

## SUPPLEMENTARY DATA

**Supplementary Table 1.** Pearson's correlation with serum osteocalcin

Variables	r	P
Age	-0.047	NS
Body mass index	-0.125	<0.001
Body fat percentage	-0.093	0.001
Systolic blood pressure	-0.001	NS
Diastolic blood pressure	-0.030	NS
Fasting serum glucose	-0.046	NS
Glycated hemoglobin	-0.042	NS
Log HOMA-IR	-0.061	0.032
Log HOMA-B%	-0.035	NS
Total cholesterol	-0.044	NS
Log triglycerides	-0.090	0.002
HDL cholesterol	0.083	0.004
LDL cholesterol	-0.039	NS
Log γGT	-0.149	<0.001
Uric acid	-0.043	NS
Fibrinogen	0.020	NS
Log lipoprotein (a)	0.068	0.017
Log plasminogen activator inhibitor-1	-0.111	<0.001

**Supplementary Table 2.** Cox proportional hazards regression analysis for incident type 2 diabetes in impaired fasting glucose subjects

	HR per 1-SD increase in variables	95% CI	P
Osteocalcin upper tertile (reference)	1	ND	ND
middle tertile	1.12	0.67-1.88	0.70
lower tertile	0.97	0.55-1.71	0.91
Fasting plasma glucose	10.82	5.45-21.47	<0.001
HbA1c	2.32	1.65-3.26	<0.001
HDL cholesterol	0.64	0.49-0.85	0.002

ND, not determined

Adjusted for age, BMI, body fat percentage, FBS, HbA1c, systolic blood pressure, triglyceride, HDL cholesterol, fibrinogen, PAI-1, smoking status, and presence of metabolic syndrome

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**Supplementary Figure 1.** Kaplan-Meier survival curve for incident type 2 diabetes according to serum total osteocalcin tertiles (red, upper tertile; blue, middle tertile; and black, lower tertile) in impaired fasting glucose subjects ( $P=0.395$  across the tertiles)

