

1 **Supplementary Table S1** STROBE-MR checklist of recommended items to address in reports of Mendelian randomization studies<sup>1 2</sup>

Item No.	Section	Checklist item	Page No.	Relevant text from manuscript
1	<b>TITLE and ABSTRACT</b>	Indicate Mendelian randomization (MR) as the study's design in the title and/or the abstract if that is a main purpose of the study	1-2	Dissecting the causal association between body fat mass and obsessive-compulsive disorder: A two-sample Mendelian randomization study
<b>INTRODUCTION</b>				
2	<b>Background</b>	Explain the scientific background and rationale for the reported study. What is the exposure? Is a potential causal relationship between exposure and outcome plausible? Justify why MR is a helpful method to address the study question	3	As the genetic variants are randomly allocated at conception, MR analysis could overcome the underlying reverse causation and confounding, similar to a randomized controlled trial.
3	<b>Objectives</b>	State specific objectives clearly, including pre-specified causal hypotheses (if any). State that MR is a method that, under specific assumptions, intends to estimate causal effects	3	In this study, we utilized the two-sample MR approach, based on the publicly available summary statistics, to infer the causal association between genetically predicted FM and OCD, providing new insights into preventing psychiatric disorders.
<b>METHODS</b>				
4	<b>Study design and data sources</b>	Present key elements of the study design early in the article. Consider including a table listing sources of data for all phases of the study. For each data source contributing to the analysis, describe the following:	4	We used summary statistics from publicly available genome-wide association studies (GWASs) to conduct two-sample MR analyses.
		a) Setting: Describe the study design and the underlying population, if possible. Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection, when available.	4	We searched for and retrieved the summary statistics data of the exposure and outcome variables from the IEU Open GWAS project and

			the FinnGen consortium.
	b)	Participants: Give the eligibility criteria, and the sources and methods of selection of participants. Report the sample size, and whether any power or sample size calculations were carried out prior to the main analysis	4 We chose the most recent GWAS with the largest sample size for the primary analysis, and the other for the sensitivity analysis (Table 1).
	c)	Describe measurement, quality control and selection of genetic variants	5 SNPs with genome-wide significant ( $P < 5 \times 10^{-8}$ ) associations with exposure phenotypes were selected. The variants were subsequently pruned by linkage disequilibrium ( $r^2 < 0.001$ within a 10,000 k-base-pair windows). The F-statistic was applied to evaluate the instrument strength. SNPs with an F-statistic greater than 10 were considered strong instruments.
	d)	For each exposure, outcome, and other relevant variables, describe methods of assessment and diagnostic criteria for diseases	5 In the FinnGen consortium, OCD was diagnosed according to the International Statistical Classification of Diseases and Related Health Problems 9 <sup>th</sup> and 10 <sup>th</sup> Revision. All cases from the PGC consortium met the Diagnostic and Statistical Manual of Mental Disorders 4 <sup>th</sup> edition.
	e)	Provide details of ethics committee approval and participant informed consent, if relevant	5 We used publicly available summary data where no additional ethical committee approval or participant informed consent was required.
5	<b>Assumptions</b>	Explicitly state the three core IV assumptions for the main analysis (relevance, independence and exclusion restriction) as well assumptions for any additional or sensitivity analysis	4 MR analysis relies on the following three assumptions: (1) Instrumental variables (IVs) are strongly correlated with exposure; (2) The IVs were not related to the confounding factors affecting the "exposure-outcome" pathway; (3) The IVs affect outcomes solely through the exposure variable.

6	<b>Statistical methods: main analysis</b>	Describe statistical methods and statistics used	6	Given its superior statistical power, IVW estimates were regarded as the primary results, with the other four methods serving as sensitivity analyses. The Wald method and delta approach were utilized to estimate the causal ratio and confidence interval (CI) of the single IV, respectively. The effect of each SNP is weighted by the inverse of the variance of the ratio estimator.
	a)	Describe how quantitative variables were handled in the analyses (i.e., scale, units, model)	NA	NA
	b)	Describe how genetic variants were handled in the analyses and, if applicable, how their weights were selected	6	Given its superior statistical power, IVW estimates were regarded as the primary results, with the other four methods serving as sensitivity analyses. The Wald method and delta approach were utilized to estimate the causal ratio and confidence interval (CI) of the single IV, respectively. The effect of each SNP is weighted by the inverse of the variance of the ratio estimator.
	c)	Describe the MR estimator (e.g. two-stage least squares, Wald ratio) and related statistics. Detail the included covariates and, in case of two-sample MR, whether the same covariate set was used for adjustment in the two samples	6	The Wald method and delta approach were utilized to estimate the causal ratio and confidence interval (CI) of the single IV respectively.
	d)	Explain how missing data were addressed	NA	NA
	e)	If applicable, indicate how multiple testing was addressed	6	The results of the IVW method were corrected by false discovery rate (FDR) and Bonferroni method. The link between the exposure variables and OCD

with a P value  $< 0.05/3 = 0.0167$  (Bonferroni correction for multiple testing) is considered significant.

7	<b>Assessment of assumptions</b>	Describe any methods or prior knowledge used to assess the assumptions or justify their validity	5	SNPs with genome-wide significant ( $P < 5 \times 10^{-8}$ ) associations with exposure phenotypes were selected. The variants were subsequently pruned by linkage disequilibrium ( $r^2 < 0.001$ within a 10,000 k-base-pair windows). The F-statistic was applied to evaluate the instrument strength. SNPs with an F-statistic greater than 10 were considered strong instruments.
8	<b>Sensitivity analyses and additional analyses</b>	Describe any sensitivity analyses or additional analyses performed (e.g. comparison of effect estimates from different approaches, independent replication, bias analytic techniques, validation of instruments, simulations)	6	Heterogeneity tests, pleiotropy tests, leave-one-out tests, and sensitivity analyses were performed to evaluate the robustness of the findings. The Cochran's Q test was used to determine the heterogeneity between the causal estimates of different genetic variants. The MR-PRESSO test and the slope of the MR-Egger regression were applied to monitor the potential horizontal pleiotropy effect. The MR Steiger test of directionality was performed to validate the direction of the association between exposure and OCD. The MR radial method detected outliers which were then excluded from the sensitivity analysis. In addition, the summary statistics of different data sources were used to examine the robustness of the primary results.
9	<b>Software and pre-registration</b>			

a)	Name statistical software and package(s), including version and settings used	6	All analyses were performed using R software (version 4.2.3). “TwoSampleMR” (Hemani et al., 2018), “MR-PRESSO” (Verbanck et al., 2018), “RadialMR” (Bowden et al., 2018), “ggplot2” and other software packages were utilized for statistical analysis and visualization.
b)	State whether the study protocol and details were pre-registered (as well as when and where)	NA	NA

## RESULTS

### 10 Descriptive data

a)	Report the numbers of individuals at each stage of included studies and reasons for exclusion. Consider use of a flow diagram	4	Our study obtained summary statistics from GWASs conducted by various international consortiums, with all participants of European ancestry. The available summary statistics were for both sexes combined. We chose the most recent GWAS with the largest sample size for the primary analysis, and the other for the sensitivity analysis (Table 1).
b)	Report summary statistics for phenotypic exposure(s), outcome(s), and other relevant variables (e.g. means, SDs, proportions)	4	We chose the most recent GWAS with the largest sample size for the primary analysis, and the other for the sensitivity analysis (Table 1).
c)	If the data sources include meta-analyses of previous studies, provide the assessments of heterogeneity across these studies	7	We conducted a series of sensitivity analyses to assess the heterogeneity and pleiotropy (Table S5).
d)	For two-sample MR:	5	There was no overlap between the participants of

- i. Provide justification of the similarity of the genetic variant-exposure associations between the exposure and outcome samples
- ii. Provide information on the number of individuals who overlap between the exposure and outcome studies

exposure and that of outcome studies.

11 Main results

a) Report the associations between genetic variant and exposure, and between genetic variant and outcome, preferably on an interpretable scale

6

The results of the IVW method showed that genetically prediction FM decrease was associated with an increased risk of OCD. The results of MR Egger showed that genetically predicted FFM decrease was significantly associated with a higher risk of OCD

b) Report MR estimates of the relationship between exposure and outcome, and the measures of uncertainty from the MR analysis, on an interpretable scale, such as odds ratio or relative risk per SD difference

6-7

The results of the IVW method showed that genetically prediction FM decrease was associated with an increased risk of OCD [odds ratio (OR) = 0.680, 95% CI: 0.528 ~ 0.875,  $P = 0.003$ ] (Figure 2). Broadly consistent risk estimates were obtained using the weighted median approach (OR = 0.633, 95% CI: 0.438 ~ 0.915,  $P = 0.015$ ), and the directionally same estimates were observed for other methods. The causal effect of FM on OCD risk was consistent after Bonferroni correction and FDR correction (Table 2).

c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period

NA

NA

d) Consider plots to visualize results (e.g. forest plot, scatterplot of associations between genetic variants and outcome versus between genetic variants and

4-7

Figures 1-3

exposure)

12 **Assessment of assumptions**

- a) Report the assessment of the validity of the assumptions 6 The F-statistic of each SNP was greater than 10 (Table S2-S4).
- b) Report any additional statistics (e.g., assessments of heterogeneity across genetic variants, such as  $I^2$ , Q statistic or E-value) 7 We conducted a series of sensitivity analyses to assess the heterogeneity and pleiotropy (Table S5).

13 **Sensitivity analyses and additional analyses**

- a) Report any sensitivity analyses to assess the robustness of the main results to violations of the assumptions 6-7 Broadly consistent risk estimates were obtained using the weighted median approach (OR = 0.633, 95% CI: 0.438 ~ 0.915,  $P = 0.015$ ), and the directionally same estimates were observed for other methods.
- b) Report results from other sensitivity analyses or additional analyses 8 We replaced the exposure and outcome dataset to verify whether the results of primary analyses were robust (Table S8). The results showed that the causal relationship between genetically predicted FM and OCD remained robust.
- c) Report any assessment of direction of causal relationship (e.g., bidirectional MR) 8 We conducted bidirectional MR by exchanging the exposure and outcome variables of the primary analyses. SNPs with genome-wide significant ( $P < 1 \times 10^{-5}$ ) associations with OCD were selected since there were no SNPs with P values smaller

				than $5 \times 10^{-8}$ . Genetically predicted increases in OCD risk were significantly associated with decreased FM (IVW: OR = 0.992, 95% CI: 0.986 ~ 0.998, P = 0.010) (Supplementary Table S10).
	d)	When relevant, report and compare with estimates from non-MR analyses	8-9	Few studies have investigated the effect of FM on OCD, and most of them found that people with OCD were associated with lower BMI. For instance, a cohort study from the Dutch Multicenter Clinical Consortia found that the purer the OCD phenotype, the stronger the protection against overweight and obesity.
	e)	Consider additional plots to visualize results (e.g., leave-one-out analyses)	18-19	Supplementary Figures 2-4
<b>DISCUSSION</b>				
14	<b>Key results</b>	Summarize key results with reference to study objectives	8	For the first time, we found a negative causal relationship between genetically predicted FM and OCD.
15	<b>Limitations</b>	Discuss limitations of the study, taking into account the validity of the IV assumptions, other sources of potential bias, and imprecision. Discuss both direction and magnitude of any potential bias and any efforts to address them	11	However, limitations should also be noted.
16	<b>Interpretation</b>			
	a)	Meaning: Give a cautious overall interpretation of results in the context of their limitations and in comparison with other studies	11	Based on the publicly available GWAS database, a negative causality of genetically predicted FM and OCD was identified using the two-sample MR approach.
	b)	Mechanism: Discuss underlying biological mechanisms that could drive a potential	9,10	A multifactorial etiology of OCD is assumed in

		causal relationship between the investigated exposure and the outcome, and whether the gene-environment equivalence assumption is reasonable. Use causal language carefully, clarifying that IV estimates may provide causal effects only under certain assumptions		which biological, psychological, and external factors interact. Moreover, research has shown that glutamate metabolism disorders are associated with the development of OCD.
		c) Clinical relevance: Discuss whether the results have clinical or public policy relevance, and to what extent they inform effect sizes of possible interventions	11	This finding is informative for future research on the causal relationship between obesity and mental illness and provides new possibilities for targeted prevention strategies. The prevention or treatment of psychiatric disorders should include not only the control of BMI, but also fat distribution and body composition.
17	<b>Generalizability</b>	Discuss the generalizability of the study results (a) to other populations, (b) across other exposure periods/timings, and (c) across other levels of exposure	11	First, the generalization of our findings is limited, given that only European ancestry population GWAS data was used.
<b>OTHER INFORMATION</b>				
18	<b>Funding</b>	Describe sources of funding and the role of funders in the present study and, if applicable, sources of funding for the databases and original study or studies on which the present study is based	12	This work was supported by the Yanzhao Gold Talent Project of Hebei Province (NO.HJZD202506).
19	<b>Data and data sharing</b>	Provide the data used to perform all analyses or report where and how the data can be accessed, and reference these sources in the article. Provide the statistical code needed to reproduce the results in the article, or report whether the code is publicly accessible and if so, where	12	The summary statistical data used in the paper are all available from the IEU Open GWAS project ( <a href="https://gwas.mrcieu.ac.uk/">https://gwas.mrcieu.ac.uk/</a> ) and the FinnGen consortium ( <a href="https://www.finnngen.fi/en/access_results">https://www.finnngen.fi/en/access_results</a> ).
20	<b>Conflicts of Interest</b>	All authors should declare all potential conflicts of interest	12	All authors declare that they have no competing interests.

2        **Note.** This checklist is copyrighted by the Equator Network under the Creative Commons Attribution 3.0 Unported (CC BY 3.0) license.

3        1. Skrivankova VW, Richmond RC, Woolf BAR, Yarmolinsky J, Davies NM, Swanson SA, et al. Strengthening the Reporting of Observational Studies in  
4        Epidemiology using Mendelian Randomization (STROBE-MR) Statement. JAMA. 2021.

5        2. Skrivankova VW, Richmond RC, Woolf BAR, Davies NM, Swanson SA, VanderWeele TJ, et al. Strengthening the Reporting of Observational Studies in  
6        Epidemiology using Mendelian Randomisation (STROBE-MR): Explanation and Elaboration. BMJ. 2021;375:n2233.

7 **Supplementary Table S2** Effect estimate of the association between genetically predicted body fat and risk of obsessive-compulsive disorder

Variant rsID	Chr	Position	Effect allele	Other allele	Association with fat mass			Association with OCD			F
					Beta	SE	P	Beta	SE	P	
rs10050620	5	63927239	T	C	-0.0123008	0.00208579	3.70E-09	0.0335248	0.0366792	0.360716	35
rs10071662	5	133840929	T	C	0.0138893	0.00228563	1.20E-09	0.0304402	0.0427118	0.476038	37
rs1008982	10	131445731	C	T	0.0111456	0.00202513	3.70E-08	0.0465553	0.0354631	0.189256	30
rs10100245	8	77226919	A	G	0.0194145	0.00197253	7.40E-23	-0.00281059	0.0348938	0.935802	97
rs10116857	9	16595649	A	C	0.0248846	0.00406359	9.10E-10	-0.0478182	0.0830757	0.564886	38
rs10132514	14	104012189	T	C	0.0123581	0.00221021	2.30E-08	0.050485	0.0425322	0.235234	31
rs1013293	1	62570321	A	G	0.0199173	0.00197478	6.40E-24	0.00913725	0.0364541	0.802084	102
rs1013402	11	27712381	G	A	0.0285045	0.00209435	3.50E-42	-0.0158653	0.0368933	0.667172	185
rs10141106	14	59348019	G	A	0.0136413	0.00214721	2.10E-10	-0.0139735	0.0369361	0.705196	40
rs10146997	14	79945162	G	A	0.0266959	0.00235343	8.00E-30	0.0123912	0.0405868	0.760137	129
rs10187101	2	50742227	T	C	-0.013662	0.00202539	1.50E-11	0.0233534	0.0352665	0.507845	45
rs1019315	12	97594620	T	C	0.0119366	0.00207306	8.50E-09	-0.0140279	0.0356819	0.694218	33
rs10209821	2	228980358	T	C	0.0154229	0.00205116	5.50E-14	-0.0262551	0.0377036	0.486207	57
rs10248298	7	12196381	A	C	0.015535	0.0020257	1.70E-14	0.060477	0.035647	0.0897821	59

rs1031881	6	12492114 0	G	T	0.0148707	0.0026022 9	1.10E-08	0.00900285	0.063889 1	0.887938	33
rs10421787	19	32951222	T	C	- 0.0132744	0.0023573 2	1.80E-08	-0.00382686	0.040683 1	0.925057	32
rs10423928	19	46182304	A	T	- 0.0316258	0.0024686 5	1.40E-37	-0.0536731	0.040297 7	0.182887	16 4
rs10478110	5	11244573 4	C	A	0.0132856	0.0019751 6	1.70E-11	0.0502494	0.034910 1	0.150038	45
rs10499014	6	97947755	G	C	-0.013859	0.0022151 2	3.90E-10	-0.0214524	0.039754 8	0.58946	39
rs10505836	12	19288508	C	A	0.0165815	0.0028369 2	5.10E-09	0.0824167	0.050989 8	0.106022	34
rs10510025	10	11865099 6	T	C	0.0179707	0.0022716 6	2.60E-15	0.0571945	0.040210 6	0.154918	63
rs1056441	20	62370349	C	T	0.0154069	0.0020908 5	1.70E-13	0.0556341	0.039863 9	0.162834	54
rs1062557	18	56887507	A	C	0.014152	0.0022344 3	2.40E-10	-0.0212342	0.036442 3	0.56011	40
rs10756798	9	16739763	T	C	- 0.0156105	0.0020390 5	1.90E-14	-0.00355797	0.036782 4	0.92294	59
rs10820852	9	94186973	A	C	- 0.0139299	0.0021880 8	1.90E-10	0.00559935	0.043210 7	0.896897	41
rs10854853	22	48874412	T	G	0.0130604	0.001966	3.10E-11	-0.0449645	0.035135 6	0.200635	44
rs10878349	12	66327632	G	A	- 0.0146733	0.0019589 4	6.90E-14	0.0954044	0.034647	0.00589427	56
rs10915840	1	22566852 4	A	G	- 0.0147572	0.0021966 9	1.80E-11	0.0118703	0.041615 4	0.775463	45
rs10927006	1	24355765 9	C	T	- 0.0158463	0.0027823 2	1.20E-08	-0.0256437	0.047455 8	0.588943	32

rs10938398	4	45186139	A	G	0.0275414	0.0019732 3	2.80E-44	-0.0231791	0.034941 7	0.507096	19 5
rs10950290	7	71439590	T	A	- 0.0157831	0.0022229 5	1.20E-12	0.0426102	0.037647 6	0.25771	50
rs10959841	9	11469190	C	T	- 0.0112897	0.0020108 1	2.00E-08	0.0378656	0.036612	0.301024	32
rs10999456	10	72413827	T	C	0.0157879	0.0022137 6	9.90E-13	0.0854082	0.039126 4	0.0290449	51
rs11012732	10	21830104	G	A	0.0210978	0.0020765 6	3.00E-24	0.0339619	0.037517 2	0.365341	10 3
rs11030016	11	27487992	T	C	0.0176637	0.0022315 8	2.50E-15	-0.0182476	0.037357 1	0.625222	63
rs1106761	8	14261923 4	A	G	0.014834	0.0020343 4	3.10E-13	-0.0782161	0.036442 1	0.0318478	53
rs11075256	16	15187912	C	G	- 0.0129567	0.0021449	1.50E-09	-0.0798729	0.039278 5	0.042002	36
rs11075263	16	9367090	T	C	- 0.0132558	0.0024239 6	4.50E-08	0.047783	0.03927	0.223687	30
rs11099020	4	13072490 2	T	C	-0.013819	0.0020376 2	1.20E-11	0.011861	0.035668 3	0.739484	46
rs11105842	12	91243910	A	G	- 0.0140812	0.0020360 5	4.60E-12	-0.0199765	0.036282 8	0.581922	48
rs11129446	3	31410801	A	T	- 0.0133068	0.0021701 8	8.70E-10	-0.00814685	0.037319 2	0.827194	38
rs11135450	5	95554016	G	A	0.0146571	0.0020829 2	2.00E-12	-0.00497544	0.035245 4	0.887739	50
rs11150745	17	78757626	G	A	- 0.0195604	0.0021044 6	1.50E-20	0.0110028	0.03887	0.777125	86
rs11165643	1	96924097	T	C	0.0199108	0.0019799 5	8.60E-24	-0.0479929	0.035704 3	0.17889	10 1
rs11194235 8	2	24256801 7	C	G	0.0155506	0.0027160 7	1.00E-08	0.0117894	0.044522 5	0.791167	33

rs11205303	1	14990641 3	C	T	0.0225892	0.0019849 8	5.30E-30	0.0116429	0.037787 5	0.757994	13 0
rs11245344	10	12641878 2	T	C	0.0125829	0.0019779 5	2.00E-10	-0.031607	0.035562	0.374117	40
rs11307957 4	4	14735408 9	T	C	- 0.0138687	0.0024867 8	2.40E-08	0.0216483	0.042837	0.613301	31
rs11386654 4	17	46270606	C	T	0.0347508	0.0038815	3.50E-19	-0.0117741	0.056744	0.835624	80
rs1147346	9	13221355 2	G	A	- 0.0112355	0.0020418 6	3.70E-08	-0.0488778	0.035854 5	0.172811	30
rs11538	22	18220831	G	A	0.0172096	0.0025936 5	3.20E-11	0.0327749	0.044267 6	0.459068	44
rs1159974	6	12609027 7	C	T	0.0131824	0.0019514 9	1.40E-11	-0.00653754	0.034837 7	0.851146	46
rs11603984	11	85238368	T	G	- 0.0189152	0.0028610 3	3.80E-11	0.0137566	0.043205 3	0.750181	44
rs1160543	2	10083218 2	T	C	- 0.0185222	0.0019872 5	1.20E-20	0.107	0.035034 7	0.0022573	87
rs11656076	17	31464270	A	G	- 0.0144978	0.0023431 9	6.10E-10	0.00983581	0.039321 2	0.802479	38
rs11656758	17	42301541	G	A	0.0143782	0.0020617 4	3.10E-12	0.0220906	0.038039 1	0.56142	49
rs11664848	18	42575661	G	C	0.0134456	0.0020728 5	8.80E-11	0.0423984	0.035815	0.236486	42
rs1167309	1	49997674	T	C	- 0.0188395	0.0020907 9	2.00E-19	0.00330329	0.035961	0.926811	81
rs11698185	20	25181998	C	T	0.0161058	0.0019630 1	2.30E-16	0.0116154	0.034926 8	0.739464	67
rs11709402	3	13155102 7	G	A	0.0206294	0.0021826 5	3.30E-21	0.060415	0.039408 2	0.125261	89
rs11717644 8	8	27261138	G	C	0.0225207	0.0033107 6	1.00E-11	-0.023374	0.064213	0.715853	46

rs11731255	4	6495698	G	A	0.0111139	0.0019525 6	1.30E-08	0.0239534	0.034869 3	0.492115	32
rs11775572 1	17	11881356	A	G	- 0.0328285	0.0059037 9	2.70E-08	0.232494	0.097163 1	0.0167194	31
rs11779446	8	23388326	G	A	- 0.0206159	0.0026657 7	1.00E-14	0.0528775	0.049489 1	0.285309	60
rs11782341	8	4813459	G	A	0.0146922	0.0025161 1	5.20E-09	0.00354869	0.041572 7	0.931974	34
rs1182199	7	2862542	A	C	- 0.0203673	0.0021238 6	8.80E-22	-0.0513412	0.036195 5	0.156061	92
rs11839227	13	59280705	C	T	- 0.0175549	0.0025351 8	4.40E-12	0.0810227	0.049394 2	0.100937	48
rs11854132	15	99229330	A	G	- 0.0158556	0.0022056 4	6.50E-13	-0.0526724	0.041321 3	0.202414	52
rs11926024	3	17366209 4	A	T	- 0.0124039	0.0022103 1	2.00E-08	0.0947366	0.036727 7	0.00989624	31
rs12031634	1	34584393	A	G	- 0.0135032	0.0021426 4	2.90E-10	0.0219415	0.040248 6	0.585651	40
rs12072739	1	98315893	G	A	0.0174262	0.0023392 6	9.40E-14	-0.0618114	0.037508 6	0.0993688	55
rs12103006	16	24726237	G	A	0.0154078	0.0019749 2	6.10E-15	-0.00794743	0.034798 6	0.819348	61
rs12107172	3	14713403 9	G	A	0.015542	0.0028483 9	4.90E-08	-0.0634109	0.044758	0.156556	30
rs12144626	1	47670525	C	T	- 0.0152607	0.0019806 3	1.30E-14	0.0360747	0.035892 2	0.314855	59
rs1218822	13	28011963	A	G	0.0155474	0.0020690 8	5.70E-14	-0.0517065	0.036920 2	0.161366	56
rs12254441	10	76617857	T	C	- 0.0136583	0.0020926 9	6.70E-11	0.0364361	0.040229 1	0.365088	43
rs1229984	4	10023931 9	C	T	0.0420959	0.0059235 8	1.20E-12	0.0923239	0.250305	0.712243	51

rs12316080	12	12443821 7	T	C	0.0161498	0.0020672 2	5.60E-15	-0.0522951	0.038108 1	0.169975	61
rs12364470	11	13460101 2	G	T	0.0175592	0.0026346 6	2.70E-11	-0.00518709	0.041860 2	0.901383	44
rs12459965	19	18452195	T	C	- 0.0160421	0.0022175 7	4.70E-13	-0.0954501	0.042049 8	0.0232119	52
rs12462975	19	30272202	A	G	0.0200333	0.0020957 6	1.20E-21	0.0422815	0.037514 6	0.259714	91
rs12475388	2	27039792	A	G	- 0.0135316	0.0019597 7	5.00E-12	0.0240674	0.035063 9	0.492469	48
rs12528644	6	41749401	A	C	0.0118428	0.0021695 7	4.80E-08	-0.0160527	0.039448 4	0.68406	30
rs12578258	12	12236915 3	G	A	- 0.0152505	0.0021452 2	1.20E-12	-0.020489	0.036304 6	0.572507	51
rs1263629	2	20793691 1	G	A	0.0157296	0.0027923 4	1.80E-08	0.0608301	0.058441 7	0.297937	32
rs12724928	1	11312893 1	C	T	- 0.0178202	0.0024133 7	1.50E-13	0.0361811	0.037536 9	0.335107	55
rs12762744	10	53669252	T	C	0.0129137	0.0022663 3	1.20E-08	-0.0460765	0.038386	0.230005	32
rs12869627	13	99120452	A	G	-0.014868	0.0021546 2	5.20E-12	-0.0251185	0.039910 9	0.529111	48
rs12881629	14	10114641 3	G	A	0.0226319	0.0035472 4	1.80E-10	-0.110938	0.065642 4	0.0910207	41
rs12885458	14	47303114	G	T	- 0.0133672	0.0019588 2	8.80E-12	-0.0267677	0.035563 2	0.451642	47
rs12890931	14	69753369	G	T	0.0140913	0.0020472 1	5.90E-12	0.0547615	0.035164 2	0.119397	47
rs12937411	17	34950239	T	C	- 0.0151638	0.0019902 6	2.60E-14	0.0105588	0.036219 1	0.77065	58
rs1296328	4	13708319 3	C	A	- 0.0166952	0.0019755 1	2.90E-17	0.0108221	0.034876 8	0.756336	71

