

### Supplementary Table 1:

List of primers used for qRT-PCR in this study

Gene	Forward	Reverse
<i>Tet1</i>	GCAGTGAACCCCGGAAAAC	AGAGCCATTGTAAACCCGT TG
<i>Tet2</i>	CTCCCATCAGCCATACAGAAC C	CTGACTGTGCGTTTTATCC CT
<i>Tet3</i>	TGCGATTGTGTCGAACAAATA GT	TCCATACCGATCCTCCATG AG
D-loop	AATCTACCATCCTCCGTG	GACTAATGATTCTTCACCG T
18S rRNA	CATTCGAACGTCTGCCCTATC	CCTGCTGCCTTCCTTGGA

### Supplementary Method:

#### 1. Enzyme-linked immuno sorbent assay

Serum insulin (JLC3534, Shanghai Jinkang Bioengineering Co., Ltd, China), tumor necrosis factor- $\alpha$  (TNF- $\alpha$ , JLC3924, Shanghai Jinkang Bioengineering Co., Ltd, China), and interleukin-6 (IL-6, JLC3601, Shanghai Jinkang Bioengineering Co., Ltd, China) were tested using a commercial enzyme-linked immuno sorbent assay (Elisa) kit, following the manufacturer's instructions. The optical density was measured at 450 nm using a microplate reader (Multiskan FC, Thermo Fisher, China).

#### 2. Intraperitoneal glucose tolerance test

Intraperitoneal glucose tolerance test (IpGTT) was performed before the mice were sacrificed. In short, after 10 hours of fasting, tail venous blood of mice was collected to detect fasting glucose and fasting insulin. Fasting blood glucose (0 minute) was measured using a commercial glucose meter (Roche Active, Roche Diabetes Care GmbH, Germany). Serum was obtained after tailing venous blood had been centrifuged, and fasting insulin was found using a commercial Elisa kit (JLC3534, Shanghai Jinkang Bioengineering Co., Ltd, China). Then the mice were intraperitoneally injected glucose solution (2g/kg), and blood glucose was detected at 30, 60 and 120 minutes, respectively. The area under the curve (AUC) was calculated by drawing the curve of blood glucose change. Homeostasis model assessment estimate of insulin

resistance (HOMA-IR) is calculated based on fasting glucose, fasting insulin.

**Figure legend**

**Figure S1.** (A). Total food intake of mice in each group. (B). The curve of IpGTT. (C). The area under the curve of IpGTT. (D). Serum fasting insulin concentration. (E). indexes of HOMA-IR. Data were expressed as the means  $\pm$  standard deviation (SDs) ( $n = 10$  per group). \*:  $P < 0.05$ .

**Figure S2.** (A). The maximum grip strength. (B) The ratio of grip strength to body weight. (C) Serum TNF- $\alpha$  concentration. (D) Serum IL-6 concentration. Data were expressed as the means  $\pm$  standard deviation (SDs) ( $n \geq 5$  per group). \*:  $P < 0.05$ .

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