	5.79E-18	331315	0.0058	0.0159	0.713899	393873	TRUE	TRUE
17	rs11023199	G	A	12.198	-0.00897464	0.00161186	2.58E-08	331315	0.0159	0.0122	0.1926	393873	TRUE	TRUE
18	rs11060406	T	C	13.7178	-0.0239083	0.0041389	7.63E-09	331315	-0.0234	0.0312	0.453401	393873	TRUE	TRUE
19	rs11065979	T	C	37.2102	-0.0151051	0.00155368	2.44E-22	331315	0.022	0.0118	0.0614795	393873	TRUE	TRUE
20	rs11071182	G	A	13.2701	0.0133565	0.00230442	6.80E-09	331315	0.0281	0.0174	0.107	393873	TRUE	TRUE
21	rs11098675	G	A	25.6171	-0.0158132	0.00195536	6.13E-16	331315	-0.0238	0.0148	0.1068	393873	TRUE	TRUE
22	rs11158820	G	A	14.4705	-0.0100785	0.00167543	1.80E-09	331315	-0.0192	0.0127	0.1289	393873	TRUE	TRUE
23	rs111632154	C	T	29.6523	-0.0311316	0.00362639	9.14E-18	331315	0.0099	0.0275	0.7185	393873	TRUE	TRUE
24	rs111901479	A	G	31.1674	0.0241904	0.00271035	4.47E-19	331315	0.0285	0.0205	0.1647	393873	TRUE	TRUE
25	rs11217863	A	G	16.4792	-0.0155812	0.00240263	8.88E-11	331315	0.0165	0.0182	0.3637	393873	TRUE	TRUE
26	rs11245450	A	G	16.2178	-0.0100145	0.00157097	1.84E-10	331315	0.0028	0.0119	0.8124	393873	TRUE	TRUE
27	rs112957890	G	A	18.693	0.0120225	0.00175604	7.59E-12	331315	0.0135	0.0133	0.3083	393873	TRUE	TRUE
28	rs113171806	C	T	11.9734	0.0132527	0.00240373	3.52E-08	331315	-0.0036	0.0183	0.8426	393873	TRUE	TRUE
29	rs113457986	G	A	15.0453	0.0391814	0.00644817	1.23E-09	331315	-0.0278	0.049	0.5711	393873	TRUE	TRUE
30	rs114056237	A	G	36.3517	-0.0679815	0.00706285	6.30E-22	331315	-0.0731	0.0535	0.1715	393873	TRUE	TRUE
31	rs11545482	T	C	16.7156	-0.0351562	0.00537378	6.07E-11	331315	-0.0549	0.0414	0.1845	393873	TRUE	TRUE
32	rs11580196	G	A	13.3939	-0.0118976	0.00204192	5.66E-09	331315	4.00E-04	0.0155	0.9778	393873	TRUE	TRUE
33	rs11594322	C	A	21.7612	-0.0168296	0.00226716	1.15E-13	331315	3.00E-04	0.0171	0.9837	393873	TRUE	TRUE
34	rs11613961	C	T	12.9043	0.0156846	0.00273705	1.00E-08	331315	-0.0352	0.0208	0.0900803	393873	TRUE	TRUE
35	rs116165844	T	G	14.8233	-0.013733	0.00223287	7.74E-10	331315	0.0023	0.0169	0.8897	393873	TRUE	TRUE
36	rs11655578	T	G	12.3137	0.010572	0.00189293	2.34E-08	331315	-0.0045	0.0144	0.753701	393873	TRUE	TRUE
37	rs11658134	A	G	19.6623	-0.0108981	0.00154271	1.62E-12	331315	-7.00E-04	0.0117	0.9519	393873	TRUE	TRUE
38	rs11717749	T	C	17.1404	0.0159423	0.00240634	3.48E-11	331315	0.0069	0.0182	0.7057	393873	TRUE	TRUE
39	rs117543413	T	C	18.9394	-0.0403387	0.00587993	6.88E-12	331315	-0.0041	0.0446	0.9272	393873	TRUE	TRUE
40	rs11855017	A	C	15.6926	0.0125813	0.00198919	2.54E-10	331315	-0.0136	0.0151	0.366	393873	TRUE	TRUE
41	rs12072845	A	G	33.3885	-0.0145293	0.00157663	3.12E-20	331315	-0.0116	0.0119	0.3332	393873	TRUE	TRUE

42	rs12073468	T	C	15.2571	0.0114117	0.00182904	4.40E-10	331315	0.0153	0.0139	0.2691	393873	TRUE	TRUE
43	rs12216497	T	C	19.6469	-0.0109751	0.00155374	1.62E-12	331315	0.0083	0.0118	0.4789	393873	TRUE	TRUE
44	rs1228024	A	C	19.6526	-0.0115055	0.00162482	1.43E-12	331315	-0.0606	0.0123	8.43E-07	393873	TRUE	TRUE
45	rs12347137	C	A	65.8922	-0.0247555	0.00190967	2.02E-38	331315	-0.0328	0.0145	0.0238298	393873	TRUE	TRUE
46	rs12500748	C	A	14.078	-0.00928223	0.0015498	2.11E-09	331315	-0.002	0.0117	0.864	393873	TRUE	TRUE
47	rs12619348	T	C	13.3947	-0.0133815	0.00229235	5.30E-09	331315	-0.0203	0.0174	0.2418	393873	TRUE	TRUE
48	rs12643353	C	T	12.5096	-0.0175716	0.00311524	1.70E-08	331315	-0.0056	0.0236	0.8114	393873	TRUE	TRUE
49	rs12713004	G	A	45.6978	0.0186144	0.0017242	3.63E-27	331315	-0.0113	0.0131	0.389	393873	TRUE	TRUE
50	rs12889702	C	A	13.1247	0.00961834	0.00166552	7.70E-09	331315	0.0082	0.0126	0.514801	393873	TRUE	TRUE
51	rs12906197	T	C	25.4742	-0.012543	0.00156524	1.12E-15	331315	-0.0025	0.0119	0.8303	393873	TRUE	TRUE
52	rs13294021	A	G	19.9855	-0.0110353	0.00154235	8.39E-13	331315	-0.0114	0.0117	0.3294	393873	TRUE	TRUE
53	rs13430869	T	G	32.0956	0.0160228	0.00177371	1.67E-19	331315	0.0313	0.0134	0.0192199	393873	TRUE	TRUE
54	rs1374370	A	G	19.2086	0.0116666	0.00166749	2.63E-12	331315	0.0254	0.0126	0.0446303	393873	TRUE	TRUE
55	rs1376750	T	C	11.8133	0.0121166	0.00220646	3.99E-08	331315	-0.0185	0.0167	0.2692	393873	TRUE	TRUE
56	rs139590892	A	G	12.4965	-0.0119235	0.00211414	1.70E-08	331315	0.0279	0.016	0.0814292	393873	TRUE	TRUE
57	rs1407031	T	C	14.1099	-0.00941992	0.00157451	2.20E-09	331315	-0.0435	0.0119	0.000270302	393873	TRUE	TRUE
58	rs1431663	C	A	11.7742	-0.00852468	0.00156159	4.79E-08	331315	0.0125	0.0118	0.2907	393873	TRUE	TRUE
59	rs143986132	G	A	14.527	-0.0341007	0.00591442	8.14E-09	331315	-0.1638	0.0448	0.0002585	393873	TRUE	TRUE
60	rs147110934	T	G	16.3384	-0.0323759	0.00501275	1.06E-10	331315	0.0903	0.038	0.0173002	393873	TRUE	TRUE
61	rs149229890	T	G	14.8194	0.0449353	0.00758101	3.08E-09	331315	0.0322	0.0575	0.5759	393873	TRUE	TRUE
62	rs153560	A	G	18.742	0.0108819	0.00158582	6.80E-12	331315	0.0075	0.012	0.5342	393873	TRUE	TRUE
63	rs1542224	C	T	28.2897	0.014574	0.00172049	2.45E-17	331315	0.0017	0.013	0.8934	393873	TRUE	TRUE
64	rs1591806	G	A	44.042	0.0163392	0.0015547	7.88E-26	331315	-0.0243	0.0118	0.0392103	393873	TRUE	TRUE
65	rs161799	G	A	12.4426	-0.00913195	0.0016323	2.21E-08	331315	0.0042	0.0123	0.734	393873	TRUE	TRUE
66	rs16869017	T	C	16.8726	0.0180354	0.0027764	8.26E-11	331315	-0.0016	0.021	0.9397	393873	TRUE	TRUE
67	rs16892552	G	A	26.021	-0.0145102	0.00177996	3.59E-16	331315	0.0092	0.0135	0.4929	393873	TRUE	TRUE
68	rs16942324	A	C	26.6406	-0.0396722	0.00480809	1.57E-16	331315	0.0858	0.0359	0.01695	393873	TRUE	TRUE
69	rs17056859	A	G	12.4076	0.0093044	0.00165509	1.89E-08	331315	0.0082	0.0125	0.5121	393873	TRUE	TRUE
70	rs17197114	C	T	16.585	0.0130948	0.00202957	1.11E-10	331315	0.0186	0.0153	0.2253	393873	TRUE	TRUE
71	rs17363646	G	A	17.2694	0.0149569	0.00225222	3.12E-11	331315	-0.0149	0.0171	0.3838	393873	TRUE	TRUE
72	rs17741497	A	G	15.2751	-0.0101256	0.00164398	7.32E-10	331315	0.0077	0.0124	0.5363	393873	TRUE	TRUE
73	rs1805165	A	C	11.9775	-0.00945047	0.00170732	3.11E-08	331315	-0.0142	0.0129	0.2724	393873	TRUE	TRUE
74	rs1815518	T	C	24.9828	0.0161287	0.00202997	1.94E-15	331315	-0.0081	0.0154	0.596901	393873	TRUE	TRUE
75	rs183041	A	G	25.3969	0.0138801	0.00172681	9.16E-16	331315	0.0198	0.0131	0.1294	393873	TRUE	TRUE
76	rs1837367	A	G	13.2364	0.00894219	0.00154682	7.43E-09	331315	0.0164	0.0117	0.1628	393873	TRUE	TRUE
77	rs1878528	G	A	22.7317	0.0126383	0.00166275	2.95E-14	331315	0.0344	0.0126	0.00636297	393873	TRUE	TRUE
78	rs1881975	G	A	23.1921	-0.01376	0.00179882	2.02E-14	331315	0.0281	0.0137	0.0399301	393873	TRUE	TRUE
79	rs1910252	T	C	24.3892	0.0163808	0.00207798	3.20E-15	331315	0.0128	0.0157	0.4145	393873	TRUE	TRUE
80	rs1927635	C	T	15.4548	0.0100959	0.00162544	5.26E-10	331315	-0.0062	0.0123	0.613901	393873	TRUE	TRUE
81	rs1952527	C	T	22.0777	-0.0123125	0.0016413	6.32E-14	331315	0.0313	0.0124	0.0116899	393873	TRUE	TRUE
82	rs2005172	C	A	84.6978	0.0235828	0.00162098	6.18E-48	331315	0.0055	0.0123	0.6543	393873	TRUE	TRUE
83	rs2073272	A	G	14.2168	-0.00992957	0.00165469	1.96E-09	331315	-0.0089	0.0125	0.4781	393873	TRUE	TRUE
84	rs2118663	C	T	17.3094	-0.0111592	0.00195553	1.15E-08	331315	-0.0124	0.0148	0.4012	393873	TRUE	TRUE
85	rs2134963	A	C	12.7958	-0.0107265	0.00167005	1.34E-10	331315	0.0126	0.0126	0.3201	393873	TRUE	TRUE
86	rs2140046	C	T	16.1737	-0.0134384	0.0015985	4.23E-17	331315	-0.0015	0.0121	0.8995	393873	TRUE	TRUE