rs12974458	19	1866115	T	C	0.0114484	0.0019734 6	6.60E-09	-0.0218939	0.035097 5	0.532757	34
rs12987931	2	17290094 8	T	C	0.01447	0.0020132 1	6.60E-13	0.0296675	0.035490 4	0.403195	52
rs13008033	2	14229351 1	G	A	- 0.0145805	0.0025045 6	5.80E-09	-0.0603655	0.042466 2	0.155173	34
rs13107325	4	10318870 9	T	C	0.0375077	0.0037115 4	5.20E-24	0.0974393	0.149529	0.514633	10 2
rs13191298	6	70010225	G	A	0.0179661	0.0029802 9	1.70E-09	0.0402823	0.058389 9	0.490267	36
rs13218383	6	12017350 1	G	C	- 0.0149169	0.0020674 4	5.40E-13	0.0465547	0.036738 2	0.205083	52
rs13292699	9	15910044	C	A	- 0.0223076	0.0019751 7	1.40E-29	0.100637	0.034645 4	0.00367519	12 8
rs13333747	16	2175373	C	T	- 0.0215622	0.0025408 6	2.10E-17	0.029717	0.045558 3	0.514218	72
rs13354321	5	15792529 7	C	T	0.0115143	0.0019788 4	5.90E-09	0.0021862	0.035107 2	0.950346	34
rs1336486	13	40784814	G	T	0.0144371	0.0020853 1	4.40E-12	-0.0709235	0.035454 3	0.0454548	48
rs13389219	2	16552887 6	T	C	0.0165	0.0019933 4	1.30E-16	0.00937124	0.036612 3	0.797983	69
rs13408397	2	69582028	T	C	- 0.0157786	0.0019784 7	1.50E-15	-0.0445637	0.035895 3	0.214425	64
rs13409967	2	15482156 4	T	G	0.0182985	0.0032083 3	1.20E-08	0.196911	0.087030 5	0.023663	33
rs13427822	2	21341426 5	G	A	- 0.0134785	0.0022165 2	1.20E-09	0.00510165	0.038054 4	0.893354	37
rs1350506	4	89734587	C	T	- 0.0121038	0.0019543	5.90E-10	-0.0110929	0.035063 6	0.751725	38
rs1363695	5	13037802 7	T	C	- 0.0160129	0.0023545	1.00E-11	-0.016461	0.038964 9	0.672693	46

rs1383723	4	67803507	T	A	- 0.0131276	0.0023739	3.20E-08	0.0884352	0.041761 8	0.0342082	31
rs14057	1	6683240	A	G	-0.011452	0.0020398	2.00E-08	0.00709344	0.038663 1	0.854431	32
rs1436348	3	10461266 8	G	A	0.0143852	0.0019779 6	3.50E-13	0.00500086	0.036114 6	0.889867	53
rs1440286	11	12809152	A	G	0.012072	0.0019891 8	1.30E-09	-0.0637843	0.037444 2	0.088483	37
rs1441264	13	79580919	A	G	0.0168227	0.0020342 5	1.30E-16	0.0211555	0.037289 6	0.57049	68
rs1446585	2	13640747 9	G	A	- 0.0148033	0.0022222	2.70E-11	-0.0245214	0.036688 2	0.503895	44
rs1456	8	21952226	C	T	0.0118644	0.0019937 7	2.70E-09	-0.0266896	0.036344 1	0.46273	35
rs1458156	12	41887940	T	C	0.0143399	0.0019559 2	2.30E-13	0.00345029	0.035077 9	0.921646	54
rs1471093	3	10803109 4	A	G	0.0119964	0.0020159 3	2.70E-09	-0.0505834	0.034992 2	0.1483	35
rs14773026 8	12	12302447 6	T	G	- 0.0430138	0.0035402 7	5.70E-34	0.0452542	0.062993 9	0.472517	14 8
rs14863647 9	4	16435967 8	T	A	- 0.0365007	0.0062484 5	5.20E-09	-0.0924287	0.211739	0.662457	34
rs1503526	5	63020706	C	T	0.0139637	0.0019536 2	8.80E-13	0.0413528	0.035545 2	0.244673	51
rs1554654	3	44044344	T	C	- 0.0138327	0.0019578 5	1.60E-12	-0.0246496	0.035819 7	0.491353	50
rs1568488	3	15365795 1	C	G	0.0171575	0.002003	1.10E-17	-0.0564091	0.036482	0.122052	73
rs16916303	9	30823761	G	A	- 0.0179431	0.0030431 7	3.70E-09	0.0395235	0.052166 9	0.448669	35
rs16934748	10	33970319	C	T	0.0176652	0.0027364 2	1.10E-10	-0.0509606	0.047979 9	0.288179	42

rs16996657	20	15816236	C	T	0.020554	0.0029391 3	2.70E-12	0.0154993	0.042618 2	0.716099	49
rs17024393	1	11015468 8	C	T	0.0665947	0.0061532 5	2.70E-27	0.100276	0.074989 4	0.181159	11 7
rs17115183	14	30137407	T	C	0.0139352	0.0020010 9	3.30E-12	-0.00847595	0.035485 7	0.811218	48
rs17218712	9	14765220	T	C	0.012325	0.002137	8.00E-09	-0.0280183	0.039745 3	0.480844	33
rs17399739	10	87490850	G	A	0.0230515	0.0038638 1	2.40E-09	-0.0663871	0.061158 7	0.277705	36
rs17668356	3	61208619	G	C	- 0.0215606	0.0027603 5	5.70E-15	0.00723483	0.050110 6	0.885203	61
rs17704028	7	95140031	T	C	- 0.0172071	0.0027616 9	4.60E-10	0.060145	0.043265 4	0.164486	39
rs17744603	17	52926401	G	C	0.0154995	0.0026272 9	3.60E-09	0.0449728	0.048687 5	0.355641	35
rs17770336	9	28414625	T	C	0.0212749	0.0020865 4	2.10E-24	-0.0679965	0.035913 2	0.0583109	10 4
rs17781552	1	20351964 8	A	G	0.0110373	0.0019837	2.60E-08	-0.0998926	0.034914 4	0.00422211	31
rs1778830	1	15648997 4	A	G	0.0115824	0.0020322 9	1.20E-08	0.00512441	0.039335 8	0.89635	32
rs1782508	11	30243795	G	C	- 0.0147924	0.0020531 1	5.80E-13	0.117271	0.037302 8	0.00166794	52
rs1788808	18	21090023	G	A	- 0.0244406	0.0019595 7	1.10E-35	0.0290314	0.034950 3	0.406172	15 6
rs1801282	3	12393125	G	C	0.0311211	0.0029990 3	3.20E-25	0.0114822	0.046256 5	0.803957	10 8
rs1813039	8	76295984	A	G	0.0130436	0.0021640 1	1.70E-09	0.017587	0.037056 8	0.635075	36
rs1840126	2	23689676 5	C	A	- 0.0108669	0.0019651 4	3.20E-08	0.0177495	0.034910 5	0.611153	31

rs1857883	3	30052399	A	G	0.0124127	0.0019658 8	2.70E-10	0.0233196	0.035118 9	0.506678	40
rs1861410	2	58933591	T	C	- 0.0194111	0.0019668 7	5.70E-23	0.0112094	0.035707 4	0.753579	97
rs1874832	15	67260238	A	G	- 0.0160124	0.0027103 9	3.50E-09	0.0689481	0.052211 7	0.186652	35
rs1881505	11	1483177	C	T	- 0.0238076	0.0042484 7	2.10E-08	-0.0482663	0.103907	0.642278	31
rs1915792	8	64703342	T	C	- 0.0121655	0.0019608 6	5.50E-10	0.0639682	0.035462 4	0.0712574	38
rs1945160	18	22164216	A	G	- 0.0114957	0.0020278 7	1.40E-08	0.0369103	0.036025 4	0.30557	32
rs1964675	3	13611494 5	T	C	0.0131288	0.0021549 6	1.10E-09	0.0194827	0.040879 5	0.633655	37
rs197374	1	11228998 3	T	C	0.0123895	0.0020064 3	6.60E-10	-0.0290839	0.035086 9	0.407155	38
rs2052607	18	40788387	A	G	- 0.0175566	0.002065	1.90E-17	0.0315961	0.035709 1	0.376254	72
rs2081880	19	7249633	G	A	0.0129327	0.0022172 6	5.50E-09	0.085622	0.037776 1	0.0234169	34
rs215634	7	32369148	G	A	- 0.0162386	0.0020116	6.90E-16	0.0460904	0.038773 8	0.234558	65
rs2162826	5	12271447 7	C	A	- 0.0148306	0.0024147 8	8.20E-10	0.0399277	0.041233 4	0.332877	38
rs2172131	10	13397896 2	C	T	- 0.0147647	0.0019805 2	9.00E-14	0.00835052	0.035008 2	0.81147	56
rs2192527	4	18329824	G	A	0.0186849	0.0019580 3	1.40E-21	-0.0339813	0.036183 5	0.34766	91
rs2208947	10	77657667	G	A	0.0127291	0.0022198 4	9.80E-09	0.0399477	0.044972 2	0.374393	33
rs2216931	2	18159907 0	A	C	0.0167032	0.0020627 4	5.60E-16	0.0527011	0.039779 8	0.185231	66

rs2237025	4	55541879	C	T	- 0.0118394	0.0019794 9	2.20E-09	-0.0133388	0.034988 2	0.703029	36
rs2249825	13	31037903	C	G	- 0.0127095	0.0022120 3	9.20E-09	-0.0297837	0.036693 1	0.416966	33
rs2269487	4	2262191	G	A	- 0.0158015	0.0028728 2	3.80E-08	-0.0178379	0.050548	0.724171	30
rs2271189	12	56494991	A	G	- 0.0117332	0.0019950 3	4.10E-09	0.0634987	0.035984 7	0.0776301	35
rs2276190	18	63430340	A	G	0.0135718	0.0021881 1	5.60E-10	-0.104475	0.035927 8	0.0036384	38
rs2287214	12	10809051 8	G	A	0.0160733	0.0019942 7	7.60E-16	0.105755	0.035467	0.00286576	65
rs2289379	7	44804225	T	C	-0.01292	0.0020059 7	1.20E-10	0.0138996	0.035018 6	0.691426	41
rs2302209	19	18324329	T	C	0.0216824	0.0021605 9	1.10E-23	0.00056122 3	0.040081 9	0.988828	10 1
rs2307111	5	75003678	C	T	- 0.0265622	0.0019980 5	2.50E-40	0.0314777	0.035392 8	0.373797	17 7
rs2417084	9	10311927 7	C	T	0.0167542	0.0020990 8	1.40E-15	-0.0337296	0.035773 6	0.345751	64
rs2494196	1	21976258 1	A	C	0.0227658	0.0021563 1	4.70E-26	0.0707238	0.038192 3	0.0640575	11 1
rs2499468	6	51809081	A	C	0.0142319	0.0020496 4	3.80E-12	-0.00197028	0.039565 3	0.960283	48
rs252749	5	77389973	A	G	- 0.0179935	0.0022634 2	1.90E-15	0.0520663	0.045180 5	0.249154	63
rs253440	5	14179619 1	T	G	- 0.0166619	0.0029277 7	1.30E-08	-0.0143562	0.045545	0.752603	32
rs2568958	1	72765116	A	G	0.020413	0.001989	1.00E-24	0.0442157	0.036416 5	0.224684	10 5
rs2606227	3	18353683 6	C	T	- 0.0133717	0.0020414	5.70E-11	0.0107359	0.035278 2	0.760883	43

rs2610245	5	63978255	G	A	-	0.0019867	2.30E-10	-0.0132032	0.035380	0.709014	40
					0.0125974	4			2		
rs2678204	1	20180051	G	T	0.0211458	0.0020573	8.80E-25	0.0462214	0.038014	0.224032	10
		1				1			9		6
rs2791643	1	11207269	T	C	-	0.0022866	1.10E-10	0.0485407	0.041855	0.246158	42
					0.0147685	6			1		
rs2802295	6	10892649	G	A	0.020442	0.0020179	4.10E-24	-0.00936099	0.035402	0.79146	10
		6				1			7		3
rs2814993	6	34618893	A	G	0.044939	0.0028089	1.30E-57	-0.148034	0.043792	0.00072395	25
						6			5	2	6
rs28350	3	42418446	G	A	-	0.0025518	1.80E-13	0.0595436	0.044925	0.185039	54
					0.0187817	3			1		
rs28366156	6	31671498	C	T	-	0.0028945	4.60E-19	-0.0322059	0.068783	0.639627	80
					0.0258212	3			5		
rs28375268	16	4949528	T	G	-0.015738	0.0020510	1.70E-14	-0.0369944	0.036781	0.314523	59
						2			9		
rs28587941	15	68122509	C	T	-	0.0023379	4.40E-30	0.0605366	0.047522	0.202719	13
					0.0266406	2			9		0
rs28687152	15	53086701	C	G	0.0140828	0.0022192	2.20E-10	-0.11595	0.046331	0.0123271	40
rs2920939	8	93182601	A	G	0.0111885	0.0019987	2.20E-08	0.00551593	0.036285	0.879176	31
						8			8		
rs2943653	2	22704777	T	C	-	0.0020766	2.20E-10	-0.0886752	0.036834	0.0160653	40
		1			0.0131865						
rs2954021	8	12648207	G	A	0.0158876	0.0019539	4.30E-16	-0.047208	0.034891	0.176062	66
		7				2			9		
rs2964023	5	15324641	C	T	-	0.0021167	3.10E-11	0.0422835	0.039516	0.284609	44
		2			0.0140621	8			4		
rs2966859	16	85324544	G	A	-	0.0024038	5.50E-10	0.044164	0.042676	0.300738	38
					0.0149117				7		
rs3113509	4	52932825	T	C	-	0.0022047	1.80E-13	0.0356992	0.038660	0.355802	54
					0.0162395	7			8		

rs314279	6	10540208 3	A	C	- 0.0239116	0.0030594 5	5.50E-15	-0.0523192	0.052871 8	0.322395	61
rs329651	11	13376762 2	T	G	0.0137454	0.0024737 5	2.80E-08	0.015373	0.061310 6	0.802015	31
rs33836	19	34008600	T	C	- 0.0170439	0.0019872	9.70E-18	0.0603566	0.035160 3	0.0860498	74
rs34045288	6	40369081	T	C	0.0208101	0.0020686 6	8.30E-24	0.0159893	0.036060 1	0.65747	10 1
rs34483452	5	87986314	A	C	0.0324202	0.0028687 2	1.30E-29	-0.0656089	0.053364 6	0.218905	12 8
rs34517439	1	78450517	A	C	0.0432047	0.0030161 8	1.50E-46	-0.0558529	0.052878 9	0.290857	20 5
rs34571768	8	57112046	A	G	- 0.0162132	0.0029726 6	4.90E-08	-0.0390445	0.052932	0.460736	30
rs35099456	11	66649527	C	G	- 0.0387799	0.0040721 3	1.70E-21	-0.137548	0.102695	0.180445	91
rs35307904	9	78511889	A	G	- 0.0173642	0.0029988	7.00E-09	0.0276264	0.047642 3	0.562002	34
rs35537311	17	71126150	T	C	- 0.0118759	0.0020105	3.50E-09	-0.0229331	0.035898 8	0.522934	35
rs35589149	7	6426273	C	G	0.0200218	0.0028845 7	3.90E-12	0.0491975	0.051143 9	0.336078	48
rs35591746	1	15045635 0	T	A	0.0139768	0.0023633 7	3.30E-09	-0.104784	0.042025 3	0.0126538	35
rs35697691	15	52353498	G	C	0.0250376	0.0034788 7	6.20E-13	-0.00370932	0.087754 9	0.966284	52
rs35722851	7	13043450 0	C	T	0.0124526	0.0019564 9	2.00E-10	0.0138346	0.035010 9	0.69273	41
rs35867081	17	79047278	G	A	- 0.0142713	0.0019666 3	4.00E-13	0.011196	0.035138 6	0.750012	53
rs35882248	2	23062795 5	T	C	0.0186983	0.0020954 3	4.50E-19	0.0150149	0.037514 7	0.688979	80

rs35937770	17	44808360	A	G	0.0120137	0.0020831 2	8.10E-09	-0.00145694	0.035417 7	0.967187	33
rs3730071	12	49168798	A	C	- 0.0380753	0.0057066 2	2.50E-11	0.0420564	0.177172	0.812365	45
rs3737992	1	33234128	A	G	- 0.0194482	0.0025986 8	7.20E-14	-0.0358384	0.044377 4	0.419331	56
rs3739514	9	13378302 5	A	G	0.0117995	0.0020707 5	1.20E-08	-0.0190628	0.035342 4	0.589628	32
rs3754963	2	16618570 7	T	A	- 0.0136014	0.0022351 5	1.20E-09	0.0101439	0.037893	0.788931	37
rs3764625	19	49649051	G	T	- 0.0116627	0.0019914	4.70E-09	-0.0257046	0.034973 1	0.462349	34
rs3766442	1	54724246	C	T	0.0127059	0.0020759 4	9.30E-10	-0.120492	0.038619	0.00180842	37
rs3766823	1	32197257	A	G	0.0190655	0.0025835 1	1.60E-13	-0.0377854	0.041910 1	0.367278	54
rs3772882	3	81808602	A	C	0.0116765	0.0020156 6	6.90E-09	0.0373272	0.035079 4	0.287294	34
rs3774063	3	9511736	T	C	0.0214248	0.0032200 4	2.90E-11	0.0353635	0.070735 3	0.617116	44
rs3803286	14	10324647 0	G	A	- 0.0163725	0.0020737 2	2.90E-15	0.00857212	0.036934 4	0.816468	62
rs3807566	7	50564204	T	G	-0.012672	0.0019725 7	1.30E-10	0.0614795	0.035878 5	0.0866124	41
rs3814883	16	29994922	T	C	0.0225304	0.0019612 9	1.50E-30	-0.0265043	0.035343 2	0.453308	13 2
rs3817428	15	89415247	G	C	- 0.0162331	0.0022170 7	2.40E-13	-0.078732	0.037726 1	0.0368935	54
rs3822742	5	13905901 7	A	C	0.0161316	0.0020259 8	1.70E-15	0.0244542	0.037316 9	0.512267	63
rs3826408	17	7101292	T	C	0.0119493	0.0019622 5	1.10E-09	0.0190868	0.034891	0.58435	37

rs394608	21	46581798	C	T	0.0158642	0.0019710 1	8.40E-16	0.0359066	0.035306 6	0.309156	65
rs396354	2	86850022	C	T	- 0.0133694	0.0021659 1	6.70E-10	-0.00382912	0.039279 3	0.922342	38
rs40071	5	10749610 2	C	T	- 0.0198339	0.0025512 6	7.60E-15	-0.0238946	0.042794 7	0.576602	60
rs4088476	4	34911685	T	C	0.011656	0.0020597 5	1.50E-08	-0.0609649	0.036266 1	0.0927534	32
rs4123668	3	82629523	C	T	0.0109217	0.0019914 8	4.20E-08	-0.0533404	0.036447 3	0.143332	30
rs41271299	6	19839415	T	C	0.0308412	0.0044233 3	3.10E-12	0.05511	0.135685	0.684625	49
rs4240326	4	14583926 4	G	A	- 0.0163404	0.0019612 7	8.00E-17	0.0373077	0.03501	0.286591	69
rs429343	2	14790338 2	G	A	- 0.0151584	0.0019750 4	1.70E-14	0.0463981	0.035027 3	0.185294	59
rs429358	19	45411941	C	T	- 0.0263395	0.0027121 9	2.70E-22	-0.0100734	0.044818	0.822164	94
rs4377779	6	12117344	C	T	- 0.0161903	0.0020510 2	2.90E-15	0.0144053	0.036748	0.695056	62
rs441792	2	10540422 1	G	A	0.0142917	0.0019540 2	2.60E-13	0.0102249	0.035088 7	0.770744	53
rs4430672	14	63094407	C	T	- 0.0148335	0.0024534 4	1.50E-09	-0.0608573	0.042754 6	0.154617	37
rs4477562	13	54104968	T	C	0.029284	0.0029455 4	2.70E-23	-0.0787391	0.050288 4	0.117407	99
rs4482463	2	20537590 9	A	C	- 0.0299133	0.0036660 6	3.40E-16	-0.0193708	0.073907 8	0.793248	67
rs4562625	1	20921858 3	G	C	- 0.0123766	0.0020018 8	6.30E-10	-0.0213721	0.035415 3	0.546197	38
rs4589116	1	15100251 0	T	C	- 0.0173264	0.0028646 7	1.50E-09	-0.00357651	0.044708 4	0.93624	37

rs4658403	1	24383256 0	T	C	- 0.0155056	0.0026194 6	3.20E-09	0.00068734 4	0.045386 4	0.987917	35
rs467176	5	66193103	T	C	0.0112111	0.0019644 4	1.10E-08	0.00319898	0.035029 7	0.927237	33
rs4709745	6	16410598 4	C	T	0.0138387	0.0021171 2	6.30E-11	0.0104551	0.040697	0.797255	43
rs4718964	7	70038969	T	G	0.0146651	0.0019903	1.70E-13	0.0608092	0.035537 5	0.0870583	54
rs477895	11	64048912	T	C	0.0189346	0.0026384 4	7.20E-13	-0.0184311	0.047524 3	0.698146	52
rs4820323	22	38599767	G	C	- 0.0193466	0.0019886 2	2.30E-22	0.0380625	0.035631 2	0.285414	95
rs4876611	8	11667184 8	G	A	0.0226808	0.0021783 3	2.20E-25	0.0248476	0.037790 8	0.510857	10 8
rs4908672	1	7725414	T	C	0.0113099	0.0019980 9	1.50E-08	-0.0274047	0.035237 4	0.436736	32
rs4919478	10	10242779 7	G	A	0.0125754	0.0021283 7	3.50E-09	-0.00681804	0.038746 9	0.860323	35
rs4936175	11	13264195 9	C	T	0.0118349	0.0019660 6	1.70E-09	-0.0412613	0.036396 2	0.256933	36
rs497905	8	10287949 7	T	C	- 0.0128813	0.0023511 7	4.30E-08	0.0044863	0.042311 5	0.915558	30
rs530255	4	17104140 8	C	T	0.0112973	0.0019856 8	1.30E-08	-0.0169591	0.034966 4	0.627668	32
rs543874	1	17788948 0	G	A	0.0444915	0.0024127 8	6.30E-76	-0.0719728	0.045309 2	0.112178	34 0
rs553634	11	94233959	A	C	0.0109701	0.0019831 5	3.20E-08	0.0632374	0.035698 8	0.0764909	31
rs55707359	11	46159333	G	T	0.0501467	0.0080260 2	4.20E-10	-0.816567	0.480625	0.0893244	39
rs55726687	12	991306	A	G	0.0223062	0.0023971 3	1.30E-20	-0.0542747	0.042702 2	0.203727	87

rs56374036	20	46367372	G	A	- 0.0157344	0.0024087	6.50E-11	-0.0487023	0.051843 6	0.347522	43
rs57636386	18	58048295	C	T	- 0.0378766	0.0035406 8	1.00E-26	0.021692	0.079564 3	0.785134	11 4
rs577525	10	99769388	C	T	0.0186462	0.0019697 9	2.90E-21	0.0282578	0.035121 8	0.42107	90
rs59227842	11	43692423	G	A	0.022946	0.0021277 1	4.10E-27	0.0338064	0.037537 2	0.367796	11 6
rs59322078	16	51792949	T	C	- 0.0190695	0.0034933 4	4.80E-08	-0.0126578	0.10857	0.907187	30
rs6008749	22	46730486	A	T	0.0188078	0.0031876 6	3.60E-09	0.12433	0.059154 9	0.0355738	35
rs6029180	20	39178923	G	A	0.0127468	0.0021080 5	1.50E-09	0.00694871	0.038760 9	0.857725	37
rs6058209	20	33821577	A	G	0.0146479	0.0020963 5	2.80E-12	0.0162258	0.037423 7	0.664599	49
rs60661769	4	80811207	A	T	0.0142386	0.0020437 2	3.20E-12	0.00219484	0.040289 7	0.956556	49
rs6069037	20	53503198	A	C	- 0.0136445	0.0022074 2	6.40E-10	-0.0406894	0.040726	0.317746	38
rs60814640	7	92286918	G	A	0.0155148	0.0020614 3	5.20E-14	-0.0347477	0.036039 6	0.334969	57
rs61754230	12	72179446	T	C	0.0427975	0.0070240 5	1.10E-09	-0.128276	0.238833	0.591201	37
rs61779305	1	39921811	C	G	0.0160792	0.0026637 5	1.60E-09	-0.00735114	0.049204 4	0.881238	36
rs617948	11	11898102 5	G	A	0.0112934	0.0019563 3	7.80E-09	-0.0540097	0.034798 2	0.120643	33
rs61813293	1	15601907 5	T	G	0.0211528	0.0027779 3	2.60E-14	0.0217677	0.04879	0.655488	58
rs61903695	11	89922417	G	A	0.0156535	0.0022448 6	3.10E-12	0.00704108	0.040563 2	0.862193	49

rs61969510	13	86484025	C	T	0.0152468	0.0021990 9	4.10E-12	0.0118763	0.036080 1	0.742031	48
rs61992671	14	10153185 4	G	A	- 0.0145622	0.0020449 3	1.10E-12	0.0777504	0.035243	0.0273754	51
rs62025831	15	84545685	C	T	- 0.0252975	0.0021802 5	4.00E-31	-0.0422082	0.037359 2	0.258563	13 5
rs62107261	2	422144	C	T	- 0.0783974	0.0045571 2	2.50E-66	-0.139981	0.125136	0.263299	29 6
rs62124717	2	12817006	A	G	0.018455	0.0033476 7	3.50E-08	-0.131147	0.083253 2	0.115192	30
rs62302286	4	82157284	C	T	0.0139501	0.0022524 1	5.90E-10	0.0772521	0.041187 3	0.0607058	38
rs62379271	5	10587003 3	G	T	0.0111105	0.0019818 8	2.10E-08	-0.0145997	0.034966 4	0.676287	31
rs62396185	6	26180634	C	G	- 0.0351601	0.0022264	3.50E-56	0.0413536	0.035516 5	0.244283	24 9
rs62407565	6	33535739	G	A	0.0141481	0.0021814 8	8.80E-11	-0.0257182	0.045113 9	0.568629	42
rs62443626	7	39056649	A	G	- 0.0107742	0.0019683 1	4.40E-08	-0.00526394	0.035238 8	0.881254	30
rs62499697	8	14293020	C	T	0.014401	0.0021751 7	3.60E-11	-0.049848	0.040482 8	0.218197	44
rs6461999	7	27281304	A	C	- 0.0193703	0.0029214 6	3.30E-11	-0.00574158	0.047316 3	0.903418	44
rs6469351	8	11235320 5	T	C	0.0123775	0.0020847 6	2.90E-09	-0.0939968	0.036890 4	0.010834	35
rs655510	2	16537006 1	C	A	- 0.0117948	0.0019691 3	2.10E-09	-0.00364396	0.035970 6	0.919309	36
rs6561937	13	58257667	A	T	- 0.0134337	0.0022767 8	3.60E-09	0.0223689	0.043327 2	0.60566	35
rs6567160	18	57829135	C	T	0.0486668	0.0023146 5	3.80E-98	-0.146615	0.045987 1	0.00143176	44 2

rs6569648	6	13034911 9	T	C	- 0.0178981	0.0022847 4	4.70E-15	0.0162171	0.042641 3	0.703712	61
rs6575340	14	94023972	A	G	0.0183932	0.0020376 8	1.80E-19	-0.0151419	0.036030 4	0.6743	81
rs6601527	8	10665444	A	C	- 0.0128485	0.0019931 2	1.10E-10	0.0525896	0.035145 9	0.13457	42
rs6606686	12	11090338 0	C	G	-0.015588	0.0020949 3	1.00E-13	-0.0259966	0.037403 1	0.487031	55
rs6669189	1	75011358	T	C	0.0131777	0.0019938 4	3.90E-11	0.0587212	0.034977 4	0.0931837	44
rs6684205	1	21860970 2	G	A	0.0142452	0.0021528 9	3.70E-11	-0.0688735	0.037225 3	0.064288	44
rs6688826	1	80812329	C	T	0.012894	0.0021270 1	1.30E-09	-0.0440781	0.043654 9	0.312642	37
rs6744646	2	628504	G	A	0.0471154	0.0025826 1	2.30E-74	-0.0917342	0.047793 9	0.0549376	33 3
rs6752378	2	25150116	A	C	0.0240987	0.0019490 6	4.10E-35	-0.0228641	0.035408 1	0.518454	15 3
rs67609008	10	12664093 6	C	T	0.0151399	0.0021761 8	3.50E-12	-0.0699267	0.045243 6	0.122211	48
rs67689854	16	89625227	A	C	- 0.0198113	0.0029403 6	1.60E-11	0.017879	0.043112	0.678353	45
rs6769617	3	62687746	T	A	- 0.0120287	0.0020649 5	5.70E-09	0.00849772	0.037821 8	0.82223	34
rs6782714	3	71684845	T	C	- 0.0118429	0.0020053 5	3.50E-09	-0.0184116	0.035011 9	0.598981	35
rs6790206	3	16143470 7	G	A	0.0112074	0.0019503	9.10E-09	-0.0201654	0.035020 5	0.564739	33
rs6840236	4	56289785	C	T	0.0141758	0.0019584 1	4.50E-13	0.0529131	0.034917 3	0.129675	52
rs6946091	7	15068434 6	G	A	0.013258	0.0020244 8	5.80E-11	0.0409181	0.037264 5	0.272186	43

