Supplemental Table 1. Baseline association of the minor allele at each single nucleotide polymorphism with percentage of calories from fat, protein and carbohydrate[1].

				Age, sex, study site and population stratification adjusted models	
	Closest gene	Single nucleotide polymorphism	Minor allele	Beta ± SE	P value
Percent fat					
	TNNI3K	rs1514176	G	0.341 ± 0.214	0.111
	INSIG2	rs7566605	C	0.018 ± 0.229	0.937
	PPARG	rs1801282	G[2]	0.243 ± 0.384	0.527
	NISCH-STAB1	rs4687617	G	0.149 ± 0.475	0.754
	BDNF	rs10767664	T[2]	-0.343 ± 0.323	0.289
	BDNF	rs6265	A[2]	-0.216 ± 0.336	0.521
	BDNF	rs1401635	C	-0.220 ± 0.221	0.321
	MTIF3	rs7988412	A	0.068 ± 0.319	0.832
	MAP2K5	rs2241420	A	0.035 ± 0.215	0.870
	SH2B1	rs4788099	G[2]	-0.043 ± 0.220	0.845
	FTO	rs1421085	C	0.522 ± 0.222	0.019[+]
	FTO	rs3751812	A	0.427 ± 0.222	0.054
	FTO	rs9922708	A	0.242 ± 0.217	0.264
	FTO	rs9939609	A	0.323 ± 0.215	0.132
	MC4R	rs17782313	C	-0.029 ± 0.254	0.910
	QPCTL/GIPR	rs11672660	A[2]	0.104 ± 0.320	0.745
Percent protein					
	TNNI3K	rs1514176	G	-0.279 ± 0.089	0.002*
	INSIG2	rs7566605	C	-0.145 ± 0.095	0.126
	PPARG	rs1801282	G[2]	-0.153 ± 0.095	0.108
	NISCH-STAB1	rs4687617	G	0.069 ± 0.209	0.743
	BDNF	rs10767664	T[2]	-0.118 ± 0.137	0.392
	BDNF	rs6265	A[2]	-0.151 ± 0.143	0.293
	BDNF	rs1401635	C	0.044 ± 0.093	0.641
	MTIF3	rs7988412	A	0.056 ± 0.134	0.676
	MAP2K5	rs2241420	A	0.081 ± 0.094	0.390
	SH2B1	rs4788099	G[2]	0.012 ± 0.206	0.953
	FTO	rs1421085	C	-0.148 ± 0.093	0.111
	FTO	rs3751812	A	-0.155 ± 0.092	0.092
	FTO	rs9922708	A	-0.169 ± 0.090	0.061
	FTO	rs9939609	A	-0.153 ± 0.087	0.079

	MC4R	rs17782313	C	0.085 ± 0.102	0.404
	QPCTL/GIPR	rs11672660	A[2]	-0.040 ± 0.131	0.763
Percent carbohydrate					
	TNNI3K	rs1514176	G	-0.007 ± 0.232	0.978
	INSIG2	rs7566605	C	0.202 ± 0.246	0.411
	PPARG	rs1801282	G[2]	0.019 ± 0.406	0.962
	NISCH-STAB1	rs4687617	G	-0.235 ± 0.530	0.658
	BDNF	rs10767664	T[2]	0.308 ± 0.357	0.389
	BDNF	rs6265	A[2]	0.243 ± 0.371	0.513
	BDNF	rs1401635	C	0.227 ± 0.245	0.354
	MTIF3	rs7988412	A	0.030 ± 0.354	0.932
	MAP2K5	rs2241420	A	-0.094 ± 0.246	0.702
	SH2B1	rs4788099	G[2]	0.080 ± 0.243	0.742
	FTO	rs1421085	C	-0.349 ± 0.241	0.147
	FTO	rs3751812	A	-0.261 ± 0.240	0.276
	FTO	rs9922708	A	-0.065 ± 0.233	0.778
	FTO	rs9939609	A	-0.127 ± 0.234	0.587
	MC4R	rs17782313	C	0.009 ± 0.282	0.974
	QPCTL/GIPR	rs11672660	A[2]	-0.092 ± 0.353	0.794

[1]All analyses were conducted with multivariable linear regression with statistical covariates listed in the table (N = 2075).
[2]As the marker minor allele frequency (MAF) fell below 20%, the rare genotype was combined with the intermediate genotype.
*Statistical significance after correction for multiple comparisons, or p <= 0.004.
[+]P values of nominal significance.
SE: standard error

Supplemental Table 2. Baseline association of the minor allele at each single nucleotide polymorphism with number of serving within each pyramid food group[1].

