SUPPLEMENTARY DATA

Supplementary Table 1. RT-PCR and ChIP oligonucleotides

Name	**Left primer**	**Right primer**
Rat		
β-actin	AACACCCCAGCCATGTACGTAG	GAACCGCTCATTGCCGATAGT
c-Myc	CGAGCTGAAGCGTAGCTTTT	CTCGCCGTTTCCTCAGTAAG
ChREBPcommon	TACTGTTCCCTGCCTGCTC	CTTGGAAACCTTCACCAGG
ChREBPα	TGCATCGATCACAGGTCATT	AGGCTCAAGCATTCGAAGAG
ChREBPβ	TCTGCAGATCGCGCGGAG	CTTGTCCCGGCATAGCAA C
Pklr	GTGGAGCACGGTGGTATCTT	CTTCACGCCTTCATGGTTCT
Txnip	CTGATGGAGGCACAGTGAGA	CTCGGGTGGAGTGCTTAGAG
Hbegf	GACCGATCTGGACCTTTTCA	CCGTGGATGCAGTAGTCCTT
GPDH	ATCAACACGCAACACGAGAA	CCCTTGAGCTGGTCACAGAT
Acaca	CGCTCACCAACAGTAAGGTGG	GCTTGGCAGGGAGTTCCTC
-17130 ChIP	GGGGTACACGGAGAAACCAT	GCCCCTTGTTCCCTAAACTC
-17530 ChIP	CATGGAAGCTGCAGACAAGA	CGGGGGCTTGATGTCTACT
-17300 ChREBPβ Ebox/ChORE ChIP	GCCGCAGAAGGTGATTGG	GCTTTTAGACTGGGGTGTGG
-17200 TSS ChIP	CTAGCAGTCCACACCCCAGT	GACTGGATCCTGGGACCTC
-17100 ChREBPβ ChOREChIP	GAGGTCCCAGGATCCAGTC	ATTTAGGGATGCCCCTCTTC
-16820 ChIP	AAGAGGGGCATCCCTAAATC	CCCTTCACCAGATCACCACT
-15350 ChIP	AACGGGCTCAGAGAAGTCAA	GGGTGCCTACTTGCCTACAA
-12990 ChIP	GCTCTGTAGCTCTGGCTGCT	TTTGCTTGTCTCTGCCTCCT
-8710 ChIP	AGGAAGTGCTGCTCAGTGGT	ACACACCAGAAGAGGGCATC
-5550 ChIP	GCACACGTAGCAGTCAGAGG	CTGAACGTACCGAGGACCAT
-250 ChIP	CCCGAGTGTTGCACTTAACA	GCATAACCAATGAGCCTGGT
Mouse		
ChREBPcommon	CACTCAGGGAATACACGCCTAC	ATCTTGGTCTTAGGGTCTTCAGG
ChREBPα	CGACACTCACCCACCTCTTC	TTGTTCAGCCGGATCTTGTC
ChREBPβ	TCTGCAGATCGCGTGGAG	CTTGTCCCGGCATAGCAAC
-17060 Ebox/ChoRE ChIP	GCGGCAGAAGGTGATTGG	TAGACTGGGGTGTGGACTGC
-16854 ChoRE ChIP	GACCCGAGGTCCCAGGAT	CCTCTGCGAGGCATCTATGT
α-actin ChIP	AGAGCAATAAGCCCACTCCA	AGGGCAGGGTAGAGGATCAG
+ 25,657 Coding Region ChIP	CGTCCCCTTCTCTGTAGACC	GTTGTTGTCTCTGGCAGTGG
Human		
ChREBPcommon	**CTGTCCTGAACTCCCTACGC**	**AGGGAGTGCCCAGAGATGAT**
ChREBPα	**ACTCGGACTCGGACACAGAC**	**AGGCTCAAGCACTCGAAGAG**
ChREBPβ	CTGCAGGTCGAGCGGATT	GTCTGTGTCCGAGTCCGAGT
ACACA	CATGCGGTCTATCCGTAGGT	TGTTGTTGTTTGGTCCTCCA
FAS	AGGCTGCTGTGGAAGGATAA	GCCTTGTCCTGCAGTGTGTA
PKLR	CTGGTGATTGTGGTGACAGG	TGGGCTGGAGAACGTAGACT

All sequences listed are from 5’ to 3’

SUPPLEMENTARY DATA

Supplementary Table 2. EMSA oligonucleotides

	sense	antisense
Ebox-ChoRE EMSA	GCGTTCTCGGCTGCCATCCACGTGTCGAACG	CGTTCGACACGTGGATGGCAGCCGAGAACGC
Mut Ebox-ChoRE EMSA	GCGTTCTCGGCTGCCATCTGGACTTCGAACG	CGTTCGAAGTCCAGATGGCAGCCGAGAACGC
Acaca-ChoRE EMSA	GGTGTCCATGTGAAAACGTCGTGGGCAG	CTGCCCACGACGTTTTCACATGGACACC
Mut Acaca-ChoRE EMSA	GGTGTCCATGTGAAAACGTATGGATCAG	CTGATCCATACGTTTTCACATGGACACC

All sequences listed are from 5’ to 3’

Supplementary Figure 1.

Depletion of ChREBPα abrogates expression of ChREBPβ. An assumption of the relationship between ChREBPα and ChREBPβ is that ChREBPα must be expressed and activated by glucose to activate the ChoRE of ChREBPβ in order to drive expression of ChREBPβ. A prediction of this assumption is that depletion of ChREBPα would block expression of ChREBPβ. INS-1-derived 832/13 cells were treated with siRNA directed against ChREBPα exon 1a for 48 h and then treated with either 2 or 20 mM glucose. Total RNA was collected and subjected to RT-PCR using primers specific for the indicated exons. Depletion of ChREBPα was confirmed in 2 mM glucose since 20 mM glucose decreases its expression in these cells (Figure 1). The siRNA against ChREBPα significantly decreased its target and ChREBP as well as a Pklr, a ChoRE-containing target gene of ChREBP.