rs6973656	7	77422583	G	A	0.0126406	0.0019953 4	2.40E-10	-0.0346732	0.036349 5	0.340143	40
rs6973700	7	1856669	G	A	- 0.0140409	0.0024170 5	6.30E-09	-0.038302	0.039064 7	0.326852	34
rs6980476	8	87519315	G	T	0.0120742	0.0021916 8	3.60E-08	-0.039108	0.038278 1	0.306933	30
rs698147	5	3513485	G	A	- 0.0122788	0.0019615 5	3.90E-10	-0.0107017	0.034886 1	0.759027	39
rs6998660	8	14337397 2	G	A	0.0127284	0.0019651 9	9.40E-11	0.0149648	0.035188 4	0.670635	42
rs7027304	9	12940829 0	T	C	0.0140728	0.0020623 8	8.90E-12	-0.0328003	0.039272 6	0.403607	47
rs7034554	9	37081301	G	A	- 0.0116902	0.0020183 4	7.00E-09	-0.0764959	0.038366 2	0.04617	34
rs7038943	9	12037717 8	C	T	- 0.0143227	0.0020617 6	3.70E-12	-0.024188	0.035603 2	0.496899	48
rs7070670	10	61842645	T	C	- 0.0122284	0.0020942 7	5.30E-09	-0.0449972	0.038699 3	0.244935	34
rs7124681	11	47529947	A	C	0.0234274	0.0019829 4	3.30E-32	-0.0373065	0.035593 9	0.294586	14 0
rs7132908	12	50263148	A	G	0.0287176	0.0020094 9	2.50E-46	-0.0417197	0.035925 4	0.245525	20 4
rs7167767	15	81025755	A	G	0.0125923	0.0020519 8	8.40E-10	-0.0119725	0.036400 8	0.742226	38
rs7171864	15	73227249	A	G	0.0175619	0.0020745 7	2.60E-17	-0.0727708	0.038424 3	0.0582412	72
rs719802	11	11323467 9	C	T	- 0.0149119	0.0020055 1	1.00E-13	-0.0602602	0.036949	0.102911	55
rs7218014	17	65832016	C	T	0.0269074	0.0024626	8.60E-28	0.0197264	0.041021	0.630597	11 9
rs72634826	1	1601052	A	G	- 0.0171518	0.0022536 5	2.70E-14	-0.0375128	0.042622 7	0.378798	58

rs72755233	15	10069295 3	A	G	- 0.0230331	0.0031053 1	1.20E-13	0.0855586	0.055195 5	0.121118	55
rs72767253	5	51090842	A	C	- 0.0330784	0.0048632 2	1.00E-11	0.014031	0.123937	0.909863	46
rs72892910	6	50816887	T	G	0.034486	0.0025887 9	1.70E-40	-0.00690911	0.043340 7	0.873343	17 7
rs72915955	11	56909311	A	G	-0.015254	0.0026746 7	1.20E-08	0.00774615	0.051446 4	0.880317	33
rs72917533	2	17523892 4	C	T	- 0.0180733	0.0025135 5	6.50E-13	0.0525047	0.050102 7	0.294666	52
rs72976986	19	4050424	A	G	- 0.0190324	0.0025166 4	4.00E-14	0.0114963	0.048211 5	0.811527	57
rs73052033	3	18582846 5	C	T	- 0.0211658	0.0025157 6	4.00E-17	-0.0276738	0.047483 1	0.560018	71
rs73142879	20	51195932	T	C	- 0.0250526	0.0024928	9.20E-24	-0.0203972	0.048001 6	0.67089	10 1
rs73175572	3	18549018 4	G	A	0.0180427	0.0031285 3	8.10E-09	-0.0192286	0.054339 9	0.723444	33
rs73213484	4	28489339	T	A	- 0.0230745	0.0028034 2	1.90E-16	0.0471357	0.049294 7	0.33897	68
rs73371569	7	76814053	C	A	0.0234158	0.0039828 9	4.10E-09	-0.0289101	0.072760 3	0.691122	35
rs7357754	9	92207308	G	A	0.0130448	0.0019603 7	2.80E-11	-0.0226549	0.034913	0.516406	44
rs7372674	3	19614916 5	A	C	0.0146589	0.0020343 7	5.80E-13	0.0248078	0.038075 1	0.514692	52
rs73985439	2	21229924 9	C	A	0.0126522	0.0021161 3	2.20E-09	0.0568577	0.037924 2	0.13381	36
rs743572	10	10459715 2	G	A	0.0125945	0.0020169 8	4.30E-10	0.00653702	0.035980 2	0.855831	39
rs7442885	5	87682877	G	C	- 0.0211336	0.0023835 1	7.50E-19	-0.0354836	0.045063 3	0.431037	79

rs7460093	8	14487615 9	A	G	0.0114526	0.0019748 7	6.70E-09	0.063467	0.035276 9	0.0720012	34
rs74618095	21	40683196	C	T	0.0148532	0.0027026 9	3.90E-08	-0.0339665	0.040538 3	0.402095	30
rs75281888	5	50961753	C	T	0.0382694	0.0055161 6	4.00E-12	-0.0219294	0.098392 8	0.823632	48
rs7537581	1	2725475	A	C	0.0125527	0.0019678 6	1.80E-10	-0.0378392	0.035317 3	0.283987	41
rs75412871	12	12170943 0	T	C	-0.025579	0.0044085 8	6.50E-09	-0.0935289	0.070217 4	0.182863	34
rs754635	3	42305131	G	C	0.0213268	0.0030728 4	3.90E-12	0.0819986	0.058889 4	0.163796	48
rs75524125	12	10366353 6	A	T	- 0.0184245	0.0029227 2	2.90E-10	0.0346004	0.046240 4	0.454296	40
rs756717	16	72996162	A	G	- 0.0130412	0.0020198 9	1.10E-10	-0.0142146	0.035603 5	0.689711	42
rs7575523	2	59335104	G	T	- 0.0210772	0.0019987	5.30E-26	-0.0952243	0.035266 5	0.00693123	11 1
rs7619139	3	25110415	A	T	0.0137529	0.0019869 4	4.50E-12	-0.00483012	0.035365 9	0.891366	48
rs7632381	3	14110606 3	C	T	0.0225939	0.0019604 8	9.90E-31	-0.0447591	0.035082 9	0.202023	13 3
rs7663885	4	83159728	C	T	- 0.0109141	0.0019486 7	2.10E-08	0.0177346	0.035828 6	0.62061	31
rs76702514	1	19514829 6	G	C	- 0.0153947	0.0024045 2	1.50E-10	-0.0377888	0.041602 9	0.363708	41
rs7683836	4	18016790 6	A	G	- 0.0107953	0.0019709 1	4.30E-08	-0.0373965	0.035014 9	0.285513	30
rs76895963	12	4384844	G	T	0.0669471	0.0075722 1	9.50E-19	-0.0299797	0.105475	0.776231	78
rs770082	12	89776485	A	G	0.0170871	0.0019781 4	5.70E-18	-0.0293845	0.036274 1	0.417901	75

rs7762794	6	15338022 8	G	A	0.0125735	0.0021595 2	5.80E-09	-0.060481	0.036853 9	0.100776	34
rs7828631	8	13287532 0	T	C	0.0171594	0.0031288 4	4.20E-08	0.0409945	0.073587 7	0.577471	30
rs7845090	8	73449940	A	G	- 0.0228497	0.0021620 1	4.20E-26	-0.0838718	0.039669 3	0.0344921	11 2
rs7864914	9	12263141 5	G	A	0.0194261	0.0032164 3	1.50E-09	0.00568542	0.062538 5	0.927563	36
rs7893571	10	16750129	T	G	0.0146196	0.0020768 1	1.90E-12	-0.00233748	0.037903 1	0.950826	50
rs7916385	10	10247043 2	T	C	- 0.0219389	0.0029735 9	1.60E-13	-0.0212957	0.050541 8	0.673501	54
rs79197301	14	41327292	A	T	0.0230668	0.0035551 8	8.70E-11	-0.00372566	0.097757 8	0.969599	42
rs7934638	11	12276547 8	A	G	0.0154187	0.0022794 7	1.30E-11	-0.0485491	0.044114 5	0.271104	46
rs7944782	11	13079569 8	G	T	0.0149978	0.0019639 5	2.20E-14	0.00893721	0.034904 9	0.797916	58
rs79518326	1	17494688 3	A	C	- 0.0436689	0.0059122 3	1.50E-13	-0.0735563	0.154912	0.634911	55
rs7960609	12	18161569	G	A	0.0121771	0.0020894 8	5.60E-09	-0.00564136	0.041501 7	0.891876	34
rs7975187	12	60964108	G	A	0.0153517	0.0023841 2	1.20E-10	0.0175351	0.044239 8	0.691836	41
rs79847714	2	19386520 3	C	T	- 0.0142962	0.0023241 9	7.70E-10	-0.00746282	0.041200 9	0.856264	38
rs8026411	15	62117222	T	C	- 0.0385285	0.0066738 3	7.80E-09	0.0575914	0.134698	0.668972	33
rs8074454	17	3981148	C	G	0.0135439	0.0020864 6	8.50E-11	0.079279	0.037975 3	0.0368299	42
rs8076669	17	15888448	C	T	0.0112148	0.0019727 4	1.30E-08	0.0711435	0.035572 9	0.0455072	32

rs8078135	17	21268583	T	C	- 0.0108198	0.0019629 8	3.50E-08	0.0128477	0.034870 9	0.712546	30
rs8093356	18	2664532	T	C	- 0.0148598	0.0023392 2	2.10E-10	0.0411691	0.042194 3	0.329212	40
rs8096564	18	39910592	T	G	0.0143768	0.0021505 2	2.30E-11	-0.071548	0.036300 3	0.0487237	45
rs812949	5	17050614 1	C	T	0.0176994	0.0021966 1	7.80E-16	0.0443079	0.037369	0.235746	65
rs815163	1	19029472 6	C	T	- 0.0138291	0.0019631 4	1.90E-12	0.0271645	0.035024 3	0.437992	50
rs8192675	3	17072488 3	C	T	0.0160216	0.0021491 2	9.00E-14	-0.0156817	0.039560 2	0.69181	56
rs825680	16	73606563	T	A	- 0.0113808	0.0019953 9	1.20E-08	0.0296636	0.0355	0.403382	33
rs854917	6	90127390	T	C	- 0.0132445	0.0022237 1	2.60E-09	-0.041469	0.040592 5	0.306974	35
rs862320	16	69651866	T	C	- 0.0183073	0.0019898 2	3.60E-20	0.061412	0.035186 3	0.0809264	85
rs879620	16	4015729	T	C	0.0241441	0.0020124 4	3.70E-33	0.0235169	0.035379 4	0.506237	14 4
rs885114	11	8678756	A	G	- 0.0199119	0.0021899 4	9.70E-20	-0.0365486	0.039606 4	0.356115	83
rs900448	12	13340480 5	G	C	0.0129143	0.0021178 9	1.10E-09	0.00601851	0.039781 5	0.879748	37
rs9294260	6	83433228	A	G	0.0137122	0.0019641 8	2.90E-12	-0.038859	0.035053	0.267612	49
rs9304665	19	47602577	A	T	0.0178838	0.0023084 1	9.40E-15	0.028257	0.038568 4	0.463774	60
rs9316661	13	54354615	C	T	- 0.0180893	0.0024557 2	1.80E-13	0.0135554	0.044224 2	0.759212	54
rs9320823	6	98429337	C	T	0.0188041	0.0019960 9	4.50E-21	-0.00209906	0.037338 7	0.955169	89

rs9322332	6	15216680 1	A	C	0.0115238	0.0019589 8	4.00E-09	0.039426	0.035484 5	0.266535	35
rs9378684	6	2110941	T	C	0.0152667	0.0024589 1	5.30E-10	-0.00178905	0.038984 8	0.963397	39
rs9515455	13	11223967 1	A	G	0.0134123	0.0019964 5	1.80E-11	0.019932	0.034946 8	0.568439	45
rs9522183	13	11197728 0	T	G	- 0.0149957	0.0019842 3	4.10E-14	-0.0188453	0.035181 3	0.592193	57
rs9533031	13	42772717	T	G	0.0121763	0.0019779 2	7.50E-10	0.0312875	0.034999 7	0.371356	38
rs9654453	5	299621	C	T	0.0179075	0.0029141 3	8.00E-10	-0.0753267	0.061605 3	0.221431	38
rs9673839	16	76895693	G	A	0.0110754	0.0019649 4	1.70E-08	0.00722618	0.034989 5	0.836381	32
rs9788550	14	29681138	C	G	- 0.0221218	0.0022748 7	2.40E-22	-0.0109859	0.036752 2	0.765003	95
rs9839081	3	12305123 0	A	G	- 0.0144833	0.0021155 4	7.60E-12	0.0340908	0.038523 8	0.376196	47
rs9843653	3	49920571	C	T	0.0248378	0.0019518 9	4.30E-37	-0.083013	0.035714 8	0.0201081	16 2
rs9851777	3	88267467	C	T	0.0224847	0.0030520 5	1.70E-13	-0.0651195	0.057547 1	0.257808	54
rs9876664	3	85806313	T	G	- 0.0162889	0.0020175 2	6.80E-16	0.0338475	0.035056 7	0.334291	65
rs9937053	16	53799507	A	G	0.0601829	0.0019768 5	1.00E-200	0.0312335	0.035146 5	0.374183	92 7
rs9955276	18	1839339	T	C	0.0178069	0.0027965	1.90E-10	-0.0229608	0.046270 8	0.619735	41
rs9968060	3	62471282	T	C	0.0146472	0.0020728 8	1.60E-12	0.00103798	0.03667	0.977418	50

8 **Note.** Chr, chromosome; Beta, beta-coefficient; F, F-statistic; OCD, Obsessive-compulsive disorder; SE, standard error.

9 **Supplementary Table S3** Effect estimate of the association between genetically predicted body fat-free mass and risk of obsessive-  
 10 compulsive disorder

Variant rsID	Chr	Position	Effect allele	Other allele	Association with fat-free mass			Association with OCD			F
					Beta	Se	P	Beta	Se	P	
rs10008356	4	57761967	G	C	-0.00744892	0.00131312	1.40E-08	0.0558508	0.0357822	0.118559	32
rs10020631	4	69353863	A	G	-0.00831407	0.00144209	8.20E-09	0.0202418	0.0407936	0.619754	33
rs1008158	9	113828811	G	A	0.00849478	0.0013173	1.10E-10	-0.0125946	0.0358907	0.725651	42
rs10119967	9	99268421	C	A	0.0155892	0.00154444	5.90E-24	0.0734631	0.0462962	0.112557	102
rs10172196	2	36780549	A	G	0.0107611	0.00134675	1.30E-15	-0.0203329	0.0370347	0.58299	64
rs10188231	2	142297493	G	C	-0.0100461	0.0015909	2.70E-10	-0.0603651	0.0424662	0.155176	40
rs10202845	2	42575820	G	A	-0.0176134	0.00197265	4.30E-19	0.0635202	0.0571105	0.266038	80
rs10222924	4	49016761	G	A	-0.00954661	0.00135692	2.00E-12	0.0333173	0.0399204	0.403947	49
rs1022523	1	176788394	A	G	0.0155647	0.00139049	4.40E-29	0.0481022	0.0382508	0.208555	125
rs10248298	7	121963813	A	C	0.0113907	0.00128664	8.50E-19	0.060477	0.0356471	0.0897821	78
rs10269774	7	92253972	A	G	0.0261792	0.00132369	4.70E-87	-0.0881741	0.0378987	0.019988	391
rs10282707	7	17911038	T	C	0.00794817	0.00126782	3.60E-10	0.0551764	0.0373769	0.139886	39
rs10283100	8	120596023	G	A	0.0279041	0.00271462	8.70E-25	0.0184567	0.066459	0.78123	106
rs10401784	19	3445721	A	C	-0.0100036	0.00129734	1.30E-14	0.0357996	0.0356959	0.315907	59
rs10412300	19	5006163	G	C	-0.00755911	0.00136884	3.30E-08	-0.00943122	0.0389985	0.808908	30
rs10434434	4	54271611	C	A	-0.0138752	0.00175181	2.40E-15	-0.0166145	0.0556876	0.765434	63
rs1043801	21	47552527	A	G	0.015078	0.00267794	1.80E-08	-0.0167913	0.0735237	0.819351	32
rs1047891	2	211540507	A	C	0.0168854	0.0013297	6.00E-37	0.0217729	0.0373493	0.559924	161
rs1049193	12	53873844	C	G	-0.0133965	0.00164953	4.60E-16	-0.0146272	0.0553072	0.791416	66
rs10498672	6	7797840	G	C	0.0103889	0.00162526	1.60E-10	0.0684131	0.0422911	0.105733	41
rs10511111	3	80599757	C	T	0.00872376	0.00134157	7.90E-11	0.0404263	0.0375781	0.282019	42
rs1064213	2	198950240	A	G	0.011481	0.00123828	1.80E-20	-0.0215317	0.0356015	0.545314	86
rs10748128	12	69827658	T	G	0.0123502	0.00130585	3.20E-21	0.0181806	0.0364252	0.617693	89
rs10770705	12	20857467	C	A	-0.00827299	0.00131169	2.80E-10	0.0475909	0.0378421	0.20853	40
rs10773172	12	122939655	A	G	0.017489	0.00141898	6.60E-35	-0.00648107	0.0446132	0.884496	152

rs10775348	16	88806348	G	A	0.0129738	0.00136464	2.00E-21	-0.0203968	0.0380441	0.591864	90
rs10775406	17	46197755	G	A	-0.0095685	0.00145435	4.70E-11	0.0636561	0.0396073	0.108015	43
rs10777860	12	97792792	A	G	-0.0106875	0.00124243	7.80E-18	-0.0185842	0.0350965	0.596447	74
rs10780905	9	90841066	A	G	-0.00987685	0.00127253	8.40E-15	-0.037856	0.0351892	0.282023	60
rs10803955	2	183228114	G	A	-0.0109773	0.00123547	6.40E-19	0.0121266	0.0352481	0.730819	79
rs10843397	12	29529523	T	C	0.0094145	0.00144658	7.60E-11	-0.0379978	0.0408132	0.351844	42
rs10861678	12	107319661	A	G	-0.0105405	0.00140468	6.20E-14	0.0195518	0.0418541	0.640398	56
rs10870597	13	114999636	G	A	-0.0104552	0.00146679	1.00E-12	0.0584616	0.0412364	0.156273	51
rs10881583	9	137267439	C	T	-0.00914557	0.0014564	3.40E-10	-0.0111453	0.0409253	0.785366	39
rs10899736	7	50546925	A	G	-0.0101688	0.00125107	4.40E-16	0.0607348	0.0356771	0.0886911	66
rs10908289	1	36573612	A	G	0.0093427	0.0016163	7.50E-09	-0.0193094	0.040216	0.631126	33
rs10938397	4	45182527	G	A	0.011923	0.00125252	1.70E-21	-0.0227716	0.0349568	0.514776	91
rs10939792	4	18483405	G	C	0.00787025	0.00132886	3.20E-09	-0.0428909	0.0400631	0.284356	35
rs10979612	9	111687379	C	T	0.0186875	0.00238714	4.90E-15	0.0851676	0.0549337	0.121052	61
rs10995366	10	52772113	A	G	-0.00977289	0.00143974	1.10E-11	0.0114707	0.0399116	0.773804	46
rs11001399	10	77221744	C	A	-0.0111824	0.00125526	5.20E-19	0.016186	0.0351799	0.645451	79
rs11014285	10	25178864	A	G	0.0191612	0.00169316	1.10E-29	-0.04933	0.0580475	0.395425	128
rs11018104	10	129248044	A	T	0.00708953	0.00127666	2.80E-08	0.0468104	0.037174	0.207949	31
rs11021307	11	95501407	T	C	0.00693185	0.00125805	3.60E-08	-0.00858604	0.0368451	0.815737	30
rs11030112	11	27705188	A	G	0.0167262	0.00133184	3.60E-36	-0.0186427	0.0371737	0.616016	158
rs11042725	11	10325325	A	C	-0.01174	0.00124104	3.10E-21	0.00812111	0.0348729	0.815856	89
rs11049684	12	28665359	T	C	-0.0106112	0.00135474	4.80E-15	0.0258776	0.0398457	0.51605	61
rs11052457	12	33268956	T	A	0.0227855	0.00324324	2.10E-12	-0.0226221	0.0909408	0.803549	49
rs11065979	12	112059557	T	C	-0.0134869	0.00125108	4.30E-27	0.0033256	0.0359636	0.926324	116
rs11071182	15	55644676	G	A	0.0133796	0.00185999	6.30E-13	-0.0332296	0.0555907	0.550003	52
rs111365325	5	170865229	T	C	-0.014456	0.00147276	9.60E-23	-0.0376461	0.0431812	0.383308	96
rs111391498	4	1341553	G	A	-0.0258416	0.00291033	6.70E-19	0.151808	0.105105	0.148641	79
rs11142700	9	73757155	C	T	-0.00796008	0.00126675	3.30E-10	-0.0364716	0.0370222	0.324561	39
rs111598585	4	171635471	T	C	-0.00858579	0.00153055	2.00E-08	-0.0336755	0.0585001	0.564854	31
rs111640872	19	30290357	C	G	0.014473	0.00132728	1.10E-27	0.0533701	0.0364838	0.14351	119

rs11196652	10	115949262	A	G	0.00873622	0.00145031	1.70E-09	0.0354409	0.0421323	0.400246	36
rs11205354	1	150249101	A	C	-0.00784514	0.00125214	3.70E-10	-0.024312	0.0351713	0.489412	39
rs11243202	6	7719065	C	T	0.0182828	0.00124355	6.30E-49	0.0600084	0.0349407	0.0858994	216
rs11245450	10	126658075	A	G	-0.0102519	0.00127016	7.00E-16	0.0647485	0.0350317	0.064561	65
rs112544217	2	20222686	T	C	-0.0268191	0.00430743	4.80E-10	-0.245091	0.139892	0.0797737	39
rs112560164	14	93112924	A	G	0.0131303	0.00158669	1.30E-16	-0.00531134	0.0500786	0.915535	68
rs112957890	14	36220876	G	A	0.00953556	0.00142409	2.10E-11	-0.00280745	0.0419591	0.946654	45
rs113619763	22	46399175	T	A	0.0167633	0.00257877	8.00E-11	-0.219668	0.0782283	0.00498437	42
rs113978196	15	75916965	A	G	-0.00807811	0.0014337	1.80E-08	-0.0366563	0.0389874	0.34711	32
rs114177791	17	78555512	T	G	0.010111	0.00151731	2.70E-11	-0.00326869	0.0440431	0.940839	44
rs114949263	7	150498245	C	T	-0.0131884	0.00197625	2.50E-11	-0.061847	0.0644484	0.337238	45
rs115179432	2	33348679	G	A	-0.0220886	0.00240719	4.50E-20	0.0996266	0.0754585	0.18674	84
rs11545482	2	70315987	T	C	-0.0316202	0.00436594	4.40E-13	-0.160154	0.248455	0.519186	52
rs11578046	1	23425139	A	G	-0.0129323	0.00131917	1.10E-22	0.00495056	0.0371294	0.89393	96
rs11611651	12	133380790	A	G	0.016554	0.00219189	4.30E-14	-0.0397532	0.0833576	0.633433	57
rs11613704	12	980925	A	C	0.0158052	0.00155039	2.10E-24	-0.0430707	0.0436423	0.323691	104
rs116165844	20	62610556	T	G	-0.0106113	0.00180724	4.30E-09	-0.0360033	0.0550181	0.51286	34
rs116211567	2	68425404	C	T	-0.017786	0.00227419	5.20E-15	-0.0735	0.0754867	0.330214	61
rs116337081	2	183954625	T	C	0.0143385	0.00242956	3.60E-09	0.0266334	0.0818467	0.744874	35
rs11648796	16	792190	G	A	0.0154492	0.00154403	1.40E-23	0.091547	0.0373066	0.0141312	100
rs116817990	1	178989260	G	A	-0.0200935	0.0034489	5.70E-09	-0.238403	0.0978849	0.0148696	34
rs11684531	2	219835489	G	A	-0.0112558	0.00182251	6.60E-10	-0.071084	0.0681823	0.297154	38
rs1168768	12	66509650	T	C	0.0221258	0.00397341	2.60E-08	-0.0217936	0.115778	0.850692	31
rs11695471	2	25457708	A	T	-0.0109759	0.00131813	8.30E-17	-0.00128614	0.0376477	0.972747	69
rs11709402	3	131551027	G	A	0.00995583	0.00138691	7.10E-13	0.060415	0.0394082	0.125261	52
rs11712872	3	52835514	A	G	0.0168034	0.00193812	4.30E-18	0.0739246	0.0624323	0.236383	75
rs117451679	12	17245591	G	A	0.0127194	0.00204565	5.00E-10	-0.0564663	0.0528779	0.285583	39
rs117543413	10	79543740	T	C	-0.038249	0.00477995	1.20E-15	0.236022	0.148239	0.111345	64
rs1176314	13	81221014	G	T	-0.00742342	0.00125747	3.60E-09	-0.0050062	0.0358431	0.888921	35
rs11782103	8	120451323	A	T	-0.0130083	0.00142985	9.20E-20	-0.00820906	0.0446731	0.854203	83

rs11785562	8	23391493	A	G	0.0119296	0.00156717	2.70E-14	0.0127322	0.0396601	0.748187	58
rs11794152	9	23345347	G	A	0.0103567	0.00126284	2.40E-16	0.0331043	0.0350618	0.345083	67
rs1179905	6	90322922	G	A	0.0102663	0.00157064	6.30E-11	0.0592377	0.0462296	0.20006	43
rs118173451	22	28356600	C	T	-0.0291551	0.00501933	6.30E-09	0.136771	0.149219	0.359365	34
rs1184893	12	122403811	A	G	-0.011062	0.00150699	2.10E-13	0.0240677	0.0407101	0.554388	54
rs11855017	15	42096146	A	C	0.0131106	0.00161542	4.80E-16	0.0641155	0.0518169	0.215958	66
rs11880992	19	2176403	A	G	0.0139123	0.00126679	4.60E-28	-0.000410434	0.03614	0.990939	121
rs11925245	3	114183579	G	A	-0.00989867	0.00162039	1.00E-09	-0.0545842	0.0445232	0.220209	37
rs11937249	4	110755321	T	G	-0.00801288	0.00128883	5.10E-10	-0.000595074	0.0356643	0.986688	39
rs11997525	8	49401982	A	T	0.0153045	0.0016654	3.90E-20	0.00582485	0.0510476	0.909153	84
rs12041740	1	11236524	A	G	-0.0146673	0.00140844	2.10E-25	0.0402139	0.0389946	0.302415	108
rs12047986	1	155043812	G	A	-0.00769799	0.00123837	5.10E-10	-0.074295	0.0363507	0.0409694	39
rs12070699	1	190230408	T	C	-0.00920501	0.00124653	1.50E-13	0.029295	0.0350084	0.402705	55
rs12072845	1	214630757	A	G	-0.0139667	0.00126632	2.80E-28	-0.0735028	0.0370984	0.0475587	122
rs12095997	1	51391845	T	C	0.0225202	0.00216716	2.70E-25	-0.017207	0.0765545	0.82216	108
rs12140153	1	62579891	T	G	-0.0170566	0.00216969	3.80E-15	-0.00531121	0.0658257	0.935692	62
rs12156265	8	144848756	A	G	0.00816386	0.00126504	1.10E-10	0.0633912	0.0350515	0.0705261	42
rs1218826	13	27995760	G	A	0.00914037	0.00132355	5.00E-12	-0.0456559	0.0370635	0.218012	48
rs12188627	5	60720682	G	A	-0.0103674	0.00124023	6.30E-17	-0.0603141	0.0349408	0.084316	70
rs12209223	6	76164589	A	C	0.0150772	0.00206082	2.60E-13	0.0799724	0.0507789	0.115276	54
rs1228024	11	47951353	A	C	-0.0107876	0.00131283	2.10E-16	-0.034932	0.0367387	0.341695	68
rs12375196	7	103416541	A	C	0.0094694	0.00126298	6.50E-14	-0.0828548	0.0350484	0.018078	56
rs12427047	12	90213070	T	C	-0.00969041	0.00144602	2.10E-11	0.0185304	0.0367282	0.613891	45
rs1243872	9	35686407	G	T	-0.00835096	0.00124871	2.30E-11	-0.00672756	0.0349464	0.847342	45
rs12533548	7	148660579	G	A	0.00814504	0.00130715	4.60E-10	0.00460863	0.0371913	0.901381	39
rs12553221	9	37234008	A	G	0.00725561	0.00129666	2.20E-08	0.0810068	0.0361307	0.0249586	31
rs1260326	2	27730940	C	T	0.0189187	0.00126353	1.10E-50	0.0131101	0.0365742	0.720006	224
rs12657771	5	36787962	A	G	-0.0134413	0.0012553	9.40E-27	0.0261722	0.0355184	0.461206	115
rs12658452	5	87795877	G	T	0.0115406	0.00210744	4.30E-08	-0.0164611	0.0565038	0.770801	30
rs1266874	6	51779638	G	A	0.00837453	0.00129804	1.10E-10	0.0223766	0.0350997	0.523789	42

