



Figure S4 Effect of acute deletion of *Med23* in glucose and cholesterol homeostasis in diet-induced obesity mice. 4-week old *Med23*^{fl^{ox}/fl^{ox}} mice were fed on HFD for 6 weeks and then were injected with indicated adenovirus (Ad-cre, adenoviruses expressing Cre recombinase or Ad-ctrl, adenoviruses expressing unspecific shRNA) via tail vein. Experiments below were carried out successively (allow mice to recover from fasting and stimulation for at least 3 days) 1-week after Ad injection. **(A)** Q-PCR analysis of *Med23* mRNA (normalized to 18S). **(B)** Body weight after Ad injection. **(C)** Analysis of liver weight to body weight (18h fasting). **(D)** Blood glucose level at random fed state or fasting state

(10-day after Ad injection). **(E)** Fasting plasma insulin level. **(F)** Plasma AST and ALT were measured under fasting state (18 h) of mice 3-week post-Ad injection. **(G)** Fasting plasma cholesterol and triglyceride levels. **(H)** Glucose tolerance test of mice (1-week after Ad injection). **(I)** Pyruvate tolerance test of mice (2-week after Ad injection). **(J)** Insulin tolerance test was measured 18 days after Ad injection. For all panels, data are mean \pm s.e.m.. * $P < 0.05$, ** $P < 0.01$, *versus* control by Student's two-tailed t test. For all the panels, absence of * indicates that the statistical analysis was non-significant. n = 5 per group.