Supplementary Material

Article

Laminarin Reduces Cholesterol Uptake and NPC1L1 Protein Expression in High-fat Diet (HFD)-fed Mice

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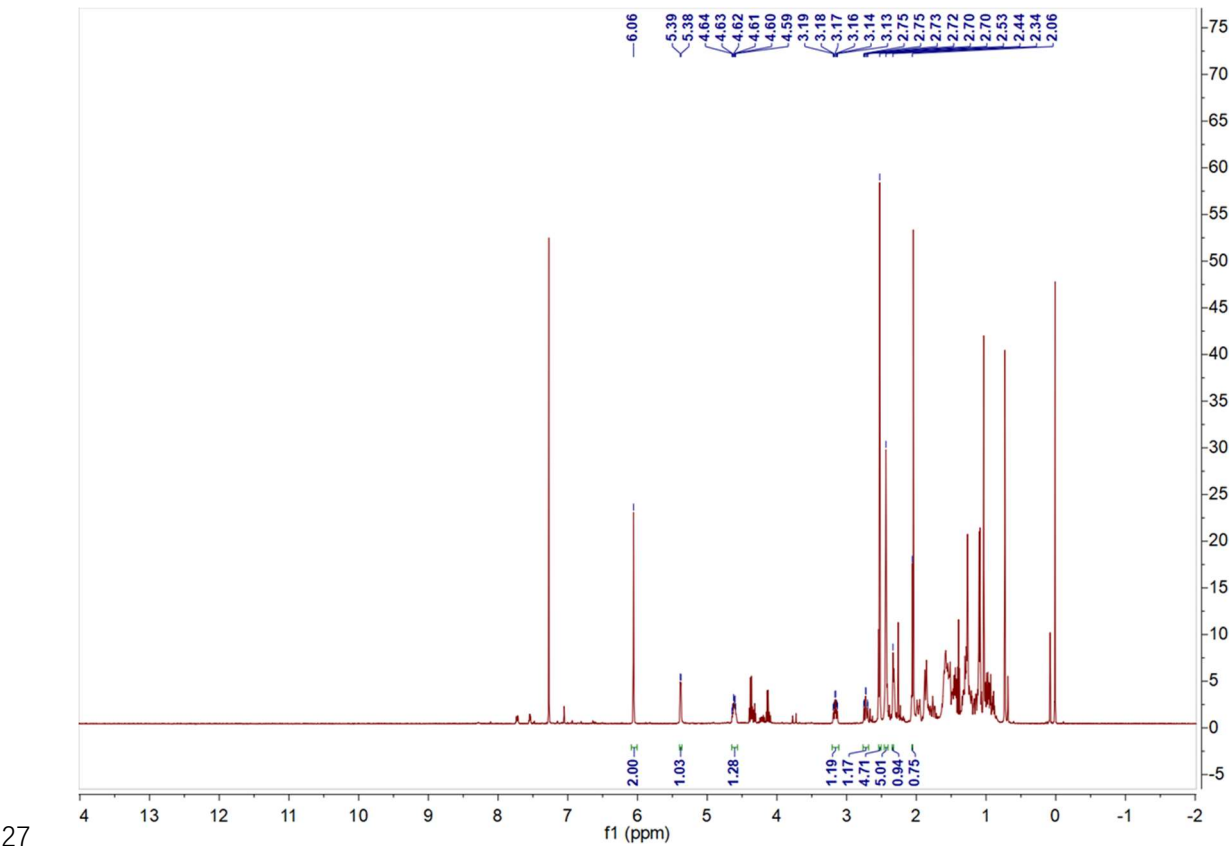* Correspondence: Limei Wang (limei.wang@qdu.edu.cn)