rs12713004	2	23896049	G	A	0.0171536	0.00138687	3.90E-35	-0.00840444	0.0457631	0.854287	153
rs12729817	1	218971896	G	A	-0.00827638	0.00123705	2.20E-11	-0.0430318	0.0348351	0.21672	45
rs12731187	1	202013757	T	C	-0.00776632	0.00130315	2.50E-09	-0.029358	0.0359557	0.414211	36
rs12764498	10	5042294	C	T	-0.0154674	0.00194006	1.60E-15	0.0154905	0.0516931	0.764434	64
rs12795042	11	133658168	C	A	0.00725447	0.00129746	2.30E-08	-0.0237459	0.038485	0.537223	31
rs12820906	12	123493123	G	A	0.011733	0.00144104	3.90E-16	-0.0905029	0.0432207	0.0362627	66
rs12879423	14	25927832	G	A	0.0141854	0.00133985	3.40E-26	0.0156097	0.0362246	0.666532	112
rs12889702	14	42894143	C	A	0.00923529	0.00134415	6.40E-12	0.0161811	0.0382895	0.672588	47
rs12906197	15	38492199	T	C	-0.0108769	0.0012676	9.40E-18	0.0475786	0.0350188	0.174255	74
rs12907384	15	86276000	C	T	-0.0120256	0.00124566	4.70E-22	0.0394935	0.0350173	0.259392	93
rs1296328	4	137083193	C	A	-0.00868103	0.00125464	4.50E-12	0.0108221	0.0348768	0.756336	48
rs12967135	18	57849023	A	G	0.0432949	0.00147115	2.30E-190	-0.145523	0.0459373	0.00153568	866
rs13014796	2	200321050	A	G	-0.0119259	0.00165731	6.20E-13	-0.00300356	0.0508923	0.952938	52
rs13043303	20	51091385	A	G	-0.0186173	0.00160988	6.20E-31	-0.0190528	0.0482252	0.692784	134
rs13099930	3	171129049	G	A	-0.00835713	0.00131413	2.00E-10	-0.0511393	0.0367792	0.164396	40
rs13240065	7	73015369	A	G	0.0179792	0.0018528	2.90E-22	0.0172484	0.052466	0.742342	94
rs13271368	8	126506140	T	C	-0.0147599	0.00148017	2.00E-23	-0.0243419	0.0384757	0.526959	99
rs13272451	8	8886183	T	G	0.00934629	0.00125324	8.80E-14	-0.0232208	0.0350706	0.507897	56
rs13392079	2	169119178	C	T	-0.00849447	0.00144153	3.80E-09	-0.0503315	0.0377853	0.182848	35
rs13430869	2	218146818	T	G	0.0135039	0.00141494	1.40E-21	0.00430353	0.0362991	0.905626	91
rs1351394	12	66351826	C	T	-0.0257843	0.00124023	5.30E-96	0.0994598	0.0346442	0.00409317	432
rs1374370	2	85818273	A	G	0.0101875	0.00134413	3.50E-14	0.0127314	0.0410451	0.756423	57
rs1407031	20	6542634	T	C	-0.0082111	0.00127585	1.20E-10	0.0119465	0.0353142	0.735143	41
rs1412234	9	28410683	C	T	0.0108657	0.00132697	2.60E-16	-0.0667522	0.0358996	0.062968	67
rs1413816	6	18896557	T	C	0.00898874	0.00129419	3.80E-12	-0.0454566	0.0393162	0.247608	48
rs1418433	6	44752568	A	G	-0.00851172	0.00125815	1.30E-11	0.0114437	0.0354576	0.746891	46
rs1421035	10	131136401	T	C	0.00758466	0.00131481	8.00E-09	0.0947777	0.035929	0.00834161	33
rs1422189	5	88042019	A	G	0.0123138	0.0018741	5.00E-11	-0.0884907	0.0500706	0.0771756	43
rs143384	20	34025756	G	A	0.0353574	0.00126635	1.50E-171	0.021595	0.0350626	0.537961	780
rs145594985	7	76710205	T	C	-0.0121633	0.00179542	1.20E-11	0.0230343	0.0399551	0.564274	46

rs146851424	13	50377910	C	A	0.0596754	0.0043141	1.60E-43	-0.0782701	0.134774	0.561409	191
rs147110934	19	55993436	T	G	-0.0315596	0.00403968	5.60E-15	-0.0215221	0.233212	0.926471	61
rs148662000	1	228721530	T	G	-0.0150934	0.00254491	3.00E-09	0.172744	0.083647	0.0389081	35
rs1521624	15	79412399	A	C	-0.0090914	0.00125288	4.00E-13	-0.0183925	0.0350536	0.599794	53
rs1542224	2	223963874	C	T	0.0127661	0.00137825	2.00E-20	0.0230739	0.03943	0.558423	86
rs1573891	15	99186488	C	G	-0.0220369	0.00171347	7.50E-38	-0.0468875	0.0680441	0.490776	165
rs1582931	5	122657199	A	G	-0.0187707	0.00125234	8.70E-51	0.0342579	0.0349337	0.326762	225
rs1657222	10	34837139	A	G	0.0081344	0.00127422	1.70E-10	-0.0547335	0.0349645	0.117488	41
rs16844418	4	3471754	C	T	-0.0124851	0.00177258	1.90E-12	0.0758484	0.0530258	0.152601	50
rs16916881	8	95566270	A	C	-0.010441	0.00146179	9.20E-13	0.0588115	0.0360086	0.102414	51
rs16942324	15	89383854	A	C	-0.0372733	0.00383077	2.20E-22	-0.248678	0.16419	0.129881	95
rs17011108	4	86800806	C	T	0.00757039	0.00135557	2.30E-08	0.0035546	0.0390809	0.927529	31
rs17112250	10	98732640	G	A	-0.0162005	0.00284368	1.20E-08	-0.0473319	0.102426	0.644005	32
rs17115481	5	153358226	A	G	-0.00900244	0.00139958	1.30E-10	0.0710967	0.0380975	0.0620169	41
rs17246129	2	227259964	A	G	0.0125206	0.00134623	1.40E-20	-0.0819461	0.0392082	0.0366151	86
rs17277008	1	172105162	C	T	0.0143582	0.00133266	4.60E-27	-0.00469347	0.0398468	0.906236	116
rs17363646	1	86823503	G	A	0.0124299	0.00180347	5.50E-12	0.0200154	0.0401679	0.618278	48
rs17400325	2	178565913	C	T	0.0215133	0.00309727	3.80E-12	-0.0242944	0.125736	0.846789	48
rs17556750	4	82155568	A	C	0.0118955	0.00136906	3.70E-18	-0.00136937	0.0364079	0.969997	75
rs177252	5	134343799	G	A	-0.00961251	0.0013462	9.30E-13	0.0227306	0.0380729	0.550488	51
rs1780672	20	35755818	C	T	0.0126101	0.00159059	2.20E-15	-0.0371198	0.0381034	0.329964	63
rs17828687	8	73454767	A	C	-0.00905074	0.0012601	6.80E-13	-0.0499243	0.0355936	0.16073	52
rs1805165	2	88874891	A	C	-0.0100757	0.00137619	2.50E-13	0.0166822	0.0368394	0.650667	54
rs1813212	11	89301382	G	A	-0.0085927	0.00125205	6.70E-12	-0.0295437	0.0353147	0.402826	47
rs182224	5	67316442	T	C	0.0127292	0.00217186	4.60E-09	0.0738541	0.0538869	0.170519	34
rs1841738	4	88557753	G	A	-0.011183	0.00124786	3.20E-19	0.050516	0.0358124	0.15837	80
rs1846221	10	4667302	C	G	-0.00950453	0.00165688	9.70E-09	0.00143702	0.0458679	0.975007	33
rs1910466	3	147086268	C	T	-0.00763093	0.0012469	9.40E-10	0.0428954	0.0350732	0.22132	37
rs1924929	13	78447374	G	A	0.0153256	0.00148903	7.60E-25	-0.0568027	0.0454212	0.211089	106
rs1927635	9	16461905	C	T	0.00907285	0.00131385	5.00E-12	-0.000130223	0.0351347	0.997043	48

rs1928850	9	16765520	T	A	0.0142336	0.00232983	1.00E-09	-0.0969233	0.0623153	0.119858	37
rs1941697	18	31251276	A	G	0.0076369	0.00125035	1.00E-09	-0.0131055	0.0349953	0.708039	37
rs2005172	17	61996255	C	A	0.0226087	0.00131036	1.00E-66	-0.0340178	0.0354804	0.337671	298
rs2015561	17	38593294	G	A	-0.0116512	0.0012569	1.90E-20	-0.00175004	0.035288	0.960447	86
rs2071286	6	32179896	T	C	-0.0209004	0.00159773	4.20E-39	0.0296158	0.0404698	0.464291	171
rs2077218	10	96071561	A	G	-0.0142359	0.00146371	2.30E-22	0.100747	0.0470793	0.0323594	95
rs2101975	4	106216667	G	A	-0.0163675	0.00125533	7.40E-39	-0.00234998	0.0351985	0.94677	170
rs2104449	1	97082532	T	G	0.0106653	0.00137676	9.40E-15	-0.111108	0.0452536	0.0140789	60
rs2122823	7	25939161	T	C	0.0103221	0.00153938	2.00E-11	0.0206515	0.0407645	0.612432	45
rs213997	6	166367429	A	G	0.00772781	0.00132866	6.00E-09	-0.0477024	0.0351684	0.174971	34
rs2140046	2	169706079	C	T	-0.0117218	0.00128653	8.20E-20	0.0566592	0.0355075	0.110557	83
rs2197563	2	233687080	A	G	0.0102764	0.00126196	3.80E-16	-0.0280856	0.0393994	0.475943	66
rs2225226	13	51127270	T	C	-0.0298272	0.00151548	3.10E-86	-0.00962115	0.040135	0.810547	387
rs2229840	12	124826462	T	C	0.0204301	0.00169246	1.50E-33	-0.151483	0.0507703	0.00284787	146
rs224048	10	64491549	A	G	-0.00734282	0.00124616	3.80E-09	0.0419005	0.0348297	0.228972	35
rs2240735	16	4027605	T	C	0.0163224	0.00142919	3.30E-30	0.00550154	0.0389502	0.887676	130
rs2252720	20	21223663	T	C	-0.0135325	0.00133737	4.60E-24	0.0293973	0.0389755	0.450699	102
rs2252909	17	2278609	T	C	-0.00746424	0.00133213	2.10E-08	0.00743745	0.0352603	0.832942	31
rs2265309	10	104487871	C	T	-0.0124368	0.00124386	1.50E-23	-0.0181505	0.0350328	0.60439	100
rs2270894	3	9975386	G	C	-0.0174426	0.00159875	1.00E-27	0.017626	0.0396826	0.656918	119
rs2274116	9	139094805	T	C	-0.00808943	0.00131768	8.30E-10	0.0145637	0.0371472	0.695018	38
rs2281175	1	1665702	C	T	0.0114351	0.00132557	6.30E-18	-0.031204	0.0356311	0.381165	74
rs2287547	12	108924341	C	T	0.00945452	0.00165819	1.20E-08	-0.0550369	0.0544868	0.31245	33
rs2293176	7	140244627	A	G	0.00875811	0.00131602	2.80E-11	-0.00404517	0.0360131	0.910566	44
rs2296316	14	65520246	C	T	-0.0104049	0.00125664	1.20E-16	0.0313827	0.0348815	0.368282	69
rs2305758	19	17163661	T	C	0.00811563	0.00138215	4.30E-09	-0.0264117	0.0394853	0.503559	34
rs2307111	5	75003678	C	T	-0.0164439	0.00126894	2.10E-38	0.0314777	0.0353928	0.373797	168
rs236587	17	68203915	C	T	-0.00829277	0.001427	6.20E-09	-0.0213054	0.0383457	0.578476	34
rs237738	20	47904920	C	T	0.00942389	0.00162928	7.30E-09	0.0050216	0.0462461	0.913532	33
rs240113	6	101058886	A	G	-0.00802404	0.00124317	1.10E-10	-0.0389233	0.0350406	0.266652	42

rs2427320	20	60976723	G	A	-0.00822896	0.00147567	2.50E-08	-0.0129155	0.0469454	0.783226	31
rs244711	5	176509193	T	C	0.0167728	0.00143325	1.20E-31	-0.033104	0.0378212	0.381423	137
rs247008	5	131447104	G	A	0.0125327	0.0013272	3.60E-21	0.0528614	0.0358574	0.140424	89
rs2521349	17	67503501	A	G	0.00773457	0.00128156	1.60E-09	0.0349772	0.035365	0.322646	36
rs2533879	7	2859847	A	G	-0.0205892	0.00135425	3.40E-52	-0.0475026	0.0362312	0.189825	231
rs254963	5	171224403	G	A	-0.00862516	0.00125629	6.60E-12	0.00963425	0.0350252	0.783266	47
rs2568958	1	72765116	A	G	0.00949332	0.00126246	5.50E-14	0.0442157	0.0364165	0.224684	57
rs2578557	5	5473063	T	C	-0.00945359	0.00129484	2.90E-13	0.0452279	0.0351488	0.198179	53
rs25849	16	2265071	G	C	0.0168894	0.00137667	1.30E-34	-0.0198272	0.0361494	0.583363	151
rs2611732	5	95855576	G	A	0.00774668	0.00126568	9.30E-10	-0.0205897	0.0378877	0.586827	37
rs2615075	1	225934295	G	A	0.00980657	0.00128182	2.00E-14	-0.0257442	0.0359926	0.474446	59
rs2663125	15	99563891	C	T	-0.0089318	0.00134618	3.20E-11	-0.00385415	0.041	0.925106	44
rs2678204	1	201800511	G	T	0.0120702	0.00130586	2.40E-20	0.0462214	0.0380149	0.224032	85
rs2721938	8	116635611	T	C	-0.0121334	0.00127027	1.30E-21	-0.0592004	0.0385515	0.124631	91
rs2726036	16	28347140	C	A	0.0119051	0.00127188	8.00E-21	-0.0401749	0.0352087	0.253848	88
rs2740761	7	55255986	T	C	0.00872088	0.00154571	1.70E-08	-0.0425165	0.0442107	0.33621	32
rs2744956	6	34618937	C	T	0.0377723	0.00178615	2.90E-99	-0.149032	0.04379	0.000665672	447
rs2785070	10	89774578	C	T	0.00725874	0.00125449	7.20E-09	0.0244464	0.035288	0.488454	33
rs2789366	1	235508270	A	G	-0.00918806	0.00129964	1.60E-12	0.00171575	0.0360744	0.962066	50
rs281385	19	49217261	G	A	-0.0122059	0.00191124	1.70E-10	0.0410331	0.0461367	0.373798	41
rs284315	1	10734800	G	A	-0.00768365	0.00123489	4.90E-10	0.0207189	0.0358732	0.563562	39
rs284662	19	41932275	C	T	-0.0093985	0.001281	2.20E-13	0.0262662	0.0365435	0.472287	54
rs28620532	9	98216876	G	A	0.0181879	0.00130855	6.40E-44	0.0259296	0.0361946	0.473746	193
rs2866720	7	70106310	T	C	0.00842492	0.00128349	5.20E-11	0.0625277	0.0368013	0.0893079	43
rs2884345	14	53323211	A	G	-0.00769008	0.00137298	2.10E-08	-0.0763455	0.0383916	0.0467455	31
rs2885697	1	41544279	T	G	-0.0188539	0.00130925	5.10E-47	-0.0702452	0.036865	0.0567192	207
rs2897968	12	46763686	A	G	0.0156061	0.00127253	1.40E-34	0.00296795	0.0355907	0.933541	150
rs2900208	12	11878464	A	C	0.0139851	0.00129881	4.90E-27	0.0402902	0.0360843	0.264184	116
rs291979	10	121129797	A	G	0.010422	0.0014791	1.80E-12	0.046764	0.0471673	0.321467	50
rs2920974	2	55537126	C	A	0.00715414	0.00125144	1.10E-08	0.062198	0.0377635	0.0995497	33

rs2952615	5	112138888	C	G	-0.0119352	0.00127671	8.90E-21	-0.0223069	0.0355062	0.529838	87
rs2979649	8	6315856	G	A	0.00970314	0.00164465	3.60E-09	0.0278711	0.054272	0.607571	35
rs2993531	1	212190116	C	A	0.00917159	0.00125604	2.80E-13	0.108061	0.0363195	0.00292705	53
rs29946	19	34299865	C	T	0.0074696	0.00127366	4.50E-09	0.00263162	0.0350862	0.940211	34
rs310796	12	77453226	T	G	0.0109664	0.00133483	2.10E-16	-0.000512929	0.0397602	0.989707	67
rs3110496	17	27917771	G	A	0.00879816	0.00133876	5.00E-11	-0.0279945	0.0358837	0.435305	43
rs3116201	2	233074205	A	G	-0.0179578	0.00208476	7.10E-18	0.00717894	0.082429	0.930598	74
rs3212260	14	24804088	T	A	0.0130967	0.00142357	3.60E-20	-0.0260731	0.0422476	0.537136	85
rs332162	10	28888889	C	A	-0.00959859	0.00154953	5.80E-10	-0.0898935	0.0453766	0.047585	38
rs338361	15	68171116	C	T	0.00949412	0.00136821	3.90E-12	-0.0193242	0.0416687	0.642819	48
rs33967909	5	137603293	A	G	0.0127859	0.00150689	2.20E-17	0.00725249	0.0392765	0.853502	72
rs33973388	18	46611842	T	G	0.0123243	0.00125565	9.70E-23	0.0173912	0.0379783	0.647006	96
rs34017457	16	67166731	A	G	0.0487755	0.00747734	6.90E-11	0.203997	0.235088	0.385533	43
rs34055910	17	64460104	G	A	-0.00750495	0.00128412	5.10E-09	0.0201381	0.0349751	0.564761	34
rs34227797	4	159982551	C	G	0.00820742	0.00134082	9.30E-10	-0.0221295	0.0377501	0.557735	37
rs34345560	11	69081998	A	G	0.0089958	0.00157959	1.20E-08	0.0645533	0.0398851	0.105559	32
rs34517439	1	78450517	A	C	0.0372268	0.00191453	3.30E-84	-0.0558529	0.0528789	0.290857	378
rs34693680	3	98665549	T	C	0.0144168	0.00182938	3.30E-15	-0.0517608	0.0535242	0.333517	62
rs34776209	7	23513093	T	C	-0.0171153	0.00144079	1.50E-32	0.0630926	0.0429982	0.142286	141
rs34825238	12	103328352	T	G	0.00889112	0.00144272	7.10E-10	-0.0283672	0.0443805	0.522705	38
rs34831515	19	17275777	T	C	-0.00840293	0.00147768	1.30E-08	-0.0182502	0.0373528	0.625132	32
rs34848742	4	123828042	G	T	-0.0147544	0.00151652	2.30E-22	0.0393776	0.045524	0.387047	95
rs34879158	20	32300634	C	A	-0.0215459	0.00141463	2.20E-52	-0.0196506	0.0412143	0.633512	232
rs35050648	19	46991243	T	G	0.00828655	0.00146534	1.60E-08	0.0820655	0.0403845	0.0421434	32
rs35251247	11	43878459	A	G	0.0108083	0.00137513	3.80E-15	0.035539	0.0380156	0.349864	62
rs35506085	11	2165576	A	G	-0.0198424	0.00161208	8.10E-35	-0.0139154	0.0465157	0.764821	152
rs35612982	6	20682622	C	T	-0.00924457	0.00161745	1.10E-08	0.0414415	0.045709	0.364598	33
rs35651070	2	121613739	A	G	-0.00950434	0.00165815	9.90E-09	-0.0726539	0.0484524	0.133747	33
rs35665085	22	17625915	A	G	-0.0165925	0.00271032	9.20E-10	0.0772054	0.0785005	0.325361	37
rs357486	3	153885503	C	T	0.0100388	0.00124304	6.70E-16	0.000877064	0.0352715	0.980162	65

rs35756741	12	12868701	T	C	-0.0158932	0.00215406	1.60E-13	-0.0208718	0.0576843	0.71748	54
rs35874463	15	67457698	G	A	0.0181577	0.00266581	9.70E-12	0.135643	0.0881806	0.12399	46
rs36000545	17	79093822	G	A	-0.0165565	0.00128804	8.20E-38	0.0461093	0.0372801	0.216149	165
rs365352	5	77401152	A	G	-0.0147919	0.00143981	9.30E-25	0.0511558	0.045188	0.257607	106
rs3730071	12	49168798	A	C	-0.0227859	0.00362243	3.20E-10	0.0420564	0.177172	0.812365	40
rs3734254	6	35395010	T	C	0.0163806	0.00152073	4.70E-27	-0.000989617	0.0607612	0.987005	116
rs3751866	16	84771304	C	T	-0.00812014	0.00144366	1.90E-08	0.00675578	0.0409179	0.868861	32
rs3772051	2	241672904	A	G	-0.00860826	0.00147954	5.90E-09	-0.0263943	0.0551057	0.631955	34
rs3782232	12	57116249	A	G	-0.020292	0.00241514	4.40E-17	0.00581042	0.0635607	0.927163	71
rs3809569	15	66999828	G	A	0.0141505	0.00145343	2.10E-22	0.0511193	0.0419009	0.222463	95
rs3810291	19	47569003	A	G	0.016955	0.00132769	2.40E-37	0.0307073	0.0360138	0.39385	163
rs3822742	5	139059017	A	C	0.0134346	0.00128672	1.60E-25	0.0244542	0.0373169	0.512267	109
rs3827910	14	21548158	G	A	-0.0107741	0.00146479	1.90E-13	0.0569544	0.0477127	0.232598	54
rs3843750	19	10748073	G	C	-0.0132882	0.001319	7.20E-24	-0.00608443	0.038889	0.875673	101
rs3853252	6	152170247	A	G	0.0152946	0.00124887	1.70E-34	0.0380967	0.0355475	0.28385	150
rs3925	8	38281658	A	G	-0.0107291	0.00144625	1.20E-13	-0.0322632	0.0458972	0.48209	55
rs41271299	6	19839415	T	C	0.0418672	0.00280542	2.30E-50	0.05511	0.135685	0.684625	223
rs41311445	22	42070374	C	A	-0.0243571	0.00212069	1.60E-30	-0.0458521	0.0509962	0.368584	132
rs4132132	4	31001301	C	T	0.00871008	0.00125989	4.70E-12	0.0208117	0.035517	0.5579	48
rs41458449	2	46929951	C	G	-0.0106184	0.0017678	1.90E-09	0.0819988	0.0450082	0.0684747	36
rs4240326	4	145839264	G	A	-0.0212336	0.0012456	3.70E-65	0.0373077	0.03501	0.286591	291
rs4268495	11	28645341	C	G	-0.00858042	0.00128273	2.20E-11	0.0792829	0.0361427	0.0282638	45
rs4282339	5	168256240	A	G	-0.0189216	0.00152518	2.40E-35	-0.0512441	0.0444279	0.248737	154
rs4369779	18	20735408	C	T	0.0260054	0.0015236	2.60E-65	-0.0267343	0.0418052	0.5225	291
rs4439140	8	23113908	A	G	-0.00849547	0.00129099	4.70E-11	0.00978808	0.0357908	0.784484	43
rs4477562	13	54104968	T	C	0.0173654	0.00187416	1.90E-20	-0.0787391	0.0502884	0.117407	86
rs4504126	3	33600582	C	A	0.0250406	0.00379875	4.30E-11	-0.0180517	0.14513	0.901012	43
rs4525525	17	1866892	T	G	-0.00935813	0.00142939	5.90E-11	0.0097637	0.0404844	0.809422	43
rs4567604	13	59204270	T	G	-0.00925934	0.00158373	5.00E-09	0.0589372	0.0463921	0.203937	34
rs4635681	3	152310614	G	A	0.0109977	0.00170574	1.10E-10	-0.0677295	0.0442679	0.126019	42

rs4648626	1	2200390	A	C	0.00848361	0.00124402	9.10E-12	0.0689498	0.0352808	0.0506641	47
rs4676442	2	241740907	C	T	0.00742668	0.00129244	9.10E-09	0.093338	0.0351183	0.00786484	33
rs4788218	16	30055750	C	T	0.0217913	0.00126829	3.60E-66	-0.044389	0.0362328	0.220536	295
rs4795318	17	36949053	T	C	0.00893606	0.00124512	7.10E-13	0.0330129	0.0352569	0.349092	52
rs4800670	18	23415263	C	G	-0.00717007	0.00128248	2.30E-08	-0.0546273	0.0357029	0.126003	31
rs4819021	21	46466927	C	T	-0.00778876	0.0012602	6.40E-10	-0.04534	0.0349231	0.194191	38
rs4821940	22	40659573	C	T	-0.00699949	0.00125551	2.50E-08	0.0632007	0.0350033	0.0709856	31
rs485554	3	172137343	C	G	0.0171307	0.0013389	1.80E-37	-0.00497436	0.0370622	0.893231	164
rs4858940	3	88254820	C	T	0.016122	0.00194633	1.20E-16	-0.0667996	0.0578659	0.248341	69
rs4865956	5	54882505	A	T	-0.0120021	0.00135296	7.30E-19	0.00437662	0.0386215	0.909776	79
rs4899012	14	61003889	C	G	-0.0214569	0.00127368	1.10E-63	-0.00465187	0.0384446	0.903689	284
rs490535	20	3001343	T	C	-0.00742005	0.00131354	1.60E-08	-0.0218801	0.0368675	0.552861	32
rs4906203	14	102928991	T	C	-0.00928957	0.00146932	2.60E-10	0.00509225	0.0393794	0.89711	40
rs4926542	1	50263773	T	C	-0.00979446	0.00133689	2.40E-13	0.0162769	0.0359645	0.650849	54
rs4968799	17	68158831	T	A	-0.0184513	0.00196938	7.30E-21	-0.0501108	0.0595122	0.399773	88
rs4974223	3	56602088	T	C	0.0162546	0.00210098	1.00E-14	-0.0146757	0.0541881	0.786524	60
rs4980067	10	81136129	A	C	-0.0112045	0.00124184	1.80E-19	0.0185523	0.0353528	0.599739	81
rs4980826	12	578349	A	C	0.00775288	0.00126664	9.30E-10	-0.00969168	0.0362822	0.789378	37
rs498685	18	13088673	C	T	-0.00708372	0.00126587	2.20E-08	-0.0470471	0.0351531	0.180783	31
rs5017213	1	217893504	C	T	0.00798231	0.00129352	6.80E-10	-0.0758507	0.0361475	0.0358724	38
rs505575	5	111256812	C	T	-0.00882671	0.00132413	2.60E-11	0.013526	0.0356813	0.704631	44
rs508347	7	28212824	C	T	-0.0116854	0.0013584	7.80E-18	0.00873283	0.0363851	0.810321	74
rs527248	1	177875514	G	A	0.0255421	0.00152055	2.50E-63	-0.0670946	0.0448357	0.134535	282
rs536007	11	30478524	T	G	0.0131215	0.00135621	3.80E-22	-0.0521595	0.0380466	0.170394	94
rs55674305	8	89435868	A	G	-0.0110396	0.0013512	3.10E-16	0.00194375	0.03791	0.959108	67
rs55727637	16	15145252	T	C	-0.012336	0.00134922	6.10E-20	-0.0847122	0.0381906	0.0265454	84
rs55745410	1	33802817	G	A	-0.0134839	0.00129888	3.00E-25	0.0264847	0.0361454	0.463724	108
rs55758152	5	171317318	A	G	0.00977136	0.00133828	2.80E-13	0.00472945	0.0367584	0.897624	53
rs55800172	1	32414767	A	G	0.0182208	0.00252769	5.70E-13	-0.0920352	0.0917051	0.315572	52
rs55831773	17	7559037	T	C	-0.0145771	0.00158701	4.10E-20	-0.0503646	0.0500276	0.314062	84

