

Resveratrol potentiates glucose-stimulated insulin secretion in INS-1E β -cells and human islets through SIRT1 dependent mechanism.

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SUPPORTING INFORMATION

Table S1. Primer sequences for quantitative real-time PCR.

Gene	Species	Sense (5'-3')	Antisense (5'-3')
<i>Tfam</i>	rat	GGG AAG AGC AAA TGG CTG AA	TCA CAC TGC GAC GGA TGA GA
<i>Pgc-1a</i>		TGA CAC AAC GCG GAC AGA AC	CCG CAG ATT TAC GGT GCA TT
<i>ND6</i>		TGG GTG GGA TGT TGG TTG TAT	TCA AGT TTC CGG ATA TTC CTC AGT
<i>Cox1</i>		AGC TGG CTT CGT CCA CTG ATT	GGG CTT TTG CTC ATG TGT CAT
<i>Ucp2</i>		CTT CTG CAC CAC CGT CAT TG	TAC TGG CCC AAG GCA GAG TT
<i>Glut2</i>		TCA GCC AGC CTG TGT ATG CA	TCC ACA AGC AGC ACA GAG ACA
<i>GK</i>		GTG GAT GGC TCC GTG TAC AAG	ACT GTG GGT TGA CGC TTT AG
<i>Insulin</i>		TGC TCA CCC GCG ACC TT	GTT CAT ATG CAC CAC TGG ACT GAA
<i>Pdx-1</i>		CCG CGT TCA TCT CCC TTT C	CTC CTG CCC ACT GGC TTT T
<i>PC</i>		GGCGAATTCCGATGGCAATCTCACCTCTGTGGC	GGC TTG AGG CGA CGG GGC GAA G
<i>TfIIb</i>		GTT CTG CTC CAA CCT TTG CCT	TGT GTA GCT GCC ATC TGC ACT T
<i>Hnf-1a</i>		CCC AGC TGC AGA GCC CCC AC	TGA AGA CCT GCT TGG TGG GCG TGA G
<i>Hnf-4a</i>		TGT AGT CAT TGC CTA GGA GCA GCA C	ATG GGC CAA GTA CAT CCC GGC C
<i>FoxO1</i>		GGC TAG GAG TTA GTG AGC AGG CAA	GGA CTG CTC CTC AGT TCC CGG T
<i>Sirt1</i>		CAG TGT CAT GGT TCC TTT GC	CAC CGA GGA ACT ACC TGA T
<i>TFAM</i>	human	CCC AGA TGC AAA AAC TAC AGA ACT AA	TCC GCC CTA TAA GCA TCT TGA T
<i>PGC-1a</i>		TGG AGT GAC ATT GTG CTG CTC	TCT GGG CAA AGA GGC TGG T
<i>UCP2</i>		CAA GGA TGC CCT CCT GAA AG	TGG CAA GGG AGG TCA TCT GT
<i>GLUT2</i>		TTC CGG AAT CAA TGG CAT TT	TGT TTA CAG CGC CAA CTC CA
<i>GK</i>		TGC ATT TCC ACA CTG TCA GA	CTC CCC ACA CAG GAT GAG TT
<i>Insulin</i>		GCA GCC TTT GTG AAC CAA CA	CGT TCC CCG CAC ACT AGG TA
<i>Pdx-1</i>		GCA CTC CAC CTT GGG ACC T	CTT CCC CGC TGT GTG TGT TA
<i>tubulin</i>		GAG GCT GAC GCA GAA TGC A	TCT GTG GCA ATC CGG TTC A
<i>HNF-1a</i>		AGC GGG AGG TGG TCG ATA C	CAT GGG AGT GCC CTT GTT G
<i>HNF-4a</i>		AGA GGA ACC AGT GCC GCT ACT	CTG GAC GGC TTC CTT CTT CA
<i>FoxO1</i>	CGT CCG TCC GTC CTT CCG TC	AAC TTC GCG GGG CCA TCC AC	

Figure S1

Mitochondria isolated from INS-1E cells were subjected to immunoblotting analysis. The representative immunoblotting shows 3 independent mitochondrial extracts from Control (Ctrl) and resveratrol-treated (RSV) cells with mitochondrial respiratory chain subunits of the 5 complexes (ND6 for complex I, FeS for complex II, COX I for complex IV, core2 for complex III, and α subunit for complex V).

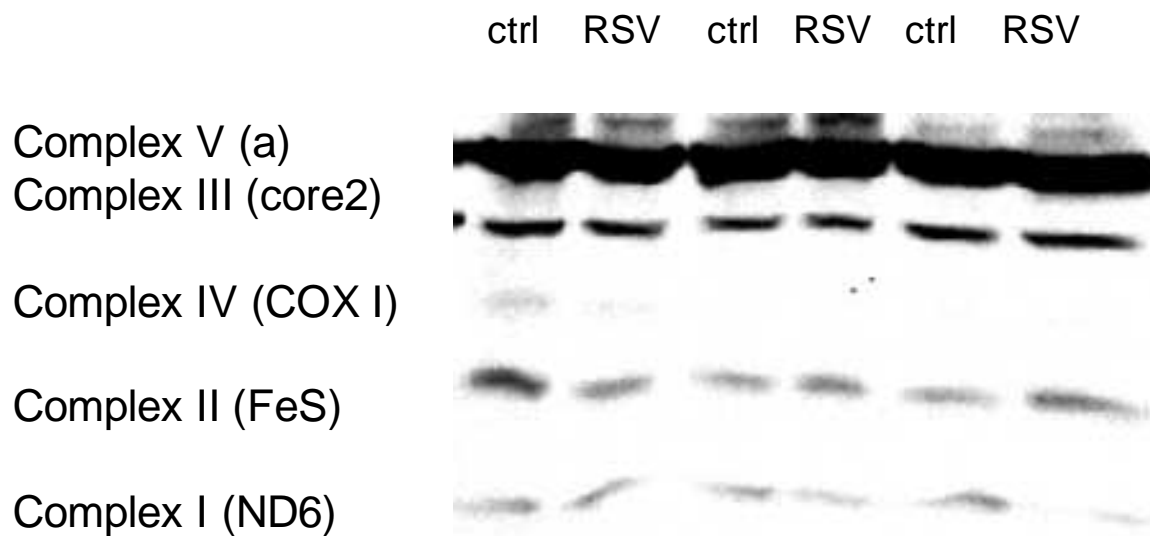


Figure S2

INS-1E cell extracts were analyzed by immunoblotting as described in the Methods section. The representative immunoblotting shows Sirt1 protein levels compared to β -actin.

