

**Online Table II.** Up-regulated genes both in obese adipose tissue and saturated fatty acid-stimulated macrophages.

Accession ID	Gene Symbol	Gene Title	Adipose tissue ( <i>ob/ob</i> vs. WT)	RAW264 (Pal vs. Veh)
NM_031167	Il1rn	interleukin 1 receptor antagonist	15.0	2.6
NM_015811	Rgs1	regulator of G-protein signaling 1	14.8	2.8
NM_010442	Hmox1	heme oxygenase (decycling) 1	8.6	3.5
M57525	Il1rn	interleukin 1 receptor antagonist	8.6	2.1
NM_023044	Slc15a3	solute carrier family 15, member 3	8.6	3.7
BC022752	Slc37a2	solute carrier family 37 (glycerol-3-phosphate transporter), member 2	8.6	2.3
AF065933	Ccl2	chemokine (C-C motif) ligand 2	7.8	3.2
BC019946	Atf3	activating transcription factor 3	5.2	4.3
AV026617	Fos	FBJ osteosarcoma oncogene	5.2	4.3
NM_011315	Saa3	serum amyloid A 3	4.9	2.0
NM_008871	Serpine1	serine (or cysteine) proteinase inhibitor, clade E, member 1	4.7	17.1
BM210600	Npn3	neoplastic progression 3	4.4	2.3
AK011545	Basp1	brain abundant, membrane attached signal protein 1	4.4	2.6
NM_138648	unknown	unknown	4.3	2.1
NM_013612	Slc11a1	solute carrier family 11 (proton-coupled divalent metal ion transporters), member 1	4.1	2.0
BC011325	Npn3	neoplastic progression 3	3.7	2.6
AF128193	Ccl7	chemokine (C-C motif) ligand 7	3.2	3.0
NM_008129	Gclm	glutamate-cysteine ligase, modifier subunit	2.6	2.8
NM_016903	Esd	esterase D/formylglutathione hydrolase	2.4	2.3
M57525	Il1rn	interleukin 1 receptor antagonist	2.3	2.1

*ob/ob* and WT, 12-week-old male *ob/ob* and wild-type mice, respectively. Pal, palmitate 200  $\mu\text{mol/l}$ ; Veh, vehicle.

**Online Table III.** Down-regulated genes both in obese adipose tissue and saturated fatty acid-stimulated macrophages.

Accession ID	Gene Symbol	Gene Title	Adipose tissue ( <i>ob/ob</i> vs. WT)	RAW264 (Pal vs. Veh)
NM_026713	Mogat1	monoacylglycerol O-acyltransferase 1	-5.9	-2.0
BB560574	Cd24a	CD24a antigen	-3.9	-3.2
NM_007446	Amy1	amylase 1, salivary	-3.0	-2.5
B1686700	LOC216024	Similar to heterogeneous nuclear ribonucleoprotein H3, isoform a	-2.5	-2.3
BG074158	2610001E17Rik	RIKEN cDNA 2610001E17 gene	-2.4	-2.3

*ob/ob* and WT, 12-week-old male *ob/ob* and wild-type mice, respectively. Pal, palmitate 200  $\mu$ mol/l; Veh, vehicle.

