Supplementary Figure Legends

Figure S1. 3T3-F442A subline isolation strategy. FBS = Fetal Bovine Serum. CS = Calf Serum. Insulin was used at 5 μg/mL**.**

Figure S2. Heat map depicting differentially regulated genes identified in isolated sublines of 3T3-F442A pre-adipocytes using whole mouse genome arrays. Cells were grown in 10% FBS with insulin (5 μg/mL). RNA was isolated 48 h post-confluence.

Figure S3. Correlation of mouse adipose Vgll3 mRNA expression with total fat, mesenteric, retroperitoneal, and subcutaneous fat content. N ~300 (16).

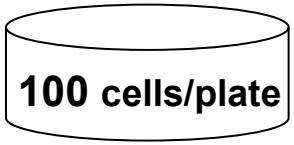
Figure S4. Analysis of the activation of -5.4 kB aP2 promoter co-expressing PPARγ2/RXR and Vgll3 in undifferentiated 3T3-L1 pre-adipocytes in 10% FBS with insulin (5 μg/mL) with or without PPARγ ligand GW7845 (100 nM). N=4.

Figure S5. Expression of osteogenic-associated genes in C310T1/2 cells overexpressing Vgll3 or pBABE control grown in 10% FBS + β-glycerophophate (1M) + Ascorbic Acid (50 mg/mL) at Day 0 and Day 30. Gene expression was analyzed by real-time PCR and normalized to 36B4 control.

1. Picking Single Colonies

Incubation time:

~ 72 hours



cloning discs

Grow each clone to ~ 80% confluence in 10% CS

~100 colonies picked.

2. Selecting Clones

~60 clones grown to confluence in 10% Fetal Bovine Serum (FBS) +/- insulin for 8 days.

~60 clones grown to nearly confluence in 10% Calf Serum (CS).

3. Scoring and Initial Freezing

10% FBS

-Oil Red O stained; Day 8

-sub-clones validated by PPARγ2 & aP2 gene expression.

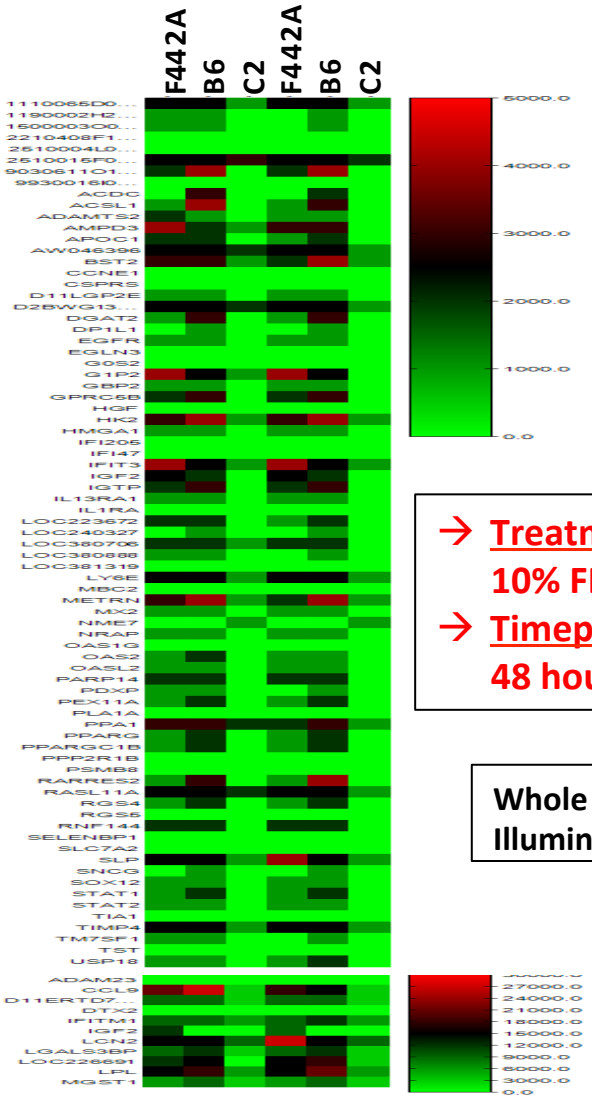
10% CS

Cell trypsinized and frozen down.

All clones passed to small flasks.

