## **Supplemental Figure Legends**

Supplemental Figure 1

- a) Body weight of Control<sup>∆per</sup> (black bars; n = 24 44), IR<sup>∆per</sup> (white bars; n = 12 42), Control<sup>∆wb</sup> (grey bars; n = 4 28) and IR<sup>∆wb</sup> (striped bars n = 6 17) mice over 30 days. Average weight of mice before tamoxifen administration (day 0) was set to 100%. Values are mean ± SEM. \*\**P* ≤ 0.01, \*\*\**P* ≤ 0.001 versus control.
- b) Glucose tolerance tests in 13-week-old Control<sup> $\Delta per$ </sup> (filled squares, n = 18) and IR<sup> $\Delta per$ </sup> (open squares; n = 19) mice. Blood glucose concentrations were measured immediately before and 15, 30, 60 and 120 minutes after injection of 2 g/kg of glucose. Data represent the mean ± SEM. \**P* ≤ 0.05, \*\*\**P* ≤ 0.001 versus Control.
- c) Glucose tolerance tests in 13-week-old Control<sup>∆wb</sup> (grey triangles; n = 9) and IR<sup>∆wb</sup> (open triangles; n = 13) mice. Blood glucose concentrations were measured immediately before and 15, 30, 60 and 120 minutes after injection of 2 g/kg of glucose. Data represent the mean ± SEM. \**P* ≤ 0.05, \*\*\**P* ≤ 0.001 versus Control.

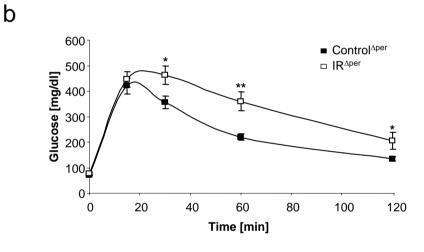
Supplemental Figure 2

a) Total serum leptin levels of Control<sup>Δwb</sup> (grey bars; n = 5) and IR<sup>Δwb</sup> mice (striped bars; n = 5) receiving a chronic infusion of leptin at a rate of 12 µg per day. Blood samples were taken 2, 4, 6 and 7 days after the subcutaneous implantation of an osmotic mini-pump. Mice had been administered doxycycline for 16 days prior to pump implantation. Values are mean ± SEM.

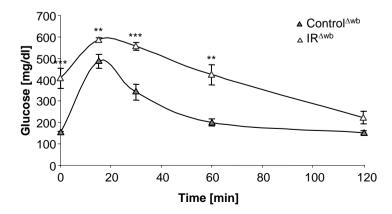
b) Plasma insulin concentrations in 14-week-old Control<sup> $\Delta per$ </sup> (black bars; n = 14 – 24), IR<sup> $\Delta per$ </sup> (white bars; n = 13 - 23), Control<sup> $\Delta wb$ </sup> (grey bars; n = 5) and IR<sup> $\Delta wb$ </sup> (striped bars; n = 4 - 5) mice over 30 days. Data represent the mean ± SEM. \*\*\**P* ≤ 0.001 versus control.

## Koch et. al., Supplemental Fig. 1 а Т Weight of initial [%]

Time [days]



С



## Koch et. al., Supplemental Fig. 2



b

