

Supplemental Table 1. The sequences of all primers.

Primers	Forward	Reverse
FGF21	AGATGCGGTCGCTTCTTTCA	TGCGCCCCATCTGAATTTCT
FGFR1C	ACAAGATGCTCTCCCTCCT	GGGCATACGGTTTGGTTTGG
KLB	CCAAACCGGTCGGAAAACAC	CACATCTGGCGTGGACTCTT
PPAR γ	TCTCAAACGAGAGTCAGCCTT	CACGGAGCTGATCCCAAAGT
AdipoQ	GCAGTCTGTGGTTCTGATTC	GCCCTTGAGTCGTGGTTTCC
aP2	GCCTACACCCAGAGCTACCG	GCCATGGTACTTGGCCTTG
FASN	TACTGGGCCAGGAATTTGAC	GTGGAAGTGACGCCTTTCAT
Plin1	CAGACCACCATGCACCTG	GCTGTTCTTGTCCACCGACT
ATGL	GTCAAGAGCAAGGCCAAGAA	AGCTGCTCCACCTTCTTCTG
HSL	AAGGCCTACAGGTGCAGTTC	CCAGATTGTTGCAGCGGTTT
LPL	ACCTGCCTTACATGGCTTGTT	CACGCCCTTCTCATAGGCAT
CEBP α	GTATGTGACCGCCTGCTTACT	GCAGGTTCCAAATGCCAGG
CEBP β	TGCTAGGCACATAGCCTCCT	GCTGGGCTATGGGTGTCTTT
FAS	GCCTACACCCAGAGCTACCG	GCCATGGTACTTGGCCTTG
Cyclophilin	TCTGCACTGCCAAGACTGAG	TCGAGTTGTCCACAGTCAGC

Supplemental Table 2. Correlation between FGF21 and clinical parameters

FGF21	r	p-value
Age	-.108	.174
BMI	.212	.008
SBP	.123	.125
DBP	.095	.239
T.chol	.137	.089
TG	.292	.001
HDL-C	-.091	.322
LDL-C	.182	.049
AST	.047	.564
ALT	.096	.237
FPG	.145	.069
PP2	.174	.066
HbA1c	.119	.147
HOMA-IR	.246	.004
Matsuda index	-.240	.016

BMI, body mass index; SBP, systolic blood pressure; DBP, diastolic blood pressure; T.chol., total cholesterol; TG, triglyceride; HDL-C, high density lipoprotein cholesterol; LDL-C, low density lipoprotein cholesterol; AST, aspartate transaminase; ALT, alanine aminotransferase; FPG, fasting plasma glucose; PP2, postprandial 2-h glucose

Supplemental Table 3. Basal characteristics of subjects (cohort 2)

	NGT (n=17)	T2DM (n=23)	<i>p-value</i>
Age (years)	65.4 ± 12.4	68.1 ± 8.6	0.408
Male: Female	15 : 2	16 : 7	0.256
BMI (kg/m ²)	23.6 ± 2.2	24.5 ± 4.0	0.421
SBP (mmHg)	127.7 ± 17.9	123.2 ± 17.7	0.436
DBP (mmHg)	72.0 ± 11.1	69.7 ± 9.9	0.502
T. chol. (mg/dL)	179.5 ± 43.5	164.7 ± 53.5	0.356
TG (mg/dL)	142.7 ± 89.4	144.4 ± 130.0	0.966
HDL-C (mg/dL)	51.5 ± 30.4	43.5 ± 11.5	0.301
LDL-C (mg/dL)	106.4 ± 46.8	92.8 ± 33.2	0.343
AST (IU/L)	35.8 ± 16.5	39.1 ± 26.3	0.886
ALT (IU/L)	25.4 ± 14.2	32.1 ± 20.6	0.246
FPG (mg/dL)	116.6 ± 42.5	185.8 ± 72.3	0.002
HbA1c (%)	5.9 ± 0.7	7.9 ± 1.3	< 0.001
FGF21 (pg/mL)	178.4 ± 169.4	431.6 ± 371.1	0.009

Data are presented as mean ± SD; BMI, body mass index; SBP, systolic blood pressure; DBP, diastolic blood pressure; T.chol., total cholesterol; TG, triglyceride; HDL-C, high density lipoprotein cholesterol; LDL-C, low density lipoprotein cholesterol; AST, aspartate transaminase; ALT, alanine aminotransferase; FPG, fasting plasma glucose; ; FGF21, fibroblast growth factor 21

Supplemental Table 4. Ectopic fat accumulation according to glucose metabolism

	NGT (n=48)	Prediabetes (n=53)	T2DM (n=89)	<i>p-value</i>
Abdominal subcutaneous fat area (cm ²)	178.9 ± 70.5	171.0 ± 63.3	164.6 ± 67.5	0.390
Abdominal visceral fat area (cm ²)	119.1 ± 53.6	140.0 ± 44.4*	148.1 ± 49.6†	0.001
Pericardial fat volume (cm ³)	83.5 ± 36.0	89.4 ± 35.1	98.6 ± 40.3†	0.042
Liver-Spleen HU difference (HU)	7.2 ± 9.1	4.7 ± 10.5	2.0 ± 11.3	0.059
Mid-thigh low density muscle area (cm ²)	34.2 ± 10.7	41.1 ± 12.4*	41.8 ± 15.3†	0.003

Data are presented as mean ± SD.

* NGT vs. Prediabetes, † NGT vs. Type 2 diabetes, ‡ Prediabetes vs. Type 2 diabetes