87	rs2197563	A	G	27.6895	0.0106677	0.0015701	1.09E-11	331315	-0.0071	0.0119	0.5488	393873	TRUE	TRUE
88	rs2229840	T	C	18.1603	0.0215606	0.00209492	7.74E-25	331315	0.0673	0.0159	2.25E-05	393873	TRUE	TRUE
89	rs2230033	A	G	41.5255	-0.013477	0.00155033	3.54E-18	331315	-0.0042	0.0118	0.723901	393873	TRUE	TRUE
90	rs2230793	G	T	29.577	0.0117236	0.00195889	2.17E-09	331315	0.0116	0.0149	0.4346	393873	TRUE	TRUE
91	rs2252720	T	C	14.0071	-0.013816	0.00165247	6.25E-17	331315	-9.00E-04	0.0125	0.9406	393873	TRUE	TRUE
92	rs2265309	C	T	27.7879	-0.0116521	0.00153991	3.84E-14	331315	0.0014	0.0117	0.9029	393873	TRUE	TRUE
93	rs2274116	T	C	22.4641	-0.0096047	0.00162789	3.64E-09	331315	0.014	0.0123	0.2573	393873	TRUE	TRUE
94	rs2280940	T	C	13.7923	0.0116835	0.00168263	3.83E-12	331315	0.0198	0.0127	0.12	393873	TRUE	TRUE
95	rs2281175	C	T	19.3304	0.0112834	0.00164824	7.62E-12	331315	0.0142	0.0135	0.294	393873	TRUE	TRUE
96	rs2296316	C	T	20.3409	-0.0107114	0.00155384	5.45E-12	331315	-0.0108	0.0118	0.3602	393873	TRUE	TRUE
97	rs2305758	T	C	18.9108	0.00989563	0.00170337	6.27E-09	331315	0.0088	0.0129	0.4963	393873	TRUE	TRUE
98	rs2346177	A	G	13.1635	0.00841187	0.00153806	4.53E-08	331315	0.017	0.0117	0.1451	393873	TRUE	TRUE
99	rs2395792	G	T	11.7123	-0.03397	0.00382897	7.23E-19	331315	0.0401	0.0288	0.1641	393873	TRUE	TRUE
100	rs2396348	T	C	32.4641	0.0118885	0.00167692	1.35E-12	331315	0.0075	0.0127	0.5563	393873	TRUE	TRUE
101	rs2455561	G	T	19.7739	-0.0124004	0.00154091	8.48E-16	331315	0.0083	0.0117	0.4788	393873	TRUE	TRUE
102	rs2457982	A	G	25.3814	0.010207	0.0017354	4.07E-09	331315	0.0074	0.0131	0.5701	393873	TRUE	TRUE
103	rs247008	G	A	13.8547	0.0151627	0.00164507	3.07E-20	331315	-0.0195	0.0125	0.1176	393873	TRUE	TRUE
104	rs2476998	T	C	33.6993	0.00964888	0.00170613	1.56E-08	331315	-0.0269	0.0129	0.03788	393873	TRUE	TRUE
105	rs2539999	C	T	12.5433	0.016943	0.00170538	2.95E-23	331315	0.0045	0.0129	0.729699	393873	TRUE	TRUE
106	rs254963	G	A	38.8298	-0.00967402	0.00155833	5.37E-10	331315	-0.0077	0.0118	0.5117	393873	TRUE	TRUE
107	rs2592831	C	T	15.3248	0.0129725	0.00162774	1.60E-15	331315	0.0396	0.0123	0.00133401	393873	TRUE	TRUE
108	rs2602713	C	A	24.8648	0.0103011	0.00156377	4.48E-11	331315	-0.0205	0.0118	0.0838591	393873	TRUE	TRUE
109	rs2647239	G	A	17.2981	-0.0172125	0.0015629	3.34E-28	331315	0.0241	0.0118	0.0418398	393873	TRUE	TRUE
110	rs2663125	C	T	48.1801	-0.00943152	0.00166362	1.44E-08	331315	0.0024	0.0126	0.8478	393873	TRUE	TRUE
111	rs281385	G	A	12.5992	-0.0137171	0.00236016	6.18E-09	331315	-0.0397	0.0179	0.0262102	393873	TRUE	TRUE
112	rs28391281	C	T	13.2439	-0.00962359	0.00154401	4.59E-10	331315	0.0154	0.0117	0.1895	393873	TRUE	TRUE
113	rs284315	G	A	15.2436	-0.0104497	0.00153768	1.08E-11	331315	0.0036	0.0116	0.7604	393873	TRUE	TRUE
114	rs28457693	G	A	18.0893	0.0271464	0.00249534	1.47E-27	331315	-0.0365	0.0189	0.0534798	393873	TRUE	TRUE
115	rs2856666	T	G	46.7258	-0.0213674	0.00156589	2.20E-42	331315	-0.0093	0.0119	0.4343	393873	TRUE	TRUE
116	rs28592876	A	G	73.0026	0.0146125	0.00191144	2.10E-14	331315	0.0073	0.0144	0.6111	393873	TRUE	TRUE
117	rs2866719	T	C	23.0083	0.00880903	0.001599	3.61E-08	331315	0.0142	0.0121	0.2405	393873	TRUE	TRUE
118	rs2885697	T	G	11.9909	-0.0200651	0.00162842	7.04E-35	331315	0.0135	0.0123	0.2717	393873	TRUE	TRUE
119	rs28929474	T	C	59.4971	0.0341754	0.00544114	3.37E-10	331315	-0.1134	0.0415	0.00629405	393873	TRUE	TRUE
120	rs2897968	A	G	15.4889	0.0156543	0.00157622	3.06E-23	331315	-0.0052	0.0119	0.6614	393873	TRUE	TRUE
121	rs2900208	A	C	38.7931	0.0134274	0.00160948	7.29E-17	331315	9.00E-04	0.0122	0.9419	393873	TRUE	TRUE
122	rs292168	G	A	27.3709	-0.014254	0.00155229	4.23E-20	331315	-4.00E-04	0.0118	0.9701	393873	TRUE	TRUE
123	rs30235	T	C	33.2647	0.00896746	0.00156751	1.06E-08	331315	0.0282	0.0119	0.0177701	393873	TRUE	TRUE
124	rs3099282	G	A	12.8859	-0.0104151	0.00190009	4.22E-08	331315	-0.0113	0.0144	0.432	393873	TRUE	TRUE
125	rs310302	A	G	11.8291	-0.00887743	0.00156266	1.34E-08	331315	0.0119	0.0118	0.3162	393873	TRUE	TRUE
126	rs3110496	G	A	12.7001	0.0093671	0.00165851	1.63E-08	331315	-0.0066	0.0125	0.6013	393873	TRUE	TRUE
127	rs3116201	A	G	12.4827	-0.0181734	0.00260695	3.15E-12	331315	-0.0318	0.0197	0.1052	393873	TRUE	TRUE
128	rs324010	A	G	19.0998	-0.0086475	0.00155036	2.44E-08	331315	-0.003	0.0117	0.801	393873	TRUE	TRUE
129	rs33967909	A	G	12.2635	0.0150482	0.00187545	1.03E-15	331315	0.0019	0.0142	0.896	393873	TRUE	TRUE
130	rs34028346	A	G	25.273	0.0121751	0.00221394	3.82E-08	331315	0.0166	0.0169	0.3257	393873	TRUE	TRUE
131	rs34060476	G	A	12.019	0.0182568	0.00225771	6.17E-16	331315	-0.0046	0.0171	0.7866	393873	TRUE	TRUE