				Age, sex, study site and population stratification adjusted models		Age, sex, study site, population stratification and total caloric intake adjusted models	
	Closest gene	Single nucleotide polymorphism	Minor allele	Beta ± SE	P value	Beta ± SE	P value
PFG1: Breads, cereal, rice, pasta							
	TNNI3K	rs1514176	G	0.083 ± 0.052	0.110	0.011 ± 0.030	0.712
	INSIG2	rs7566605	C	-0.057 ± 0.056	0.308	-0.024 ± 0.033	0.472
	PPARG	rs1801282	G[2]	0.202 ± 0.103	0.050	0.048 ± 0.058	0.403
	NISCH-STAB1	rs4687617	G	0.106 ± 0.120	0.375	-0.031 ± 0.069	0.654
	BDNF	rs10767664	T[2]	-0.168 ± 0.077	0.029[+]	-0.003 ± 0.045	0.944
	BDNF	rs6265	A[2]	-0.178 ± 0.078	0.023[+]	-0.009 ± 0.047	0.850
	BDNF	rs1401635	C	0.004 ± 0.052	0.937	0.044 ± 0.032	0.170
	MTIF3	rs7988412	A	0.047 ± 0.078	0.545	0.042 ± 0.044	0.340
	MAP2K5	rs2241420	A	-0.031 ± 0.056	0.586	-0.044 ± 0.032	0.163
	SH2B1	rs4788099	G[2]	0.000 ± 0.053	0.996	-0.053 ± 0.032	0.095
	FTO	rs1421085	C	0.099 ± 0.055	0.073	0.004 ± 0.031	0.891
	FTO	rs3751812	A	0.102 ± 0.055	0.064	0.009 ± 0.031	0.771
	FTO	rs9922708	A	0.117 ± 0.053	0.028[+]	0.027 ± 0.030	0.377
	FTO	rs9939609	A	0.071 ± 0.053	0.177	-0.001 ± 0.029	0.970
	MC4R	rs17782313	C	0.021 ± 0.058	0.722	-0.008 ± 0.034	0.826
	QPCTL/GIPR	rs11672660	A[2]	-0.035 ± 0.076	0.643	-0.078 ± 0.045	0.080
PFG2: Vegetables							
	TNNI3K	rs1514176	G	0.025 ± 0.048	0.601	-0.015 ± 0.042	0.731
	INSIG2	rs7566605	C	-0.093 ± 0.049	0.059	-0.075 ± 0.044	0.087
	PPARG	rs1801282	G[2]	-0.023 ± 0.089	0.793	-0.109 ± 0.078	0.164
	NISCH-STAB1	rs4687617	G	0.166 ± 0.110	0.134	0.091 ± 0.096	0.344
	BDNF	rs10767664	T[2]	-0.117 ± 0.070	0.095	-0.027 ± 0.062	0.669
	BDNF	rs6265	A[2]	-0.121 ± 0.072	0.093	-0.027 ± 0.064	0.677
	BDNF	rs1401635	C	0.027 ± 0.052	0.596	0.049 ± 0.045	0.272
	MTIF3	rs7988412	A	-0.110 ± 0.069	0.113	-0.113 ± 0.061	0.065
	MAP2K5	rs2241420	A	0.037 ± 0.051	0.471	0.029 ± 0.045	0.514
	SH2B1	rs4788099	G[2]	0.092 ± 0.049	0.058	0.063 ± 0.042	0.133
	FTO	rs1421085	C	0.031 ± 0.049	0.524	-0.021 ± 0.043	0.618
	FTO	rs3751812	A	0.025 ± 0.048	0.604	-0.026 ± 0.043	0.541
	FTO	rs9939609	A	0.018 ± 0.047	0.704	-0.022 ± 0.042	0.598

