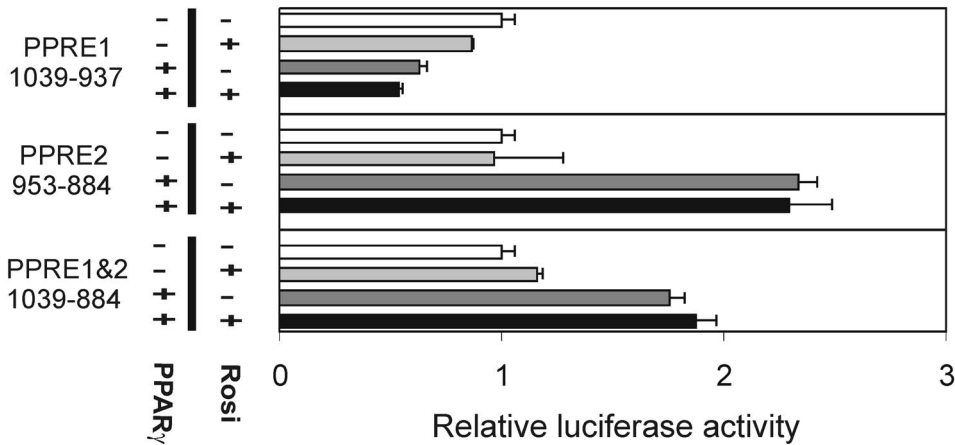


Consensus	DR+1 AGGTCAAAGGTCA
L-FABP	AGGCCATAGGTCA
Acyl-CoA oxidase	AGGACAAAGGTCA
HMG-CoA synthase	GGGCCAAAGGTCT
mouse cGPDH PPRE1 (-976/5' UTR)	aGgTCAAAGGCCA
mouse cGPDH PPRE2 (-926/5' UTR)	AGgTGaAGGGGCA
human Gyk PPRE (-969/ATG)	AGGTCAAAGGGAGA
mouse Gyk PPRE (-945/ATG)	AGGTCAAATGAGA
human mGPDH PPRE (-763/5' UTR exon1A)	AGTTCTCAGGTGA
mouse mGPDH PPRE (-562/5' UTR exon1A)	AGTTCTCAGGTGA
human AQP9 PPRE (-1552/ATG)	TGGTCATAGGTAA
mouse AQP9 PPRE (-1475/ATG)	TGGTCATAGGAAA
human AQP3 PPRE1 (-672/ATG)	AGGGAGAAGGGCC
human AQP3 PPRE2 (-1637/ATG)	AGCATAGAGGGCA
mouse AQP3 PPRE (-613/ATG)	AGGTCAAGGACA

Supplementary figure 1

In silico identification of potential PPREs within promoter of genes regulated by PPAR α and PPAR γ . Sequences corresponding to the human and mouse promoters were accessed via the Ensembl Genome Browser (<http://www.ensembl.org/>). Identification of the putatives PPREs was performed using NUBISCAN algorithm (<http://www.nubiscan.unibas.ch/>). With the exception of cytosolic GPDH for which the trancription initiation start has been extensively described and in order to prevent any ambiguity, the PPREs are indicated in relation to the translation start site (ATG). The mouse and human mitochondrial GPDH gene contain a conserved PPRE in the promoter A. Given that this promoter is located 29 Kb upstream of the ATG, the position of the PPREs are indicated in relation to exon1A. Nucleotides within PPRE1 and PPRE2 of cGPDH promoter that were mutated in Figure 4h are in lower case.



Supplementary figure 2

The region encompassing PPRE2 but not PPRE1 of the cGPDH promoter is able to activate a heterologous promoter. Nucleotide fragments surrounding the PPREs within the cGPDH promoter were subcloned into pTAL-SEAP and transfected into HepG2 cells together with a PPAR γ expression vector. Normalized activity of the reporter in the absence of PPAR and ligand was set at 1. Error bars are SEM.

SUPPLEMENTARY TABLE 1

Primers Q-PCR

Mouse/ Rat β -Actin :

Forward : 5' - CTGACTGACTACCTCATGAAGATCCT - 3'

Reverse : 5' - CTTAATGTCACGCACGATTTC - 3'

Human β -Actin :

Forward : 5' - CTTCCTGGGCATGGAGTC - 3'

Reverse : 5' - GCCAGGGTACATGGTGGT - 3'

Mouse AQP3 :

Forward : 5' - GTGGCTCAGGTGGTGTCTCAG - 3'

Reverse : 5' - CACATTGCCAAGGTCACAGCG - 3'

Mouse AQP7 :

Forward : 5' - GCATCCTTGTTACCGTCCTTGG - 3'

Reverse : 5' - GCACCCACCACCAGTTGTTC - 3'

Human AQP7 :

Forward : 5' - ACA TTG TGG CGG GGC TTC C -3'

Reverse : 5' - TTC CTG GCA GTG CTG GGT TG -3'

Mouse AQP9 :

Forward : 5' - GAAGGACCGAGCCAAGAAGAAC - 3'

Reverse : 5' - AGCAATAGAGCCACATCCAAGG -3'

Mouse c-Cbl Associated Protein :

Forward : 5' - CAAGTCGCAGTGCCACTGTG - 3'

Reverse : 5' - AGTCCAACATCATCATCGTTCTGT - 3'

Mouse cGPDH :

Forward : 5' - GCCTTCGCCAAGCTCTTCTG - 3'

Reverse : 5' - TAGCAGGTCGTGATGAGGTCTG - 3'

Human cGPDH:

Forward : 5' - ACC AAG GCG GCA GTG ATC C- 3'

Reverse : 5' - ACA CCA CAG CTC TCC AAG AAG G- 3'

Mouse mGPDH :

Forward : 5' - CTCGCCATCGCCCTCACTG - 3'

Reverse : 5' - ACCGCTCACTCGCTCTTTGC - 3'

Mouse Gyk :

Forward : 5' - ATCCGCTGGCTAAGAGACAACC - 3'

Reverse : 5' - TGCACTGGGCTCCCAATAAGG - 3'

Human Gyk :

Forward : 5' - AGCCCTCAATGCCCGAAACC- 3'

Reverse : 5' - GTTCAAACCGCTCCATCGTGAC- 3'

Mouse PPAR α :

Forward 5' - ATTCGGCTGAAGCTGGTGTAC - 3'

Reverse 5' - CTGGCATTGTCCGGTTCT -3'

Primers CHIP

Control primers :

Forward 5' - GCA ATG CCT GCA GTT CTA CC -3'

Reverse 5' - ACA GAT GCC AGC TCA GTC AC -3'

PPRE primers :

Forward 5' - TTC CTG AAG CCT GGA AGG AG -3'

Reverse 5' - GCC AGC CTT GGT CTA CAG AG - 3'

Primers mutagenesis cGPDH promoter

PPRE1BclI :

Forward 5' - GTC ACC AGT GGC CTT TGA TCA TCC TTC CCT TTA GAG ACC -3'

Reverse 5' - GGT CTC TAA AGG GAA GGA TGA TCA AAG GCC ACT GGT GAC -3'

PPRE2PstI :

Forward 5' - GGA GAT TAT CTG AGC TGC AGG GGC AAC CTG TG -3'

Reverse 5' - CAC AGG TTG CCC CTG CAG CTC AGA TAA TCT CC -3'
