**Supplementary information**

**Figure S4**

**Dose dependent and strain-dependent anti-obesity effects of *Lactobacillus sakei* in a diet induced obese murine model**

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**Supplementary Figure S4.** Histological analyses of hepatic lipid accumulation. Representative HE-stained liver sections are shown (magnification, 200X). Mice fed a high-fat diet showed considerable hepatic lipid accumulation compared with normal pellet diet. Moderate vacuolations around the portal triad are shown in the HFD-fed mouse. LFD, normal diet (low-fat diet); HFD, high-fat diet; OLS, Orlistat 40 mg/kg; CJB38H, CJB46H, and CJLS03H received 1 X 1010 CFUs respectively of the *L. sakei* strains CJB38, CJB46, and CJLS03.