132	rs343954	C	T	25.6732	0.013271	0.00204735	9.06E-11	331315	0.0119	0.0155	0.4442	393873	TRUE	TRUE
133	rs34693680	T	C	16.6721	0.0134122	0.00225933	2.92E-09	331315	-0.0111	0.0171	0.517101	393873	TRUE	TRUE
134	rs34776209	T	C	13.7878	-0.0183028	0.00178279	1.01E-24	331315	0.0011	0.0135	0.9359	393873	TRUE	TRUE
135	rs34851615	A	G	41.4353	-0.00897631	0.00160613	2.29E-08	331315	0.0205	0.0122	0.0916706	393873	TRUE	TRUE
136	rs35233301	G	A	12.2053	0.0112632	0.0017054	4.00E-11	331315	-0.005	0.0129	0.7008	393873	TRUE	TRUE
137	rs35276559	T	C	17.0776	-0.00930587	0.00169833	4.27E-08	331315	-0.0062	0.0129	0.6307	393873	TRUE	TRUE
138	rs35506085	A	G	11.7301	-0.0193812	0.00200976	5.27E-22	331315	-0.0162	0.0152	0.2865	393873	TRUE	TRUE
139	rs35665085	A	G	36.9937	-0.0190626	0.00333286	1.07E-08	331315	0.0362	0.0252	0.1518	393873	TRUE	TRUE
140	rs35710322	C	T	12.8019	0.0123008	0.00154919	2.03E-15	331315	0.0154	0.0117	0.1907	393873	TRUE	TRUE
141	rs35756741	T	C	24.6979	-0.0187868	0.00267242	2.07E-12	331315	0.0249	0.0201	0.2168	393873	TRUE	TRUE
142	rs35804313	T	C	19.5503	-0.0114399	0.00188417	1.27E-09	331315	-0.0168	0.0142	0.2375	393873	TRUE	TRUE
143	rs36000545	G	A	14.6538	-0.0148077	0.00159354	1.52E-20	331315	-0.0223	0.0121	0.0645402	393873	TRUE	TRUE
144	rs36100359	A	G	34.6591	-0.0124045	0.00220801	1.93E-08	331315	-0.0451	0.0168	0.00716407	393873	TRUE	TRUE
145	rs3738449	A	G	12.331	-0.0117182	0.00163242	7.06E-13	331315	-0.0326	0.0124	0.00842306	393873	TRUE	TRUE
146	rs374335	G	A	20.1598	-0.0112987	0.00165624	9.00E-12	331315	-0.0089	0.0125	0.4779	393873	TRUE	TRUE
147	rs3765351	T	C	18.3694	-0.0111529	0.00154244	4.82E-13	331315	0.0273	0.0117	0.0195398	393873	TRUE	TRUE
148	rs3783256	C	T	20.4677	-0.00969916	0.0016154	1.92E-09	331315	0.0252	0.0122	0.0395003	393873	TRUE	TRUE
149	rs3800963	A	G	14.2193	-0.0090052	0.00155415	6.87E-09	331315	-0.0014	0.0118	0.9054	393873	TRUE	TRUE
150	rs3809570	A	C	13.169	0.0134113	0.00179815	8.78E-14	331315	0.0036	0.0136	0.794301	393873	TRUE	TRUE
151	rs3818416	C	A	21.9333	0.015979	0.00182267	1.85E-18	331315	-0.0209	0.0137	0.1286	393873	TRUE	TRUE
152	rs3843751	T	C	30.322	-0.0136704	0.00163008	5.04E-17	331315	-0.0109	0.0123	0.3762	393873	TRUE	TRUE
153	rs4073717	T	G	27.5975	-0.0181421	0.00192006	3.45E-21	331315	-0.0689	0.0146	2.20E-06	393873	TRUE	TRUE
154	rs4076108	T	A	35.0329	0.0102232	0.0017931	1.19E-08	331315	-0.0106	0.0136	0.4346	393873	TRUE	TRUE
155	rs41311445	C	A	33.1068	-0.0238964	0.0026015	4.11E-20	331315	0.011	0.0198	0.579301	393873	TRUE	TRUE
156	rs4282339	A	G	32.5663	-0.0173175	0.00189604	6.67E-20	331315	0.0018	0.0144	0.9026	393873	TRUE	TRUE
157	rs4341996	C	A	13.1618	-0.0109268	0.00189155	7.63E-09	331315	-0.0063	0.0143	0.6576	393873	TRUE	TRUE
158	rs4627713	C	T	18.1719	0.0318107	0.00468329	1.10E-11	331315	0.0663	0.0356	0.0625302	393873	TRUE	TRUE
159	rs4635681	G	A	13.1293	0.0122532	0.00211506	6.91E-09	331315	-0.0065	0.0161	0.6856	393873	TRUE	TRUE
160	rs4752689	A	G	21.0969	0.0114439	0.00155936	2.16E-13	331315	-0.0106	0.0118	0.3682	393873	TRUE	TRUE
161	rs475591	C	T	19.2661	0.0109187	0.00155909	2.51E-12	331315	0.0303	0.0118	0.0103999	393873	TRUE	TRUE
162	rs4845852	T	C	30.0242	-0.0153989	0.0017588	2.04E-18	331315	-0.0125	0.0133	0.3463	393873	TRUE	TRUE
163	rs4951261	C	A	30.5678	0.013888	0.00156975	9.01E-19	331315	-0.005	0.0119	0.6766	393873	TRUE	TRUE
164	rs4980067	A	C	22.9935	-0.0117815	0.00153901	1.93E-14	331315	-0.0171	0.0117	0.1417	393873	TRUE	TRUE
165	rs4985148	C	A	17.78	-0.0112239	0.00166439	1.55E-11	331315	-2.00E-04	0.0126	0.9852	393873	TRUE	TRUE
166	rs55681913	C	T	50.1699	0.027963	0.00251109	8.50E-29	331315	0.0062	0.0191	0.7466	393873	TRUE	TRUE
167	rs55758152	A	G	20.2718	0.0117712	0.00165826	1.26E-12	331315	0.0192	0.0125	0.126	393873	TRUE	TRUE
168	rs55831773	T	C	26.8394	-0.0159788	0.0019668	4.52E-16	331315	-0.0215	0.0149	0.1483	393873	TRUE	TRUE
169	rs57126421	G	A	12.7596	-0.0103413	0.00182261	1.40E-08	331315	-0.03	0.0138	0.0293697	393873	TRUE	TRUE
170	rs5752989	A	G	16.991	-0.0102372	0.0015538	4.45E-11	331315	0.0098	0.0118	0.4034	393873	TRUE	TRUE
171	rs599004	T	C	27.6181	-0.0143947	0.00171238	4.25E-17	331315	-0.01	0.013	0.4424	393873	TRUE	TRUE
172	rs6032233	C	T	16.5059	0.0126779	0.00195557	9.01E-11	331315	0.0134	0.0148	0.3663	393873	TRUE	TRUE
173	rs60804050	A	G	14.0381	-0.0105786	0.00176665	2.13E-09	331315	-0.0051	0.0134	0.7028	393873	TRUE	TRUE
174	rs6081869	G	T	16.2187	-0.0101581	0.0015994	2.14E-10	331315	-0.0198	0.0121	0.1021	393873	TRUE	TRUE
175	rs6085659	G	A	14.4737	-0.00952081	0.0015633	1.13E-09	331315	0.0115	0.0118	0.3297	393873	TRUE	TRUE
176	rs61729527	T	C	20.2853	-0.0251117	0.00349498	6.73E-13	331315	0.0235	0.0265	0.3745	393873	TRUE	TRUE

177	rs61862463	G	A	12.8924	0.0290963	0.00516773	1.80E-08	331315	-0.0045	0.0388	0.9068	393873	TRUE	TRUE
178	rs62070645	A	C	74.3545	-0.0238885	0.00173292	3.22E-43	331315	-0.0207	0.0131	0.1156	393873	TRUE	TRUE
179	rs62275882	A	G	15.693	-0.0140022	0.00221596	2.64E-10	331315	-0.0026	0.0167	0.8777	393873	TRUE	TRUE
180	rs62515437	T	G	47.8638	0.0203257	0.00183796	2.01E-28	331315	-0.0102	0.0139	0.4637	393873	TRUE	TRUE
181	rs662115	T	C	15.6803	0.00978267	0.00155082	2.83E-10	331315	0.0132	0.0118	0.263	393873	TRUE	TRUE
182	rs67551338	T	C	24.6665	0.0253903	0.0032343	4.16E-15	331315	0.0108	0.0245	0.6601	393873	TRUE	TRUE
183	rs6762578	A	G	30.3493	0.0162886	0.00185869	1.90E-18	331315	-0.0416	0.0141	0.00312399	393873	TRUE	TRUE
184	rs6821305	C	A	24.1386	0.0123344	0.00157208	4.31E-15	331315	-0.0032	0.0119	0.7848	393873	TRUE	TRUE
185	rs6873192	G	A	24.9236	-0.0122729	0.00154125	1.69E-15	331315	-0.0151	0.0117	0.1958	393873	TRUE	TRUE
186	rs6874142	G	T	26.6388	0.0201449	0.0025518	2.93E-15	331315	0.0165	0.0193	0.3949	393873	TRUE	TRUE
187	rs6975015	A	G	22.1973	0.0179897	0.00239876	6.42E-14	331315	-0.0021	0.0181	0.9076	393873	TRUE	TRUE
188	rs6995599	T	C	51.8372	-0.019177	0.00166833	1.42E-30	331315	0.0124	0.0126	0.3249	393873	TRUE	TRUE
189	rs7077783	T	C	18.2527	-0.0149542	0.00219516	9.62E-12	331315	-0.0157	0.0166	0.3455	393873	TRUE	TRUE
190	rs7134283	A	G	20.6055	-0.0123681	0.00171091	4.88E-13	331315	-6.00E-04	0.0129	0.9657	393873	TRUE	TRUE
191	rs71373536	A	G	33.0259	-0.0162291	0.0017703	4.87E-20	331315	0.0281	0.0134	0.0359898	393873	TRUE	TRUE
192	rs71393968	A	G	19.4803	0.0260154	0.00369115	1.82E-12	331315	-0.006	0.0284	0.8323	393873	TRUE	TRUE
193	rs71414738	T	C	12.9271	0.0115849	0.00201733	9.33E-09	331315	0.0105	0.0153	0.4907	393873	TRUE	TRUE
194	rs7205337	G	A	27.1716	0.0158347	0.00190613	9.83E-17	331315	0.0085	0.0144	0.5562	393873	TRUE	TRUE
195	rs7214743	G	A	37.0996	-0.0159085	0.00163304	2.02E-22	331315	0.0152	0.0124	0.2211	393873	TRUE	TRUE
196	rs7229351	A	G	17.1622	-0.0105462	0.00159231	3.52E-11	331315	-0.0059	0.0121	0.6233	393873	TRUE	TRUE
197	rs723149	G	A	26.7831	-0.0128193	0.00155076	1.38E-16	331315	0.0027	0.0117	0.8205	393873	TRUE	TRUE
198	rs7250927	C	T	17.3402	-0.0107125	0.00161966	3.75E-11	331315	-0.0123	0.0123	0.3171	393873	TRUE	TRUE
199	rs72656010	C	T	94.8889	-0.0354813	0.00228572	2.53E-54	331315	0.0104	0.0173	0.5461	393873	TRUE	TRUE
200	rs72675793	T	C	13.8486	-0.0112115	0.00188624	2.79E-09	331315	-0.0029	0.0143	0.8386	393873	TRUE	TRUE
201	rs72828807	A	G	13.0169	0.0099192	0.00172541	8.99E-09	331315	-0.0025	0.0131	0.8507	393873	TRUE	TRUE
202	rs72885917	C	A	62.5547	-0.0224054	0.00177205	1.23E-36	331315	0.0213	0.0134	0.1129	393873	TRUE	TRUE
203	rs7305516	G	A	18.9157	-0.0106859	0.00154824	5.14E-12	331315	0.0088	0.0117	0.4542	393873	TRUE	TRUE
204	rs73619441	G	T	21.7731	-0.0164832	0.00221597	1.02E-13	331315	-0.0035	0.0168	0.8343	393873	TRUE	TRUE
205	rs74048171	A	C	12.8025	-0.0100494	0.00175997	1.13E-08	331315	-0.0169	0.0133	0.2046	393873	TRUE	TRUE
206	rs74494415	T	C	23.2421	-0.0301577	0.00394717	2.17E-14	331315	-0.0742	0.03	0.0135201	393873	TRUE	TRUE
207	rs74565893	T	C	12.1991	-0.0407803	0.00732004	2.53E-08	331315	-0.0329	0.0541	0.5428	393873	TRUE	TRUE
208	rs7628343	C	T	13.5317	0.0154738	0.00263489	4.29E-09	331315	0.0073	0.0198	0.7117	393873	TRUE	TRUE
209	rs76513770	C	T	22.7575	-0.0174781	0.002295	2.63E-14	331315	-0.0143	0.0175	0.4146	393873	TRUE	TRUE
210	rs7728690	T	C	19.3639	-0.0111135	0.00157966	1.99E-12	331315	0.0032	0.012	0.786401	393873	TRUE	TRUE
211	rs7731023	G	A	15.1552	0.00967784	0.0015554	4.91E-10	331315	-0.0166	0.0118	0.158	393873	TRUE	TRUE
212	rs7781964	A	G	18.3275	0.0135631	0.00198647	8.64E-12	331315	0.0089	0.015	0.5551	393873	TRUE	TRUE
213	rs78378222	G	T	65.8953	0.0894865	0.00700475	2.30E-37	331315	-0.1194	0.0535	0.0255499	393873	TRUE	TRUE
214	rs78964719	T	G	12.3499	0.016706	0.00297805	2.03E-08	331315	-0.0193	0.0224	0.3897	393873	TRUE	TRUE
215	rs7910087	C	T	24.1747	-0.0121466	0.00155589	5.88E-15	331315	-3.00E-04	0.0118	0.9811	393873	TRUE	TRUE
216	rs7977788	A	G	79.3307	0.0262057	0.00184142	6.05E-46	331315	-0.0031	0.0139	0.8227	393873	TRUE	TRUE
217	rs79883557	T	C	15.8998	-0.0179512	0.00282156	1.99E-10	331315	-0.0901	0.0213	2.34E-05	393873	TRUE	TRUE
218	rs7994814	T	C	20.2526	0.0111984	0.00157722	1.25E-12	331315	0.0103	0.0119	0.3877	393873	TRUE	TRUE
219	rs8007058	A	G	11.9582	0.0101722	0.00184333	3.42E-08	331315	0.016	0.0139	0.2512	393873	TRUE	TRUE
220	rs8007644	A	G	13.8751	0.00937902	0.00158957	3.63E-09	331315	-0.0066	0.012	0.5827	393873	TRUE	TRUE
221	rs8059189	A	G	20.4932	-0.0113465	0.0016098	1.81E-12	331315	-0.0028	0.0121	0.8164	393873	TRUE	TRUE