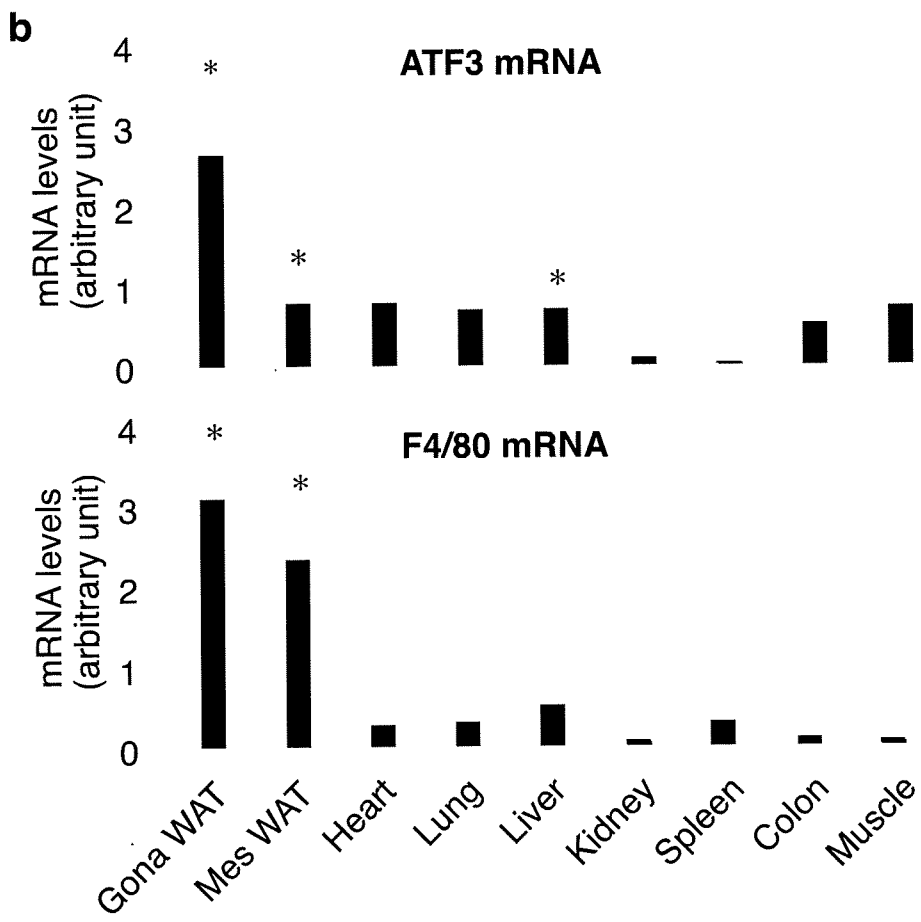
**Online Table IV.** Body weight and adipose tissue weight of C3H/HeJ and C3H/HeN mice on a standard or high-fat diet for 16 weeks.

	body weight (g)	epididymal WAT weight (g)	mesenteric WAT weight (g)
SD-fed HeN	27.1 ± 0.8	0.21 ± 0.03	0.17 ± 0.03
HD-fed HeN	39.3 ± 0.8*	0.54 ± 0.04**	0.47 ± 0.02**
SD-fed HeJ	31.2 ± 1.0	0.31 ± 0.07	0.18 ± 0.05
HD-fed HeJ	41.0 ± 0.8 <sup>##</sup>	0.61 ± 0.03 <sup>##</sup>	0.43 ± 0.03 <sup>##</sup>

SD, standard diet; HD, high-fat diet; HeN, C3H/HeN; HeJ, C3H/HeJ; WAT, white adipose tissue. \* $P < 0.05$ , \*\* $P < 0.01$  vs. SD-fed HeN, <sup>##</sup> $P < 0.01$  vs. SD-fed HeJ,  $n = 6-10$ .

