Accompanying information

* a brief description of the dataset

The data consist of summary statistics from eight genome-wide association meta-analyses based on eight different estimates for beta-cell function calculated from an oral-glucose tolerance test.

* the total sample size, and sample size for each phenotype

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Trait** | **1936 cohort** | **ADDITIONPRO** | **ADIGEN** | **Botnia Family Study** | **GDM offspring** | **Health08** | **Inter99** | **Metsim** | **PPP-Botnia Study** | **Final sample size** |
| BIGTT-AIR | 576 | 1198 | 430 | 4518 | 526 | 692 | 4966 | 8604 | 4049 | 25559 |
| CIR | 575 | 1189 | 430 | 4484 | 529 | 672 | 5259 | 8604 | 4049 | 25791 |
| Stumvoll | 584 | 1202 | 430 | 4544 | 529 | 697 | 5168 | 8604 | 4049 | 25807 |
| xinsdG30 | 573 | 1179 | 428 | 4458 | 527 | 672 | 5098 | 8604 | 4049 | 25588 |
| xinsG30 | 581 | 1192 | 428 | 4532 | 527 | 697 | 5159 | 8604 | 4049 | 25769 |
| DI | 573 | 1188 | 428 | 4506 | 0 | 692 | 4960 | 8604 | 4049 | 25000 |
| DIBIG | 576 | 1198 | 430 | 4518 | 528 | 692 | 4966 | 8604 | 4049 | 25561 |
| HOMA-β | 591 | 1216 | 431 | 4617 | 530 | 723 | 5595 | 8604 | 4049 | 26356 |

* definitions of the phenotypes assayed

|  |  |  |
| --- | --- | --- |
| **Trait** | **Unit in ref. article** | **Formula** |
| BIGTT-AIR | pmol/L ;  mmol/L | exp(8.20 + (0.00178 ∗ I0) + (0.00168 ∗ I30) - (0.000383 ∗ I120) - (0.314 ∗ G0) - (0.109 ∗ G30) + (0.0781 ∗ G120) + (0.180 ∗ sex) + (0.032 ∗ BMI)) |
| CIR | |  | | --- | | 𝜇𝑈/mL;  mg/dL | | (I30 ∗ 0.1667 ∗ 100) / (*G*30 ∗ 18 ∗ (G30 ∗ 18) - 70)) |
| Stumvoll | |  | | --- | | pmol/L ;  mmol/L | | 1283 + 1.829 ∗ I30 - 138.7 ∗ G30 + 3.772 ∗ I0 |
| xinsdG30 | |  | | --- | | 𝜇𝑈/mL;  mg/dL | | ((I30 - I0) ∗ 0.1667) / ((G30-G0) ∗ 18) |
| xinsG30 | 𝜇𝑈/mL;  mmol/L | ((I30 - I0) ∗ 0.1667) / G30 |
| DI | |  | | --- | | 𝜇𝑈/mL;  mg/dL | | xinsG30 ∗ 1000 / (√((G0∗18) ∗ I0 ∗ 0.1667) ∗ ((mean(G) ∗ 18) ∗ mean(I) ∗ 0.1667)) |
| DIBIG | |  | | --- | | pmol/L ;  mmol/L | | BIGTT-AIR ∗ exp(4.90 - (0.00402 ∗ I0) - (0.000556 ∗ I30) - (0.00127 ∗ I120) - (0.152 ∗ G0) - (0.00871 ∗ G30) - (0.0373 ∗ G120) - (0.145 ∗ sex) - (0.0376 ∗ BMI)) |
| HOMA-β | 𝜇𝑈/mL;  mmol/L | (I0 ∗ 20 ∗ 0.1667) / (G0 - 3.5) |

It is serum insulin in picomoles per litre (pmol/l) at time t (minutes) and Gt is plasma glucose in millimoles per litre (mmol/l) at time t (minutes). BMI is kg/m2. Gender is coded as female = 0 and male = 1. Glucose 1mmol/l = 18mg/dl and insulin 1pmol/l = 0.1667 μU/mL = 0.1667 mU/l.

* ancestry of the participants

European ancestry (including Finish)

* reference to a publication describing the study, if available

None

* image file(s) for logo(s) of consortia involved, if you would like us to display them in the dataset documentation

None

* if you would like us to provide the summary statistic files for download, please also supply a README file to accompany them

The file contains:

MarkerName=chromosome number:chromosome position (GRCh37/hg19)

A1=Effect allele

A2=Other Allele

Freq1=Mean allele frequency

FreqSE=Allele frequency standard error

MinFreq=Minimum allele frequency observed in meta-analysed studies MaxFreq=Maximum allele frequency observed in meta-analysed studies

Effect=Effect size

StdErr=Standard error

P-value=*P*-value

TotalSampleSize=N

**Link:** [**https://kp4cd.org/submissions**](https://kp4cd.org/submissions)