rs55854145	18	45928049	C	A	-0.0153151	0.0027447	2.40E-08	-0.0249397	0.0903094	0.782426	31
rs56094641	16	53806453	G	A	0.0360832	0.00126589	1.00E-178	0.0377487	0.0352496	0.284215	812
rs56130943	14	105906522	C	A	0.00897462	0.00151098	2.90E-09	0.0301959	0.0438517	0.491081	35
rs56141370	9	127056213	T	C	0.0126053	0.00195101	1.00E-10	-0.0564095	0.0546489	0.301971	42
rs56207600	11	126196537	A	G	0.0121624	0.00198839	9.60E-10	0.0248534	0.0512938	0.628009	37
rs57126421	18	2656989	G	A	-0.0106884	0.00147137	3.80E-13	0.030806	0.0418794	0.461981	53
rs5742915	15	74336633	C	T	0.00947689	0.0012484	3.20E-14	-0.0355923	0.035368	0.314251	58
rs5752989	22	30365780	A	G	-0.00994486	0.00125977	2.90E-15	-0.0616362	0.0349073	0.0774444	62
rs5753630	22	31861950	G	A	0.0073063	0.00125982	6.70E-09	-0.0370278	0.0349515	0.289416	34
rs5771118	22	50714289	C	T	0.00862026	0.00143238	1.80E-09	0.0246327	0.043034	0.567051	36
rs578366	6	81591034	G	A	-0.0102156	0.00125287	3.50E-16	-0.0589346	0.0351414	0.0935298	66
rs59985551	2	56106928	T	C	-0.0184511	0.00147745	8.60E-36	0.0617477	0.0417701	0.139334	156
rs6026578	20	57463472	G	C	-0.0096775	0.0012919	6.80E-14	-0.0279092	0.0366419	0.446255	56
rs603321	6	140256669	G	A	-0.011537	0.00144747	1.60E-15	-0.0397094	0.0458081	0.386017	64
rs60385590	3	53630199	A	C	0.00926465	0.00143357	1.00E-10	0.0362174	0.0410324	0.377423	42
rs60804050	1	118870373	A	G	-0.0100197	0.00141541	1.50E-12	-0.0531658	0.0408789	0.193407	50
rs6081869	20	20060745	G	T	-0.0101581	0.00129529	4.40E-15	-0.0618245	0.0351092	0.078251	62
rs6085658	20	6685377	T	C	-0.00860031	0.00127705	1.60E-11	-0.0871917	0.0351384	0.0130873	45
rs60927391	12	132626425	A	G	0.00995835	0.00159167	3.90E-10	-0.0131855	0.0394326	0.738091	39
rs6142059	20	32544327	C	T	0.00963867	0.00124689	1.10E-14	-0.0139872	0.0349422	0.688938	60
rs61729527	8	77761919	T	C	-0.0238254	0.00280238	1.90E-17	0.0417506	0.0699109	0.550375	72
rs61749613	5	82815170	G	A	0.0248371	0.00310812	1.30E-15	0.00311486	0.133199	0.981343	64
rs61878760	11	12807189	A	G	0.0150669	0.00226393	2.80E-11	0.0935675	0.0979857	0.339623	44
rs61992671	14	101531854	G	A	-0.0107437	0.00130044	1.40E-16	0.0777504	0.035243	0.0273754	68
rs62246311	3	9498143	A	G	0.0129793	0.00204426	2.20E-10	0.0350785	0.0708216	0.620383	40
rs6235	5	95728898	G	C	0.0158666	0.00139921	8.30E-30	0.0164244	0.0385485	0.670056	129
rs62372052	5	42724294	G	A	0.0266171	0.00198772	6.80E-41	0.0503765	0.0529235	0.341161	179
rs62439025	6	166592164	C	G	0.0110286	0.00172995	1.80E-10	-0.0085153	0.0556556	0.878398	41
rs62460525	7	44902676	A	C	0.0137123	0.00243085	1.70E-08	0.0972294	0.104973	0.354324	32
rs62466118	7	92716556	A	G	-0.0254617	0.00397074	1.40E-10	0.200521	0.18915	0.289093	41

rs62476192	7	77052364	T	C	0.0155118	0.00220867	2.20E-12	-0.118715	0.06709	0.0768122	49
rs62515437	8	57160328	T	G	0.0193179	0.00148739	1.40E-38	0.0122446	0.0380939	0.747882	169
rs62621197	19	8670147	T	C	-0.0325828	0.0034154	1.40E-21	-0.0509761	0.128381	0.691317	91
rs62621400	15	101718239	G	C	-0.019895	0.00267267	9.80E-14	0.0162937	0.073502	0.824566	55
rs62621812	7	127015083	A	G	0.0425269	0.00452815	5.90E-21	0.162348	0.085848	0.0586098	88
rs6493534	15	52379736	C	T	0.00699277	0.00126923	3.60E-08	0.0142437	0.0352911	0.686504	30
rs6514066	20	44500794	G	T	0.00716924	0.00128608	2.50E-08	0.0196108	0.0362824	0.588849	31
rs6563808	13	40766662	C	T	-0.008527	0.00141464	1.70E-09	0.040115	0.0373531	0.28285	36
rs6570509	6	142716286	T	G	-0.0141674	0.00136794	3.90E-25	-0.00244323	0.0396783	0.950901	107
rs6575340	14	94023972	A	G	0.00812246	0.00129572	3.60E-10	-0.0151419	0.0360304	0.6743	39
rs6585827	10	124165615	A	G	0.0114307	0.00124341	3.80E-20	-0.00386222	0.0361303	0.914871	85
rs6591	11	840363	T	C	0.00798175	0.00125332	1.90E-10	0.0373057	0.0353608	0.291425	41
rs663344	9	98316331	C	G	-0.015079	0.00163963	3.70E-20	0.0140686	0.0446838	0.752877	85
rs6665399	1	21553933	C	T	0.00816028	0.00124146	4.90E-11	0.0412841	0.0348545	0.236228	43
rs6669189	1	75011358	T	C	0.00844305	0.00126558	2.50E-11	0.0587212	0.0349774	0.0931837	45
rs667515	11	69449076	C	G	-0.01036	0.00128042	5.90E-16	-0.0199764	0.0368234	0.58748	65
rs6680471	1	2754512	T	C	-0.00732827	0.00124005	3.40E-09	0.039869	0.0355159	0.261621	35
rs6681795	1	56583274	G	A	0.0151022	0.00147749	1.60E-24	-0.00927544	0.0412578	0.822122	104
rs6693481	1	203766395	C	T	-0.00826232	0.00134714	8.60E-10	-0.060184	0.0365737	0.099855	38
rs67141907	13	42805360	T	C	0.0111966	0.00175247	1.70E-10	0.0141628	0.0555865	0.798887	41
rs6719296	2	103101108	A	G	0.0088512	0.00124466	1.10E-12	-0.0195199	0.0362287	0.590027	51
rs6721191	2	10190115	G	A	-0.00751644	0.00125273	2.00E-09	-0.0575156	0.0397234	0.147644	36
rs6734537	2	207925963	C	T	0.010068	0.00156672	1.30E-10	0.0725966	0.0491793	0.1399	41
rs67408364	1	39618556	G	A	0.0141765	0.00150986	6.00E-21	-0.0261644	0.044358	0.555293	88
rs6743060	2	629510	A	C	0.0336807	0.00164044	1.10E-93	-0.084516	0.0478097	0.077101	422
rs6743107	2	100844781	T	C	0.0078679	0.00138466	1.30E-08	-0.0762789	0.0380297	0.0448807	32
rs6747657	2	112003163	A	G	0.00805073	0.00137412	4.70E-09	-0.027245	0.0393979	0.48923	34
rs67551338	12	3393100	T	C	0.0255339	0.00261202	1.40E-22	-0.0235641	0.0889953	0.791179	96
rs67560975	17	47142930	C	T	0.0129053	0.0019462	3.30E-11	0.00795732	0.0516221	0.877495	44
rs6762578	3	128992047	A	G	0.0157288	0.00149834	8.90E-26	0.0495566	0.0464503	0.286029	110

rs6764533	3	196088464	A	G	0.00809358	0.00129282	3.80E-10	0.0227618	0.0381378	0.550621	39
rs6779752	3	85663849	A	G	-0.0127627	0.0012986	8.50E-23	0.0838983	0.0388773	0.0309257	97
rs6781248	3	13726684	A	G	0.00755674	0.00124552	1.30E-09	0.0358133	0.0357193	0.31604	37
rs6800021	3	50190346	A	G	0.0136373	0.00125477	1.60E-27	-0.0661532	0.0371098	0.0746449	118
rs68119703	2	203606328	T	C	0.00713033	0.00125123	1.20E-08	0.0292423	0.0350364	0.403928	32
rs6874142	5	172753555	G	T	0.0181922	0.00206704	1.40E-18	-0.0248258	0.0604457	0.681284	77
rs6900690	6	126223032	A	G	0.00803067	0.00124509	1.10E-10	-0.0108508	0.0352667	0.758326	42
rs6902789	6	105358192	A	G	0.0106944	0.00128924	1.10E-16	0.0249786	0.0362158	0.490371	69
rs6946415	7	150684548	G	A	0.0188992	0.00128554	6.30E-49	0.0416972	0.0372556	0.263047	216
rs6946419	7	28768853	C	T	-0.00791452	0.00128435	7.20E-10	-0.00626022	0.0358792	0.861488	38
rs695922	5	53385529	G	A	-0.0102252	0.00169607	1.70E-09	0.0346707	0.0467952	0.458752	36
rs696343	12	116304907	G	A	-0.0111744	0.00194468	9.10E-09	-0.0341441	0.0601422	0.570223	33
rs6972291	7	55802063	C	T	-0.0111741	0.00163261	7.70E-12	-0.0217576	0.0399845	0.586337	47
rs6984820	8	144993324	T	C	-0.0101424	0.00126049	8.50E-16	-0.00859682	0.0355574	0.808956	65
rs7033487	9	119129257	C	T	-0.0234685	0.00156114	4.50E-51	-0.0316846	0.0416572	0.446893	226
rs703593	12	103064247	G	A	-0.0113974	0.00124074	4.10E-20	-0.00287563	0.0354004	0.935258	84
rs705953	6	158775332	G	A	-0.00933901	0.00131226	1.10E-12	-0.0282895	0.035794	0.429328	51
rs708723	1	205739266	T	C	-0.0133027	0.00124122	8.40E-27	0.0484728	0.0354341	0.171321	115
rs7095768	10	53256505	T	G	0.0078285	0.00140856	2.70E-08	-0.0554306	0.0406534	0.172728	31
rs7129320	11	68388220	A	G	-0.0231304	0.00166904	1.10E-43	-0.104067	0.0627457	0.0972053	192
rs7132908	12	50263148	A	G	0.015809	0.00127564	2.90E-35	-0.0417197	0.0359254	0.245525	154
rs71385734	16	2160503	G	T	-0.0230668	0.00166494	1.20E-43	0.0373077	0.045383	0.411041	192
rs71393968	16	67847341	A	G	0.0213672	0.00297504	6.90E-13	0.0514029	0.0862896	0.551374	52
rs7141420	14	79899454	T	C	0.0131154	0.00125308	1.20E-25	-0.0134159	0.0355336	0.705762	110
rs71423263	2	144024781	G	T	0.0119912	0.00177706	1.50E-11	-0.0284172	0.0559805	0.611715	46
rs7145429	14	23879285	T	C	0.0207324	0.00314537	4.40E-11	-0.0347424	0.184907	0.850962	43
rs7192870	16	14397436	C	T	-0.00885433	0.00125929	2.00E-12	0.0083426	0.0358427	0.815951	49
rs7223535	17	29211667	A	G	-0.025062	0.00139944	1.00E-71	0.0539092	0.0388668	0.165434	321
rs7229520	18	46516468	A	G	-0.0104597	0.00131762	2.00E-15	-0.0512003	0.0366481	0.16239	63
rs7245985	19	30710410	G	T	-0.0108777	0.00153676	1.50E-12	-0.00471197	0.0445653	0.915795	50

rs72656010	8	57122215	C	T	-0.0366476	0.0018399	2.80E-88	-0.0487672	0.0527208	0.354961	397
rs72703409	4	184225295	C	G	-0.0150343	0.0025077	2.00E-09	0.0768703	0.092652	0.406727	36
rs7280982	21	37468223	A	G	-0.00884819	0.00150596	4.20E-09	0.0414104	0.0413144	0.316187	35
rs72885917	2	172416376	C	A	-0.0204755	0.00143199	2.20E-46	-0.0163196	0.0443179	0.712695	204
rs72892910	6	50816887	T	G	0.0206636	0.00164188	2.50E-36	-0.00690911	0.0433407	0.873343	158
rs73004967	19	19717056	G	A	-0.0167375	0.0024734	1.30E-11	-0.0322468	0.0719472	0.654008	46
rs7301341	12	94083105	C	T	-0.0102566	0.00132363	9.30E-15	-0.0164663	0.0367676	0.654262	60
rs73013411	6	164126233	A	C	0.0131306	0.00183747	8.90E-13	0.0281017	0.0642887	0.662026	51
rs73052033	3	185828465	C	T	-0.0154162	0.00159865	5.20E-22	-0.0276738	0.0474831	0.560018	93
rs7312646	12	102388920	C	A	-0.0105195	0.00126518	9.20E-17	0.0306697	0.0350966	0.382191	69
rs73158212	7	148383377	G	A	-0.00839688	0.00150656	2.50E-08	0.00341384	0.0466573	0.941672	31
rs73175572	3	185490184	G	A	0.0279636	0.00198793	6.10E-45	-0.0192286	0.0543399	0.723444	198
rs73189390	21	17383170	A	G	-0.00904486	0.00161779	2.30E-08	0.0203325	0.0438739	0.643056	31
rs7321045	13	97034410	A	G	0.00852871	0.00125985	1.30E-11	-0.108557	0.0346073	0.00170785	46
rs73213484	4	28489339	T	A	-0.012012	0.00178131	1.50E-11	0.0471357	0.0492947	0.33897	45
rs73601548	10	18549889	T	C	0.0141581	0.00195798	4.80E-13	-0.11016	0.0718709	0.125339	52
rs73619441	20	61564901	G	T	-0.0125566	0.00177444	1.50E-12	0.136007	0.0557886	0.0147727	50
rs74048171	11	2093603	A	C	-0.0103557	0.00142123	3.20E-13	-0.0649779	0.041889	0.120855	53
rs744205	11	69929677	A	G	0.0107105	0.00124912	1.00E-17	-0.00541572	0.0350915	0.877349	74
rs74494415	18	74972138	T	C	-0.0251611	0.00321022	4.60E-15	-0.0116592	0.0650604	0.857776	61
rs7485647	12	131631133	A	G	-0.00949175	0.00171023	2.90E-08	0.0526854	0.0397178	0.184675	31
rs7513326	1	159895536	A	G	-0.00701079	0.00125821	2.50E-08	0.050554	0.0352627	0.151675	31
rs752070	2	74824970	G	A	0.0114493	0.00186451	8.20E-10	0.0556946	0.0497172	0.262616	38
rs7535501	1	176462695	T	C	-0.0159307	0.00269284	3.30E-09	0.0872866	0.0872994	0.317382	35
rs7549783	1	86051951	T	C	-0.00907445	0.00159561	1.30E-08	-0.0273473	0.052672	0.603622	32
rs7619139	3	25110415	A	T	0.0119305	0.00126254	3.40E-21	-0.00483012	0.0353659	0.891366	89
rs76307059	6	169000888	G	C	-0.0185971	0.00295524	3.10E-10	-0.0811127	0.073412	0.269204	40
rs76364830	8	13372120	A	G	-0.0224679	0.00257118	2.40E-18	-0.0251323	0.0949082	0.791159	76
rs7647657	3	38573746	G	A	-0.0112947	0.00127681	9.10E-19	-0.0543205	0.0354354	0.12529	78
rs76513770	16	72505534	C	T	-0.0160893	0.00185994	5.10E-18	0.0407151	0.0473274	0.389631	75

rs76693355	11	120292477	C	T	-0.0144693	0.00194095	9.00E-14	0.071128	0.0525585	0.175956	56
rs7671110	4	17874089	T	C	-0.0317808	0.00169681	2.80E-78	-0.043645	0.0600109	0.467053	351
rs76798800	1	154994978	T	G	0.0227786	0.00140194	2.30E-59	-0.0186631	0.0414521	0.652543	264
rs7683836	4	180167906	A	G	-0.00690828	0.00125172	3.40E-08	-0.0373965	0.0350149	0.285513	30
rs76875574	15	40376098	A	C	-0.0155169	0.00278961	2.70E-08	-0.0933976	0.075243	0.214502	31
rs76895963	12	4384844	G	T	0.0952142	0.00480792	2.80E-87	-0.0299797	0.105475	0.776231	392
rs7701443	5	142792650	G	A	-0.0071229	0.00125953	1.60E-08	-0.0152617	0.0361963	0.67329	32
rs7706886	5	32722319	A	G	0.0126124	0.00141893	6.20E-19	-0.0281044	0.0412943	0.496132	79
rs77093479	17	79429575	G	C	-0.0104126	0.00168799	6.90E-10	0.0192651	0.0465398	0.678911	38
rs77165542	2	430975	T	C	-0.058475	0.00338396	6.60E-67	-0.221583	0.136063	0.103412	299
rs7728690	5	88411214	T	C	-0.0110145	0.00127302	5.00E-18	-0.0581417	0.0375377	0.121408	75
rs7731023	5	36181627	G	A	0.00857204	0.00125278	7.80E-12	0.0476253	0.0365768	0.192895	47
rs77344209	3	55515277	T	C	0.00980116	0.00144504	1.20E-11	0.0413633	0.0446719	0.354479	46
rs7740107	6	130374461	A	T	-0.029136	0.00140391	1.10E-95	0.0336921	0.0393822	0.392265	431
rs774214	12	56918566	C	T	-0.00899293	0.00131201	7.20E-12	-0.0379439	0.0365097	0.298673	47
rs7755185	6	152339615	G	A	0.00865736	0.00133858	1.00E-10	0.0556379	0.0360446	0.122689	42
rs7780752	7	93241640	C	T	0.012444	0.00129087	5.40E-22	-0.0511117	0.0397625	0.198644	93
rs77848106	1	107971673	A	C	-0.00902452	0.00136556	3.90E-11	0.034518	0.0353249	0.328491	44
rs7815955	8	130719567	T	A	-0.015189	0.00154398	7.80E-23	0.0299953	0.0461639	0.515849	97
rs78378222	17	7571752	G	T	0.0819657	0.00576633	7.40E-46	0.144597	0.133735	0.279601	202
rs7842996	8	78107140	A	T	0.0191695	0.00138047	7.70E-44	-0.0178026	0.0422118	0.673212	193
rs7843128	8	22473465	C	T	-0.00826258	0.00129837	2.00E-10	-0.0070346	0.037303	0.850422	40
rs78751935	5	50675829	C	T	0.0220472	0.00349984	3.00E-10	-0.0437059	0.100385	0.663286	40
rs7910211	10	81228378	C	T	0.00996384	0.00170194	4.80E-09	0.033902	0.0422733	0.422569	34
rs7912286	10	114693230	G	A	-0.00866923	0.00128083	1.30E-11	-0.0229004	0.0356171	0.520249	46
rs7952436	11	67024534	T	C	-0.033629	0.00226417	6.70E-50	-0.0956326	0.0793626	0.2282	221
rs7962636	12	116450006	C	T	-0.0080785	0.00130234	5.50E-10	0.0866837	0.0397111	0.0290462	38
rs798759	4	1730299	G	A	-0.00966053	0.0012402	6.70E-15	-0.0393219	0.0364795	0.28107	61
rs8002779	13	92015977	A	G	-0.00765596	0.00126739	1.50E-09	0.0327531	0.034982	0.349127	36
rs8007644	14	35218831	A	G	0.00807838	0.00128683	3.40E-10	0.000961351	0.0350737	0.978133	39

rs8074074	17	17407816	T	C	0.00945785	0.00144929	6.80E-11	-0.0193537	0.0385037	0.615214	43
rs8088739	18	60767088	C	T	0.00822751	0.00144789	1.30E-08	-0.00919623	0.0415147	0.82469	32
rs8091374	18	71904385	A	G	-0.00987196	0.00172549	1.10E-08	-0.00479566	0.0443447	0.913881	33
rs822549	7	148649180	C	T	0.0119777	0.00140293	1.40E-17	0.0190784	0.0388194	0.623096	73
rs836511	7	6458319	G	A	0.0104195	0.001553	2.00E-11	0.0308769	0.0404968	0.445789	45
rs843374	3	183997261	T	A	-0.0112148	0.00125963	5.40E-19	-0.0327232	0.0359886	0.36321	79
rs892511	1	110078255	G	C	0.0263348	0.00378949	3.70E-12	0.0532646	0.079459	0.502641	48
rs894360	8	135601194	C	T	-0.0190258	0.00129354	5.70E-49	0.0193079	0.035247	0.583838	216
rs9291926	5	67599656	G	T	-0.0119714	0.00124336	6.10E-22	-0.0431313	0.0348884	0.21636	93
rs9327336	5	123990270	C	T	0.00866505	0.00130542	3.20E-11	0.0285285	0.0354469	0.420922	44
rs9350850	6	81050236	C	T	0.0233941	0.00228783	1.50E-24	-0.00745713	0.0543449	0.890858	105
rs9369308	6	41777680	G	A	-0.0184067	0.00183186	9.40E-24	-0.0500661	0.0656965	0.446011	101
rs9372837	6	126638124	A	G	0.0151841	0.00125109	6.80E-34	-0.0433056	0.0348879	0.214503	147
rs9379084	6	7231843	A	G	-0.0151827	0.00199505	2.70E-14	0.0343026	0.0551902	0.534248	58
rs9398171	6	108983527	T	C	0.0208071	0.00136489	1.80E-52	0.00493583	0.0363325	0.891939	232
rs943190	10	22842368	T	C	-0.00799005	0.00126937	3.10E-10	0.0193453	0.0358934	0.589912	40
rs9461246	6	26381660	A	G	-0.017785	0.00191435	1.50E-20	0.0146737	0.0443945	0.741	86
rs9465505	6	19726083	A	G	-0.00819844	0.00124524	4.60E-11	-0.0259496	0.0350068	0.458528	43
rs9480933	6	109671391	G	C	-0.0130474	0.00129843	9.30E-24	-0.0118419	0.0359267	0.741693	101
rs9491201	6	124934212	T	C	0.00959997	0.00167258	9.50E-09	0.0251547	0.0691626	0.716079	33
rs9513510	13	99571922	C	G	-0.0108828	0.00135596	1.00E-15	-0.0309936	0.037119	0.403729	64
rs9540493	13	66205704	G	A	-0.00889086	0.00125617	1.50E-12	-0.022016	0.0350268	0.529644	50
rs9634212	12	93993266	A	C	0.0237023	0.0015016	4.00E-56	0.0516126	0.0404899	0.202414	249
rs9654451	5	299543	T	C	0.0112223	0.0018522	1.40E-09	-0.0756739	0.0615907	0.219201	37
rs968821	9	94187634	C	G	-0.0111297	0.00131107	2.10E-17	0.0101657	0.0396244	0.797525	72
rs9783665	14	103271158	A	T	-0.00741777	0.00130506	1.30E-08	0.00451364	0.0367655	0.902291	32
rs9800418	5	77641008	C	T	0.00836033	0.00144872	7.90E-09	-0.00122712	0.0398304	0.975422	33
rs981002	4	12881731	A	T	-0.0105513	0.00140219	5.30E-14	0.0398127	0.0403728	0.32407	57
rs9853018	3	141101961	T	C	0.029985	0.00124617	6.30E-128	-0.0416178	0.0351376	0.236246	579
rs9884540	4	124905749	G	T	-0.00799448	0.00127923	4.10E-10	0.0764525	0.0369193	0.0383778	39

rs9892365	17	59491384	G	A	-0.0157776	0.00132317	8.90E-33	0.0242423	0.0396054	0.540473	142
rs9898189	17	80480516	G	C	-0.00808434	0.00134891	2.10E-09	0.00209979	0.0356033	0.95297	36
rs9925273	16	375900	G	A	-0.011812	0.00161653	2.70E-13	0.0962155	0.047547	0.043013	53
rs9938120	16	19977733	T	C	-0.0184235	0.00179345	9.40E-25	0.0391542	0.0535203	0.464427	106
rs9951619	18	56882326	G	T	0.012471	0.00148235	4.00E-17	-0.0285812	0.0371785	0.442038	71
rs9960619	18	33040095	T	C	0.00977566	0.00131041	8.70E-14	0.0346681	0.0371806	0.351117	56
rs9985795	4	135213286	C	T	-0.00727182	0.00124405	5.10E-09	0.0252399	0.0352754	0.474293	34

11 **Note.** Chr, chromosome; Beta, beta-coefficient; F, F-statistic; OCD, Obsessive-compulsive disorder; SE, standard error.

