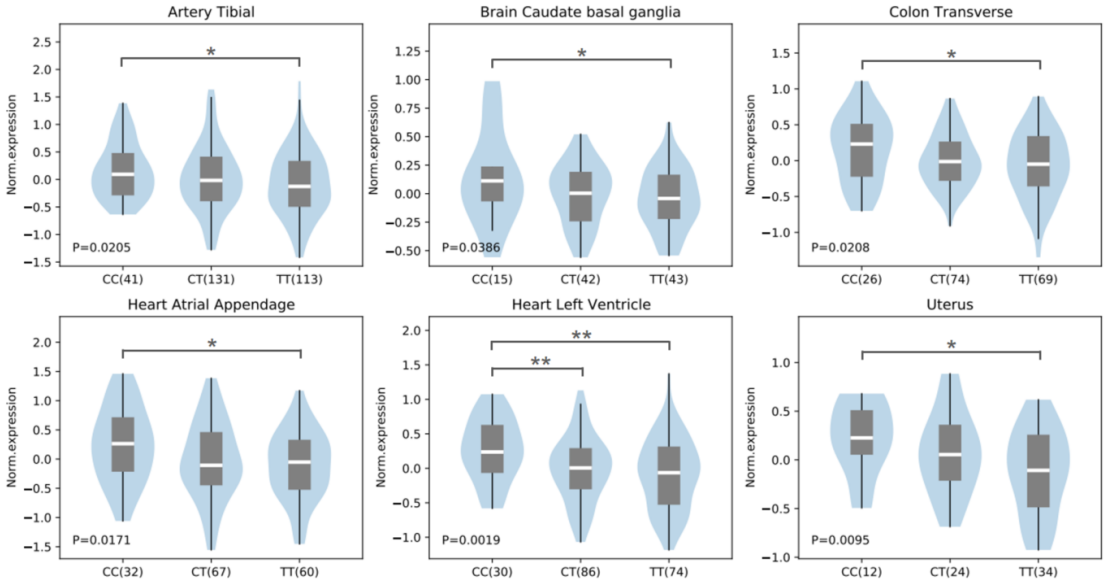
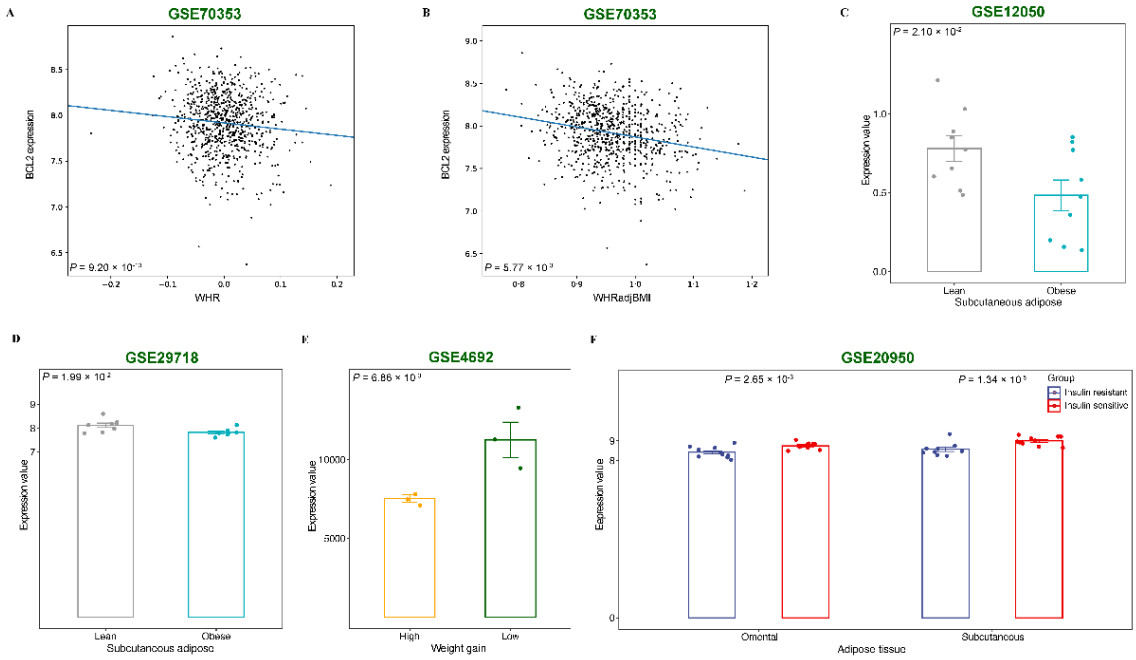


Supplementary Figure S1. Comparison of *BCL2* expression in 6 other tissues from unrelated European subjects with different genotypes (CC, CT, and TT) of rs12454712. The expression quantitative trait locus (eQTL) analysis *P*-values and sample count numbers (n) are shown. **P* < 0.05, ***P* < 0.01.



Supplementary Figure S2. *BCL2* expression in adipose tissue negatively correlated with obesity. Pearson analysis for *BCL2* expression and WHR (A) / WHRadjBMI (B) using gene expression data of subcutaneous adipose tissues from 770 male human subjects. C and D: Differential expression analysis of *BCL2* in subcutaneous adipose tissues from obese and lean human subjects. E: Differential expression analysis of *BCL2* in pooled inguinal fat of male C57BL/6J mice exhibiting high or low weight gain after 4 weeks on a high saturated fat diet. F: Differential expression analysis of *BCL2* in omental and subcutaneous adipose tissue samples obtained from insulin-sensitive obese and insulin-resistant obese patients.