222	rs836519	T	C	15.2898	0.0121006	0.00193754	4.23E-10	331315	0.0138	0.0147	0.3458	393873	TRUE	TRUE
223	rs9314420	G	A	12.96	-0.00894176	0.00155832	9.58E-09	331315	0.0303	0.0118	0.0102601	393873	TRUE	TRUE
224	rs931874	T	C	13.851	0.00942687	0.00160064	3.88E-09	331315	0.0128	0.0121	0.2918	393873	TRUE	TRUE
225	rs9327336	C	T	14.615	0.0098783	0.00161768	1.02E-09	331315	0.0146	0.0123	0.2325	393873	TRUE	TRUE
226	rs9341808	A	C	28.2964	-0.0130793	0.00154384	2.42E-17	331315	0.0173	0.0117	0.1399	393873	TRUE	TRUE
227	rs9379084	A	G	15.4264	-0.0150024	0.00248339	1.53E-09	331315	0.0059	0.0187	0.751799	393873	TRUE	TRUE
228	rs9380508	T	C	18.9471	0.0128668	0.00185591	4.13E-12	331315	-0.0536	0.014	0.000129999	393873	TRUE	TRUE
229	rs9449197	C	T	16.3632	-0.0101045	0.00156691	1.13E-10	331315	0.0089	0.0119	0.4524	393873	TRUE	TRUE
230	rs9512661	T	C	13.0474	-0.00887726	0.00155013	1.02E-08	331315	-0.0125	0.0117	0.2848	393873	TRUE	TRUE
231	rs9915532	G	A	24.8966	-0.016281	0.00204075	1.49E-15	331315	0.0268	0.0155	0.0837606	393873	TRUE	TRUE
232	rs9925273	G	A	16.4976	-0.0128818	0.0019897	9.54E-11	331315	-0.0085	0.0151	0.5753	393873	TRUE	TRUE
233	rs9960148	T	G	12.6933	-0.00895994	0.00157669	1.33E-08	331315	-0.0185	0.0119	0.1208	393873	TRUE	TRUE
234	rs9960619	T	C	12.2529	0.00904846	0.00161874	2.27E-08	331315	0.0107	0.0123	0.3807	393873	TRUE	TRUE
235	rs9985795	C	T	13.6789	-0.00909336	0.00154348	3.83E-09	331315	-0.0211	0.0117	0.0713099	393873	TRUE	TRUE
236	rs10024321	C	G	-	-0.00954669	0.00153873	5.50161E-10	331315	-0.0143	0.0076	0.0609102	393873	FALSE	TRUE
237	rs10094200	G	C	-	-0.0129361	0.00168827	1.83105E-14	331315	0.0145	0.0084	0.0821297	393873	FALSE	TRUE
238	rs10104303	A	T	-	0.00951898	0.00155325	8.88464E-10	331315	0.0411	0.0077	8.68001E-08	393873	FALSE	TRUE
239	rs10170971	C	G	-	-0.00945659	0.00154533	9.3994E-10	331315	-0.0134	0.0076	0.0796599	393873	FALSE	TRUE
240	rs1043413	G	C	-	0.0092768	0.00157565	3.92229E-09	331315	0.0144	0.0078	0.0646994	393873	FALSE	TRUE
241	rs10767735	C	G	-	-0.0094908	0.00157642	1.74096E-09	331315	-0.0272	0.0078	0.000489103	393873	FALSE	TRUE
242	rs10883560	G	C	-	0.0180905	0.00155515	2.85E-31	331315	0.0053	0.0077	0.4899	393873	FALSE	TRUE
243	rs10958683	G	C	-	-0.0102312	0.00182152	1.94617E-08	331315	-0.0003	0.009	0.972	393873	FALSE	TRUE
244	rs10982888	A	T	-	-0.0160784	0.00245593	5.88844E-11	331315	-0.0048	0.0121	0.6887	393873	FALSE	TRUE
245	rs1111818	C	G	-	0.009505	0.00159696	2.65289E-09	331315	0.0032	0.0079	0.6886	393873	FALSE	TRUE
246	rs111640872	C	G	-	0.0150985	0.00163829	3.10E-20	331315	0.0126	0.0081	0.1186	393873	FALSE	TRUE
247	rs111964059	A	T	-	0.0155878	0.00276875	1.80439E-08	331315	0.0112	0.0137	0.4152	393873	FALSE	TRUE
248	rs11233117	G	C	-	-0.00932836	0.0015461	1.60646E-09	331315	-0.009	0.0076	0.2384	393873	FALSE	TRUE
249	rs115574684	A	T	-	0.0221987	0.00399546	2.76255E-08	331315	0.0259	0.0196	0.1863	393873	FALSE	TRUE
250	rs116072427	C	G	-	-0.0241349	0.00300296	9.23E-16	331315	0.0375	0.0148	0.01153	393873	FALSE	TRUE
251	rs11667280	G	C	-	-0.0112003	0.00191244	4.73086E-09	331315	-0.0207	0.0094	0.0286398	393873	FALSE	TRUE
252	rs11678716	C	G	-	-0.0214599	0.00304844	1.93152E-12	331315	0.059	0.0151	9.25998E-05	393873	FALSE	TRUE
253	rs12448561	C	G	-	0.00996439	0.00156296	1.83E-10	331315	-0.0055	0.0077	0.4795	393873	FALSE	TRUE
254	rs12452505	G	C	-	-0.0187585	0.00222043	2.97E-17	331315	-0.0011	0.0109	0.9181	393873	FALSE	TRUE
255	rs13264909	T	A	-	-0.0102317	0.00155581	4.83E-11	331315	-0.0193	0.0077	0.01181	393873	FALSE	TRUE
256	rs141403611	G	C	-	-0.0145164	0.00261367	2.79E-08	331315	-0.0117	0.0129	0.3651	393873	FALSE	TRUE
257	rs1478575	A	T	-	0.0200223	0.00165766	1.39E-33	331315	0.0141	0.0082	0.0848907	393873	FALSE	TRUE
258	rs1573891	C	G	-	-0.022984	0.00213016	3.89E-27	331315	0.0197	0.0105	0.0612407	393873	FALSE	TRUE
259	rs17454369	C	G	-	0.0224029	0.0033445	2.11E-11	331315	0.0094	0.0166	0.5689	393873	FALSE	TRUE
260	rs2270894	G	C	-	-0.01643	0.00197771	9.80E-17	331315	-0.0071	0.0097	0.463	393873	FALSE	TRUE
261	rs2296505	C	G	-	0.00965919	0.00166316	6.34E-09	331315	0.0071	0.0082	0.3872	393873	FALSE	TRUE
262	rs252758	A	T	-	-0.0168645	0.00178314	3.17E-21	331315	-0.0168	0.0088	0.0560106	393873	FALSE	TRUE
263	rs252937	G	C	-	-0.00951262	0.0016556	9.16E-09	331315	-0.0142	0.0082	0.0811204	393873	FALSE	TRUE
264	rs2812208	C	G	-	0.0758365	0.00531898	4.14E-46	331315	-0.0147	0.0264	0.5784	393873	FALSE	TRUE
265	rs2968669	G	C	-	0.00934637	0.00154674	1.52E-09	331315	0.0012	0.0076	0.8739	393873	FALSE	TRUE
266	rs3212260	T	A	-	0.0134153	0.00175643	2.22E-14	331315	0.0062	0.0087	0.4741	393873	FALSE	TRUE