	FTO	rs9922708	A	-0.006 ± 0.048	0.893	-0.056 ± 0.043	0.185
	MC4R	rs17782313	C	0.022 ± 0.053	0.682	0.006 ± 0.045	0.893
	QPCTL/GIPR	rs11672660	A^2	0.042 ± 0.071	0.558	0.018 ± 0.061	0.768
PFG3: Fruits							
	TNNI3K	rs1514176	G	0.022 ± 0.044	0.620	-0.003 ± 0.042	0.938
	INSIG2	rs7566605	C	-0.041 ± 0.046	0.375	-0.029 ± 0.043	0.497
	PPARG	rs1801282	G^2	0.117 ± 0.084	0.163	0.063 ± 0.080	0.428
	NISCH-STAB1	rs4687617	G	0.033 ± 0.095	0.727	-0.013 ± 0.091	0.886
	BDNF	rs10767664	T^2	0.041 ± 0.065	0.529	0.098 ± 0.062	0.115
	BDNF	rs6265	A^2	0.005 ± 0.065	0.938	0.064 ± 0.062	0.301
	BDNF	rs1401635	C	-0.060 ± 0.045	0.178	-0.046 ± 0.042	0.274
	MTIF3	rs7988412	A	0.030 ± 0.067	0.651	0.028 ± 0.063	0.654
	MAP2K5	rs2241420	A	-0.059 ± 0.044	0.180	-0.064 ± 0.041	0.123
	SH2B1	rs4788099	G^2	0.061 ± 0.043	0.158	0.042 ± 0.041	0.297
	FTO	rs1421085	C	-0.030 ± 0.044	0.500	-0.063 ± 0.042	0.131
	FTO	rs3751812	A	-0.024 ± 0.043	0.570	-0.057 ± 0.041	0.165
	FTO	rs9922708	A	-0.009 ± 0.043	0.827	-0.041 ± 0.041	0.319
	FTO	rs9939609	A	-0.012 ± 0.044	0.780	-0.037 ± 0.042	0.373
	MC4R	rs17782313	C	0.037 ± 0.048	0.440	0.027 ± 0.046	0.550
	QPCTL/GIPR	rs11672660	A^2	0.068 ± 0.068	0.322	0.053 ± 0.064	0.410
PFG4: Dairy							
	TNNI3K	rs1514176	G	0.007 ± 0.047	0.882	-0.037 ± 0.040	0.352
	INSIG2	rs7566605	C	0.044 ± 0.053	0.408	0.064 ± 0.045	0.156
	PPARG	rs1801282	G^2	0.144 ± 0.100	0.148	0.049 ± 0.081	0.548
	NISCH-STAB1	rs4687617	G	-0.054 ± 0.107	0.617	-0.138 ± 0.091	0.131
	BDNF	rs10767664	T^2	-0.226 ± 0.075	0.003*	-0.124 ± 0.065	0.055
	BDNF	rs6265	A^2	-0.210 ± 0.078	0.007^+	-0.106 ± 0.067	0.115
	BDNF	rs1401635	C	-0.052 ± 0.053	0.325	-0.027 ± 0.045	0.544
	MTIF3	rs7988412	A	0.058 ± 0.076	0.447	0.054 ± 0.063	0.392
	MAP2K5	rs2241420	A	-0.014 ± 0.049	0.776	-0.022 ± 0.042	0.596
	SH2B1	rs4788099	G^2	0.165 ± 0.051	0.001*	0.132 ± 0.043	0.002*
	FTO	rs1421085	C	0.053 ± 0.053	0.316	-0.006 ± 0.046	0.893
	FTO	rs3751812	A	0.052 ± 0.053	0.327	-0.006 ± 0.046	0.901
	FTO	rs9939609	A	0.041 ± 0.050	0.422	-0.004 ± 0.044	0.923
	FTO	rs9922708	A	0.068 ± 0.050	0.175	0.012 ± 0.044	0.784
	MC4R	rs17782313	C	0.009 ± 0.059	0.877	-0.008 ± 0.050	0.868
	QPCTL/GIPR	rs11672660	A^2	0.100 ± 0.076	0.187	0.073 ± 0.063	0.247
PFG5: Meat, eggs, nuts, beans							

