

Supplementary Table 1 Characteristics of MHC-PPAR γ 1 mice

Genotype	MHC-PPAR γ 1L						MHC-PPAR γ 1H			
	2-month old		4-month old		8-month old		2-month old		4-month old	
	Control (n=4)	MHC-PPAR γ 1L (n=3)	Control (n=7)	MHC-PPAR γ 1L (n=7)	Control (n=7)	MHC-PPAR γ 1L (n=7)	Control (n=4)	MHC-PPAR γ 1H (n=6)	Control (n=6)	MHC-PPAR γ 1H (n=5)
Body weight (g)	21.8 $\pm$ 0.6	22.0 $\pm$ 0.5	24.2 $\pm$ 0.6	26.0 $\pm$ 1.9	31.1 $\pm$ 1.5	32.5 $\pm$ 1.4	20.0 $\pm$ 0.9	21.6 $\pm$ 1.2	22.1 $\pm$ 1.5	23.1 $\pm$ 1.3
Glucose (mg/dl)	166 $\pm$ 12	175 $\pm$ 11	156 $\pm$ 14	163 $\pm$ 10	170 $\pm$ 0.6	157 $\pm$ 10	149 $\pm$ 16	158 $\pm$ 12	161 $\pm$ 11	154 $\pm$ 17
FFA (mole/liter)	0.44 $\pm$ 0.09	0.40 $\pm$ 0.08	0.71 $\pm$ 0.06	0.69 $\pm$ 0.09	0.72 $\pm$ 0.11	0.70 $\pm$ 0.88	0.71 $\pm$ 0.28	0.77 $\pm$ 0.38	0.82 $\pm$ 0.12	0.79 $\pm$ 0.20
TG (mg/dl)	36.6 $\pm$ 3.7	49.0 $\pm$ 8.7	54.1 $\pm$ 15.5	57.7 $\pm$ 19.2	46.3 $\pm$ 9.9	48.6 $\pm$ 12.2	35.9 $\pm$ 11.5	43.1 $\pm$ 10.9	50.87 $\pm$ 6.1	48.3 $\pm$ 1.7
TC (mg/dl)	70.4 $\pm$ 4.6	71.4 $\pm$ 3.6	72.1 $\pm$ 2.1	80.1 $\pm$ 5.2	78.6 $\pm$ 10.6	67.9 $\pm$ 7.3	60.2 $\pm$ 13.2	67.6 $\pm$ 3.1	69.9 $\pm$ 10.8	74.1 $\pm$ 5.8

Male mice were fed with a chow diet. Data are shown as mean ($\pm$ S.D.)

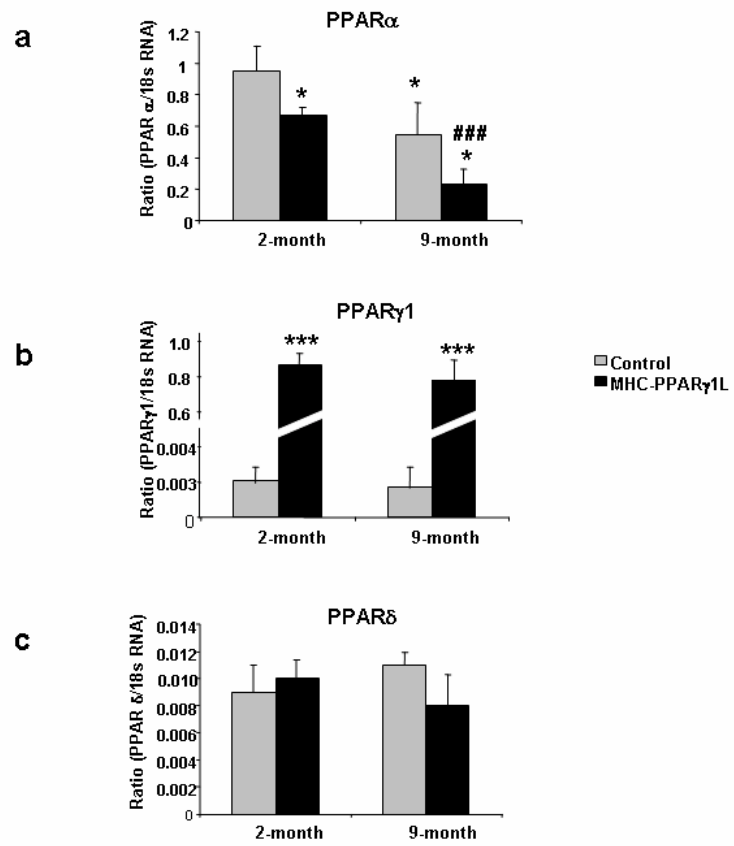
Supplementary Table 2 Primers used for qRT-PCR amplification -1