267	rs3749387	T	C	-	0.0130495	0.00156232	6.70E-17	331315	0.026	0.0077	0.000732993	393873	FALSE	TRUE
268	rs3771382	T	C	-	0.0130495	0.00156232	6.70E-17	331315	-0.152	0.1598	0.3414	393873	FALSE	TRUE
269	rs4076108	T	A	-	0.0102232	0.0017931	1.19E-08	331315	-0.0051	0.0089	0.5652	393873	FALSE	TRUE
270	rs4865956	C	G	-	0.0185571	0.00169714	7.99E-28	331315	0.0145	0.0084	0.0848594	393873	FALSE	TRUE
271	rs490683	A	T	-	-0.0109322	0.0016779	7.26E-11	331315	0.0043	0.0083	0.6046	393873	FALSE	TRUE
272	rs545608	C	G	-	0.0263681	0.00189369	4.65E-44	331315	0.031	0.0094	0.00092809	393873	FALSE	TRUE
273	rs58857770	G	C	-	-0.0120727	0.00157337	1.68E-14	331315	-0.0139	0.0078	0.0733196	393873	FALSE	TRUE
274	rs607472	G	C	-	0.0117579	0.0015636	5.50E-14	331315	0.0036	0.0077	0.6407	393873	FALSE	TRUE
275	rs61941043	T	A	-	0.0489423	0.00795625	7.69E-10	331315	0.0563	0.039	0.1488	393873	FALSE	TRUE
276	rs6235	G	C	-	0.0160082	0.00173607	2.96E-20	331315	0.041	0.0086	1.69E-06	393873	FALSE	TRUE
277	rs6505781	C	G	-	-0.00972453	0.00176019	3.30E-08	331315	5.00E-04	0.0087	0.9533	393873	FALSE	TRUE
278	rs667515	C	G	-	-0.0102005	0.00158384	1.19E-10	331315	-0.0104	0.0078	0.1855	393873	FALSE	TRUE
279	rs7148516	A	T	-	-0.00929853	0.00167174	2.67E-08	331315	-0.0181	0.0083	0.0282202	393873	FALSE	TRUE
280	rs72801843	A	T	-	0.016132	0.00167432	5.73E-22	331315	-0.0206	0.0083	0.0126999	393873	FALSE	TRUE
281	rs730536	C	G	-	-0.00937864	0.00170164	3.56E-08	331315	-0.0087	0.0084	0.3007	393873	FALSE	TRUE
282	rs75570992	C	G	-	0.016804	0.00303844	3.20E-08	331315	-0.0014	0.015	0.9262	393873	FALSE	TRUE
283	rs7624428	A	T	-	0.010614	0.00174326	1.14E-09	331315	0.0194	0.0086	0.0239199	393873	FALSE	TRUE
284	rs7652177	G	C	-	0.0150354	0.00153728	1.37E-22	331315	-0.0013	0.0076	0.8647	393873	FALSE	TRUE
285	rs7709645	C	G	-	-0.0107378	0.00153866	2.98E-12	331315	-0.0074	0.0076	0.3276	393873	FALSE	TRUE
286	rs7740107	A	T	-	-0.0287685	0.00174108	2.64E-61	331315	-0.0045	0.0086	0.597901	393873	FALSE	TRUE
287	rs7814495	C	G	-	0.0128042	0.00225355	1.33E-08	331315	0.0252	0.0111	0.0233201	393873	FALSE	TRUE
288	rs78812993	C	G	-	-0.022563	0.00349726	1.11E-10	331315	-0.025	0.0173	0.1481	393873	FALSE	TRUE
289	rs8123912	C	G	-	0.011373	0.00185224	8.26E-10	331315	0.0107	0.0092	0.244	393873	FALSE	TRUE
290	rs933807	C	G	-	-0.0106982	0.00154403	4.25E-12	331315	0.0035	0.0076	0.6442	393873	FALSE	TRUE
291	rs9379130	C	G	-	0.0184877	0.00154704	6.57E-33	331315	-0.0212	0.0076	0.00556096	393873	FALSE	TRUE
292	rs9381350	A	T	-	0.0096487	0.0016228	2.76E-09	331315	-0.0314	0.008	9.16E-05	393873	FALSE	TRUE
293	rs946197	C	G	-	0.0156371	0.00183355	1.49E-17	331315	-0.0086	0.009	0.3406	393873	FALSE	TRUE
294	rs9480947	G	C	-	-0.0144859	0.00156424	2.04E-20	331315	0.0134	0.0077	0.0826304	393873	FALSE	TRUE
295	rs981002	A	T	-	-0.0111814	0.0017396	1.30E-10	331315	-7.00E-04	0.0086	0.9382	393873	FALSE	TRUE
296	rs3740591	T	C	-	0.0130495	0.0077	0.000732993	331315	0.026	0.00156232	6.70E-17	393873	FALSE	TRUE
297	rs10236214	T	C	-	0.0206246	0.00161339	2.07E-37	331315	3.00E-04	0.0122	0.9787	393873	TRUE	FALSE
298	rs10237306	T	G	-	0.0111822	0.0015839	1.67E-12	331315	0.0307	0.012	0.01035	393873	TRUE	FALSE
299	rs10483727	C	T	-	-0.021772	0.00157965	3.33E-43	331315	-0.019	0.012	0.111	393873	TRUE	FALSE
300	rs10485622	G	A	-	-0.0186356	0.00194495	9.62E-22	331315	-0.0011	0.0147	0.9397	393873	TRUE	FALSE
301	rs1064213	A	G	-	0.0115614	0.00153996	6.04E-14	331315	0.0036	0.0117	0.760901	393873	TRUE	FALSE
302	rs10748128	T	G	-	0.0114874	0.00161805	1.25E-12	331315	0.0412	0.0123	0.000764399	393873	TRUE	FALSE
303	rs10847415	C	T	-	0.0147258	0.00167676	1.61E-18	331315	0.0209	0.0127	0.0991608	393873	TRUE	FALSE
304	rs10938398	A	G	-	0.0113743	0.00155668	2.74E-13	331315	0.0057	0.0118	0.6269	393873	TRUE	FALSE
305	rs11030119	A	G	-	0.0168607	0.00166541	4.36E-24	331315	0.0152	0.0126	0.2283	393873	TRUE	FALSE
306	rs11065015	T	C	-	-0.0315496	0.00481597	5.72E-11	331315	-0.0031	0.036	0.9324	393873	TRUE	FALSE
307	rs11205617	A	G	-	0.0105812	0.00164858	1.38E-10	331315	-0.0142	0.0125	0.2569	393873	TRUE	FALSE
308	rs115912456	G	A	-	0.025465	0.00387095	4.76E-11	331315	-0.0824	0.0292	0.00480795	393873	TRUE	FALSE
309	rs11689727	A	C	-	-0.0113124	0.00163517	4.58E-12	331315	-0.0101	0.0124	0.4149	393873	TRUE	FALSE
310	rs11803905	T	C	-	0.0101829	0.0017273	3.74E-09	331315	0.0186	0.0131	0.1556	393873	TRUE	FALSE
311	rs11880992	A	G	-	0.014673	0.00156502	6.92E-21	331315	-0.0344	0.0119	0.00372203	393873	TRUE	FALSE

312	rs11951673	T	C	-	-0.00881874	0.00157129	2.00E-08	331315	-0.0067	0.0119	0.5728	393873	TRUE	FALSE
313	rs12140153	T	G	-	-0.0163781	0.00266774	8.30E-10	331315	-0.0437	0.0204	0.0320398	393873	TRUE	FALSE
314	rs12209223	A	C	-	0.0175154	0.0025496	6.44E-12	331315	0.1558	0.0191	3.88E-16	393873	TRUE	FALSE
315	rs12375196	A	C	-	0.00853923	0.00156379	4.75E-08	331315	0.0076	0.0118	0.5215	393873	TRUE	FALSE
316	rs1260326	C	T	-	0.021322	0.00157247	7.14E-42	331315	0.0323	0.0119	0.00667099	393873	TRUE	FALSE
317	rs12682601	A	C	-	-0.0109551	0.0016539	3.51E-11	331315	0.0012	0.0125	0.9218	393873	TRUE	FALSE
318	rs12813149	A	G	-	-0.00978579	0.00179313	4.84E-08	331315	0.0368	0.0136	0.00670595	393873	TRUE	FALSE
319	rs1286138	G	T	-	0.0112964	0.0016415	5.92E-12	331315	0.0278	0.0125	0.0259597	393873	TRUE	FALSE
320	rs12879423	G	A	-	0.0149981	0.00165869	1.54E-19	331315	0.0228	0.0125	0.06925	393873	TRUE	FALSE
321	rs13124829	G	A	-	0.00908827	0.00165201	3.77E-08	331315	0.0126	0.0125	0.3155	393873	TRUE	FALSE
322	rs13247154	A	G	-	0.0120602	0.00159811	4.48E-14	331315	0.0077	0.0121	0.5231	393873	TRUE	FALSE
323	rs1351394	C	T	-	-0.0270405	0.00153924	4.70E-69	331315	-0.0022	0.0117	0.8473	393873	TRUE	FALSE
324	rs1412234	C	T	-	0.0107522	0.00164135	5.73E-11	331315	0.0227	0.0124	0.0681506	393873	TRUE	FALSE
325	rs143384	G	A	-	0.0374839	0.00156539	1.32E-126	331315	-0.0131	0.0119	0.271	393873	TRUE	FALSE
326	rs1472852	A	C	-	-0.0323174	0.00211587	1.19E-52	331315	0.0147	0.016	0.3587	393873	TRUE	FALSE
327	rs1521624	A	C	-	-0.0092871	0.00154768	1.97E-09	331315	0.0022	0.0117	0.8477	393873	TRUE	FALSE
328	rs1582931	A	G	-	-0.0204767	0.00155262	1.05E-39	331315	0.0067	0.0118	0.5695	393873	TRUE	FALSE
329	rs1765133	T	C	-	-0.0109715	0.001833	2.16E-09	331315	-0.0158	0.0139	0.2542	393873	TRUE	FALSE
330	rs1887855	C	T	-	-0.00991637	0.0017416	1.24E-08	331315	-0.0135	0.0132	0.3045	393873	TRUE	FALSE
331	rs1941697	A	G	-	0.00851379	0.00154385	3.50E-08	331315	0.0153	0.0117	0.1895	393873	TRUE	FALSE
332	rs197372	C	T	-	0.0101254	0.00166279	1.13E-09	331315	0.014	0.0126	0.2647	393873	TRUE	FALSE
333	rs204993	G	A	-	0.0148641	0.00164755	1.86E-19	331315	-0.0073	0.0125	0.560899	393873	TRUE	FALSE
334	rs2142331	T	C	-	-0.0133875	0.00157329	1.76E-17	331315	-0.0125	0.0119	0.2927	393873	TRUE	FALSE
335	rs216193	G	A	-	-0.00924644	0.00158481	5.40E-09	331315	-0.005	0.012	0.675899	393873	TRUE	FALSE
336	rs2282231	T	C	-	0.0147697	0.00188649	4.92E-15	331315	0.0147	0.0143	0.3038	393873	TRUE	FALSE
337	rs2102278	G	A	-	0.0109377	0.00164935	3.33E-11	331315	0.0323	0.0128	0.01158	393873	TRUE	FALSE
338	rs2307111	C	T	-	-0.0182283	0.00157618	6.30E-31	331315	0.0051	0.0119	0.6711	393873	TRUE	FALSE
339	rs2411453	G	T	-	-0.0123217	0.00156941	4.14E-15	331315	-1.00E-04	0.0119	0.9933	393873	TRUE	FALSE
340	rs2482357	A	G	-	-0.0095013	0.00155486	9.93E-10	331315	-0.0083	0.0118	0.4791	393873	TRUE	FALSE
341	rs2533879	A	G	-	-0.0217897	0.0016767	1.32E-38	331315	0.0026	0.0127	0.8384	393873	TRUE	FALSE
342	rs2540034	T	C	-	0.0147276	0.00157944	1.12E-20	331315	-0.0041	0.0119	0.7287	393873	TRUE	FALSE
343	rs2678204	G	T	-	0.0123815	0.00162327	2.40E-14	331315	0.0015	0.0123	0.9005	393873	TRUE	FALSE
344	rs2733287	C	A	-	0.00924327	0.00153994	1.95E-09	331315	-0.0052	0.0117	0.6562	393873	TRUE	FALSE
345	rs2744965	T	C	-	0.0389837	0.00221792	3.99E-69	331315	-0.0048	0.0168	0.7752	393873	TRUE	FALSE
346	rs2815753	A	G	-	0.00974532	0.00156844	5.19E-10	331315	0.0192	0.0119	0.1056	393873	TRUE	FALSE
347	rs2979655	G	T	-	0.0121365	0.00210678	8.38E-09	331315	-0.0296	0.0159	0.0633899	393873	TRUE	FALSE
348	rs299370	C	T	-	-0.0100787	0.00167152	1.64E-09	331315	0.0067	0.0127	0.5943	393873	TRUE	FALSE
349	rs3118914	T	G	-	-0.0315989	0.00186554	2.50E-64	331315	-0.0327	0.0141	0.0207702	393873	TRUE	FALSE
350	rs34517439	A	C	-	0.0357399	0.00235836	7.36E-52	331315	-0.007	0.0179	0.6955	393873	TRUE	FALSE
351	rs34879158	C	A	-	-0.0213421	0.00175178	3.89E-34	331315	0.0038	0.0132	0.774399	393873	TRUE	FALSE
352	rs357501	A	G	-	0.0106497	0.00159473	2.42E-11	331315	0.0173	0.0121	0.1518	393873	TRUE	FALSE
353	rs35874463	G	A	-	0.0214922	0.00329106	6.56E-11	331315	-0.0078	0.0252	0.7579	393873	TRUE	FALSE
354	rs3778157	C	T	-	0.0123553	0.00204975	1.66E-09	331315	0.0047	0.0155	0.760901	393873	TRUE	FALSE
355	rs3759094	T	C	-	-0.0125754	0.00162844	1.15E-14	331315	-0.0017	0.0123	0.8874	393873	TRUE	FALSE
356	rs3798519	C	A	-	0.0210874	0.00201244	1.09E-25	331315	0.023	0.0152	0.1302	393873	TRUE	FALSE

