

SUPPLEMENTARY DATA

Supplementary Table S1.

Real-time PCR primer sequences from mouse genes

Primer	Forward Sequence (5'-3')	Reverse Sequence (5'-3')
Total Ceacam1	TCACAGAGCACAAACCCTCA	CGTCATCCACCTTGTTAGGA
SREBP-1c	GGAGCCATGGATTGCACATT	GCTTCCAGAGAGGAGGCCA
UCP-1	GCAACTTGGAGGAAGAGATACTGAA	TGTAAATAAAGTCAACGGAGCTGTTC
CD68	CCTCGCCCTAGTCCAAGGTC	GGATTCGGATTTGAATTTGGGCT
18S	TTCGAACGTCTGCCCTATCAA	ATGGTAGGCACGGCGACTA
GAPDH	CCAGGTTGTCTCCTGCGACT	ATACCAGGAAATGAGCTTGACAAAGT

All primers recognize mouse genes, except for total Ceacam1 primers, which were designed to bind equally to the endogenous mouse as well as to the rat Ceacam1 transgene.

SUPPLEMENTARY DATA

Supplementary Table S2.

Effect of 30 days of high-fat diet on plasma and tissue biochemistry

	WT		L-CC1	
	RD	HF	RD	HF
Body Weight (g)	26. ± 0.6	35. ± 0.8 *	27. ± 0.6	28. ± 1.1 †
% Visceral Fat/BW	.70 ± .05	1.9 ± .50 *	.60 ± .05	.80 ± .24 †
Fasting Plasma Insulin (pM)	50. ± 4.7	109. ± 15.1 *	56. ± 6.1	49. ± 5.5 †
Fasting Plasma C-peptide (pM)	398. ± 72.0	473. ± 117.	354. ± 101.	406. ± 190.
Steady State C/I Molar Ratio	8.1 ± 0.5	5.5 ± 0.7 *	7.3 ± 1.0	8.3 ± 0.7 †
Hepatic Triacylglycerol (TG) (µg/mg protein)	151. ± 4.3	219. ± 27.3 *	138. ± 12.2	163. ± 18.4 †
Fasting Plasma NEFA (mEq/l)	.63 ± .06	.82 ± .05 *	.60 ± .08	.68 ± .05 †

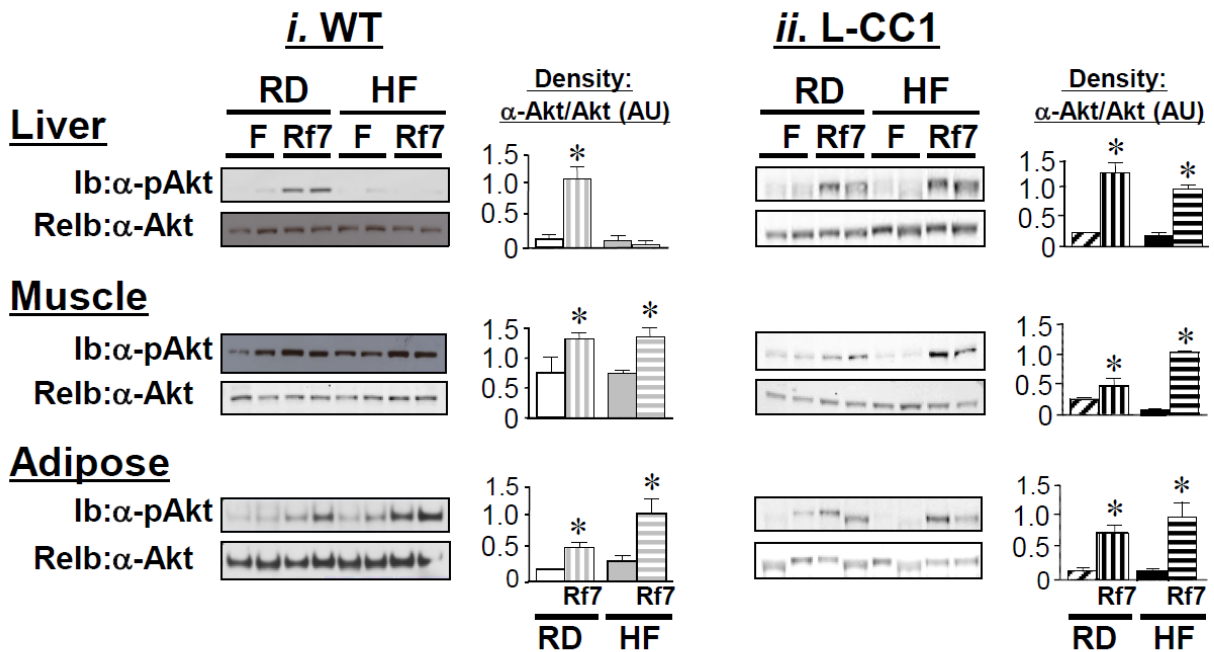
Mice (n>9 per feeding group per genotype) were fed a HF diet for 30 days starting at 2 months of age.