Gene	GeneBank accession No	Primer sequence	Amplification length (base pair)
CD36	NM_007643	Sense; 5' –ATTGGTCAAGCCAGCT- 3' Antisense; 5' – TGTAGGCTCATCCACTAC - 3'	265
ADRP	NM_007408	Sense; 5' – CTACGACGACACCGAT - 3' Antisense; 5' – CATTGCGGAATACGGAG - 3'	200
AOX	NM_015729	Sense; 5' – GAAATGGATGCACCCG - 3' Antisense; 5' – TGTAACCCGTAGCACT - 3'	245
CPT1 β	NM_009948	Sense; 5' – CCGCACAGAGACTATCT - 3' Antisense; 5' – TGTGTGGTTTATCCGC - 3'	266
FAS	X13135	Sense; 5' – CGTATATGTGAACAGCGC - 3' Antisense; 5' – AGGTCTCGGATGCCTA - 3'	296
SREBP1	NM_011480	Sense; 5' – AATCAGGACCATGCCG - 3' Antisense; 5' – CTCAACCTATGAAAATAAAGTTTGC - 3'	217
PDK4	NM_013743	Sense; 5' – GACCGCTTAGTGAACAC - 3' Antisense; 5' – GTAACGGGGTCCACTG - 3'	224
GLUT1	M23384	Sense; 5' – TCGTAACGAGGAGAACCG - 3' Antisense; 5' – GGCCGTGTTGACGATA - 3'	307
GLUT4	AB008453	Sense; 5' – AGAGTCTAAAGCGCCT - 3' Antisense; 5' – CCGAGACCAACGTGAA - 3'	297
MEF2A	NM_0010337	Sense; 5' – ATGGATGAGAGGAACCG - 3' Antisense; 5' – ATCCGAGTTCGTCCTG - 3'	216
MEF2C	NM_025282	Sense; 5' – AACACGGGGACTATGG - 3' Antisense; 5' – AGGATCGGGGCTTTCA - 3'	216
MEF2D	NM_133665	Sense; 5' – GCGAATCACTGATGAACGGAAC - 3' Antisense; 5' – GTACTTGTCTCCAGCAG - 3'	326
PGC1 β	AF453324	Sense; 5' – TGAAGGCGACACACCA - 3' Antisense; 5' – TCCACCTTGACACAAGG - 3'	237
CHOP	NM_027831	Sense; 5' – CACGAAATCCAGCAGCAGTGT - 3' Antisense; 5' – GGCTGCAAGAATGTAAAGGGG - 3'	361