357	rs3803286	G	A	-	-0.00955458	0.00162946	4.53E-09	331315	0.007	0.0124	0.5705	393873	TRUE	FALSE
358	rs3810291	A	G	-	0.0171036	0.00164423	2.44E-25	331315	0.0138	0.0124	0.2682	393873	TRUE	FALSE
359	rs3814877	T	G	-	0.0235538	0.00156738	5.04E-51	331315	0.0234	0.0119	0.04854	393873	TRUE	FALSE
360	rs3845344	T	C	-	0.00904904	0.00157462	9.10E-09	331315	0.0348	0.0119	0.00355099	393873	TRUE	FALSE
361	rs3853252	A	G	-	0.0161298	0.0015503	2.39E-25	331315	-0.0178	0.0117	0.1286	393873	TRUE	FALSE
362	rs41271299	T	C	-	0.0427021	0.00347472	1.05E-34	331315	0.0538	0.0263	0.0405397	393873	TRUE	FALSE
363	rs42044	G	T	-	0.0281779	0.00173298	2.01E-59	331315	0.0321	0.0131	0.01424	393873	TRUE	FALSE
364	rs4235012	C	T	-	0.00898725	0.00155433	7.39E-09	331315	0.003	0.0118	0.8007	393873	TRUE	FALSE
365	rs4240326	G	A	-	-0.02204	0.00154401	3.26E-46	331315	0.0041	0.0117	0.723801	393873	TRUE	FALSE
366	rs4472800	T	G	-	0.0100657	0.00158025	1.90E-10	331315	0.0037	0.012	0.757801	393873	TRUE	FALSE
367	rs4782286	A	G	-	-0.0122703	0.00189123	8.71E-11	331315	-0.0077	0.0143	0.592	393873	TRUE	FALSE
368	rs4819021	C	T	-	-0.0100104	0.00155343	1.16E-10	331315	0.0039	0.0118	0.7381	393873	TRUE	FALSE
369	rs4858697	G	A	-	0.0125887	0.00156235	7.81E-16	331315	-0.0036	0.0118	0.763901	393873	TRUE	FALSE
370	rs4980826	A	C	-	0.00861605	0.00157229	4.26E-08	331315	0.0191	0.0119	0.1082	393873	TRUE	FALSE
371	rs55726687	A	G	-	0.0148579	0.00188362	3.08E-15	331315	0.0238	0.0143	0.0949402	393873	TRUE	FALSE
372	rs55872725	T	C	-	0.0369921	0.00156728	4.57E-123	331315	0.0566	0.0119	1.82E-06	393873	TRUE	FALSE
373	rs57153895	G	A	-	-0.0118157	0.00153639	1.47E-14	331315	-0.0098	0.0117	0.4022	393873	TRUE	FALSE
374	rs5742915	C	T	-	0.0092877	0.00154276	1.74E-09	331315	0.0075	0.0117	0.519501	393873	TRUE	FALSE
375	rs57635800	A	G	-	0.012878	0.00170438	4.17E-14	331315	-0.0053	0.0129	0.683501	393873	TRUE	FALSE
376	rs57636386	C	T	-	-0.0247446	0.00278629	6.67E-19	331315	-0.0207	0.0211	0.3275	393873	TRUE	FALSE
377	rs59985551	T	C	-	-0.0177351	0.00184272	6.35E-22	331315	-0.0623	0.014	8.09E-06	393873	TRUE	FALSE
378	rs60077625	A	G	-	0.0142973	0.00165441	5.55E-18	331315	-0.0019	0.0126	0.8804	393873	TRUE	FALSE
379	rs6142059	C	T	-	0.0110302	0.00154011	7.97E-13	331315	0.0175	0.0117	0.1345	393873	TRUE	FALSE
380	rs62107261	C	T	-	-0.0539524	0.00360199	1.05E-50	331315	-0.0848	0.0274	0.00198701	393873	TRUE	FALSE
381	rs62246314	A	G	-	0.0140569	0.00254924	3.51E-08	331315	0.001	0.0193	0.9575	393873	TRUE	FALSE
382	rs62621197	T	C	-	-0.0362979	0.00425744	1.52E-17	331315	0.0217	0.0317	0.4934	393873	TRUE	FALSE
383	rs62621812	A	G	-	0.0493727	0.0055704	7.80E-19	331315	-0.0694	0.0423	0.101	393873	TRUE	FALSE
384	rs6445198	T	G	-	-0.00936245	0.00156285	2.09E-09	331315	-0.0354	0.0118	0.00279299	393873	TRUE	FALSE
385	rs6470764	T	C	-	-0.0170442	0.00191036	4.60E-19	331315	-0.0737	0.0145	3.60E-07	393873	TRUE	FALSE
386	rs6570509	T	G	-	-0.0176228	0.00170565	5.09E-25	331315	4.00E-04	0.0129	0.978	393873	TRUE	FALSE
387	rs66922415	G	A	-	0.0440473	0.00181242	2.37E-130	331315	0.0512	0.0137	0.0001952	393873	TRUE	FALSE
388	rs6800021	A	G	-	0.014209	0.00155601	6.78E-20	331315	0.0149	0.0118	0.2083	393873	TRUE	FALSE
389	rs6902789	A	G	-	0.00981781	0.00160043	8.55E-10	331315	0.0333	0.0121	0.00588396	393873	TRUE	FALSE
390	rs7047694	A	G	-	0.0115334	0.00165756	3.46E-12	331315	-0.0131	0.0126	0.2952	393873	TRUE	FALSE
391	rs7080472	T	G	-	0.0155313	0.00156055	2.48E-23	331315	-0.0051	0.0118	0.6656	393873	TRUE	FALSE
392	rs7129320	A	G	-	-0.0235202	0.00205608	2.69E-30	331315	-0.0429	0.0156	0.00603907	393873	TRUE	FALSE
393	rs7132908	A	G	-	0.0165129	0.00158299	1.80E-25	331315	0.0503	0.012	2.72E-05	393873	TRUE	FALSE
394	rs71385734	G	T	-	-0.0240063	0.00206222	2.59E-31	331315	-0.0107	0.0157	0.4965	393873	TRUE	FALSE
395	rs7141420	T	C	-	0.011669	0.00154884	4.93E-14	331315	0.0185	0.0117	0.1143	393873	TRUE	FALSE
396	rs7235010	A	G	-	0.026424	0.00186597	1.65E-45	331315	0.0126	0.0142	0.3747	393873	TRUE	FALSE
397	rs724016	G	A	-	0.0297998	0.00154572	8.96E-83	331315	-0.0055	0.0117	0.636499	393873	TRUE	FALSE
398	rs72699870	C	T	-	0.0128125	0.00194612	4.60E-11	331315	-0.0144	0.0147	0.3299	393873	TRUE	FALSE
399	rs7298201	T	C	-	0.0101731	0.0015629	7.57E-11	331315	0.0366	0.0118	0.00193798	393873	TRUE	FALSE
400	rs73052033	C	T	-	-0.0161202	0.00198951	5.40E-16	331315	-0.0278	0.015	0.0637896	393873	TRUE	FALSE
401	rs73175572	G	A	-	0.0275272	0.00246583	6.23E-29	331315	-0.0153	0.0187	0.4122	393873	TRUE	FALSE

402	rs7460093	A	G	-	0.00923236	0.0015554	2.93E-09	331315	0.0058	0.0118	0.6204	393873	TRUE	FALSE
403	rs7559547	T	C	-	0.0320141	0.00202458	2.67E-56	331315	0.027	0.0154	0.0786702	393873	TRUE	FALSE
404	rs7584391	A	G	-	-0.0114329	0.00197719	7.37E-09	331315	-0.0117	0.015	0.4359	393873	TRUE	FALSE
405	rs76798800	T	G	-	0.0228731	0.00174032	1.91E-39	331315	-0.0061	0.0132	0.642401	393873	TRUE	FALSE
406	rs768023	A	G	-	0.0191756	0.00159082	1.88E-33	331315	0.0173	0.012	0.1504	393873	TRUE	FALSE
407	rs76889265	C	T	-	-0.0185269	0.00263152	1.92E-12	331315	-0.0088	0.02	0.661601	393873	TRUE	FALSE
408	rs76895963	G	T	-	0.102526	0.00596594	3.66E-66	331315	0.0539	0.044	0.2209	393873	TRUE	FALSE
409	rs7730885	G	A	-	0.0149181	0.00160342	1.36E-20	331315	0.0332	0.0121	0.00618102	393873	TRUE	FALSE
410	rs7952436	T	C	-	-0.0325551	0.00278497	1.46E-31	331315	-0.1015	0.0212	1.76E-06	393873	TRUE	FALSE
411	rs815341	G	A	-	0.00946113	0.00160055	3.40E-09	331315	0.0164	0.0121	0.1771	393873	TRUE	FALSE
412	rs849136	G	A	-	-0.0130766	0.00170123	1.52E-14	331315	-0.0385	0.0129	0.00277198	393873	TRUE	FALSE
413	rs9540493	G	A	-	-0.00871756	0.00155168	1.93E-08	331315	-0.0021	0.0117	0.8573	393873	TRUE	FALSE
414	rs9554333	C	T	-	0.00960379	0.00156362	8.16E-10	331315	-0.0081	0.0118	0.4953	393873	TRUE	FALSE
415	rs9826759	T	C	-	0.0146334	0.0016199	1.67E-19	331315	0.0235	0.0122	0.0547205	393873	TRUE	FALSE
416	rs9861443	C	A	-	0.0118634	0.00171196	4.22E-12	331315	0.0239	0.013	0.0649995	393873	TRUE	FALSE
417	rs9951619	G	T	-	0.0131162	0.00183731	9.43E-13	331315	-0.0159	0.0139	0.254	393873	TRUE	FALSE