Halperin Fig.S1

B6:C2 Ratio > 2 fold



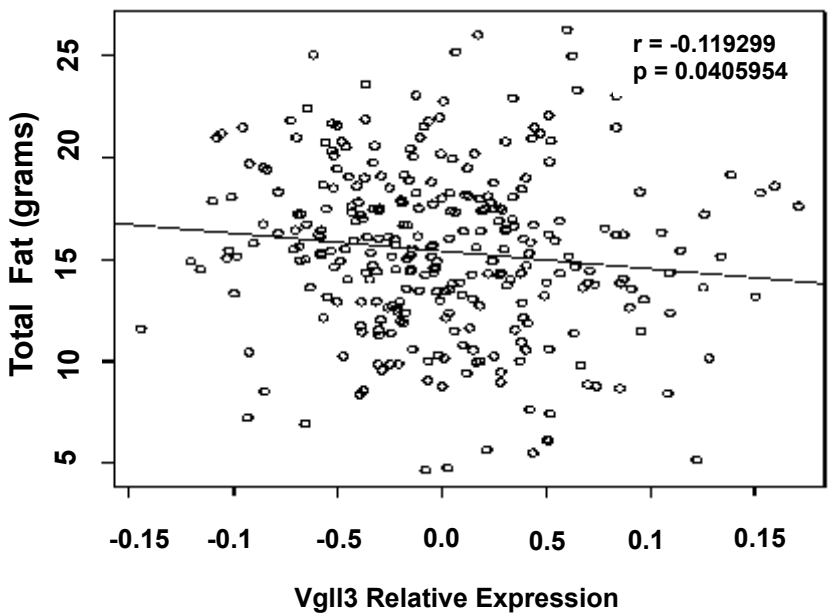
→ **Treatment:**
10% FBS + insulin (5 μg/mL).

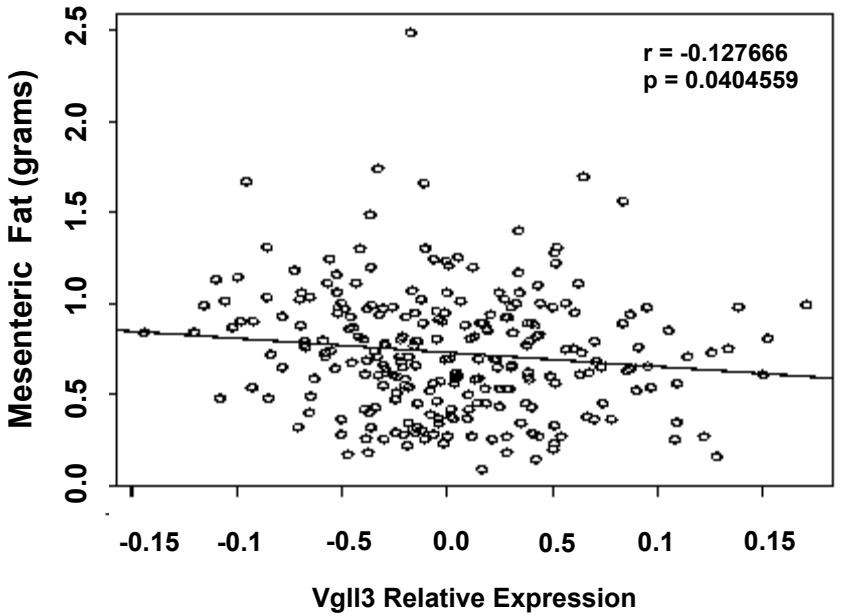
→ **Timepoint:**
48 hours post-confluent.

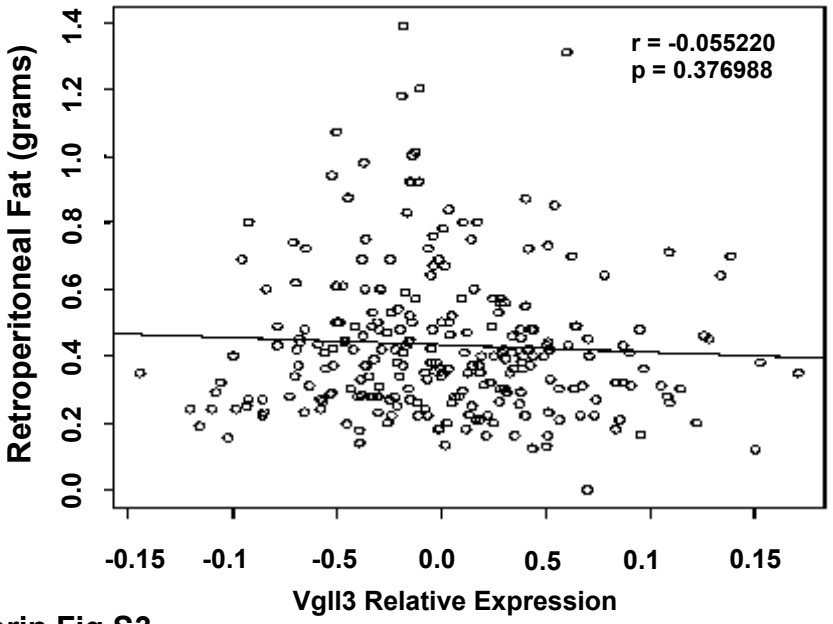
Whole Mouse Genome:
Illumina, Inc.