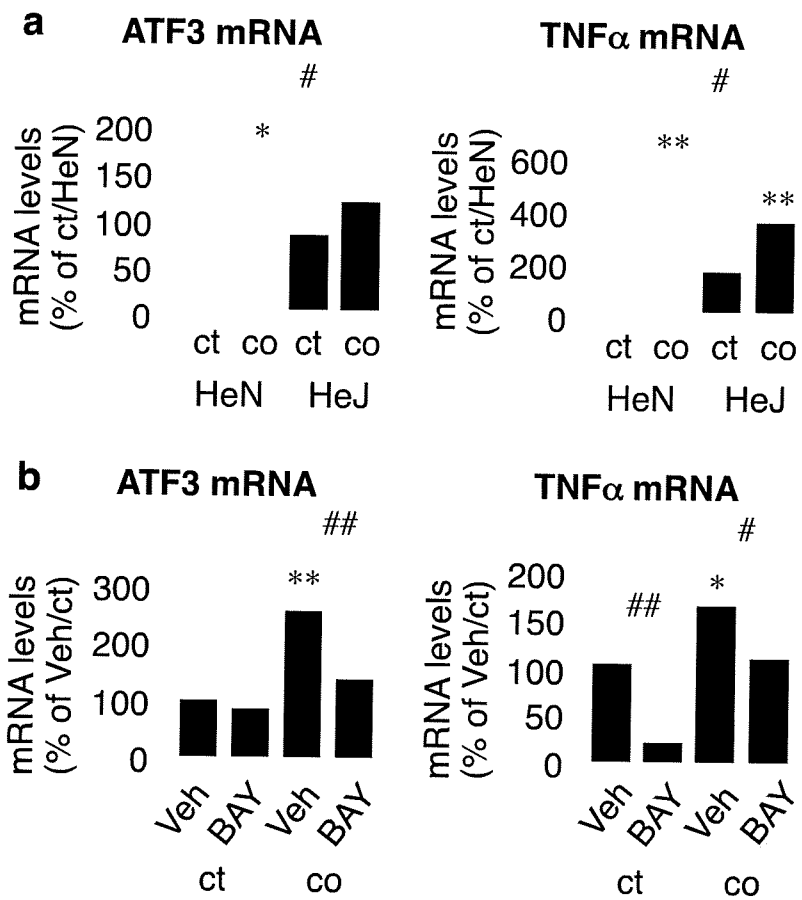
**a**

	<u>RAW264 macrophages</u> <u>palmitate vs. vehicle</u>	<u>Adipose tissue</u> <u>ob/ob vs. wild-type</u>
Up-regulated (> 2-fold)	214	20
Down-regulated (< 2-fold)	188	5