K/HOA – knee and hip osteoarthritis, EA – effect allele, OA – Other allele, Beta – the effect size of the SNP, SE – standard error, EXP – exposure, out – outcome, rs – reference single-nucleotide polymorphism, SNP – single-nucleotide polymorphism, palindromic + ambiguous, TRUE means SNP was not palindromic or ambiguous, non-confounders – TRUE means SNP was not related to confounding factors..

Supplementary Table SV. MR analysis of OA and BWM indicators

Outcome	Method	BWM			
		Number of SNPs	SE	OR (95% CI)	<i>P</i> -value
K/HOA	IVW	239	0.07	1.45 (1.27–1.65)	3.24E-08
	MR-Egger	239	0.20	1.10 (0.75–1.62)	6.13E-01
	WME	239	0.07	1.45 (1.26–1.67)	3.38E-07
	Simple mode	239	0.26	1.98 (1.20–3.27)	7.87E-03
	Weighted mode	239	0.22	1.64 (1.06–2.53)	2.62E-02
KOA	IVW	231	0.08	1.53 (1.30–1.79)	2.18E-07
	MR-Egger	231	0.24	1.19 (0.74–1.91)	4.77E-01
	WME	231	0.09	1.51 (1.26–1.79)	6.89E-06
	Simple mode	231	0.32	1.35 (0.72–2.53)	3.43E-01
	Weighted mode	231	0.26	1.35 (0.81–2.25)	2.45E-01
HOA	IVW	235	0.09	1.25 (1.04–1.50)	0.02
	MR-Egger	235	0.28	0.83 (0.48–1.43)	0.50
	WME	235	0.11	1.21 (0.98–1.50)	0.07
	Simple mode	235	0.36	1.84 (0.91–3.69)	0.09
	Weighted mode	235	0.32	1.13 (0.61–2.05)	0.70

OA – osteoarthritis, KOA – knee osteoarthritis, HOA – hip osteoarthritis, BWM – whole body watermass, MR – Mendelian randomization, SE – standard error, SNP – single nucleotide polymorphism, IVW – inverse variance weighting, WME – weighted median, OR – odds ratio, CI – confidence interval, *p*-value – *p*-value for the genetic association.

Supplementary Table VI. Assessing directional pleiotropy through MR-Egger intercept and MR-PRESSO test among univariable MR

Exposure	Outcome	MR-egger intercept			MR-PRESSO
		intercept	P-value	SE	Global test Pval
	K/HOA	0.004	0.15	0.003	0.39
BWM	KOA	0.004	0.23	0.003	0.38
	HOA	0.006	0.12	0.004	0.94

K/HOA – knee and hip osteoarthritis, KOA – knee osteoarthritis, HOA – hip osteoarthritis, BWM – whole body watermass, P value – p-value for the genetic association, SE – standard error.

Supplementary Table SVII. Exclusion of K/HOA Outliers Detected in MR-PRESSO

N	SNP	EA	beta.exp	se.exp	pval.exp	beta.out	se.out	pval.out
1	rs10111935	A	0.0208	0.00170377	2.86E-34	0.0245	0.0084	0.00353297
2	rs10203320	C	0.0120136	0.00164994	3.32E-13	0.0249	0.0081	0.002238
3	rs10237306	T	0.0111822	0.0015839	1.67E-12	0.023	0.0078	0.00327997
4	rs10746837	A	-0.010485	0.00156713	2.23E-11	0.0152	0.0077	0.05
5	rs10775348	G	0.0136843	0.00168557	4.74E-16	0.0392	0.0083	2.57E-06
6	rs10798945	T	0.0117756	0.00178304	4.00E-11	-0.0197	0.0088	0.0250398
7	rs10931008	C	-0.012497	0.00162088	1.26E-14	-0.0227	0.008	0.004622
8	rs11071182	G	0.0133565	0.00230442	6.80E-09	0.0311	0.0114	0.00620098
9	rs113171806	C	0.0132527	0.00240373	3.52E-08	-0.019	0.0119	0.11
10	rs1228024	A	-0.0115055	0.00162482	1.43E-12	-0.0369	0.008	4.30E-06
11	rs13430869	T	0.0160228	0.00177371	1.67E-19	0.0313	0.0087	0.000334603
12	rs139590892	A	-0.0119235	0.00211414	1.70E-08	0.0201	0.0104	0.0538295
13	rs1407031	T	-0.00941992	0.00157451	2.20E-09	-0.0193	0.0078	0.01299
14	rs143986132	G	-0.0341007	0.00591442	8.14E-09	-0.0905	0.0291	0.001893
15	rs153560	A	0.0108819	0.00158582	6.80E-12	0.0215	0.0078	0.00590405
16	rs1591806	G	0.0163392	0.0015547	7.88E-26	-0.026	0.0077	0.000697301
17	rs16942324	A	-0.0396722	0.00480809	1.57E-16	0.0372	0.0235	0.1139
18	rs1881975	G	-0.01376	0.00179882	2.02E-14	0.0202	0.0089	0.0228902
19	rs2229840	T	0.0215606	0.00209492	7.74E-25	0.0445	0.0103	1.72E-05
20	rs2281175	C	0.0112834	0.00164824	7.62E-12	0.0276	0.0086	0.001339
21	rs247008	G	0.0151627	0.00164507	3.07E-20	-0.0157	0.0081	0.0526999
22	rs2592831	C	0.0129725	0.00162774	1.60E-15	0.0431	0.008	8.30E-08
23	rs28457693	G	0.0271464	0.00249534	1.47E-27	-0.0375	0.0123	0.00230202
24	rs28592876	A	0.0146125	0.00191144	2.10E-14	-0.0353	0.0094	0.000179498
25	rs28929474	T	0.0341754	0.00544114	3.37E-10	-0.1254	0.0271	3.84E-06
26	rs299370	C	-0.0100787	0.00167152	1.64E-09	0.0129	0.0082	0.1187
27	rs34776209	T	-0.0183028	0.00178279	1.01E-24	0.0136	0.0088	0.1221
28	rs35710322	C	0.0123008	0.00154919	2.03E-15	-0.0138	0.0077	0.0720294
29	rs3738449	A	-0.0117182	0.00163242	7.06E-13	-0.0344	0.0081	1.94E-05
30	rs3765351	T	-0.0111529	0.00154244	4.82E-13	0.0163	0.0076	0.0322998
31	rs3843751	T	-0.0136704	0.00163008	5.04E-17	-0.0308	0.008	0.0001268
32	rs4073717	T	-0.0181421	0.00192006	3.45E-21	-0.0391	0.0095	3.72E-05
33	rs41311445	C	-0.0238964	0.0026015	4.11E-20	0.02	0.0129	0.1214
34	rs57126421	G	-0.0103413	0.00182261	1.40E-08	-0.0289	0.009	0.001274
35	rs61729527	T	-0.0251117	0.00349498	6.73E-13	0.0283	0.0172	0.1003
36	rs62070645	A	-0.0238885	0.00173292	3.22E-43	-0.0276	0.0086	0.00128401
37	rs6762578	A	0.0162886	0.00185869	1.90E-18	-0.0153	0.0092	0.0946804
38	rs6975015	A	0.0179897	0.00239876	6.42E-14	-0.017	0.0118	0.1503

39	rs71373536	A	-0.0162291	0.0017703	4.87E-20	0.0222	0.0087	0.0110999
40	rs7728690	T	-0.0111135	0.00157966	1.99E-12	-0.0214	0.0078	0.00612999
41	rs7731023	G	0.00967784	0.0015554	4.91E-10	-0.014	0.0077	0.0690701
42	rs79883557	T	-0.0179512	0.00282156	1.99E-10	-0.0348	0.0139	0.0121899
43	rs7994814	T	0.0111984	0.00157722	1.25E-12	0.0205	0.0078	0.00845999
44	rs9341808	A	-0.0130793	0.00154384	2.42E-17	0.0177	0.0076	0.0204
45	rs9380508	T	0.0128668	0.00185591	4.13E-12	-0.0383	0.0091	2.82E-05

K/HOA – knee and hip osteoarthritis, EA – effect allele, β – per allele effect on the outcome, SE – standard error, P value – p-value for the genetic association.

Supplementary Table SVIII. Analysis of Cochran's Q test for univariate Heterogeneity after MR-PRESSO

Exposure	Outcome	IVW			MR-Egger		
		Cochran's Q	Q_df	Q- P value	Cochran's Q	Q_df	Q- P value
	K/HOA	198.56	192	0.36	197.41	191	0.36
BWM	KOA	192.91	186	0.35	192.87	185	0.33
	HOA	164.76	194	0.94	162.06	193	0.95

OA – osteoarthritis, K/HOA – knee and hip osteoarthritis, HOA – hip osteoarthritis, BWM – whole body watermass, IVW – inverse variance weighting.