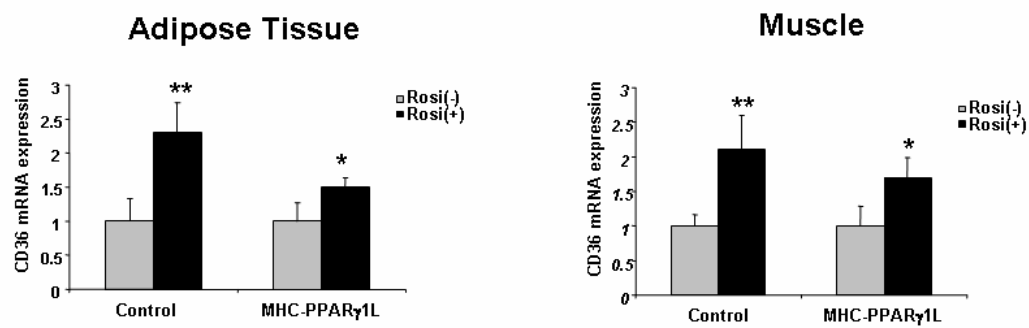
Supplementary Table 3 Primers used for qRT-PCR amplification -2

Gene	GeneBank accession No	Primer sequence	Amplification length (base pair)
ABCA1	NM_013454	Sense; 5' – AAGGTATCGGGGTCCA - 3' Antisense; 5' – AAAGTTGAGCGCCAAG - 3'	311
BNP	D16497	Sense; 5' – ATGCTACCCTTAGAGGC - 3' Antisense; 5' – GTAAAGTGGGTTGGGC - 3'	229
ANF	K02781	Sense; 5' – GGAAATGGGATAGAGGTCAGGTG - 3' Antisense; 5' – GTGATTAAACCGGCAAGCAAGGC - 3'	178
PPAR α	NM_011144	Sense; 5' – GATGGTTGGTTACACACG- 3' Antisense; 5' – CTTGATGGTGGAGTACAG- 3'	213
PPAR γ 1	U01664	Sense; 5' – CATTTGTATGACTCATACATAAAGT - 3' Antisense; 5' – CGGATGGCCACCTCTTTGCTCTG - 3'	191
PPAR δ	U10375	Sense; 5' – TCA CCG GCA AGT CCA GCC A - 3' Antisense; 5' – ACA CCA GGC CCT TCT CTG CCT - 3'	245
18S rRNA	BC081458	Sense; 5' – GGAGAACTCACGGAGGACGA - 3' Antisense; 5' – GGAGAACTCACGGAGGACGA - 3'	250
LCB1	BC046323	Sense; 5' – AGTGGTGGGAGAGTCCCTTT - 3' Antisense; 5' – CAGTGACCACAACCCTGATG - 3'	211
LCB2	U27455	Sense; 5' – GGATACATCGGAGGCAAGAA - 3' Antisense; 5' – ACCTGGTGTCTCAGCCAAC - 3'	200
Bcl 2	NM_177410	Sense; 5' – GGTGGTGGAGGAACTCTTCA - 3' Antisense; 5' – CAGATGCCGGTTCAGGTACT - 3'	220
Bcl XL	X83574	Sense; 5' – ATGAACTCTTTCGGGATGGA - 3' Antisense; 5' – TGGATCCAAGGCTCTAGGTG - 3'	250
Caspase 9	BC056447	Sense; 5' – AGAACGACCTGACTGC - 3' Antisense; 5' – CGCTCCCGTTGAAGATATT - 3'	201
Bax	NM_007527	Sense; 5' – GAAGCTGAGCGAGTGTCTCC - 3' Antisense; 5' – GATCAGCTCGGGCACTTTAG - 3'	250
iNOS	NM_010927	Sense; 5' – GACGAGACGGATAGGC - 3' Antisense; 5' – GTGCGGTAGGTGACCA - 3'	242