	TNNI3K	rs1514176	G	0.027 ± 0.044	0.538	-0.033 ± 0.028	0.244
	INSIG2	rs7566605	C	-0.079 ± 0.047	0.089	-0.052 ± 0.029	0.077
	PPARG	rs1801282	G[2]	0.055 ± 0.091	0.544	-0.074 ± 0.056	0.186
	NISCH-STAB1	rs4687617	G	0.185 ± 0.105	0.078	0.072 ± 0.068	0.292
	BDNF	rs10767664	T[2]	-0.154 ± 0.067	0.021[+]	-0.016 ± 0.045	0.717
	BDNF	rs6265	A[2]	-0.185 ± 0.065	0.004*	-0.043 ± 0.044	0.324
	BDNF	rs1401635	C	-0.016 ± 0.046	0.730	0.017 ± 0.031	0.568
	MTIF3	rs7988412	A	-0.027 ± 0.068	0.693	-0.031 ± 0.043	0.464
	MAP2K5	rs2241420	A	0.029 ± 0.049	0.562	0.018 ± 0.032	0.585
	SH2B1	rs4788099	G[2]	0.021 ± 0.046	0.647	-0.024 ± 0.030	0.426
	FTO	rs1421085	C	0.080 ± 0.048	0.093	0.001 ± 0.031	0.978
	FTO	rs3751812	A	0.071 ± 0.047	0.136	-0.007 ± 0.031	0.824
	FTO	rs9922708	A	0.055 ± 0.046	0.230	-0.020 ± 0.029	0.492
	FTO	rs9939609	A	0.070 ± 0.050	0.161	0.010 ± 0.031	0.756
	MC4R	rs17782313	C	0.032 ± 0.053	0.549	0.008 ± 0.034	0.814
	QPCTL/GIPR	rs11672660	A[2]	0.048 ± 0.066	0.471	0.012 ± 0.042	0.780
PFG6: Sweets and fats							
	TNNI3K	rs1514176	G	0.120 ± 0.052	0.022[+]	0.058 ± 0.039	0.140
	INSIG2	rs7566605	C	0.030 ± 0.058	0.600	0.059 ± 0.043	0.170
	PPARG	rs1801282	G[2]	0.206 ± 0.109	0.058	0.073 ± 0.080	0.363
	NISCH-STAB1	rs4687617	G	0.011 ± 0.126	0.930	-0.105 ± 0.104	0.314
	BDNF	rs10767664	T[2]	-0.171 ± 0.083	0.039[+]	-0.028 ± 0.062	0.645
	BDNF	rs6265	A[2]	-0.169 ± 0.085	0.048[+]	-0.022 ± 0.064	0.732
	BDNF	rs1401635	C	-0.074 ± 0.055	0.177	-0.040 ± 0.041	0.339
	MTIF3	rs7988412	A	0.057 ± 0.082	0.485	0.053 ± 0.061	0.390
	MAP2K5	rs2241420	A	-0.020 ± 0.056	0.720	-0.032 ± 0.044	0.467
	SH2B1	rs4788099	G[2]	0.085 ± 0.056	0.132	0.038 ± 0.042	0.358
	FTO	rs1421085	C	0.128 ± 0.059	0.032[+]	0.045 ± 0.044	0.309
	FTO	rs3751812	A	0.135 ± 0.060	0.024[+]	0.055 ± 0.045	0.218
	FTO	rs9922708	A	0.139 ± 0.057	0.015[+]	0.061 ± 0.043	0.150
	FTO	rs9939609	A	0.141 ± 0.057	0.014[+]	0.079 ± 0.042	0.060
	MC4R	rs17782313	C	-0.011 ± 0.063	0.868	-0.035 ± 0.047	0.454
	QPCTL/GIPR	rs11672660	A[2]	0.070 ± 0.089	0.431	0.033 ± 0.064	0.609

[1]All analyses were conducted with multivariable linear regression with statistical covariates listed in the table (N = 2075).

[2]As the marker minor allele frequency (MAF) fell below 20%, the rare genotype was combined with the intermediate genotype.

*Statistical significance after correction for multiple comparisons, or p <= 0.004.

[+]P values of nominal significance.

SE: standard error