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**Supplementary Table S4** Effect estimate of the association between genetically predicted body fat rate and risk of obsessive-compulsive disorder

Variant rsID	Chr	Position	Effect allele	Other allele	Association with body fat rate			Association with OCD			F
					Beta	Se	P	Beta	Se	P	
rs10050620	5	63927239	T	C	-0.0103073	0.00164616	3.80E-10	0.0335248	0.0366792	0.360716	39
rs10071339	5	178505013	G	C	0.00895628	0.00159694	2.00E-08	-0.00179173	0.0367261	0.96109	31
rs10100245	8	77226919	A	G	0.0152146	0.00155645	1.40E-22	-0.00281059	0.0348938	0.935802	96
rs10116857	9	16595649	A	C	-0.0219296	0.00320576	7.90E-12	-0.0478182	0.0830757	0.564886	47
rs1013293	1	62570321	A	G	-0.0139271	0.00155866	4.10E-19	0.00913725	0.0364541	0.802084	80
rs10146997	14	79945162	G	A	0.018731	0.00185697	6.30E-24	0.0123912	0.0405868	0.760137	102
rs10187101	2	50742227	T	C	-0.010248	0.00159844	1.40E-10	0.0233534	0.0352665	0.507845	41
rs10209821	2	228980358	T	C	0.0123638	0.0016188	2.20E-14	-0.0262551	0.0377036	0.486207	58
rs10210468	2	165377103	C	T	0.00924733	0.00156198	3.20E-09	-0.019205	0.0351062	0.584342	35
rs10245306	7	158029340	C	G	0.00917484	0.00167492	4.30E-08	-0.0647203	0.0396784	0.102864	30
rs10259620	7	27202289	G	A	-0.0139877	0.00189659	1.60E-13	-0.0148775	0.0389376	0.702399	54
rs1038088	17	28074563	G	T	0.0125471	0.00154189	4.00E-16	-0.0414835	0.0348225	0.233542	66
rs10423928	19	46182304	A	T	-0.0232502	0.00194747	7.40E-33	-0.0536731	0.0402977	0.182887	143
rs10496731	2	135597628	G	T	-0.0115311	0.00158686	3.70E-13	-0.046196	0.0355377	0.193631	53
rs10505836	12	19288508	C	A	0.0128411	0.00223802	9.60E-09	0.0824167	0.0509898	0.106022	33
rs10510025	10	118650996	T	C	0.0129238	0.00179232	5.60E-13	0.0571945	0.0402106	0.154918	52
rs10513935	18	1660497	A	G	0.00942576	0.00168416	2.20E-08	-0.00931788	0.0397656	0.814737	31
rs1056441	20	62370349	C	T	0.0120757	0.0016495	2.50E-13	0.0556341	0.0398639	0.162834	54
rs10756798	9	16739763	T	C	-0.0140265	0.00160866	2.80E-18	-0.00355797	0.0367824	0.92294	76
rs10854853	22	48874412	T	G	0.0104441	0.00155077	1.60E-11	-0.0449645	0.0351356	0.200635	45
rs1086103	4	145920099	A	C	-0.021384	0.00368848	6.70E-09	-0.0405767	0.142922	0.776481	34
rs10867315	9	81574729	A	G	-0.0111522	0.00196791	1.50E-08	-0.005171	0.0429441	0.904156	32
rs10896012	11	65278461	C	T	0.0115223	0.00187372	7.80E-10	-0.0901103	0.0590155	0.126788	38

rs10938397	4	45182527	G	A	0.0201696	0.00155596	2.00E-38	-0.0227716	0.0349568	0.514776	168
rs10959841	9	11469190	C	T	0.00911255	0.00158643	9.20E-09	0.0378656	0.036612	0.301024	33
rs10999460	10	72428283	T	C	0.016885	0.00175383	6.10E-22	0.0868593	0.0391713	0.0265944	93
rs11012732	10	21830104	G	A	0.0166039	0.00163819	3.80E-24	0.0339619	0.0375172	0.365341	103
rs11030016	11	27487992	T	C	0.0132564	0.001761	5.20E-14	-0.0182476	0.0373571	0.625222	57
rs11030108	11	27695464	G	A	-0.0185028	0.00165098	3.80E-29	0.0155175	0.037134	0.676036	126
rs11062595	12	3367760	G	C	-0.0153041	0.00266658	9.50E-09	0.00604944	0.0645369	0.925319	33
rs11079849	17	47090785	T	C	-0.0130416	0.00164632	2.30E-15	-0.0403359	0.0382109	0.291145	63
rs11105842	12	91243910	A	G	-0.0101643	0.00160647	2.50E-10	-0.0199765	0.0362828	0.581922	40
rs11122450	1	230301811	G	T	-0.0101571	0.00157943	1.30E-10	0.0183572	0.0351398	0.60139	41
rs11129660	3	35695961	T	C	0.0110275	0.00189369	5.80E-09	0.0107311	0.0451587	0.812167	34
rs11150745	17	78757626	G	A	-0.0126783	0.00166019	2.20E-14	0.0110028	0.03887	0.777125	58
rs11165643	1	96924097	T	C	0.0146762	0.00156269	5.90E-21	-0.0479929	0.0357043	0.17889	88
rs11205303	1	149906413	C	T	0.018328	0.00156672	1.30E-31	0.0116429	0.0377875	0.757994	137
rs11222371	11	130745719	T	C	0.0118153	0.00156853	5.00E-14	0.000314962	0.0350986	0.99284	57
rs11245344	10	126418782	T	C	0.00937385	0.00156054	1.90E-09	-0.031607	0.035562	0.374117	36
rs112852122	20	47498117	A	G	-0.0164403	0.00215064	2.10E-14	0.00612766	0.0474796	0.897311	58
rs11343	16	19279464	G	T	0.00867343	0.00158474	4.40E-08	-0.0329701	0.0356342	0.354844	30
rs113503736	4	19204890	G	T	-0.0102974	0.00185568	2.90E-08	0.0658541	0.0514656	0.200695	31
rs113941571	15	52268996	T	C	0.0209909	0.00297573	1.70E-12	-0.0236445	0.0868271	0.785378	50
rs11538	22	18220831	G	A	0.0121586	0.00204591	2.80E-09	0.0327749	0.0442676	0.459068	35
rs11619393	13	20262266	C	T	0.0146332	0.00219293	2.50E-11	0.0148457	0.0659811	0.82198	45
rs11619722	13	27998600	C	T	-0.0108221	0.00168444	1.30E-10	0.000629677	0.0385088	0.986954	41
rs11664106	18	2846812	T	A	0.010994	0.00163476	1.80E-11	0.000195973	0.0374049	0.99582	45
rs11664848	18	42575661	G	C	0.00965173	0.00163558	3.60E-09	0.0423984	0.035815	0.236486	35
rs11666808	19	18383506	C	T	-0.0177091	0.00160075	1.90E-28	0.0247311	0.0369264	0.503023	122
rs117176448	8	27261138	G	C	0.0172978	0.00261256	3.60E-11	-0.023374	0.064213	0.715853	44
rs11782074	8	142617096	T	G	0.0106691	0.00161125	3.60E-11	-0.0773547	0.0364483	0.0338112	44

rs11786089	8	21975521	G	A	0.0112967	0.00154993	3.10E-13	0.0128303	0.0352381	0.715781	53
rs11852419	15	41456374	T	A	0.0106498	0.00175622	1.30E-09	0.0229122	0.0399138	0.565939	37
rs11855853	15	78012618	T	C	-0.0103933	0.00174766	2.70E-09	0.0262248	0.042805	0.540102	35
rs11866219	16	69549749	C	A	-0.0158787	0.00158501	1.30E-23	0.0943808	0.0355223	0.00788533	100
rs12042959	1	243533273	G	A	-0.0145771	0.00220294	3.70E-11	-0.0237882	0.047653	0.617641	44
rs12053559	2	138416391	G	T	0.00856437	0.00154317	2.90E-08	0.00150125	0.0351877	0.965969	31
rs12072739	1	98315893	G	A	0.0134145	0.00184627	3.70E-13	-0.0618114	0.0375086	0.0993688	53
rs12103006	16	24726237	G	A	0.0104802	0.00155885	1.80E-11	-0.00794743	0.0347986	0.819348	45
rs12204724	6	116532430	T	C	0.00925634	0.00168026	3.60E-08	-0.0100236	0.0420973	0.811799	30
rs1229984	4	100239319	C	T	0.0310059	0.00467505	3.30E-11	0.0923239	0.250305	0.712243	44
rs12333760	7	99185406	C	T	-0.0121202	0.00208123	5.80E-09	0.0288188	0.0416663	0.489152	34
rs12375196	7	103416541	A	C	0.0102996	0.00156914	5.20E-11	-0.0828548	0.0350484	0.018078	43
rs12376870	9	117890567	A	G	-0.0110309	0.00181676	1.30E-09	-0.0108741	0.0412345	0.792	37
rs12402939	1	150615094	C	A	-0.0101759	0.00157772	1.10E-10	-0.053818	0.035499	0.129509	42
rs12419272	11	117015516	G	C	0.0206723	0.00333136	5.50E-10	-0.0656542	0.065993	0.319802	39
rs12432026	14	75282116	G	T	0.00996462	0.00154621	1.20E-10	-0.00483042	0.035337	0.891271	42
rs12435249	14	30090917	C	G	-0.0098795	0.00157228	3.30E-10	-0.0125405	0.0353915	0.723088	39
rs12441543	15	31689543	A	G	0.0114053	0.0017089	2.50E-11	0.0130692	0.0384602	0.734	45
rs12459965	19	18452195	T	C	-0.0126806	0.00174938	4.20E-13	-0.0954501	0.0420498	0.0232119	53
rs12462975	19	30272202	A	G	0.0123462	0.00165332	8.20E-14	0.0422815	0.0375146	0.259714	56
rs12475388	2	27039792	A	G	-	0.00154662	1.60E-10	0.0240674	0.0350639	0.492469	41
rs12538435	7	71437104	G	A	-0.0109846	0.00175319	3.70E-10	0.0427058	0.0376498	0.256672	39
rs12619178	2	100838157	T	C	-0.0144544	0.0015682	3.00E-20	0.10642	0.0350471	0.00239354	85
rs12628603	22	38119213	A	G	-	0.00159107	1.60E-09	0.0225226	0.0352693	0.523091	36
rs12639116	3	62434127	T	C	0.00959714	0.00262251	7.80E-10	-0.0388574	0.0506834	0.443279	38
rs12658319	5	153551892	T	C	-0.0161252	0.0016852	2.00E-10	-0.020418	0.0378744	0.589819	40
rs12670456	7	122102781	G	A	0.0107194	0.00168003	2.10E-08	-0.020418	0.0399949	0.801952	31
rs12724928	1	113128931	C	T	0.00941089	0.00190484	1.30E-14	0.0100316	0.0375369	0.335107	59

rs1284373	1	33355923	T	C	-0.0108576	0.00192322	1.60E-08	-0.0500824	0.0415599	0.228178	32
rs12890931	14	69753369	G	T	0.0120832	0.00161524	7.40E-14	0.0547615	0.0351642	0.119397	56
rs13026103	2	16611534	A	G	0.00961952	0.00175567	4.30E-08	0.0332723	0.0381013	0.382522	30
rs13064797	3	173656059	A	G	-0.0108506	0.00190707	1.30E-08	0.0591303	0.0392977	0.132408	32
rs13107325	4	103188709	T	C	0.0323745	0.00292921	2.10E-28	0.0974393	0.149529	0.514633	122
rs13174863	5	139080745	G	A	0.0128832	0.00218539	3.70E-09	0.0174043	0.0487274	0.72096	35
rs1318408	1	11925781	G	A	0.0157919	0.00237893	3.20E-11	-0.0757086	0.0699019	0.278778	44
rs13292699	9	15910044	C	A	-0.0200044	0.0015583	1.00E-37	0.100637	0.0346454	0.00367519	165
rs13360957	5	179237896	A	G	-0.0110008	0.00200581	4.10E-08	-0.0543843	0.0495864	0.272747	30
rs13389219	2	165528876	T	C	0.0170899	0.00157313	1.70E-27	0.00937124	0.0366123	0.797983	118
rs13408397	2	69582028	T	C	-0.0130723	0.0015614	5.70E-17	-0.0445637	0.0358953	0.214425	70
rs13436840	5	157926656	T	C	0.0136415	0.0017496	6.30E-15	0.0276675	0.0371891	0.456896	61
rs1350429	12	41819131	G	A	0.00973719	0.00154554	3.00E-10	-0.016444	0.0352209	0.640585	40
rs1360278	1	209234358	T	G	0.00896325	0.00163485	4.20E-08	0.000110111	0.0359599	0.997557	30
rs1377184	1	215246432	T	A	0.0127442	0.00178122	8.40E-13	-0.0820558	0.0423943	0.0529237	51
rs1421334	8	30865733	C	A	-0.0113003	0.00155717	4.00E-13	0.0180633	0.0357322	0.613194	53
rs1436348	3	104612668	G	A	0.0107963	0.00156132	4.70E-12	0.00500086	0.0361146	0.889867	48
rs1441264	13	79580919	A	G	0.0119959	0.00160493	7.80E-14	0.0211555	0.0372896	0.57049	56
rs1453055	2	181329491	A	G	0.0126532	0.00173398	2.90E-13	-0.0431855	0.0370538	0.243824	53
rs1456014	2	46899742	G	A	-0.0150933	0.00190234	2.10E-15	-0.0402921	0.049943	0.419803	63
rs1469084	19	33868013	G	A	0.00878996	0.00154865	1.40E-08	0.0174252	0.0353016	0.621581	32
rs1481881	11	13269536	C	T	0.0104895	0.0015625	1.90E-11	-0.0942064	0.0346038	0.00648052	45
rs149380583	15	80993786	C	G	-0.0127741	0.00231146	3.30E-08	0.0376818	0.0718923	0.600181	31
rs1503526	5	63020706	C	T	0.0113767	0.00154191	1.60E-13	0.0413528	0.0355452	0.244673	54
rs1559900	8	14207321	T	C	0.00986943	0.00170532	7.10E-09	-0.0435271	0.0400255	0.276823	33
rs1568488	3	153657951	C	G	0.0117289	0.00158106	1.20E-13	-0.0564091	0.036482	0.122052	55
rs1597132	6	127947115	C	T	0.00878837	0.0015975	3.80E-08	0.0314615	0.0354233	0.374455	30
rs16916303	9	30823761	G	A	-0.0143754	0.00240082	2.10E-09	0.0395235	0.0521669	0.448669	36

rs16934748	10	33970319	C	T	0.0128932	0.00215901	2.30E-09	-0.0509606	0.0479799	0.288179	36
rs16996657	20	15816236	C	T	0.0140368	0.00231882	1.40E-09	0.0154993	0.0426182	0.716099	37
rs17016133	3	25313167	C	T	-0.0137367	0.00229121	2.00E-09	0.0226231	0.0459382	0.622389	36
rs17024393	1	110154688	C	T	0.0474389	0.00485686	1.60E-22	0.100276	0.0749894	0.181159	95
rs17055384	13	59285126	T	C	-0.0123469	0.00200425	7.30E-10	0.0803744	0.0493991	0.103728	38
rs17172722	7	46620312	T	C	-0.010769	0.0015641	5.80E-12	0.00103004	0.0359022	0.977112	47
rs17193211	21	38885506	T	C	-0.0180452	0.00314532	9.60E-09	-0.101198	0.0691884	0.143565	33
rs1724557	4	137094048	A	C	-0.0110497	0.0015726	2.10E-12	0.00757343	0.0348874	0.828144	49
rs17522122	14	33302882	T	G	0.0126085	0.00155155	4.40E-16	0.00458013	0.0352319	0.896567	66
rs1763839	1	8473336	A	G	0.0103215	0.00162703	2.20E-10	-0.0860775	0.0361592	0.0172886	40
rs17639996	3	61269668	A	G	-0.0143309	0.00216477	3.60E-11	0.010342	0.0461035	0.822507	44
rs17698176	17	44819595	G	T	0.0113269	0.00186038	1.10E-09	-0.00205281	0.0382948	0.95725	37
rs17704028	7	95140031	T	C	-0.0146575	0.00217921	1.70E-11	0.060145	0.0432654	0.164486	45
rs17770336	9	28414625	T	C	0.0154638	0.00164622	5.80E-21	-0.0679965	0.0359132	0.0583109	88
rs17820010	5	50384662	G	T	0.0124473	0.00168847	1.70E-13	0.0417849	0.0369377	0.257959	54
rs1782508	11	30243795	G	C	0.00913519	0.00162015	1.70E-08	0.117271	0.0373028	0.00166794	32
rs1787013	18	13072979	C	T	0.00961178	0.00155008	5.60E-10	-0.0339804	0.035245	0.334986	38
rs1788808	18	21090023	G	A	-0.016282	0.0015462	6.30E-26	0.0290314	0.0349503	0.406172	111
rs1799923	3	42306294	G	A	0.0140939	0.00242625	6.30E-09	0.0817887	0.0588875	0.164864	34
rs1801282	3	12393125	G	C	0.0301151	0.0023675	4.60E-37	0.0114822	0.0462565	0.803957	162
rs1808629	8	73435964	A	G	-0.01632	0.00166697	1.20E-22	-0.050833	0.0386226	0.188124	96
rs1813039	8	76295984	A	G	0.0103333	0.00170753	1.40E-09	0.017587	0.0370568	0.635075	37
rs1861410	2	58933591	T	C	-0.0135852	0.0015523	2.10E-18	0.0112094	0.0357074	0.753579	77
rs1881505	11	1483177	C	T	-0.0191979	0.00335242	1.00E-08	-0.0482663	0.103907	0.642278	33
rs1887340	6	33730095	T	C	-0.0128106	0.00182371	2.10E-12	0.0078739	0.0377968	0.834978	49
rs1906252	6	98550289	A	C	-0.0161687	0.00154706	1.40E-25	0.0478895	0.0349154	0.170192	109
rs1928496	13	31012904	T	C	0.0108188	0.00176585	9.00E-10	0.0315982	0.0376069	0.400784	38
rs1945160	18	22164216	A	G	0.00962166	0.0016001	1.80E-09	0.0369103	0.0360254	0.30557	36

rs1991002	5	52848593	G	T	-0.0100728	0.00154583	7.20E-11	0.0154567	0.0351116	0.659781	42
rs2002023	10	76848524	T	C	0.0102433	0.00157002	6.80E-11	-0.0109232	0.0350394	0.755237	43
rs2008018	17	61954471	A	G	0.0110009	0.00164659	2.40E-11	-0.00852435	0.0356224	0.810875	45
rs2034946	17	73863589	G	T	0.0119487	0.00190099	3.30E-10	-0.0319414	0.0476054	0.502245	40
rs2108635	12	2159556	G	A	0.00983786	0.00163453	1.80E-09	0.0266235	0.0355884	0.454402	36
rs21126	5	104013782	A	G	-0.010022	0.00155797	1.30E-10	0.041911	0.0358178	0.241954	41
rs215669	7	32378979	A	G	-0.012096	0.00158845	2.60E-14	0.0436918	0.0388489	0.260734	58
rs2165991	15	53101700	G	A	0.0117936	0.00178131	3.60E-11	-0.104001	0.0472674	0.0277875	44
rs2172131	10	133978962	C	T	-0.0110832	0.00156255	1.30E-12	0.00835052	0.0350082	0.81147	50
rs2178899	6	31606756	T	A	-0.0191217	0.002297	8.50E-17	-0.0353097	0.0702858	0.615405	69
rs2190788	5	144484261	T	G	0.0110461	0.00166011	2.90E-11	-0.024237	0.0377371	0.520704	44
rs2192527	4	18329824	G	A	0.0141172	0.00154567	6.60E-20	-0.0339813	0.0361835	0.34766	83
rs2192649	7	78126279	G	T	0.00852919	0.00155109	3.80E-08	0.0255971	0.0348148	0.462195	30
rs2208947	10	77657667	G	A	0.0112407	0.00175139	1.40E-10	0.0399477	0.0449722	0.374393	41
rs2243928	13	111981707	G	C	-0.0120426	0.00163641	1.90E-13	-0.0525812	0.0357944	0.141838	54
rs2276936	4	89726283	C	A	-0.0123522	0.00154228	1.20E-15	-0.0111939	0.0350669	0.749563	64
rs2291127	3	138122477	T	C	-0.0137926	0.00211992	7.70E-11	-0.047158	0.0565617	0.404425	42
rs2307111	5	75003678	C	T	-0.0171461	0.00157693	1.50E-27	0.0314777	0.0353928	0.373797	118
rs2371767	3	64718258	C	G	0.0117998	0.00171613	6.20E-12	0.0319425	0.0422597	0.449731	47
rs2415142	15	73431600	G	T	0.0133595	0.00155278	7.70E-18	-0.0125733	0.0351696	0.720714	74
rs2470941	7	104582908	A	G	0.00903742	0.00157156	8.90E-09	-0.0218244	0.0358281	0.54243	33
rs2481899	14	56460686	G	A	0.00930927	0.00156135	2.50E-09	-0.00865255	0.0351103	0.805342	36
rs2499468	6	51809081	A	C	0.0100294	0.00161777	5.70E-10	-0.00197028	0.0395653	0.960283	38
rs2508782	11	94269813	G	A	0.00937803	0.00155792	1.70E-09	0.0690965	0.0357546	0.0532954	36
rs252749	5	77389973	A	G	-0.0102553	0.00178627	9.40E-09	0.0520663	0.0451805	0.249154	33
rs256904	5	55810305	T	A	-0.0111835	0.00176815	2.50E-10	0.0278394	0.0374668	0.457456	40
rs262953	3	183467986	A	G	-0.0102573	0.00159162	1.20E-10	0.0119586	0.035066	0.733079	42
rs2640465	1	29569645	G	A	0.0158823	0.00259576	9.40E-10	0.0708979	0.0584333	0.22501	37
rs2660241	16	4940023	C	T	0.0108857	0.00160421	1.20E-11	0.0419025	0.0366392	0.252767	46
rs2678204	1	201800511	G	T	0.0136291	0.00162387	4.70E-17	0.0462214	0.0380149	0.224032	70

rs2702123	2	24562699	C	T	-0.0152608	0.00274222	2.60E-08	0.0752808	0.0738454	0.307995	31
rs2785988	1	219744138	A	C	0.0210728	0.00168127	4.90E-36	0.0711871	0.0381407	0.0619812	157
rs2802774	1	203527812	A	C	0.0105954	0.00156929	1.50E-11	-0.103633	0.0347644	0.0028731	46
rs2814993	6	34618893	A	G	0.0259158	0.00221742	1.50E-31	-0.148034	0.0437925	0.000723952	137
rs2855818	17	42290015	A	G	0.0153102	0.00181772	3.70E-17	0.0290833	0.0395173	0.461752	71
rs28613758	15	67368659	T	C	0.0100682	0.00154754	7.70E-11	-0.0840065	0.0350923	0.0166717	42
rs286511	11	85224799	C	T	0.012868	0.00209075	7.50E-10	-0.0339418	0.0402541	0.399122	38
rs28651380	4	34773227	G	A	0.0104262	0.00171657	1.20E-09	0.0428877	0.0389291	0.270598	37
rs28672845	3	88270627	C	A	0.0115052	0.00209731	4.10E-08	-0.0774073	0.0457214	0.0904524	30
rs28714450	8	9777555	T	C	-0.0101175	0.00165029	8.70E-10	0.00774729	0.0355231	0.827358	38
rs28742003	15	68127769	T	C	-0.021134	0.00191016	1.90E-28	0.0621374	0.0524471	0.236111	122
rs2888778	2	41608611	G	T	0.00998353	0.00161504	6.30E-10	-0.0543172	0.0408309	0.18342	38
rs2943653	2	227047771	T	C	-0.0155134	0.00163892	2.90E-21	-0.0886752	0.036834	0.0160653	90
rs2954033	8	126493746	G	A	0.0124143	0.00167398	1.20E-13	-0.0684165	0.0395077	0.0833221	55
rs2957678	11	10407955	C	T	0.0116378	0.00154184	4.40E-14	0.0391518	0.0349929	0.263204	57
rs2960420	3	12314512	G	C	0.00912091	0.00162066	1.80E-08	-0.0172261	0.0361864	0.634049	32
rs2966859	16	85324544	G	A	-0.0111483	0.00189749	4.20E-09	0.044164	0.0426767	0.300738	35
rs2984618	1	47690438	T	G	0.0117369	0.0015617	5.70E-14	-0.0264191	0.0361622	0.46504	56
rs3113509	4	52932825	T	C	-0.0107277	0.00174038	7.10E-10	0.0356992	0.0386608	0.355802	38
rs319775	17	31495076	C	T	0.00883995	0.00158047	2.20E-08	0.000320803	0.0354731	0.992784	31
rs33836	19	34008600	T	C	-0.0163804	0.00156772	1.50E-25	0.0603566	0.0351603	0.0860498	109
rs34045288	6	40369081	T	C	0.0143846	0.0016329	1.30E-18	0.0159893	0.0360601	0.65747	78
rs34483452	5	87986314	A	C	0.0245244	0.00226433	2.50E-27	-0.0656089	0.0533646	0.218905	117
rs34580448	5	82810884	C	T	-0.0308051	0.00388142	2.10E-15	0.0305115	0.136161	0.822693	63
rs34656389	4	96153214	G	A	0.0103136	0.00159872	1.10E-10	-0.0176976	0.0349854	0.612957	42
rs35154152	1	155172725	C	T	-0.0177569	0.00249206	1.00E-12	-0.087705	0.0784082	0.263324	51
rs3754963	2	166185707	T	A	-0.0114802	0.00176393	7.60E-11	0.0101439	0.037893	0.788931	42
rs3764002	12	108618630	T	C	-0.0186517	0.00175335	2.00E-26	-0.0152617	0.0368548	0.678797	113

rs3766823	1	32197257	A	G	0.0140143	0.00203896	6.30E-12	-0.0377854	0.0419101	0.367278	47
rs3791709	2	212286934	T	A	0.0103311	0.00171169	1.60E-09	0.000857894	0.0391234	0.982505	36
rs3803286	14	103246470	G	A	-0.0115932	0.00163624	1.40E-12	0.00857212	0.0369344	0.816468	50
rs3817428	15	89415247	G	C	-0.0152755	0.00174905	2.50E-18	-0.078732	0.0377261	0.0368935	76
rs3826408	17	7101292	T	C	0.00915425	0.00154807	3.40E-09	0.0190868	0.034891	0.58435	35
rs3846949	6	15371243	T	C	0.0089638	0.00164071	4.70E-08	0.00738383	0.0388888	0.849411	30
rs3911063	3	85906928	C	T	-0.0121841	0.00165127	1.60E-13	0.0281407	0.036407	0.439553	54
rs3923501	9	103065884	T	C	0.0102177	0.00154181	3.40E-11	-0.0269248	0.0349309	0.440825	44
rs394608	21	46581798	C	T	0.0123902	0.00155475	1.60E-15	0.0359066	0.0353066	0.309156	64
rs396354	2	86850022	C	T	0.00986214	0.00170937	8.00E-09	-0.00382912	0.0392793	0.922342	33
rs40071	5	107496102	C	T	-0.014887	0.00201352	1.40E-13	-0.0238946	0.0427947	0.576602	55
rs41307479	9	116082647	G	C	0.0124051	0.00185992	2.60E-11	0.0636858	0.0426658	0.135525	44
rs41310284	10	102447647	A	C	-0.0201214	0.00257596	5.70E-15	0.0273018	0.0629091	0.664297	61
rs429343	2	147903382	G	A	-0.0111228	0.00155872	9.60E-13	0.0463981	0.0350273	0.185294	51
rs429358	19	45411941	C	T	-0.0215029	0.00213952	9.20E-24	-0.0100734	0.044818	0.822164	101
rs4320040	3	157884946	G	T	-0.0101838	0.00154798	4.70E-11	0.0582024	0.0361996	0.107875	43
rs4398538	4	130724740	C	T	-0.010008	0.00161101	5.20E-10	0.0119796	0.0356683	0.736975	39
rs441792	2	105404221	G	A	0.0119298	0.00154217	1.00E-14	0.0102249	0.0350887	0.770744	60
rs4466418	8	126323787	A	G	0.00997781	0.00155638	1.40E-10	0.0228902	0.0352068	0.515587	41
rs4482463	2	205375909	A	C	-0.0211076	0.00289361	3.00E-13	-0.0193708	0.0739078	0.793248	53
rs4500770	16	74658430	T	A	0.00977478	0.00160607	1.20E-09	0.0538523	0.038618	0.16317	37
rs4547574	2	48541003	T	A	-0.0105978	0.00183563	7.80E-09	0.0127689	0.0432257	0.767687	33
rs4690324	4	960081	A	G	-0.0126754	0.00202574	3.90E-10	-0.0178992	0.0464048	0.699705	39
rs4709745	6	164105984	C	T	0.00934269	0.00167115	2.30E-08	0.0104551	0.040697	0.797255	31
rs4718964	7	70038969	T	G	0.0111105	0.00157055	1.50E-12	0.0608092	0.0355375	0.0870583	50
rs4722398	7	3125220	T	C	0.0143436	0.00224286	1.60E-10	0.0431741	0.0691511	0.532401	41
rs4759318	12	54420098	T	C	0.0104428	0.00160707	8.10E-11	-0.0553073	0.0355518	0.119784	42
rs4762951	12	20543307	G	A	-0.0113662	0.00186311	1.10E-09	-0.00697828	0.0497024	0.888343	37