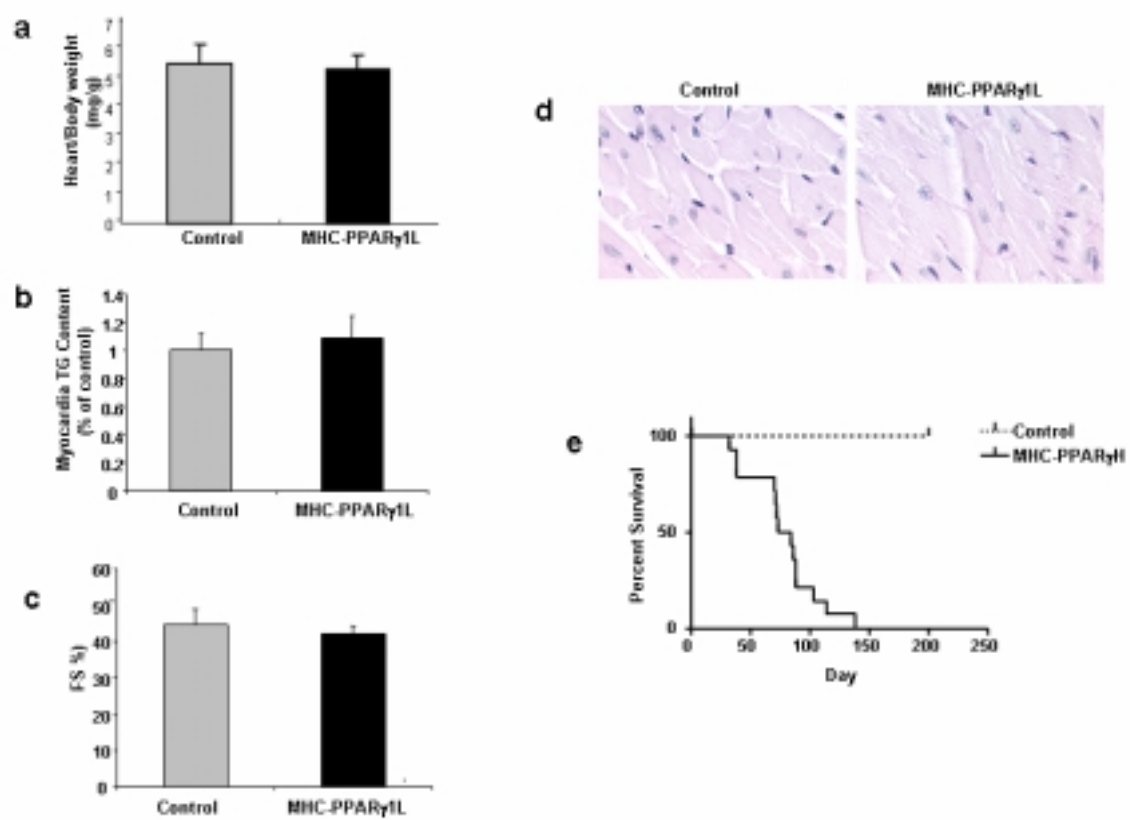
Supplementary Figure 1



Supplementary Figure 2



Supplementary Figure 3



Supplementary Figure Legends

Supplementary Figure 1. qRT-PCR analysis of PPARs family expression in 2- and 9-month old MHC-PPAR γ 1L and their littermate control mice. Expression of PPAR α **(a)**, PPAR γ **(b)** and PPAR δ **(c)** in 2- and 9-month old control and MHC-PPAR γ 1L male mice hearts. * $P < 0.05$ and *** $P < 0.001$ compared with littermate control mice. ### $P < 0.001$ compared with 2-month old MHC-PPAR γ 1L mice.

Supplementary Figure 2. qRT-PCR analysis of CD36 expression in MHC-PPAR γ 1L male mice and littermate control mice with or without rosiglitazone treatment. Fat (left panel) and muscle (right panel) CD36 expression in 8-month old MHC-PPAR γ 1L and littermate control mice. * $P < 0.05$; ** $P < 0.01$ versus without rosiglitazone treatment group. Abbreviations: Rosi, rosiglitazone.

Supplementary Figure 3. Parameters of MHC-PPAR γ 1 mice. **(a-c)** Heart/body weight, myocardial TG and cardiac fractional shortening in 2-month old MHC-PPAR γ 1L male mice and their littermate control mice (n = 6-8 per group). **(d)** PAS staining of heart tissue from 2-month old MHC-PPAR γ 1L mice. **(e)** MHC-PPAR γ 1H mice survival curve (n = 30).