

Supplementary Table 1

Primers used for qPCR of human (h) and mouse (m) mRNAs

| Gene | | Sequence |
|--------------------|---------|---------------------------------|
| <i>ATF4 (h/m)</i> | Forward | 5'-AAACCTCATGGGTTCTCCAG-3' |
| | Reverse | 5'-GGCATGGTTTCCAGGTCATC-3' |
| <i>ATF6 (h/m)</i> | Forward | 5'-AATTCTCAGCTGATGGCTGT-3' |
| | Reverse | 5'-TGGAGGATCCTGGTGTCCAT-3' |
| <i>CD36 (h)</i> | Forward | 5'-TGTGCAAAATCCACAGGAAG-3' |
| | Reverse | 5'-GCCACAGCCAGATTGAGAAC-3' |
| <i>Cd36 (m)</i> | Forward | 5'-TCATATTGTGCTTGCAAATCCAA-3' |
| | Reverse | 5'-GCTTTACCAAAGATGTAGC-3' |
| <i>CHOP (h/m)</i> | Forward | 5'-GCTGTGGTAGTGAGCTGTTGCA-3' |
| | Reverse | 5'-CACAGCCCAGGTATGGAATCA-3' |
| <i>Cyp7a1 (m)</i> | Forward | 5'-GCTGTGGTAGTGAGCTGTTGCA-3' |
| | Reverse | 5'-CACAGCCCAGGTATGGAATCA-3' |
| <i>DNMT1(h)</i> | Forward | 5'-GAGGCCCGAAGAAAAAGAAC-3' |
| | Reverse | 5'-TGAAGCAGGTCAGTTTGTGC-3' |
| <i>FATP4 (h/m)</i> | Forward | 5'-CTGGACCCAGGTGGGATTCT-3' |
| | Reverse | 5'-TCATCCAGCTGGCGGAAGGT-3' |
| <i>Egf15 (m)</i> | Forward | 5'-ACGGGCTGATTCGCTACTC-3' |
| | Reverse | 5'-TGTAGCCTAAACAGTCCATTTCCCT-3' |
| <i>FGF19 (h)</i> | Forward | 5'-ATGCGGAGCGGGTGTGTGGTG-3' |
| | Reverse | 5'-TTACTTCTCAAAGCTGGGACTCC-3' |
| <i>GRP78 (h/m)</i> | Forward | 5'-GTGTTCAAGAACGGCCGCGTG-3' |
| | Reverse | 5'-GTTTGCCACCTCCAATATCAAC-3' |
| <i>H3F3A (h/m)</i> | Forward | 5'-AAAGCCGCTCGCAAGAGTGCG-3' |
| | Reverse | 5'-ACTTGCCTCCTGCAAAGCAC-3' |
| <i>MAT1A (h)</i> | Forward | 5'-TCTTCATGTTACATCGGAG-3' |
| | Reverse | 5'-TGCACTCCTCTGTCTCGTCG-3' |

| | | |
|---------------------------------------|---------|-------------------------------|
| <i>Mogat1(m)</i> | Forward | 5'-CTGGTTCTGTTTCCCGTTGT-3' |
| | Reverse | 5'-TGGGTCAAGGCCATCTTAAC-3' |
| <i>PERK (h/m)</i> | Forward | 5'-AAAAAGCAGTGGGATTTGGA-3' |
| | Reverse | 5'-CTGGAATATACCGAAGTTCAAAG-3' |
| <i>PPARγ2 (h/m)</i> | Forward | 5'-GCTGTTATGGGTGAAACTCTG-3' |
| | Reverse | 5'-GAATAATAAGGTGGAGATGCAGG-3' |

Supplementary Table 2**Anthropometric and biochemical characteristics of obese subjects included in the study.**

| | NG | IGT + T2D |
|----------------------------------|-------------|------------------|
| n | 30 | 39 |
| Age (years) | 39 ± 3 | 42 ± 2 |
| Weight (kg) | 115.8 ± 3.0 | 122.7 ± 3.1 |
| BMI (kg/m²) | 42.5 ± 0.7 | 45.7 ± 1.2* |
| Body fat (%) | 53.0 ± 0.8 | 52.5 ± 1.2 |
| Waist (cm) | 120.2 ± 2.0 | 127.9 ± 2.1* |
| Hip (cm) | 129.7 ± 1.1 | 133.8 ± 1.9 |
| WHR | 0.93 ± 0.01 | 0.96 ± 0.01 |
| SBP (mm Hg) | 122 ± 3 | 134 ± 2*** |
| DBP (mm Hg) | 76 ± 1 | 84 ± 1*** |
| Fasting glucose (mg/dL) | 90 ± 2 | 118 ± 4*** |
| Fasting insulin (μU/mL) | 17.9 ± 3.1 | 20.1 ± 1.8 |
| Triacylglycerols (mg/dL) | 97 ± 7 | 139 ± 10*** |
| Total cholesterol (mg/dL) | 191 ± 8 | 196 ± 5 |
| LDL-cholesterol (mg/dL) | 118 ± 6 | 118 ± 5 |
| HDL-cholesterol (mg/dL) | 53 ± 3 | 48 ± 2 |
| Uric acid | 5.86 ± 0.19 | 5.51 ± 0.19 |
| Leptin (ng/mL) | 57.3 ± 3.9 | 48.2 ± 4.4 |
| CRP (mg/L) | 9.4 ± 1.3 | 7.3 ± 0.1 |
| Fibrinogen (mg/dL) | 390 ± 12 | 352 ± 14 |
| Homocysteine (μmol/L) | 9.4 ± 0.5 | 9.6 ± 0.4 |
| AST (UI/L) | 16.5 ± 2.5 | 15.0 ± 0.9 |
| ALT (UI/L) | 22.2 ± 2.8 | 24.2 ± 2.0 |
| ALP (UI/L) | 96.3 ± 5.0 | 92.8 ± 4.8 |
| γ-GT (UI/L) | 18.9 ± 2.2 | 28.6 ± 4.4 |

ALP, alkaline phosphatase; ALT, alanine aminotransferase; AST, aspartate aminotransferase; BMI, body mass index; CRP, C-reactive protein; DBP, diastolic blood pressure; γ-GT, γ-glutamyltransferase; HOMA, homeostasis model assessment; NG, normoglycemic; IGT, impaired glucose tolerance; QUICKI, quantitative insulin sensitivity check index; SBP, systolic blood pressure; T2D, type 2 diabetes; WHR, waist-to-hip ratio. Data are mean ± SEM. Differences between groups were analyzed by two-tailed unpaired *t*-tests. **P*<0.05 and ****P*<0.0001 vs NG obese patients.