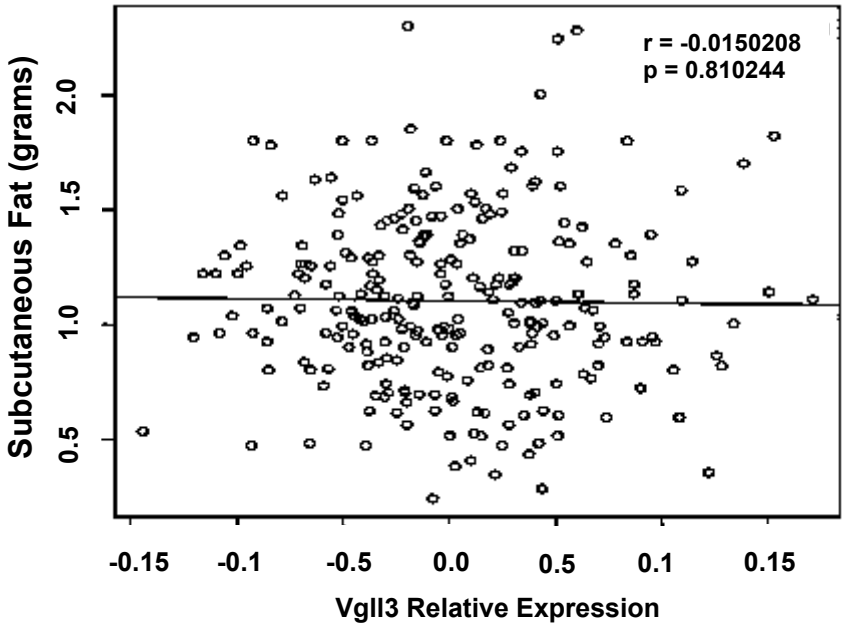
C2:B6 Ratio > 2 fold

Halperin Fig.S2

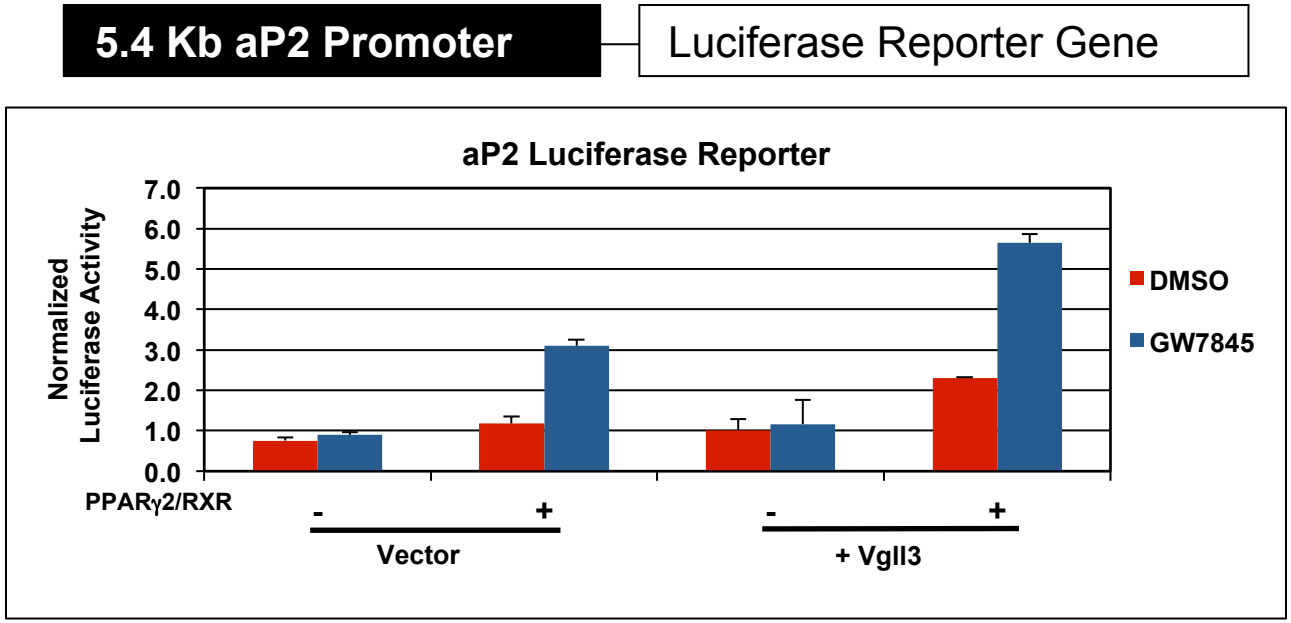