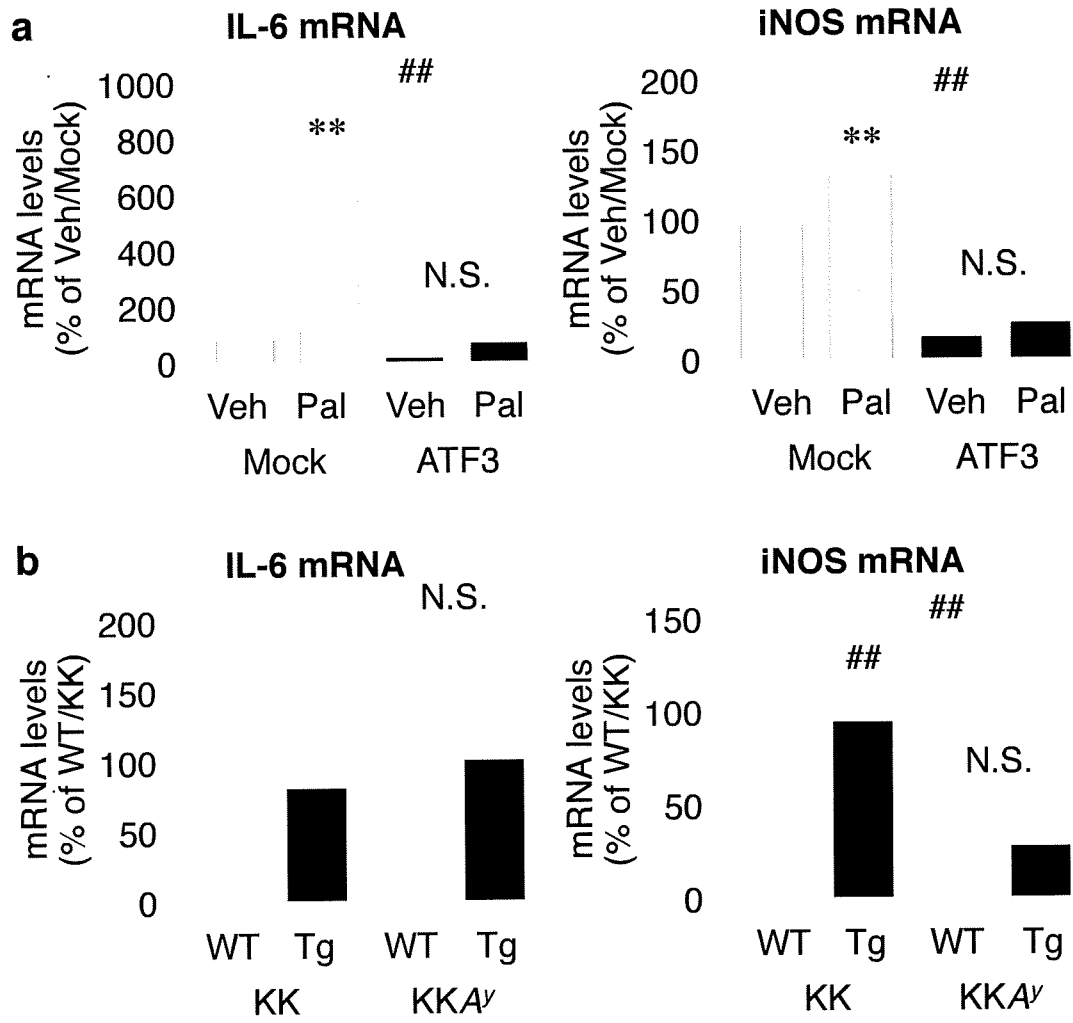


## Online Figure I

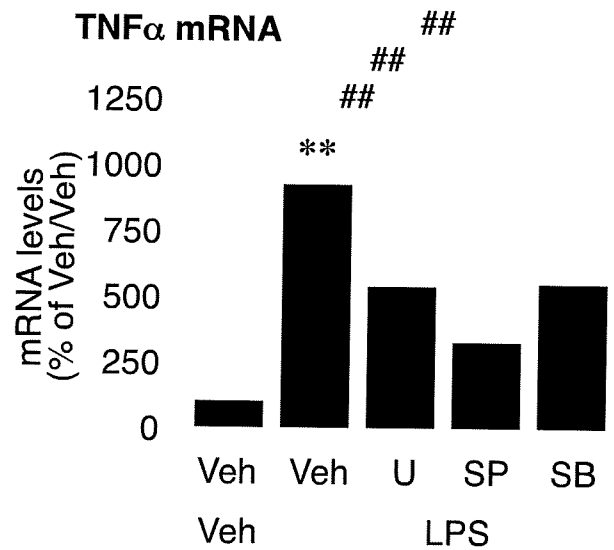
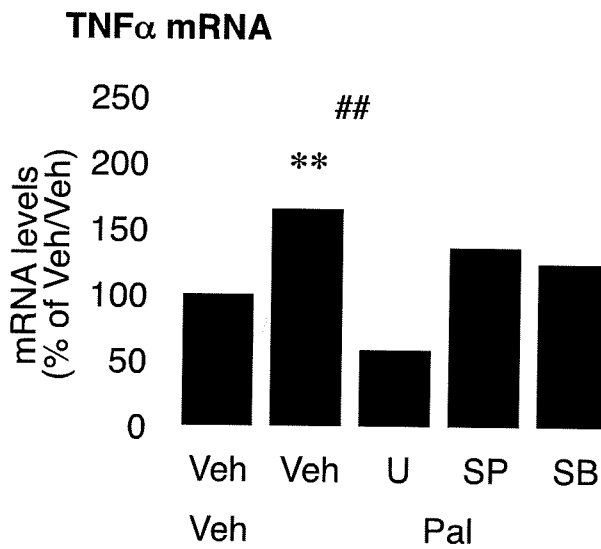
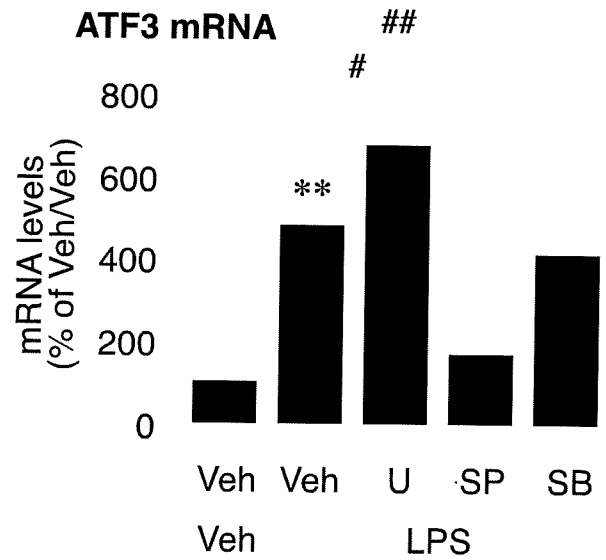
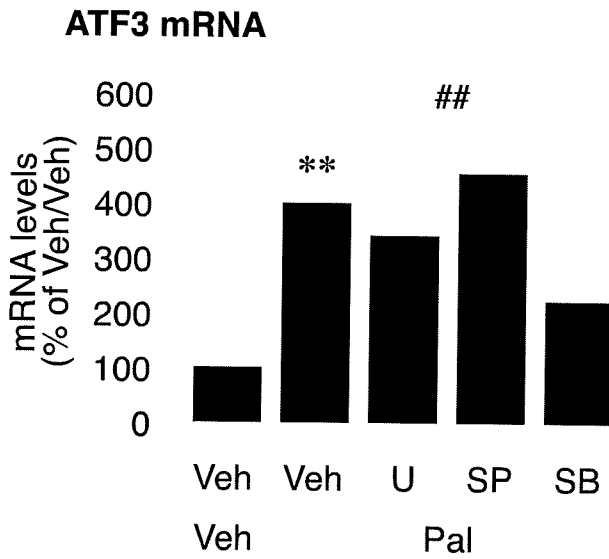
□