rs479018	11	66060546	A	G	-0.0144775	0.00166392	3.30E-18	-0.0148377	0.0378085	0.694732	76
rs4808844	19	18811966	G	A	-0.0143046	0.00157998	1.40E-19	-0.0155322	0.0349997	0.657202	82
rs4820323	22	38599767	G	C	-0.0169383	0.00156868	3.50E-27	0.0380625	0.0356312	0.285414	117
rs482787	10	99767024	C	T	0.0092676	0.00164764	1.90E-08	0.0108926	0.0394198	0.782299	32
rs4876611	8	116671848	G	A	0.0173998	0.00171871	4.30E-24	0.0248476	0.0377908	0.510857	102
rs4908676	1	7737099	G	A	0.00966112	0.00154844	4.40E-10	-0.0281144	0.0350494	0.422474	39
rs4947124	6	111895728	A	G	0.0101717	0.00170183	2.30E-09	-0.0633069	0.0418525	0.130376	36
rs4959613	6	1835403	A	C	0.00955622	0.00161789	3.50E-09	-0.00945389	0.0356274	0.790737	35
rs529200	3	173114305	G	A	0.0106966	0.00154338	4.20E-12	0.0195231	0.0351112	0.578185	48
rs543874	1	177889480	G	A	0.0301643	0.00190436	1.70E-56	-0.0719728	0.0453092	0.112178	251
rs55707359	11	46159333	G	T	0.0375397	0.00633223	3.10E-09	-0.816567	0.480625	0.0893244	35
rs55810445	7	2103739	T	C	-0.0140163	0.00215528	7.90E-11	-0.0880258	0.0435199	0.0431082	42
rs55924785	9	136929586	T	C	-0.0123455	0.00207928	2.90E-09	0.0333497	0.0433143	0.441332	35
rs56094641	16	53806453	G	A	0.041033	0.00157131	2.50E-150	0.0377487	0.0352496	0.284215	682
rs56218501	20	46365636	T	C	-0.0128916	0.00188796	8.60E-12	-0.0231145	0.0541755	0.669629	47
rs56328878	2	159459040	A	C	0.00975461	0.00173683	2.00E-08	-0.0410136	0.0390644	0.293765	32
rs56399737	13	33381721	T	C	-0.0118589	0.00155668	2.60E-14	-0.0482932	0.0352357	0.170507	58
rs57636386	18	58048295	C	T	-0.0252015	0.00279375	1.90E-19	0.021692	0.0795643	0.785134	81
rs57800857	4	140863365	C	A	-0.0133302	0.00160952	1.20E-16	-1.03624	0.61352	0.0912179	69
rs58083390	4	73549559	T	C	0.0213019	0.00307029	4.00E-12	-0.021835	0.0637571	0.731996	48
rs58120873	2	47313562	A	G	-0.0163391	0.00274979	2.80E-09	0.175677	0.060189	0.00351423	35
rs58862095	7	75081418	T	C	-0.0131217	0.00156604	5.30E-17	-0.0311717	0.0348941	0.371683	70
rs59227842	11	43692423	G	A	0.0170384	0.00167907	3.40E-24	0.0338064	0.0375372	0.367796	103
rs59499656	18	40768309	T	A	-0.0137829	0.00163035	2.80E-17	0.0298698	0.035545	0.400719	71
rs59514011	7	39065516	G	A	-0.0106396	0.00155409	7.60E-12	-0.0198615	0.0351892	0.572468	47
rs6064113	20	53444487	C	T	-0.0105166	0.00185641	1.50E-08	-0.0498848	0.0447966	0.265457	32
rs60661769	4	80811207	A	T	0.0114801	0.00161317	1.10E-12	0.00219484	0.0402897	0.956556	51
rs6103254	20	41990761	C	T	-0.0147849	0.00232906	2.20E-10	0.121568	0.0576529	0.0349776	40
rs61754230	12	72179446	T	C	0.0312346	0.00554241	1.70E-08	-0.128276	0.238833	0.591201	32

rs61903695	11	89922417	G	A	0.0118139	0.00177153	2.60E-11	0.00704108	0.0405632	0.862193	44
rs61910767	11	134515899	T	C	-0.0142941	0.00208312	6.80E-12	-0.0396314	0.0502658	0.430441	47
rs61969510	13	86484025	C	T	0.0127422	0.00173502	2.10E-13	0.0118763	0.0360801	0.742031	54
rs61975147	14	59416558	C	T	-0.0142041	0.00207301	7.30E-12	0.0275639	0.0412235	0.503722	47
rs61986205	14	41271485	G	A	0.0189406	0.00283307	2.30E-11	-0.013898	0.0982655	0.887528	45
rs62107261	2	422144	C	T	-0.0479135	0.00359643	1.70E-40	-0.139981	0.125136	0.263299	177
rs62190394	2	230624929	T	C	0.0151644	0.00165383	4.80E-20	0.0174901	0.0375426	0.641306	84
rs62218301	21	36741262	G	A	-0.0127956	0.00208683	8.70E-10	-0.0754173	0.0451711	0.0949992	38
rs62413414	6	80310375	T	C	0.0126824	0.00214424	3.30E-09	-0.00946445	0.0494074	0.848087	35
rs62621197	19	8670147	T	C	-0.0249637	0.00423712	3.80E-09	-0.0509761	0.128381	0.691317	35
rs6491427	13	99113166	G	A	-0.013993	0.00170162	2.00E-16	-0.0193797	0.0397779	0.626119	68
rs6500594	16	4316498	G	T	0.0110602	0.00179199	6.70E-10	0.0173998	0.0375747	0.643313	38
rs6561937	13	58257667	A	T	-0.0117153	0.00179629	6.90E-11	0.0223689	0.0433272	0.60566	43
rs6567160	18	57829135	C	T	0.0254579	0.00182642	3.70E-44	-0.146615	0.0459871	0.00143176	194
rs6575340	14	94023972	A	G	0.0133993	0.00160775	7.80E-17	-0.0151419	0.0360304	0.6743	69
rs6602997	15	84521398	T	C	0.0226029	0.00170655	4.80E-40	0.0390406	0.0372508	0.294616	175
rs6693294	1	49879122	G	A	-0.0136932	0.0016614	1.70E-16	0.00867164	0.0359988	0.809643	68
rs67180261	1	195083179	G	A	-0.0119235	0.00188567	2.60E-10	-0.0452687	0.0399994	0.257746	40
rs6744646	2	628504	G	A	0.028139	0.00203811	2.30E-43	-0.0917342	0.0477939	0.0549376	191
rs6749911	2	105962339	A	G	0.0126967	0.00230925	3.80E-08	-0.102917	0.0563551	0.0678172	30
rs6750646	2	193872415	T	C	-0.0117765	0.00192871	1.00E-09	-0.0463228	0.0468927	0.323228	37
rs6752378	2	25150116	A	C	0.0224027	0.00153822	4.80E-48	-0.0228641	0.0354081	0.518454	212
rs6754292	2	217614584	T	C	0.00932639	0.00161898	8.40E-09	-0.0287208	0.0354164	0.417397	33
rs67609008	10	126640936	C	T	0.0113458	0.00171702	3.90E-11	-0.0699267	0.0452436	0.122211	44
rs6799532	3	108118700	C	T	0.00943178	0.0016694	1.60E-08	-0.0465866	0.0383821	0.22484	32
rs6840236	4	56289785	C	T	0.0121284	0.00154596	4.30E-15	0.0529131	0.0349173	0.129675	62
rs685149	11	57657413	G	A	0.00954107	0.00161396	3.40E-09	0.0170605	0.0359003	0.634631	35
rs6875585	5	95593462	C	A	0.011204	0.00164464	9.60E-12	-0.0137199	0.0352592	0.697191	46

rs6927268	6	108865663	G	T	-0.0138777	0.00190462	3.20E-13	-0.0131458	0.0382098	0.730814	53
rs6948959	7	50697051	A	G	-0.0105935	0.00177956	2.60E-09	0.0608303	0.036021	0.0912683	35
rs6973656	7	77422583	G	A	0.00928324	0.00157441	3.70E-09	-0.0346732	0.0363495	0.340143	35
rs6977416	7	150542711	A	G	-0.0118159	0.00164828	7.60E-13	0.0451495	0.03629	0.213451	51
rs6998660	8	143373972	G	A	0.00919453	0.00155062	3.00E-09	0.0149648	0.0351884	0.670635	35
rs7020	20	25278600	A	G	0.0130676	0.00155587	4.50E-17	0.023543	0.035005	0.501226	71
rs7027304	9	129408290	T	C	0.011578	0.0016271	1.10E-12	-0.0328003	0.0392726	0.403607	51
rs704061	12	89771903	C	T	0.0136927	0.00154796	9.10E-19	-0.0277958	0.0360747	0.440999	78
rs7046679	9	124638934	G	C	-	0.00165304	3.20E-08	-0.00123797	0.0369316	0.973259	31
rs7070670	10	61842645	T	C	0.00914252	0.00165236	8.90E-09	-0.0449972	0.0386993	0.244935	33
rs7124681	11	47529947	A	C	-	0.0015648	6.60E-46	-0.0373065	0.0355939	0.294586	202
rs7132908	12	50263148	A	G	0.0222563	0.00158551	1.50E-35	-0.0417197	0.0359254	0.245525	155
rs7133378	12	124409502	A	G	0.0197321	0.00165616	3.30E-29	-0.0452092	0.0389634	0.245926	126
rs71658797	1	77967507	A	T	0.0185779	0.00236585	1.70E-23	-0.0438849	0.0522547	0.401005	100
rs7193901	16	20263764	C	T	0.0236276	0.00220956	9.30E-11	-0.0238252	0.041902	0.569633	42
rs719802	11	113234679	C	T	-0.014315	0.0015826	3.10E-13	-0.0602602	0.036949	0.102911	53
rs7206608	16	82872628	G	C	-0.0115343	0.00165236	7.60E-10	0.0209985	0.0364139	0.564169	38
rs7216121	17	21281663	G	A	0.0101676	0.00161091	1.30E-11	0.0124757	0.0360838	0.729536	46
rs7218014	17	65832016	C	T	-0.0109061	0.00194282	1.70E-27	0.0197264	0.041021	0.630597	118
rs72634814	1	1538046	A	G	0.0211077	0.00169042	2.50E-14	0.0085218	0.0380179	0.822639	58
rs72681698	14	51207741	C	T	-0.0128866	0.00748992	2.30E-12	0.141721	0.448805	0.752173	49
rs72697297	14	93069989	C	T	-0.052548	0.00203008	4.50E-14	-0.0321745	0.0500498	0.520322	57
rs72755233	15	100692953	A	G	-0.0153167	0.0024497	2.70E-11	0.0855586	0.0551955	0.121118	44
rs72767957	15	99240793	G	A	-0.0163172	0.00193068	5.30E-11	-0.0180312	0.0458505	0.694127	43
rs72803260	16	51806701	G	T	-0.012668	0.0027727	1.80E-08	-0.0223508	0.109941	0.838902	32
rs72827858	17	46474361	G	A	-0.0156141	0.00171423	4.20E-08	0.0192092	0.037799	0.611318	30
rs72892910	6	50816887	T	G	0.00939906	0.00204337	2.30E-27	-0.00690911	0.0433407	0.873343	117
rs72917533	2	175238924	C	T	0.0221404	0.0019837	2.70E-12	0.0525047	0.0501027	0.294666	49
rs72917533	2	175238924	C	T	-0.0138669	0.0019837	2.70E-12	0.0525047	0.0501027	0.294666	49

rs72976986	19	4050424	A	G	-0.0171142	0.00198547	6.70E-18	0.0114963	0.0482115	0.811527	74
rs72995085	6	143193971	C	T	-0.0117629	0.00202255	6.00E-09	0.0141866	0.0425606	0.738887	34
rs73213501	4	28514830	C	A	-0.0152527	0.00204286	8.20E-14	0.0297682	0.0417981	0.476348	56
rs7357754	9	92207308	G	A	0.0116159	0.00154667	5.90E-14	-0.0226549	0.034913	0.516406	56
rs74288880	5	59275800	T	C	-0.0135582	0.00241631	2.00E-08	0.173807	0.0762961	0.0227227	31
rs7442885	5	87682877	G	C	-0.0128176	0.00188108	9.50E-12	-0.0354836	0.0450633	0.431037	46
rs74576293	12	3351169	C	T	-0.0204973	0.002693	2.70E-14	-0.0386584	0.0745626	0.604132	58
rs74618095	21	40683196	C	T	0.0132675	0.00213178	4.90E-10	-0.0339665	0.0405383	0.402095	39
rs7463186	8	87517201	G	A	0.0088055	0.00154188	1.10E-08	-0.0177847	0.0352339	0.613727	33
rs75135487	3	185805294	G	C	-0.0144347	0.00223876	1.10E-10	0.0222477	0.0584585	0.703521	42
rs7531118	1	72837239	C	T	0.0127665	0.0015529	2.00E-16	0.0683655	0.0354024	0.0534712	68
rs7535438	1	42635359	A	C	0.00950812	0.00169742	2.10E-08	0.0812093	0.0405586	0.0452554	31
rs75412871	12	121709430	T	C	-0.0216364	0.00347856	5.00E-10	-0.0935289	0.0702174	0.182863	39
rs7575523	2	59335104	G	T	-0.0153971	0.00157743	1.70E-22	-0.0952243	0.0352665	0.00693123	95
rs7598246	2	172866359	C	T	0.0085494	0.00156226	4.40E-08	0.0191779	0.0354048	0.588042	30
rs76115890	13	91993627	C	T	-0.0139023	0.00241521	8.60E-09	-0.0347886	0.0525138	0.507673	33
rs76345589	3	84185140	G	C	-0.0198865	0.00308056	1.10E-10	0.159075	0.0814887	0.0509249	42
rs764729	2	161126732	C	A	0.0101067	0.00173115	5.30E-09	0.0397156	0.043723	0.363696	34
rs7680610	4	24118165	G	A	0.0089709	0.00163023	3.70E-08	0.00811606	0.0375399	0.828833	30
rs76856798	1	243922215	T	C	0.0322372	0.00573378	1.90E-08	0.164123	0.121874	0.178088	32
rs7762794	6	153380228	G	A	0.00930584	0.00170461	4.80E-08	-0.060481	0.0368539	0.100776	30
rs7773916	6	70339118	T	C	-0.0109353	0.00188165	6.20E-09	-0.0377316	0.049407	0.445052	34
rs7789056	7	112908269	A	G	-0.0127186	0.00155559	2.90E-16	-0.0244695	0.0356103	0.49199	67
rs7796825	7	14317417	A	G	0.0113141	0.00203645	2.80E-08	-0.0104296	0.0485656	0.829961	31
rs78296744	12	122479308	A	G	-0.0132887	0.00173423	1.80E-14	0.0120481	0.0402523	0.7647	59
rs7843109	8	112360702	T	C	0.0103657	0.00166877	5.20E-10	-0.0975344	0.0367141	0.00789351	39
rs78744936	17	7461343	A	G	0.0113474	0.00175799	1.10E-10	0.0361312	0.041253	0.381115	42
rs7893571	10	16750129	T	G	0.0100326	0.00163856	9.20E-10	-0.00233748	0.0379031	0.950826	37
rs7925725	11	131449365	C	A	0.0111592	0.00156858	1.10E-12	-0.0745562	0.0355822	0.0361427	51

rs7942368	11	76465362	T	C	-0.0105396	0.00189331	2.60E-08	-0.0302851	0.0431864	0.483138	31
rs79518326	1	174946883	A	C	-0.0322259	0.00466633	5.00E-12	-0.0735563	0.154912	0.634911	48
rs7960609	12	18161569	G	A	0.00918558	0.00164856	2.50E-08	-0.00564136	0.0415017	0.891876	31
rs7966251	12	103731395	A	G	-	0.00177103	3.00E-08	0.0980169	0.0388821	0.0117066	31
rs7972728	12	123076778	A	C	0.00981406	0.00175434	1.20E-21	-0.0508616	0.0433752	0.240958	91
rs7975187	12	60964108	G	A	0.0167619	0.00188095	8.80E-10	0.0175351	0.0442398	0.691836	38
rs798549	7	2760750	A	C	-	0.00174424	1.30E-08	-0.0158229	0.0421243	0.707198	32
rs7987928	13	54372377	A	G	0.00992339	0.00193112	8.50E-13	0.0143492	0.0442114	0.745516	51
rs8096564	18	39910592	T	G	-0.0138119	0.00169686	2.40E-10	-0.071548	0.0363003	0.0487237	40
rs811054	16	72251132	T	C	0.0107485	0.00155694	8.70E-10	-0.00826517	0.0359608	0.818217	38
rs812949	5	170506141	C	T	0.0095458	0.00173358	1.30E-14	0.0443079	0.037369	0.235746	59
rs815163	1	190294726	C	T	-	0.00154941	4.40E-09	0.0271645	0.0350243	0.437992	34
rs843901	20	32904636	G	T	0.00909072	0.00316613	7.50E-10	0.0324916	0.0599835	0.588043	38
rs853961	6	127003464	T	G	0.0194862	0.00154046	2.30E-15	0.0271863	0.0349066	0.43608	63
rs879620	16	4015729	T	C	0.0122048	0.00158851	1.90E-20	0.0235169	0.0353794	0.506237	86
rs881929	16	31079371	T	G	0.014719	0.00159151	2.10E-20	0.0312579	0.0357868	0.382419	86
rs885114	11	8678756	A	G	-0.0147342	0.00172806	2.50E-17	-0.0365486	0.0396064	0.356115	72
rs9289630	3	141178670	C	G	-0.0146358	0.00158474	5.60E-15	-0.0491281	0.0375902	0.191233	61
rs9304665	19	47602577	A	T	0.0123827	0.00182093	6.90E-11	0.028257	0.0385684	0.463774	43
rs9321191	6	130165691	C	T	0.0118765	0.0019277	1.70E-08	-0.0113031	0.0500832	0.821445	32
rs9321191	6	130165691	C	T	-0.0108699	0.0019277	1.70E-08	-0.0113031	0.0500832	0.821445	32
rs9372414	6	97764299	T	C	-	0.00162144	8.70E-09	-0.0292765	0.0361782	0.418382	33
rs9379833	6	26207175	A	C	0.00933072	0.00174566	2.50E-41	0.0400913	0.0353477	0.256711	181
rs9389857	6	141372966	T	C	-0.023505	0.00346457	1.10E-08	0.103333	0.0999824	0.301362	33
rs9568867	13	54107352	A	G	0.0198061	0.00231898	7.30E-17	-0.0794253	0.0502723	0.114129	70
rs957919	3	131629716	T	C	0.0193443	0.00171911	6.40E-16	0.0552602	0.0394594	0.161384	65
rs972283	7	130466854	G	A	0.0138914	0.00154037	1.50E-20	-0.00227726	0.0349912	0.94811	86
rs9788550	14	29681138	C	G	-0.0143133	0.00179488	1.10E-18	-0.0109859	0.0367522	0.765003	78
rs9788550	14	29681138	C	G	-0.0158356	0.00179488	1.10E-18	-0.0109859	0.0367522	0.765003	78

rs9814758	3	123062657	G	T	-0.0136044	0.00161607	3.80E-17	0.0326522	0.037556	0.384614	71
rs9843653	3	49920571	C	T	0.0167794	0.00154077	1.30E-27	-0.083013	0.0357148	0.0201081	119
rs9865173	3	44016658	A	T	-0.0120222	0.00168776	1.10E-12	-0.0184533	0.0354321	0.6025	51
rs9892466	17	3969527	A	T	0.0100634	0.00163774	8.00E-10	0.0764299	0.0378384	0.043394	38
rs9955276	18	1839339	T	C	0.0127569	0.00220651	7.40E-09	-0.0229608	0.0462708	0.619735	33

14 **Note.** Chr, chromosome; Beta, beta-coefficient; F, F-statistic; OCD, Obsessive-compulsive disorder; SE, standard error.

15 **Supplementary Table S5** The respective causal relations between body fat mass, body  
 16 fat-free mass, body fat rate, and obsessive-compulsive disorder

Exposure variable	Method	No. of SNPs	OR	95% CI	P	P-het	P-intercept	P-global
Body fat mass	MR Egger	396	0.602	(0.295, 1.227)	0.163		0.720	
	Weighted median	396	0.633	(0.438, 0.915)	<b>0.015</b>			
	IVW	396	0.680	(0.528, 0.875)	<b>0.003</b>	<b>&lt; 0.001</b>		
	Simple mode	396	0.883	(0.260, 2.996)	0.841			
	Weighted mode	396	0.608	(0.199, 1.861)	0.384			
	MR-PRESSO	396	0.680	(0.528, 0.875)	<b>0.003</b>			<b>&lt; 0.001</b>
Fat-free mass	MR Egger	512	0.426	(0.216, 0.840)	<b>0.014</b>		<b>0.041</b>	
	Weighted median	512	0.728	(0.468, 1.131)	0.158			
	IVW	512	0.810	(0.606, 1.082)	0.154	<b>0.003</b>		
	Simple mode	512	0.375	(0.085, 1.650)	0.195			
	Weighted mode	512	0.481	(0.146, 1.581)	0.228			
	MR-PRESSO	512	0.810	(0.606, 1.082)	0.154			<b>0.003</b>
Body fat rate	MR Egger	367	1.043	(0.346, 3.147)	0.940		0.360	
	Weighted median	367	0.732	(0.454, 1.180)	0.200			
	IVW	367	0.638	(0.455, 0.896)	<b>0.009</b>	<b>0.002</b>		
	Simple mode	367	3.778	(0.657, 21.703)	0.137			
	Weighted mode	367	3.075	(0.792, 11.933)	0.105			
	MR-PRESSO	367	0.638	(0.455, 0.896)	<b>0.009</b>			<b>0.002</b>

17 **Note.** SNP, single nucleotide polymorphism; OR, odds Ratio; CI, confidence interval; P-het, P  
 18 value for heterogeneity using Cochran's Q test; P-intercept, P value for MR-Egger intercept; P-global,  
 19 P value for MR-PRESSO global test. PRESSO, pleiotropy residual sum and outlier; IVW, inverse  
 20 variance weighted.

21 **Supplementary Table S6** The respective causal relations between body fat mass, body  
22 fat-free mass, body fat rate, and obsessive-compulsive disorder based on the random  
23 effect model

<b>Exposure variable</b>	<b>No of SNPs</b>	<b>OR</b>	<b>95% CI</b>	<b>P</b>
Body fat mass	396	0.680	(0.528, 0.875)	<b>0.003</b>
Fat-free mass	512	0.810	(0.606, 1.082)	0.154
Body fat rate	367	0.638	(0.455, 0.896)	<b>0.009</b>

24 **Note.** SNP, Single nucleotide polymorphism; *OR*, Odds Ratio; *CI*, Confidence interval; *P*: *P* value.

25 **Supplementary Table S7** The respective causal relations between body fat mass, body  
 26 fat-free mass, body fat rate, and obsessive-compulsive disorder after excluding outliers

Exposure variable	Method	No. of SNPs	OR	95% CI	P	P-het	P-intercept
Body fat mass	MR Egger	365	0.903	(0.458, 1.782)	0.769		0.552
	Weighted median	365	0.705	(0.488, 1.019)	0.063		
	IVW	365	0.744	(0.587, 0.942)	0.014	0.991	
	Simple mode	365	0.700	(0.205, 2.396)	0.571		
	Weighted mode	365	0.515	(0.184, 1.438)	0.206		
Fat-free mass	MR Egger	479	0.680	(0.345, 1.341)	0.266		0.193
	Weighted median	479	0.805	(0.518, 1.251)	0.334		
	IVW	479	1.026	(0.775, 1.358)	0.860	0.988	
	Simple mode	479	0.359	(0.096, 1.350)	0.130		
	Weighted mode	479	0.480	(0.181, 1.271)	0.140		
Body fat rate	MR Egger	340	1.292	(0.452, 3.690)	0.632		0.992
	Weighted median	340	0.832	(0.502, 1.377)	0.474		
	IVW	340	0.768	(0.556, 1.059)	0.108	0.307	
	Simple mode	340	4.029	(0.709, 22.882)	0.117		
	Weighted mode	340	2.672	(0.661, 10.806)	0.169		

27 **Note.** SNP, Single nucleotide polymorphism; OR, Odds Ratio; CI, Confidence interval; P-het, P  
 28 value for heterogeneity using Cochran's Q test; P-intercept, P value for MR-Egger intercept; IVW,  
 29 Inverse variance weighted.

30  
31

**Supplementary Table S8** The respective causal relations between body fat mass, body fat-free mass, body fat rate, and obsessive-compulsive disorder

Exposure variable	Outcome Variable	Method	No. of SNPs	OR	95% CI	P	P-het	P-intercept	P-global		
Body fat mass*	OCD	MR Egger	261	0.644	(0.281, 1.476)	0.299		0.778			
		Weighted median	261	0.582	(0.405, 0.838)	<b>0.004</b>					
		IVW	261	0.721	(0.548, 0.949)	<b>0.019</b>	<b>&lt; 0.001</b>				
		Simple mode	261	0.386	(0.106, 1.404)	0.150					
		Weighted mode	261	0.386	(0.120, 1.243)	0.112					
		MR-PRESSO	261	0.721	(0.548, 0.949)	<b>0.019</b>			<b>&lt; 1e-04</b>		
		Random effects model	261	0.721	(0.548, 0.949)	<b>0.019</b>					
		After exclusion of outliers									
		MR Egger	238	0.988	(0.456, 2.142)	0.976			0.570		
		Weighted median	238	0.650	(0.443, 0.953)	<b>0.027</b>					
		IVW	238	0.799	(0.621, 1.028)	0.080	0.974				
		Simple mode	238	0.370	(0.108, 1.270)	0.115					
		Weighted mode	238	0.370	(0.126, 1.087)	0.072					
		Body fat mass	OCD*	MR Egger	356	0.913	(0.450, 1.852)	0.801		0.328	
Weighted median	356			0.685	(0.472, 0.995)	<b>0.047</b>					
IVW	356			0.656	(0.510, 0.845)	<b>0.001</b>	<b>0.001</b>				
Simple mode	356			0.552	(0.169, 1.809)	0.327					
Weighted mode	356			0.952	(0.444, 2.039)	0.898					
MR-PRESSO	356			0.656	(0.510, 0.845)	<b>0.001</b>			<b>0.001</b>		
Random effects model	356			0.656	(0.510, 0.845)	<b>0.001</b>					
After exclusion of outliers											
MR Egger	331			0.985	(0.517, 1.879)	0.964			0.199		
Weighted median	331			0.685	(0.474, 0.991)	<b>0.045</b>					
IVW	331			0.664	(0.524, 0.840)	<b>0.001</b>	0.995				
Simple mode	331			0.552	(0.165, 1.841)	0.334					
Weighted mode	331			0.887	(0.388, 2.026)	0.776					
Body fat mass*	OCD*			MR Egger	356	0.913	(0.450, 1.852)	0.801		0.328	

		Weighted median	356	0.685	(0.470, 0.999)	<b>0.049</b>		
		IVW	356	0.656	(0.510, 0.845)	<b>0.001</b>	<b>0.001</b>	
		Simple mode	356	0.552	(0.170, 1.792)	0.323		
		Weighted mode	356	0.952	(0.419, 2.159)	0.905		
		MR-PRESSO	356	0.656	(0.510, 0.845)	<b>0.001</b>	356	<b>0.001</b>
		Random effects model	356	0.656	(0.510, 0.845)	<b>0.001</b>	356	
		After exclusion of outliers						
		MR Egger	331	0.985	(0.517, 1.879)	0.964		0.199
		Weighted median	331	0.685	(0.475, 0.989)	0.043		
		IVW	331	0.664	(0.524, 0.840)	<b>0.001</b>	0.995	
		Simple mode	331	0.552	(0.162, 1.881)	0.343		
		Weighted mode	331	0.887	(0.394, 1.995)	0.772		
		MR Egger	383	0.494	(0.237, 1.030)	0.061		<b>0.001</b>
		Weighted median	383	0.723	(0.468, 1.115)	0.142		
		IVW	383	0.692	(0.513, 0.935)	<b>0.016</b>	0.324	
		Simple mode	383	0.341	(0.076, 1.530)	0.161		
		Weighted mode	383	1.222	(0.357, 4.175)	0.750		
		MR-PRESSO	383	0.692	(0.513, 0.935)	<b>0.016</b>		<b>0.001</b>
		Random effects model	383	0.692	(0.513, 0.935)	<b>0.016</b>		
		After exclusion of outliers						
		MR Egger	356	0.722	(0.349, 1.493)	0.380		0.592
		Weighted median	356	0.790	(0.514, 1.215)	0.283		
		IVW	356	0.867	(0.651, 1.154)	0.328	0.966	
		Simple mode	356	0.307	(0.075, 1.251)	0.100		
		Weighted mode	356	1.516	(0.565, 4.073)	0.409		
		MR Egger	480	0.860	(0.426, 1.738)	0.675		0.569
		Weighted median	480	0.802	(0.513, 1.253)	0.332		
		IVW	480	0.714	(0.532, 0.959)	<b>0.025</b>	<b>0.002</b>	
		Simple mode	480	0.639	(0.171, 2.388)	0.506		
		Weighted mode	480	0.910	(0.375, 2.208)	0.835		
		MR-PRESSO	480	0.714	(0.532, 0.959)	<b>0.025</b>		<b>0.003</b>
		Random effects model	480	0.714	(0.532, 0.959)	<b>0.025</b>		
		After exclusion of outliers						

