

SUPPLEMENTARY DATA

Supplementary Table 1. Blood glucose levels and plasma insulin levels in diabetic WT, diabetic JNK1^{+/-}, and diabetic JNK2^{-/-} mice

Groups Timing	Diabetic WT		Diabetic JNK1 ^{+/-}		Diabetic JNK2 ^{-/-}	
	Blood glucose levels (mg/dl)	Insulin levels (ng/ml)	Blood glucose levels	Insulin levels	Blood glucose levels	Insulin levels
After induction of diabetes before insulin pellets	412.0 ± 19.5	0.22 ± 0.02	401.4 ± 9.7	0.23 ± 0.03	438.6 ± 17.2	0.25 ± 0.02
Prior to insulin pellet withdrawal (E4.5)	152.6 ± 14.1*	0.78 ± 0.07*	137.0 ± 11.4*	0.85 ± 0.14*	170.8 ± 7.4*	0.89 ± 0.2*
After insulin pellet withdrawal (E8.5)	436.0 ± 20.2	0.23 ± 0.04	450.2 ± 21.0	0.30 ± 0.03	424.4 ± 12.7	0.27 ± 0.04

The blood glucose levels in non-diabetic WT mice were 139.9 ± 18.5 mg/dl, which were comparable to the levels in the diabetic WT, the diabetic JNK1^{+/-}, and the diabetic JNK2^{-/-} groups with insulin pellets at E4.5. The plasma insulin levels in non-diabetic WT mice were 1.2 ± 0.09 ng/ml (n = 5), which were about five times more than those in the diabetic WT, the diabetic JNK1^{+/-}, and the diabetic JNK2^{-/-} groups without insulin pellets. Insulin pellets increased more than 3.5 times plasma insulin levels in diabetic mice. Insulin levels in non-diabetic and diabetic mice were similar to those reported in *PNAS*, 2011, 108:8779-8784. * indicated significant difference (n = 5 mice) compared to the two other time points within the group.

Supplementary Table 2. Body weight in non-diabetic and diabetic mice

	Diabetic WT	Diabetic JNK1 ^{+/-}	Diabetic JNK2 ^{-/-}
Before STZ injections	19.0 ± 0.4	18.9 ± 0.2	18.7 ± 0.4
Prior to pregnancy (diabetic with insulin pellets)	18.6 ± 0.3	19.4 ± 0.3	18.2 ± 0.3
At E8.5	20.0 ± 0.4*	20.5 ± 0.4*	19.2 ± 0.3*

Induction of diabetes did not significantly affect body weight. Because of pregnancy, body weight at E8.5 was significantly higher than those before pregnancy. * indicated significant difference (n = 5 mice) compared to the two other time points within the group.