Supplementary data

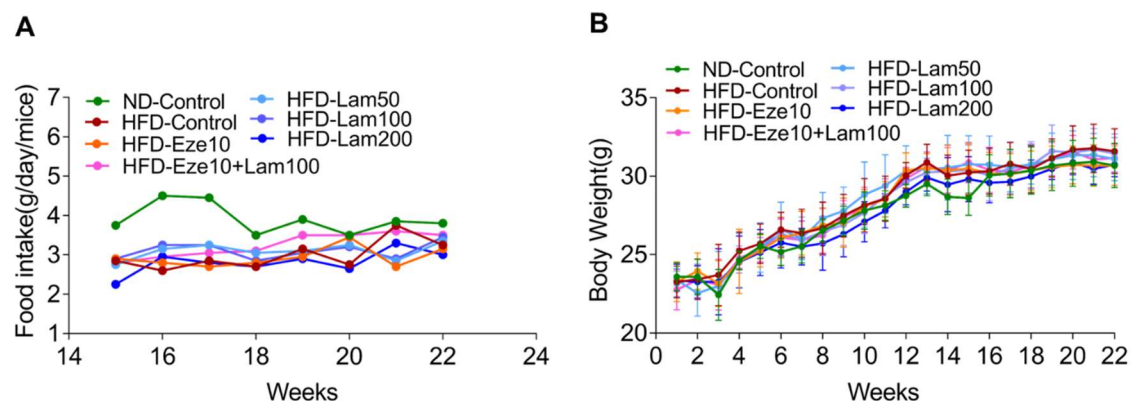**Fig. S1** The NMR data of synthesized fluorescent BODIPY-cholesterol.

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Fig. S2 The food intake and body weight during the experimental procedure.

A. The average food intake (g/day/mice) of mice during 15-22 weeks. B. Time-

course of body weight in the seven groups of mice. Data were presented as the

mean ± S.D. (n=5~12). There was no significance among the different groups
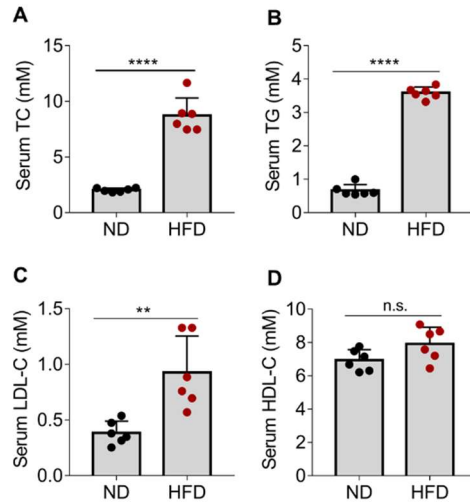
(Two-way ANOVA).

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Fig. S3 Comparison of serum lipid profile between HFD mice and ND mice in

17 weeks old male C57BL/6J mice. A. Plasma TC concentration (in mM, n = 6).

B. Plasma TG concentration (in mM, n = 6). C. Plasma LDL-Cholesterol

concentration (in mM, n = 6). D. Plasma HDL-Cholesterol concentration (in mM,

n = 6). The data were presented as the mean ± S.D., **$p < 0.01$, ****$p < 0.0001$

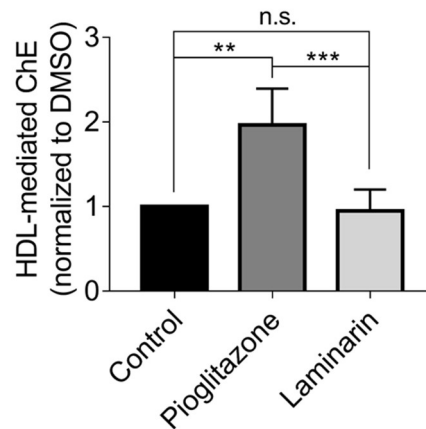(Student's t test).

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Fig. S4 The effect of lanimarin on cholesterol efflux from J774A.1 cells. J774A.1

macrophages were first labeled with fluorescent BODIPY-cholesterol (0.0625

mM) and loaded with solvent control (DMSO), laminarin (10 μM), and the

positive control, pioglitazone (1μM). After 24 h incubation, cells were washed

twice with PBS and incubated again with the same compounds in the presence

or absence of 1% human plasma dissolved in serum-free medium for 6 h.

Extracellular as well as intracellular fluorescence intensity were quantified by

flexstation 3. The data were presented as the mean ± S.D., **$p < 0.01$, ***$p < 0.001$,

n.s. no significance (One-way ANOVA).