

**Supplementary Table 2.** Clinical characteristics of all individuals from the three replication cohorts according to the status of gestational diabetes

Characteristic	Guangzhou Study (case-control study) <i>de novo</i> replication MALDI-TOF mass spectrometry platform			HAPO-Thai Study (population-based study) <i>in silico</i> replication Illumina HumanOmni1-Quad v1.0 BeadChip			HAPO-Hispanic Study (population-based study) <i>in silico</i> replication Illumina Human1M-Duov3 BeadChip		
	GDM case ( <i>n</i> =564)	Non-GDM control ( <i>n</i> =572)	<i>P</i> value	GDM case ( <i>n</i> =260)	Non-GDM control ( <i>n</i> =933)	<i>P</i> value	GDM case ( <i>n</i> =207)	Non-GDM control ( <i>n</i> =596)	<i>P</i> value
Gestational age at OGTT, wk	-	-	-	28.1 ± 1.86	28.2 ± 1.77	0.5086	26.8 ± 2.02	26.8 ± 2.04	0.9901
Age, yr	29.2 ± 4.16 <sup>a</sup>	31.4 ± 4.43 <sup>a</sup>	<0.0001	29.3 ± 5.64	27.3 ± 5.39	<0.0001	30.7 ± 5.38	28.3 ± 5.29	<0.0001
Body mass index, kg/m <sup>2</sup>	25.7 ± 2.94 <sup>a</sup>	26.0 ± 3.04 <sup>a</sup>	0.0992	26.6 ± 3.91	25.4 ± 3.49	<0.0001	33.1 ± 6.52	29.1 ± 4.90	<0.0001
Fasting plasma glucose, mmol/L	4.73 ± 0.74	4.24 ± 0.33	<0.0001	4.75 ± 0.45	4.35 ± 0.29	<0.0001	5.16 ± 0.40	4.50 ± 0.29	<0.0001
1-hr plasma glucose, mmol/L	9.97 ± 1.70	7.21 ± 1.40	<0.0001	10.4 ± 1.32	7.62 ± 1.30	<0.0001	9.49 ± 1.90	7.02 ± 1.49	<0.0001
2-hr plasma glucose, mmol/L	9.06 ± 1.68	6.41 ± 1.03	<0.0001	8.12 ± 1.46	6.22 ± 1.05	<0.0001	7.27 ± 1.56	5.79 ± 1.05	<0.0001
Glucose area under the curve, mmol/L	1,012 ± 144	752 ± 108	<0.0001	1,011 ± 99.2	774 ± 98.6	<0.0001	943 ± 143	730 ± 113	<0.0001
Fasting C-peptide, pmol/L	-	-	-	633 (466–799)	466 (366–599)	<0.0001	966 (766–1199)	666 (533–866)	<0.0001
HOMA2-IR	-	-	-	1.33 (0.99–1.73)	0.97 (0.76–1.25)	<0.0001	2.12 (1.68–2.68)	1.40 (1.10–1.86)	<0.0001
HOMA2-%β	-	-	-	133 (110–152)	126 (109–149)	0.2647	150 (129–173)	150 (130–182)	0.1761
Maternal smoking during pregnancy	-	-	-	1.2 (3)	0.5 (5)	0.2803	0 (0)	0.3 (2)	0.4040

Values are presented as mean ± standard deviation, median (interquartile range), or percentage (number). Between-group comparisons were performed by unpaired Student's *t*-test, the Wilcoxon Rank Sum test, or the chi-square test.

MALDI-TOF, matrix-assisted laser desorption/ionization time-of-flight; HAPO, Hyperglycemia and Adverse Pregnancy Outcome; GDM, gestational diabetes mellitus; OGTT, oral glucose tolerance test; HOMA2-IR, homeostatic model assessment 2 of insulin resistance; HOMA2-%β, homeostatic model assessment 2 of β-cell function.

<sup>a</sup>Data on age and body mass index were available for only 348 women with GDM and 439 women without GDM.