Supplementary Table SIX. MR Analysis of OA and BWM Indicators after MRPRESSO

Outcome	Method	BWM			
		Number of SNPs	SE	OR (95% CI)	<i>P</i> -value
K/HOA	IVW	194	0.05	1.47 (1.33–1.61)	1.74E-15
	MR-Egger	194	0.14	1.28 (0.98–1.68)	7.63E-02
	WME	194	0.07	1.45 (1.25–1.68)	5.36E-07
	Simple mode	194	0.24	2.02 (1.20–3.27)	3.77E-03
	Weighted mode	194	0.22	0.91 (0.59–1.39)	6.54E-01
KOA	IVW	188	0.06	1.62 (1.44–1.82)	1.41E-15
	MR-Egger	188	0.17	1.57 (0.11–2.20)	1.10E-02
	WME	188	0.09	1.53 (1.28–1.82)	2.19E-06
	Simple mode	188	0.29	1.45 (0.83–2.55)	1.96E-01
	Weighted mode	188	0.24	1.40 (0.88–1.82)	1.60E-01
HOA	IVW	195	0.07	1.24 (1.07–1.42)	0.003
	MR-Egger	195	0.23	0.87 (0.55–1.35)	0.53
	WME	195	0.11	1.24 (1.00–1.53)	0.05
	Simple mode	195	0.35	2.08 (1.05–4.12)	0.04
	Weighted mode	195	0.28	1.06 (0.62–1.84)	0.83

OA – osteoarthritis, K/HOA – knee and hip osteoarthritis, KOA – knee osteoarthritis, HOA – hip osteoarthritis, BWM – whole body watermass, MR – Mendelian randomization, SE – standard error, SNP – single nucleotide polymorphism, IVW – inverse variance weighting, WME – weighted median.

Supplementary Table SX. Exclusion of KOA Outliers Detected in MR-PRESSO

N	SNP	EA	beta.exp	se.exp	pval.exp	beta.out	se.out	pval.out
1	rs10746837	A	-0.010485	0.00156713	2.23E-11	0.0167	0.0095	0.0095
2	rs10775348	G	0.0136843	0.00168557	4.74E-16	0.0368	0.0102	0.0102
3	rs10798945	T	0.0117756	0.00178304	4.00E-11	-0.0226	0.0108	0.0108
4	rs10843139	G	-0.0129856	0.00168797	1.44E-14	-0.0309	0.0102	0.0102
5	rs10931008	C	-0.012497	0.00162088	1.26E-14	-0.0324	0.0098	0.0098
6	rs10995366	A	-0.011169	0.0017817	3.65E-10	0.0266	0.0107	0.0107
7	rs11071182	G	0.0133565	0.00230442	6.80E-09	0.0416	0.0139	0.0139
8	rs11245450	A	-0.0100145	0.00157097	1.84E-10	-0.0275	0.0095	0.0095
9	rs113171806	C	0.0132527	0.00240373	3.52E-08	-0.0255	0.0145	0.0145
10	rs13430869	T	0.0160228	0.00177371	1.67E-19	0.0351	0.0107	0.0107
11	rs153560	A	0.0108819	0.00158582	6.80E-12	0.0305	0.0096	0.0096
12	rs1591806	G	0.0163392	0.0015547	7.88E-26	-0.0271	0.0094	0.0094
13	rs1881975	G	-0.01376	0.00179882	2.02E-14	0.0169	0.0109	0.0109
14	rs1927635	C	0.0100959	0.00162544	5.26E-10	0.0243	0.0098	0.0098
15	rs2140046	C	-0.0134384	0.0015985	4.23E-17	0.0134	0.0096	0.0096
16	rs2281175	C	0.0112834	0.00164824	7.62E-12	0.0374	0.0104	0.0104
17	rs2296316	C	-0.0107114	0.00155384	5.45E-12	0.0249	0.0094	0.0094
18	rs247008	G	0.0151627	0.00164507	3.07E-20	-0.0153	0.0099	0.0099
19	rs2539999	C	0.016943	0.00170538	2.95E-23	-0.0175	0.0103	0.0103
20	rs2592831	C	0.0129725	0.00162774	1.60E-15	0.05	0.0098	0.0098
21	rs28457693	G	0.0271464	0.00249534	1.47E-27	-0.0428	0.015	0.015
22	rs28592876	A	0.0146125	0.00191144	2.10E-14	-0.0628	0.0115	0.0115
23	rs28929474	T	0.0341754	0.00544114	3.37E-10	-0.1249	0.0331	0.0331
24	rs3110496	G	0.0093671	0.00165851	1.63E-08	0.0245	0.01	0.010
25	rs34776209	T	-0.0183028	0.00178279	1.01E-24	0.0265	0.0108	0.0108
26	rs35506085	A	-0.0193812	0.00200976	5.27E-22	-0.0337	0.0121	0.0121
27	rs35710322	C	0.0123008	0.00154919	2.03E-15	-0.0349	0.0093	0.0093
28	rs3738449	A	-0.0117182	0.00163242	7.06E-13	-0.0362	0.0098	0.0098
29	rs3765351	T	-0.0111529	0.00154244	4.82E-13	0.0151	0.0093	0.0093
30	rs3843751	T	-0.0136704	0.00163008	5.04E-17	-0.0422	0.0098	0.0098
31	rs41311445	C	-0.0238964	0.0026015	4.11E-20	0.0305	0.0158	0.0158
32	rs4752689	A	0.0114439	0.00155936	2.16E-13	0.0237	0.0094	0.0094
33	rs57126421	G	-0.0103413	0.00182261	1.40E-08	-0.0324	0.011	0.011
34	rs5752989	A	-0.0102372	0.0015538	4.45E-11	-0.0256	0.0094	0.0094
35	rs60804050	A	-0.0105786	0.00176665	2.13E-09	0.0158	0.0106	0.0106
36	rs61729527	T	-0.0251117	0.00349498	6.73E-13	0.0322	0.021	0.021
37	rs62070645	A	-0.0238885	0.00173292	3.22E-43	-0.0336	0.0104	0.0104
38	rs6975015	A	0.0179897	0.00239876	6.42E-14	-0.0268	0.0144	0.0144
39	rs71373536	A	-0.0162291	0.0017703	4.87E-20	0.022	0.0107	0.0107
40	rs7977788	A	0.0262057	0.00184142	6.05E-46	0.0389	0.0111	0.0111
41	rs7994814	T	0.0111984	0.00157722	1.25E-12	0.0304	0.0095	0.0095
42	rs9341808	A	-0.0130793	0.00154384	2.42E-17	0.02	0.0093	0.0093

43	rs9380508	T	0.0128668	0.00185591	4.13E-12	-0.0234	0.0112	0.0112
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KOA – knee osteoarthritis, EA – effect allele, β – per allele effect on the outcome, SE – standard error, P value – p-value for the genetic association.

Supplementary Table SXI. Exclusion of HOA Outliers Detected in MR-PRESSO

N	SNP	E A	beta.exp	se.exp	pval.exp	beta.out	se.out	pval.out
1	rs10111935	A	0.0208	0.00170377	2.86E-34	0.0284	0.0129	0.02756
2	rs10775348	G	0.0136843	0.00168557	4.74E-16	0.0447	0.0128	0.000467498
3	rs11013045	G	-0.00902416	0.00157765	1.07E-08	-0.0375	0.012	0.00170298
4	rs11065979	T	-0.0151051	0.00155368	2.44E-22	0.022	0.0118	0.0614795
5	rs11613961	C	0.0156846	0.00273705	1.00E-08	-0.0352	0.0208	0.0900803
6	rs1228024	A	-0.0115055	0.00162482	1.43E-12	-0.0606	0.0123	8.43E-07
7	rs12347137	C	-0.0247555	0.00190967	2.02E-38	-0.0328	0.0145	0.0238298
8	rs13430869	T	0.0160228	0.00177371	1.67E-19	0.0313	0.0134	0.0192199
9	rs139590892	A	-0.0119235	0.00211414	1.70E-08	0.0279	0.016	0.0814292
10	rs1407031	T	-0.00941992	0.00157451	2.20E-09	-0.0435	0.0119	0.000270302
11	rs143986132	G	-0.0341007	0.00591442	8.14E-09	-0.1638	0.0448	0.0002585
12	rs147110934	T	-0.0323759	0.00501275	1.06E-10	0.0903	0.038	0.0173002
13	rs1591806	G	0.0163392	0.0015547	7.88E-26	-0.0243	0.0118	0.0392103
14	rs16942324	A	-0.0396722	0.00480809	1.57E-16	0.0858	0.0359	0.01695
15	rs1878528	G	0.0126383	0.00166275	2.95E-14	0.0344	0.0126	0.00636297
16	rs1881975	G	-0.01376	0.00179882	2.02E-14	0.0281	0.0137	0.0399301
17	rs1952527	C	-0.0123125	0.0016413	6.32E-14	0.0313	0.0124	0.0116899
18	rs2229840	T	0.0215606	0.00209492	7.74E-25	0.0673	0.0159	2.25E-05
19	rs2476998	T	0.00964888	0.00170613	1.56E-08	-0.0269	0.0129	0.03788
20	rs2592831	C	0.0129725	0.00162774	1.60E-15	0.0396	0.0123	0.00133401
21	rs2602713	C	0.0103011	0.00156377	4.48E-11	-0.0205	0.0118	0.0838591
22	rs2647239	G	-0.0172125	0.0015629	3.34E-28	0.0241	0.0118	0.0418398
23	rs28457693	G	0.0271464	0.00249534	1.47E-27	-0.0365	0.0189	0.0534798
24	rs28929474	T	0.0341754	0.00544114	3.37E-10	-0.1134	0.0415	0.00629405
25	rs30235	T	0.00896746	0.00156751	1.06E-08	0.0282	0.0119	0.0177701
26	rs34851615	A	-0.00897631	0.00160613	2.29E-08	0.0205	0.0122	0.0916706
27	rs36100359	A	-0.0124045	0.00220801	1.93E-08	-0.0451	0.0168	0.00716407
28	rs3738449	A	-0.0117182	0.00163242	7.06E-13	-0.0326	0.0124	0.00842306
29	rs3765351	T	-0.0111529	0.00154244	4.82E-13	0.0273	0.0117	0.0195398
30	rs3783256	C	-0.00969916	0.0016154	1.92E-09	0.0252	0.0122	0.0395003
31	rs4073717	T	-0.0181421	0.00192006	3.45E-21	-0.0689	0.0146	2.20E-06
32	rs475591	C	0.0109187	0.00155909	2.51E-12	0.0303	0.0118	0.0103999
33	rs6762578	A	0.0162886	0.00185869	1.90E-18	-0.0416	0.0141	0.00312399
34	rs71373536	A	-0.0162291	0.0017703	4.87E-20	0.0281	0.0134	0.0359898
35	rs74494415	T	-0.0301577	0.00394717	2.17E-14	-0.0742	0.03	0.0135201
36	rs78378222	G	0.0894865	0.00700475	2.30E-37	-0.1194	0.0535	0.0255499
37	rs79883557	T	-0.0179512	0.00282156	1.99E-10	-0.0901	0.0213	2.34E-05
38	rs9314420	G	-0.00894176	0.00155832	9.58E-09	0.0303	0.0118	0.0102601
39	rs9380508	T	0.0128668	0.00185591	4.13E-12	-0.0536	0.014	0.000129999

HOA – hip osteoarthritis, EA – effect allele, β – per allele effect on the outcome, SE – standard error,
P value – p-value for the genetic association.