

***Lactobacillus rhamnosus* 069 and *Lactobacillus brevis* 031: Unraveling Strain-Specific Pathways for Modulating Lipid Metabolism and Attenuating High-Fat Diet induced Obesity in Mice**

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Table S1. Effect of LR069 and LB031 on initial body weight, final body weight, body weight gain, and food intake in HFD-fed mice.

	ND	HFD	LR069	LB031
Initial body weight (g)	19.64 ± 1.34 ^a	20.08 ± 0.63 ^a	20.13 ± 1.26 ^a	20.05 ± 1.37 ^a
Final body weight (g)	28.30 ± 0.99 ^c	32.47 ± 2.23 ^a	30.20 ± 2.29 ^b	30.99 ± 2.15 ^{ab}
Body weight gain (g)	8.66 ± 1.35 ^c	12.39 ± 2.12 ^a	10.07 ± 2.01 ^{bc}	11.01 ± 1.73 ^{ab}
Food intake (g/day)	3.02 ± 0.44 ^a	2.94 ± 0.25 ^a	3.09 ± 0.42 ^a	3.08 ± 0.40 ^a

Data are expressed as mean ± SEM. The significance of difference among four groups was analyzed by one-way ANOVA and Duncan's multiple range tests. The values with different letters (a-c) are significantly different ($p < 0.05$) between each group.

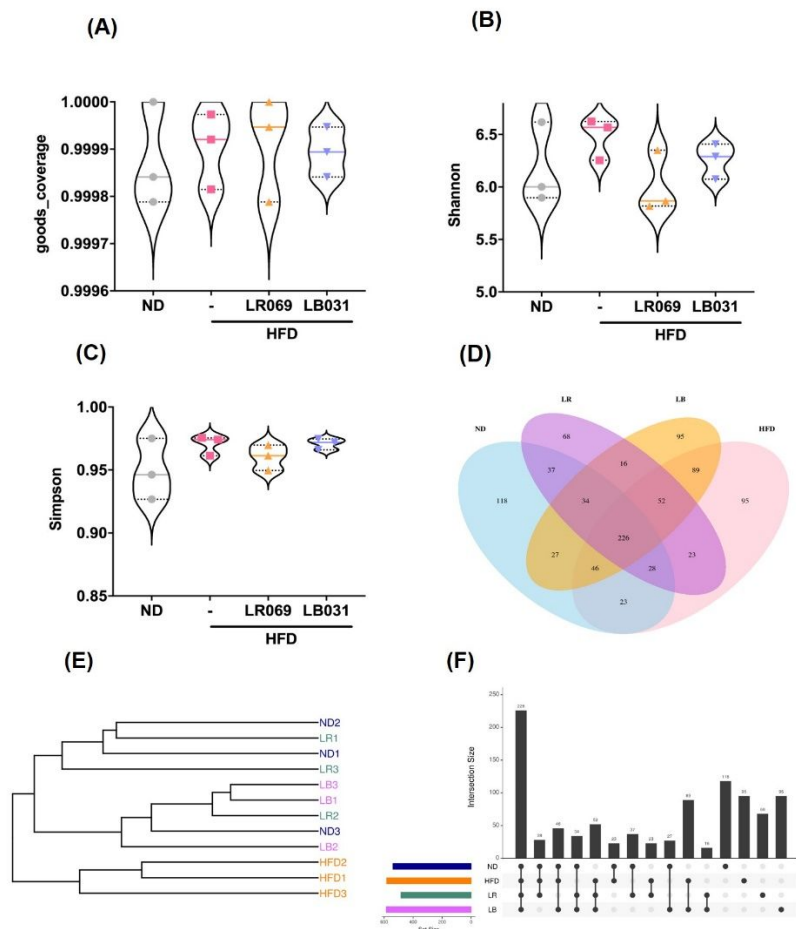


Figure S1. Effect of LR069 and LB031 changed the gut microbiota composition in HFD-fed mice. (A) goods_coverage. (B) Simpson. (C) Shannon. (D) Venn diagram. (E) UpSet plot. (F) UPGMA. (Unweighted Paired-Group Method Using Arithmetic Means). n= 3 for each analysis, LR=LR069, LB= LB031.