Supplementary Table S1. Primer information for experiments in this study.

Experiments	**Target name**	**Primers**	
		Forward	**Reverse**
Luciferase plasmid construction	Enhancer (rs12454712)	GGTACCGGGCTGAGAATCTCCCAAAC (*Kpn*I)	GCTAGCCCGTAGGAATGAGGATGAGA (*Nhe*I)
	Promoter (*BCL2*)	GTCGACTCCTGTGCAGAGAACTTACT (*Sal*I)	GGATCCCTTTTCCAGCCCTTGTTTTC(*BamH*I)
	Enhancer + Promoter	GGTACCGGGCTGAGAATCTCCCAAAC (*Kpn*I)	GGATCCCTTTTCCAGCCCTTGTTTTC(*BamH*I)
	Site-directed mutagenesis	CACTTGGGtCTGATGGATGTTGCAACACCAAG	TCCATCAGaCCCAAGTGAGTCTGGGGCTCCTC
CRISPR-Cas9	Upstream-sgRNA	ACCGAGGAGCCCCAGACTCACTT	TAACAAGTGAGTCTGGGGCTCCT
	Downstream-sgRNA	ACCGATTTCACAACAAAGCAGGG	TAACCCCTGCTTTGTTGTGAAAT
	Nest-PCR-upstream	CACGTGCACACCTCCAAAAG	GAAGCAGAGAGCAAGCCAGA
	Inner-PCR-upstream	AAAGCACTCCGAGATGCCAA	GAACCCCTTTCCCTTCCCTG
	Nest-PCR-downstream	AAAGCACTCCGAGATGCCAA	GGGTGGGTGGACCATTCATT
	Inner-PCR-downstream	ATGTGGGCGAAGGTTCTCAG	GAAGCAGAGAGCAAGCCAGA
shRNA knockdown	ZNF329-sh1	TGCTGTTGACAGTGAGCGAGCCTTACCCAGCTATCCTAAAT AGTGAAGCCACAGATGTA	TCCGAGGCAGTAGGCACGCCTTACCCAGCTATCCTAAATAC ATCTGTGGCTTCACTA
	ZNF329-sh2	TGCTGTTGACAGTGAGCGAACCATTCCATGGAAGTTATTCT AGTGAAGCCACAGATGTA	TCCGAGGCAGTAGGCACACCATTCCATGGAAGTTATTCTAC ATCTGTGGCTTCACTA
	ZNF329-shNC	TGCTGTTGACAGTGAGCGAGTTCTCCGAACGTGTCACGTTA GTGAAGCCACAGATGTA	TCCGAGGCAGTAGGCACGTTCTCCGAACGTGTCACGTTACA TCTGTGGCTTCACTA
	miR-30	CAGAAGGCTCGAGAAGGTATATTGCTGTTGACAGTGAGCG	GTAGCCCCTTGAATTCGTCGACTCCGAGGCAGTAGGCA
ZNF329 over-expression	PCR primer	CTCGAGATGAGATTGAAAATGACGACTCGG(*xho*I)	GGATCCTTATGTTTCCATGGGTTGCTCTC(*BamH*I)
qRT-PCR	*ZNF329*	GGTTGGGACTGTGAGAACCA	GCCTTTTCCACAGGCATCAC
	BCL2	TTCTTGGTGGAGCGTAAGCA	TTTCAACACAGACCCACCCA
	GAPDH	GGAGCGAGATCCCTCCAAAAT	GGCTGTTGTCATACTTCTCATGG

ChIP	T-allele specific	GGGCTGAGAATCTCCCAAAC	GTGTTGCAACATCCATCAGA
	C-allele specific	GGGCTGAGAATCTCCCAAAC	GTGTTGCAACATCCATCAGG
shRNA knockdown	Bcl2-sh1	TGCTGTTGACAGTGAGCGACCACAAGTGAGGTCGACAAAC TAGTGAAGCCACAGATGTA	TCCGAGGCAGTAGGCACCCACAAGTGAGGTCGACAAACTA CATCTGTGGCTTCACTA
	Bcl2-sh2	TGCTGTTGACAGTGAGCGACATGCGACCTCTGTTTGATTTTA GTGAAGCCACAGATGTA	TCCGAGGCAGTAGGCACCATGCGACCTCTGTTTGATTTTAC ATCTGTGGCTTCACTA
	Bcl2-shNC	TGCTGTTGACAGTGAGCGAGTTCTCCGAACGTGTCACGTTA GTGAAGCCACAGATGTA	TCCGAGGCAGTAGGCACGTTCTCCGAACGTGTCACGTTACA TCTGTGGCTTCACTA
qRT-PCR	Bcl2	CCTGTGGATGACTGAGTACCTG	AGCCAGGAGAAATCAAACAGAGG
	Adipoq	GCACTGGCAAGTTCTACTGCAA	GTAGGTGAAGAGAACGGCCTTGT
	C/Ebp-α	ACCGGGTTTCGGGACTTGA	CCCGCAGGAACATCTTTAAGTGA
	Lpl	GAGACTCAGAAAAAGGTCATC	GTCTTCAAAGAACTCAGATGC
	18s	GTTCCGACCATAAACGATGCC	TGGTGGTGCCCTTCCGTCAAT

Abbreviations: ChIP, chromatin immunoprecipitation; miR-30, microRNA 30; qRT-PCR, quantitative real-time PCR; shRNA, small hairpin RNA; sgRNA, single-guided RNA.