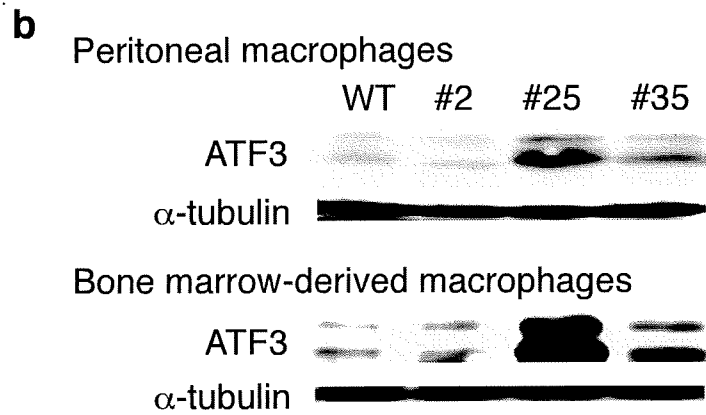
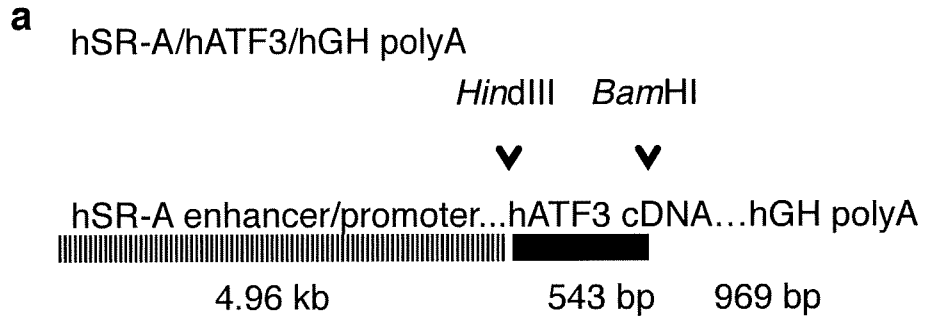
## Online Figure II



**Online Figure III**



**Online Figure IV**



## Online Figure V