Visceral fat was excised, weighed and expressed as percentage of total body weight (%BW). Values are expressed as mean ± SEM. *P<0.05 HF vs RD per genotype, and †P<0.05 L-CC1 vs WT per same feeding group.

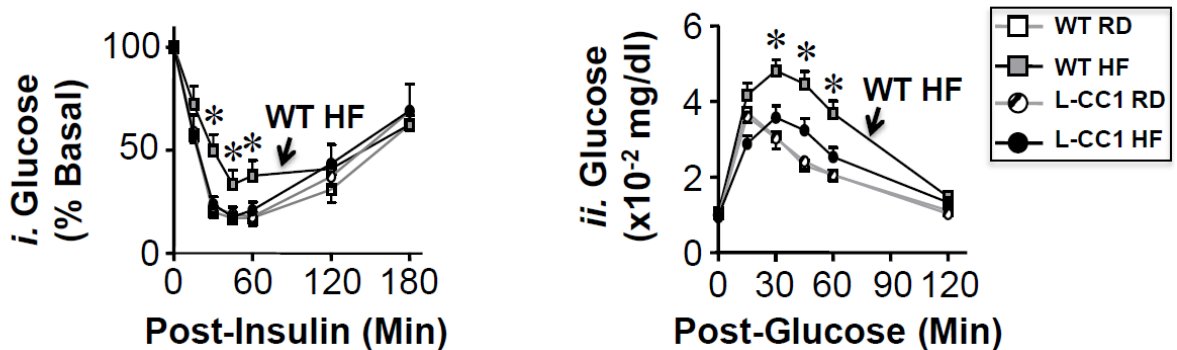
SUPPLEMENTARY DATA

Supplementary Figure S1. Effect of 28 days of high-fat diet on insulin signaling. **A:** WT (*i*) and L-CC1 (*ii*) mice were fed a RD or HF diet for 28 days before they were fasted overnight (F) and refed for 7 hr (Rf7) to release insulin. Lysates from liver, soleus muscle and WAT were analyzed by Western blotting, immunoblotting (Ib) with phospho-Akt antibody (α -pAkt) and reprobings (reIb) with anti-Akt antibody for normalization. Band density was measured and p-Akt/Akt was represented in the graphs on the right hand-side. Gels include 2 mice per category and represent 2 separate experiments on 2 different sets of mice. * $P < 0.05$ vs RD per feeding group. **B:** Insulin (*i*) and glucose tolerance (*ii*) in WT and L-CC1 mice fed RD or HF for 21 and 28 days, respectively. * $P < 0.05$ HF-fed WT (gray squares) vs others (n>6 per feeding group per genotype).

A. Effect of 28-day HF on insulin signaling



B. Effect of 28 day-HF on insulin and glucose tolerance



SUPPLEMENTARY DATA

Supplementary Figure S2. Effect of 4 months of high-fat diet on hepatic CD68 mRNA levels. Liver lysates were subjected to qRT-PCR analysis to assess mRNA levels of CD68 (in triplicate and >5 mice per feeding group per genotype). Values are expressed as mean \pm SEM. * P <0.05 HF vs RD per genotype, and † P <0.05 LCC1 vs WT per feeding group.

Liver: CD68 mRNA