Fat-free mass*	OCD*	MR Egger	448	1.351	(0.695, 2.628)	0.376		<b>0.036</b>		
		Weighted median	448	0.808	(0.517, 1,264)	0.350				
		IVW	448	0.708	(0.535, 0.936)	<b>0.015</b>	0.996			
		Simple mode	448	0.650	(0.178, 2.376)	0.515				
		Weighted mode	448	0.902	(0.366, 2.225)	0.824				
		MR Egger	353	1.302	(0.591, 2.868)	0.513		0.164		
		Weighted median	353	0.868	(0.556, 1.356)	0.534				
		IVW	353	0.777	(0.569, 1.061)	0.113	<b>&lt;0.001</b>			
		Simple mode	353	0.707	(0.173, 2.889)	0.630				
		Weighted mode	353	0.960	(0.392, 2.350)	0.929				
		MR-PRESSO	353	0.777	(0.569, 1.061)	0.113		<b>&lt;1e-04</b>		
		Random effects model	353	0.777	(0.569, 1.061)	0.113				
		After exclusion of outliers								
		MR Egger	325	2.700	(1.317, 5.534)	<b>0.007</b>		<b>&lt;0.001</b>		
Weighted median	325	0.848	(0.535, 1.345)	0.484						
IVW	325	0.706	(0.531, 0.939)	<b>0.017</b>	0.948					
Simple mode	325	0.671	(0.185, 2.426)	0.543						
Weighted mode	325	0.933	(0.399, 2.183)	0.873						
Body fat rate*	OCD	MR Egger	242	1.659	(0.438, 6.288)	0.457		0.181		
		Weighted median	242	0.629	(0.374, 1.059)	0.081				
		IVW	242	0.691	(0.478, 0.999)	<b>0.049</b>	<b>0.004</b>			
		Simple mode	242	0.331	(0.059, 1.853)	0.210				
		Weighted mode	242	0.346	(0.070, 1.707)	0.194				
		MR-PRESSO	242	0.691	(0.478, 0.999)	<b>0.049</b>		<b>0.004</b>		
		Random effects model	242	0.691	(0.478, 0.999)	<b>0.049</b>				
		After exclusion of outliers								
		MR Egger	224	1.815	(0.519, 6.340)	0.352		0.130		
		Weighted median	224	0.659	(0.396, 1.096)	0.108				
		IVW	224	0.714	(0.505, 1.010)	0.057	0.954			
		Simple mode	224	0.311	(0.063, 1.529)	0.152				
		Weighted mode	224	0.311	(0.080, 1.213)	0.094				
		Body fat rate	OCD*	MR Egger	329	1.742	(0.628, 4.834)	0.287		<b>0.010</b>
Weighted median	329			0.497	(0.312, 0.793)	<b>0.003</b>				

		IVW	329	0.487	(0.353, 0.672)	<b>&lt;0.001</b>	0.114	
		Simple mode	329	0.253	(0.054, 1.179)	0.081		
		Weighted mode	329	0.389	(0.098, 1.543)	0.180		
		MR-PRESSO	329	0.487	(0.353, 0.672)	<b>&lt;0.001</b>		0.113
		Random effects model	329	0.487	(0.353, 0.672)	<b>&lt;0.001</b>		
		After exclusion of outliers						
		MR Egger	309	2.042	(0.745, 5.593)	0.166		<b>0.001</b>
		Weighted median	309	0.492	(0.305, 0.792)	<b>0.004</b>		
		IVW	309	0.426	(0.310, 0.585)	<b>&lt;0.001</b>	0.994	
		Simple mode	309	0.259	(0.053, 1.263)	0.096		
		Weighted mode	309	0.373	(0.109, 1.275)	0.117		
		MR Egger	226	1.457	(0.423, 5.018)	0.551		0.070
		Weighted median	226	0.613	(0.374, 1.006)	0.053		
		IVW	226	0.483	(0.340, 0.686)	<b>&lt;0.001</b>	0.093	
		Simple mode	226	0.255	(0.047, 1.368)	0.112		
		Weighted mode	226	0.658	(0.139, 3.103)	0.597		
		MR-PRESSO	226	0.483	(0.340, 0.686)	<b>&lt;0.001</b>		0.092
		Random effects model	226	0.483	(0.340, 0.686)	<b>&lt;0.001</b>		

Body fat rate\*

OCD\*

32 **Note.** \* A distinct source of information was utilized compared to the one used in the primary analysis. SNP, Single nucleotide polymorphism; OR,  
33 Odds Ratio; CI, Confidence interval; P-het, P value for heterogeneity using Cochran's Q test; P-intercept, P value for MR-Egger intercept; P-global, P value  
34 for MR-PRESSO global test. PRESSO, Pleiotropy residual sum and outlier; IVW, Inverse variance weighted.  
35

36 **Supplementary Table S9** The respective causal relations between body fat mass, body fat-free mass, body fat rate, and obsessive-  
 37 compulsive disorder after excluding SNPs associated with education ( $P < 5 \times 10^{-8}$ )

Exposure variable	Method	Excluding SNPs <sup>a</sup>	No. of SNPs	OR (95% CI)	P
Body fat mass	MR Egger		395	0.596 (0.292, 1.217)	0.156
	Weighted median		395	0.633 (0.438, 0.916)	<b>0.015</b>
	Inverse variance weighted	rs11245344	395	0.682 (0.530, 0.878)	<b>0.003</b>
	Simple mode		395	0.883 (0.235, 3.316)	0.854
	Weighted mode		395	0.609 (0.199, 1.864)	0.385
Fat-free mass	MR Egger		512	0.426 (0.216, 0.840)	<b>0.014</b>
	Weighted median		512	0.728 (0.469, 1.130)	0.157
	Inverse variance weighted	rs4887925	512	0.810 (0.606, 1.082)	0.154
	Simple mode		512	0.375 (0.081, 1.743)	0.211
	Weighted mode		512	0.481 (0.141, 1.642)	0.243
Body fat rate	MR Egger		366	1.025 (0.339, 3.098)	0.966
	Weighted median		366	0.744 (0.450, 1.229)	0.248
	Inverse variance weighted	rs11245344	366	0.641 (0.457, 0.901)	<b>0.010</b>
	Simple mode		366	3.767 (0.711, 19.966)	0.120
	Weighted mode		366	3.066 (0.780, 12.057)	0.110

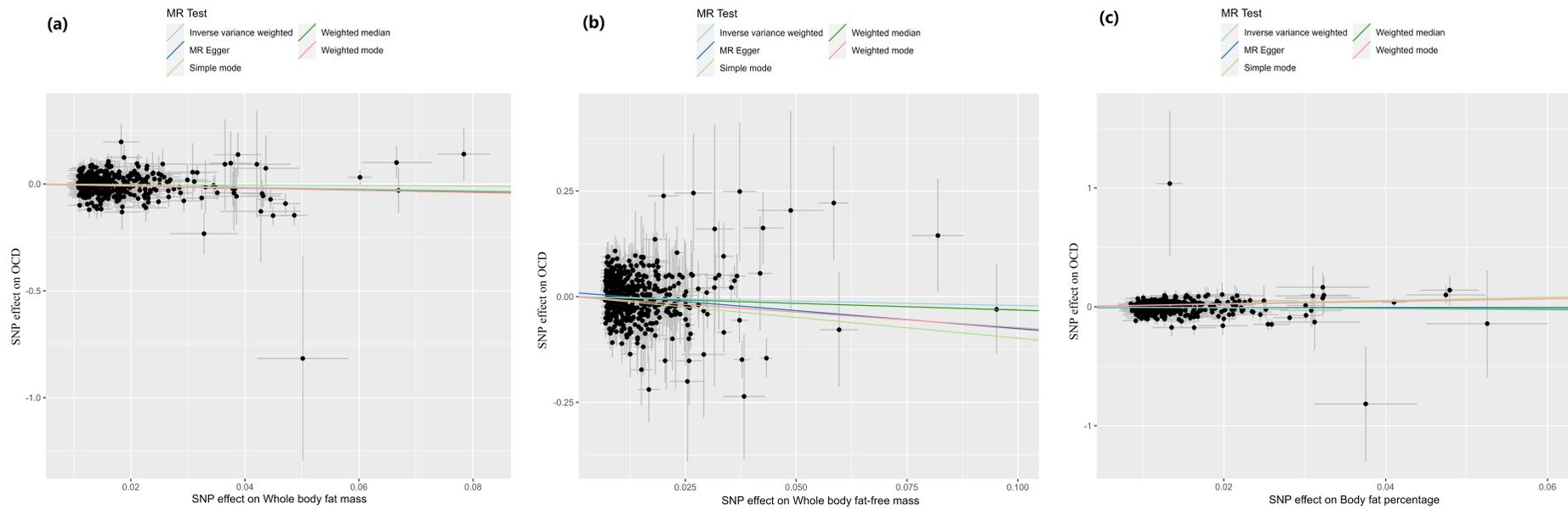
38 **Note.** <sup>a</sup>, The SNPs were strongly associated with the education variable. SNP, Single nucleotide polymorphism; OR, Odds Ratio; CI, Confidence  
 39 interval.

40

**Supplementary Table S10** The respective causal relations between obsessive-compulsive disorder and body fat mass

<b>Method</b>	<b>No. of SNPs</b>	<b>OR</b>	<b>95% CI</b>	<b>P</b>	<b>P-het</b>	<b>P-intercept</b>
MR Egger	15	1.004	(0.982, 1.028)	0.720		0.288
Weighted median	15	0.991	(0.983, 0.999)	0.026		
IVW	15	0.992	(0.986, 0.998)	0.010	0.354	
Simple mode	15	0.987	(0.974, 1.002)	0.105		
Weighted mode	15	0.989	(0.974, 1.003)	0.145		

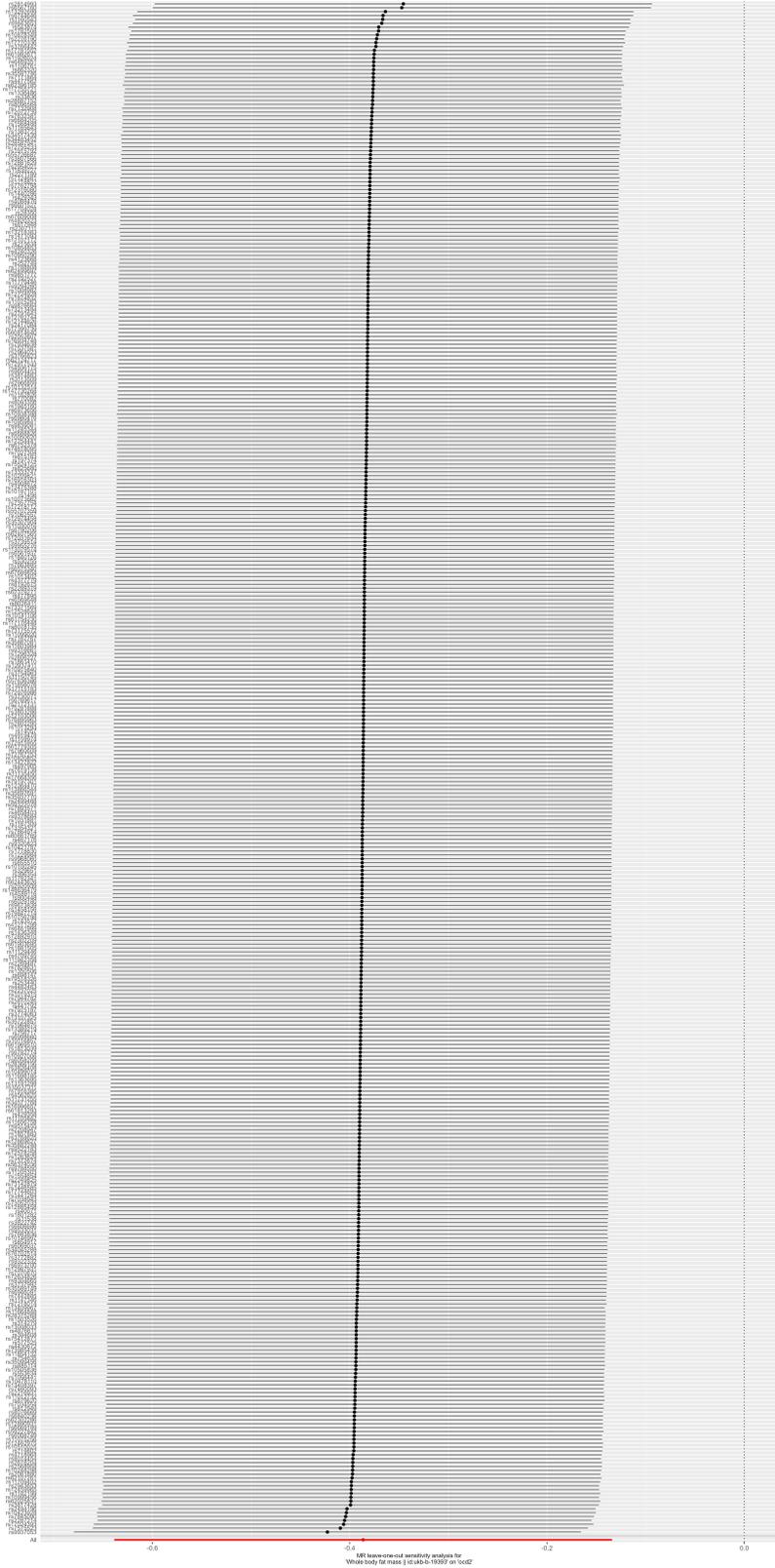
41 **Note.** SNP, Single nucleotide polymorphism; *OR*, Odds Ratio; *CI*, Confidence interval. *P*-het, *P* value for heterogeneity using Cochran's Q test; *P*-  
 42 intercept, *P* value for MR-Egger intercept.



43

44 **Supplementary Figure S1** Scatter plot of the causal effects of (a) body fat mass, (b) fat-free mass, and (c) body fat percentage on obsessive-

45 compulsive disorder. IV, instrumental variable; SE, standard error.

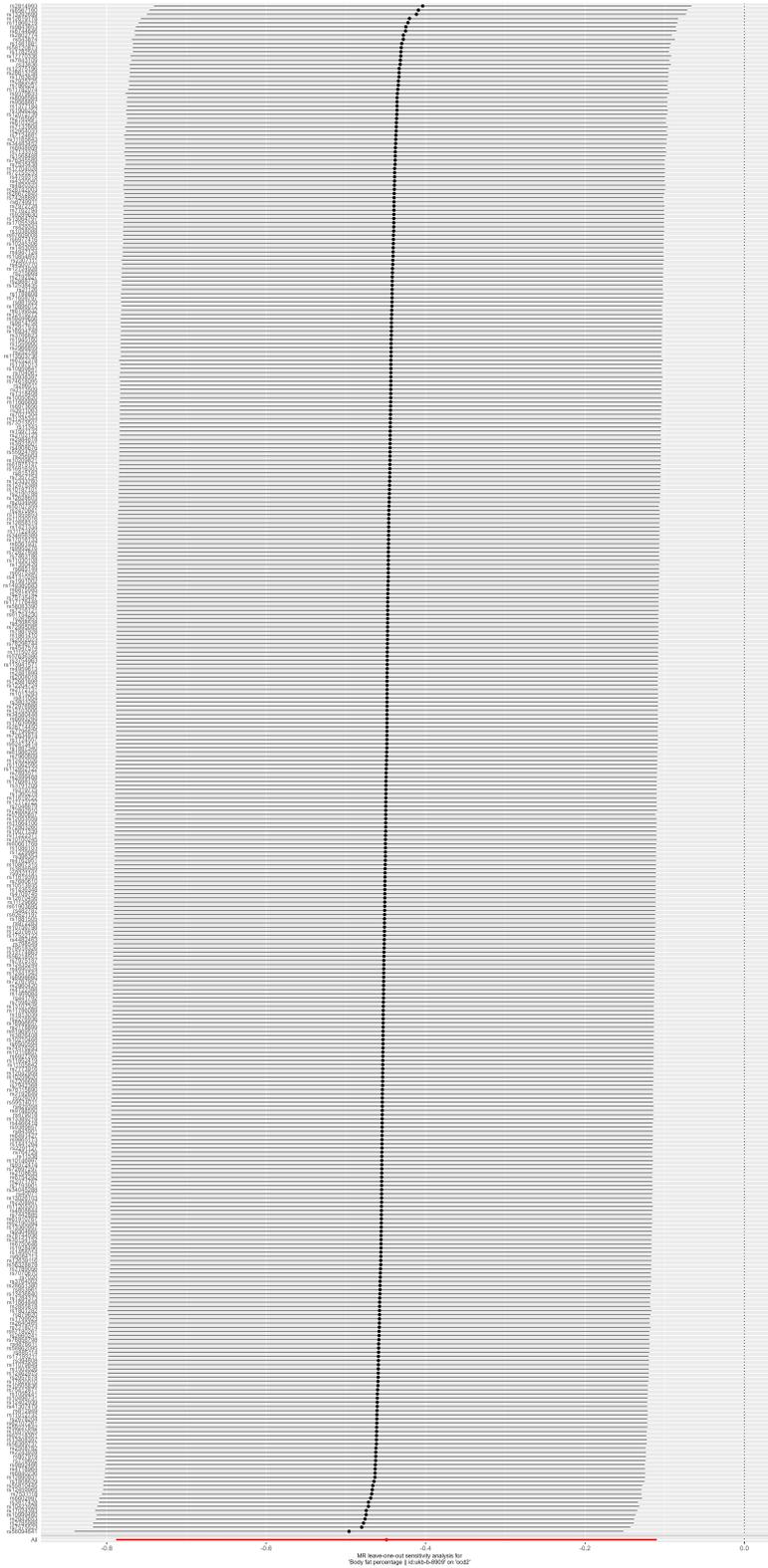


46

47 **Supplementary Figure S2** The leave-one-out test of body fat mass and obsessive-

48 compulsive disorder. SNP, single nucleotide polymorphism; OCD, obsessive-compulsive

49 disorder.

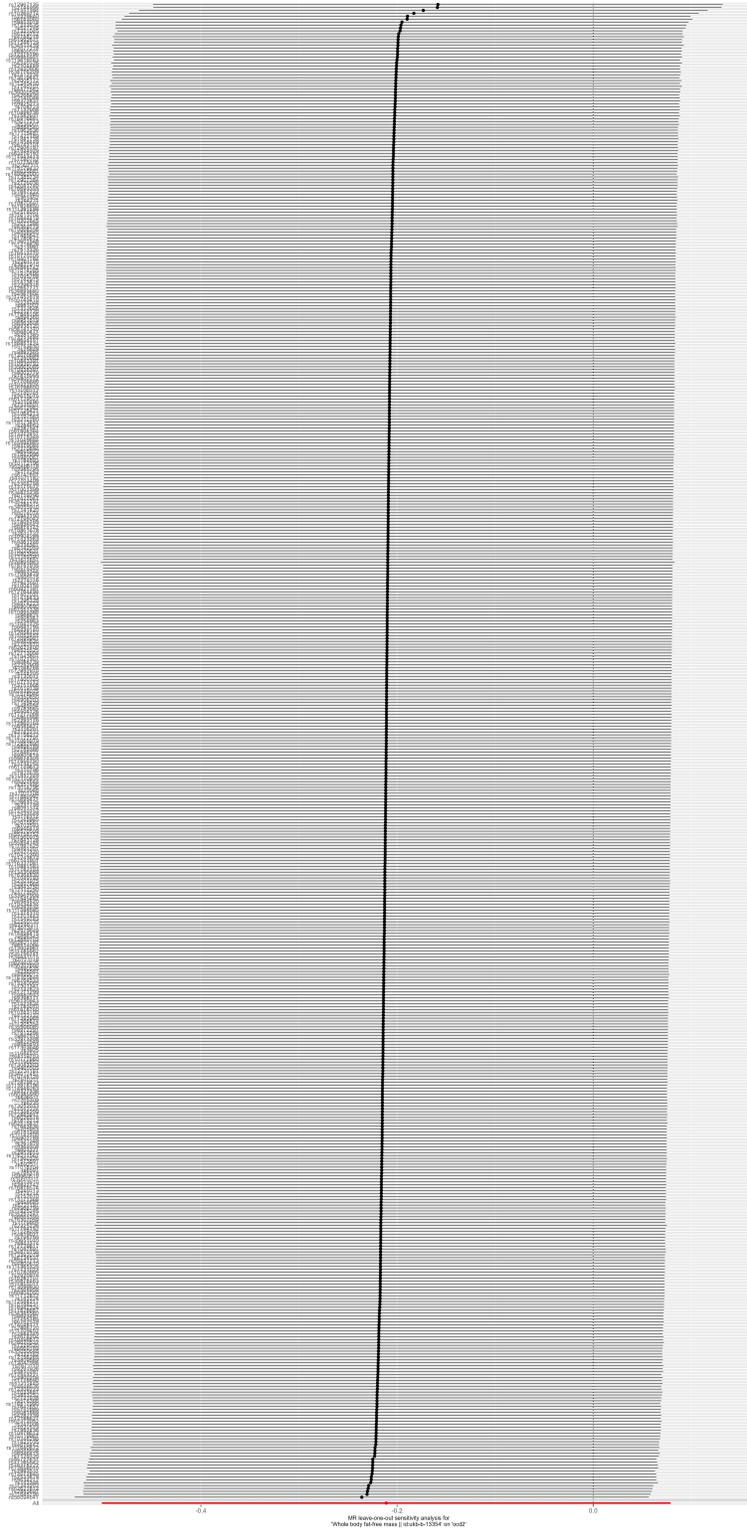


50

51 **Supplementary Figure S3** Leave-one-out test for body fat-free mass and obsessive-

52 compulsive disorder. SNP, single nucleotide polymorphism; OCD, obsessive-compulsive

53 disorder.



54

55 **Supplementary Figure S4** Leave-one-out test of body fat percentage and obsessive-

56 compulsive disorder. SNP, single nucleotide polymorphism; OCD, obsessive-compulsive disorder.

57 *Supplementary materials*

Filename	Description
<b>Table S1.docx</b>	<p><a href="#">Table S1: STROBE-MR checklist of recommended items to address in reports of Mendelian randomization studies.</a></p> <p>This table presents the STROBE-MR checklist, which outlines the recommended items that should be included in reports of Mendelian randomization studies, including the detailed MR checklist items, pages, and relevant text from manuscript.</p>
<b>Table S2.docx</b>	<p><a href="#">Table S2: Effect estimate of the association between genetically predicted body fat and risk of obsessive-compulsive disorder.</a></p> <p>This table includes detailed information about the instrumental variables used in the analysis. It provides information on SNP loci, their associations with fat mass, their associations with obsessive-compulsive disorder, and the F-statistics, which are used to assess the strength of the instruments.</p>
<b>Table S3.docx</b>	<p><a href="#">Table S3: Effect estimate of the association between genetically predicted body fat-free mass and risk of obsessive-compulsive disorder.</a></p> <p>This table includes detailed information about the instrumental variables used in the analysis. It provides information on SNP loci, their associations with fat-free mass, their associations with obsessive-compulsive disorder, and the F-statistics, which are used to assess the strength of the instruments.</p>
<b>Table S4.docx</b>	<p><a href="#">Table S4: Effect estimate of the association between genetically predicted body fat percentage and risk of obsessive-compulsive disorder.</a></p> <p>This table includes detailed information about the instrumental variables used in the analysis. It provides information on SNP loci, their associations with body fat percentage, their associations with obsessive-compulsive disorder, and the F-statistics, which are used to assess the strength of the instruments.</p>
<b>Table S5.docx</b>	<p><a href="#">Table S5: The respective causal relations between body fat mass, body fat-free mass, body fat percentage, and obsessive-compulsive disorder.</a></p> <p>This table presents the results of sensitivity analyses for the causal relationships between body fat mass, body fat-free mass, body fat percentage, and obsessive-compulsive disorder. It includes the results of two-sample Mendelian randomization analyses using MR Egger, Weighted median, Inverse Variance Weighted (IVW), Simple mode, and Weighted mode methods. Additionally, the table provides the results of MR pleiotropy residual sum and outlier (MR-PRESSO) tests, heterogeneity tests, and pleiotropic tests to evaluate the robustness and validity of the findings.</p>

<b>Table S6.docx</b>	<p><a href="#">Table S6: The respective causal relations between body fat mass, body fat-free mass, body fat percentage, and obsessive-compulsive disorder based on the random effect model.</a></p> <p>This table presents the results of sensitivity analyses using a random effect model to investigate the causal relationships between body fat mass, body fat-free mass, body fat percentage, and obsessive-compulsive disorder.</p>
<b>Table S7.docx</b>	<p><a href="#">Table S7: The respective causal relations between body fat mass, body fat-free mass, body fat percentage, and obsessive-compulsive disorder after excluding outliers.</a></p> <p>This table presents the two-sample Mendelian randomization results after excluding outliers identified by the MR radial method.</p>
<b>Table S8.docx</b>	<p><a href="#">Table S8: The respective causal relations between body fat mass, body fat-free mass, body fat percentage, and obsessive-compulsive disorder.</a></p> <p>This table presents the results of the analyses where the exposure and outcome datasets were replaced to verify the robustness of the primary analyses.</p>
<b>Table S9.docx</b>	<p><a href="#">Table S9: The respective causal relations between body fat mass, body fat-free mass, body fat percentage, and obsessive-compulsive disorder after excluding SNPs associated with education (<math>P &lt; 5 \times 10^{-8}</math>).</a></p> <p>This table presents the results of the causal analyses after excluding SNPs associated with education to test the robustness of the primary findings.</p>
<b>Table S10.docx</b>	<p><a href="#">Tables S10: The respective causal relations between obsessive-compulsive disorder and body fat mass.</a></p> <p>This table presents the two-sample Mendelian randomization results with obsessive-compulsive disorder as the exposure and body fat mass as the outcome.</p>
<b>Supplementary Figures.docx</b>	<p><a href="#">Figure S1: Scatter plot of the causal effects of (a) body fat mass, (b) fat-free mass, and (c) body fat percentage on obsessive-compulsive disorder.</a></p> <p>This figure presents scatter plots illustrating the causal effects using five different methods (represented by different colours). Each point in the plot represents an instrumental variable (IV), and the lines extending from each point reflect the 95% confidence intervals. The x-axis shows the effect of each SNP on the exposure, while the y-axis indicates the effect of each SNP on the outcome.</p> <p><a href="#">Figure S2 The leave-one-out test of body fat mass and obsessive-compulsive disorder.</a></p> <p>This figure demonstrates the robustness of the causal association</p>

between body fat mass and obsessive-compulsive disorder using leave-one-out sensitivity analysis. Each point represents the causal effect estimate with one SNP removed, allowing for the evaluation of whether the overall association is driven by any single SNP.

[Figure S3 Leave-one-out test for body fat-free mass and obsessive-compulsive disorder.](#)

This figure demonstrates the robustness of the causal association between body fat-free mass and obsessive-compulsive disorder using leave-one-out sensitivity analysis. Each point represents the causal effect estimate with one SNP removed, allowing for the evaluation of whether the overall association is driven by any single SNP.

[Figure S4 Leave-one-out test of body fat percentage and obsessive-compulsive disorder.](#)

This figure demonstrates the robustness of the causal association between body fat percentage and obsessive-compulsive disorder using leave-one-out sensitivity analysis. Each point represents the causal effect estimate with one SNP removed, allowing for the evaluation of whether the overall association is driven by any single SNP.

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