

Supplementary table 1 Primers used for RT PCR analyses

Gene	Upstream primer	Downstream primer
<i>Ppia</i> (cyclophilin)	agcatacaggtcctggcat	tcacctcccaagaccac
Mouse <i>Retn</i> transgene	agaaggcacagcagtcttg	tgtccagtctatccttgca
Rat endogenous <i>Retn</i>	agacttcagctccctactg	ctagtgacgggtgtgcctt
<i>Myh2</i>	gaaacacatgctgagctgga	tctgcaatctgtccgtgag
<i>Trdn</i>	gctgcaaaagccaaagaac	gacaaagcaggtctggaagc
<i>Pik3r1</i>	ccctcagtggaactggatgt	cggagcttggtacttcttg
<i>Sod2</i>	cactgtggctgagctgtgtg	tccaagcaattcaagcctct
<i>Calr1</i>	gaatggaagccacgtcaaat	gcataggcctcatcattgg
<i>Gstm1</i>	ccacattttgagccaagt	tgagtgccagtgtagcaagg
<i>Cox5b</i>	acccaatctagtcccatcc	cagtggaccatttgtaggg
<i>Atp5i</i>	ttcaggtctctcegetcate	ttctcegetgtattcttc
<i>Mdh1</i>	ctcggaccacatcagagaca	cgacagggaaacgagtagagc
<i>Pc</i>	aggttcacgtgaccaaggac	ggctgccagtctggagtaag
<i>Akt1</i>	actcattccagaccacgac	ccggtacaccagttctct
<i>Akt2</i>	gagcatcggttcttctcag	agaactgggggaagtgtgtg
<i>Irs1</i>	tgtgccaagcaacaagaaag	acggttcagagcagaggaa
<i>Irs2</i>	cccagaagatagcgggtaca	tgagaagaagtcaggtgggg
<i>Pik3r1</i>	gatcagcgagatcatcgaca	tgtttcgttccaacat
<i>Prkaa1</i>	gcagttgcctaccacctcat	cggcaaccaagaatgtgact

Supplementary Table 2 Comparison of *Retn* transgene and endogenous *Retn* gene expression in epididymal fat isolated from transgenic and control SHR

	Transgenic <i>Retn</i> in fat from young vs. old rats	Endogenous <i>Retn</i> in fat from young controls vs. young transgenics	Endogenous <i>Retn</i> in fat from old controls vs. old transgenics
Expression ratio	0.56	1.19	1.06
P value	0.80	0.84	0.93

Expression ratios were calculated from mean values (N=5 per group). See methods section for column definitions and description of the statistical analysis.

Supplementary Table 3 Significantly differentially expressed Illumina tags in epididymal fat isolated from 6 week old SHR-*Retn* transgenic rats versus age-matched controls.