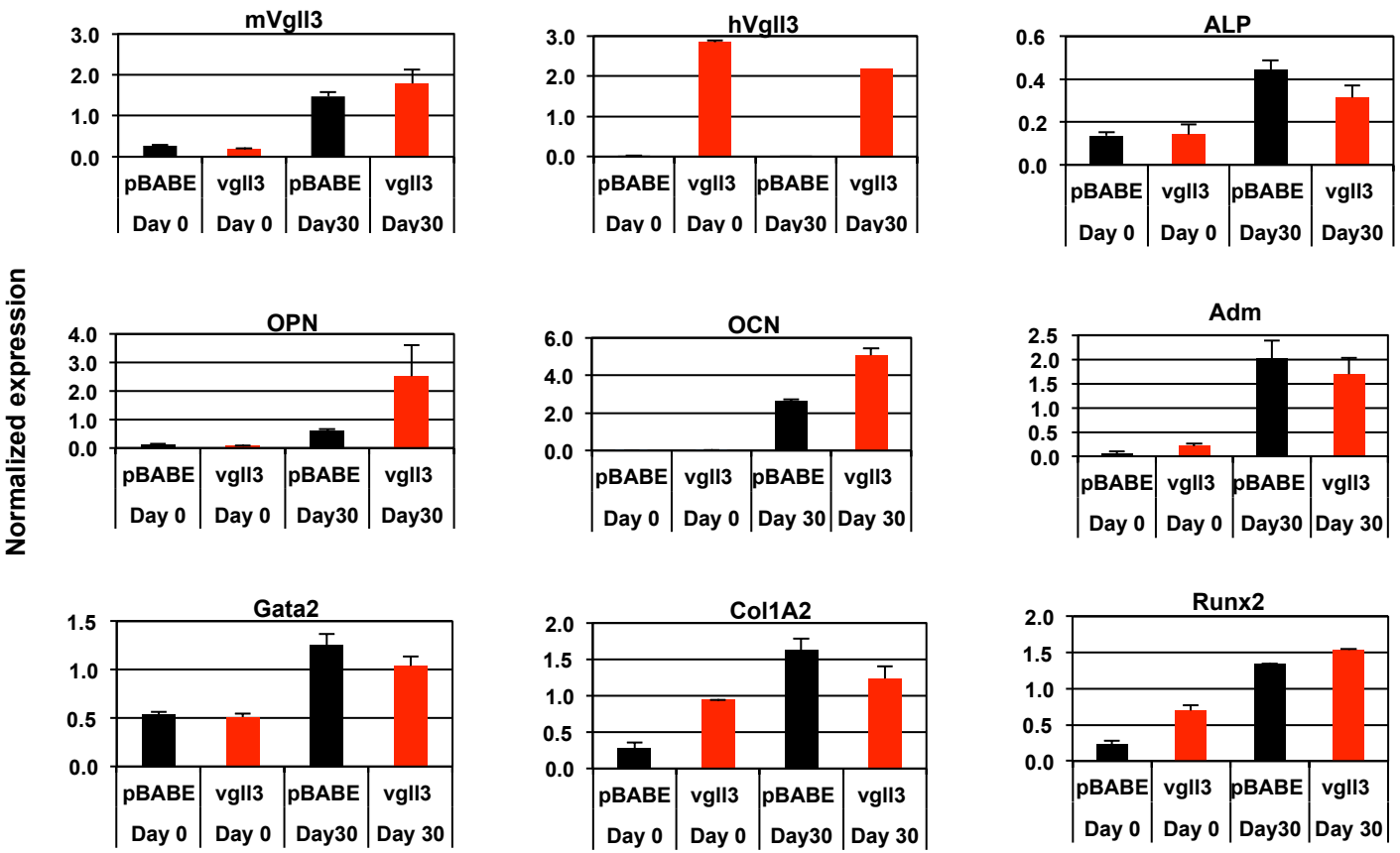




Halperin Fig.S3



Halperin Fig.S4



Halperin Fig. S5