This journal is © The Royal Society of Chemistry 2020

Table S1. Detailed composition information for the experimental diets.

Macronutrients	**D12450B**		**D12451**	
	gm %	**Kcal %**	**gm %**	**Kcal %**
Protein	19.2	20	24	20
Carbohydrate	67.3	70	41	35
Fat	4.3	10	24	45
		100		100
Total (Kcal/gm)	3.85		4.73	
Ingredient	**gm %**	**Kcal %**	**gm %**	**Kcal %**
Casein, 80 Mesh	200	800	200	800
L-Cystine	3	12	3	12
Corn Starch	315	1260	72.8	291
Maltodextrin 10	35	140	100	400
Sucrose	350	1400	172.8	691
Cellulose, BW200	50	0	50	0
Soybean Oil	25	225	25	225
Lard*	20	180	177.5	1598
Mineral Mix S10026	10	0	10	0
Dicalcium Phosphate	13	0	13	0
Calcium Carbonate	5.5	0	5.5	0
Potassium Citrate, 1 H20	16.5	0	16.5	0
Vitamin Mix V1001	10	40	10	40
Choline Bitartrate	2	0	2	0
FD&C Yellow Dye #5	0.05	0	0	0
FD&C Red Dye #40	0	0	0.05	0
Total	1055.05	4057	858.15	4057

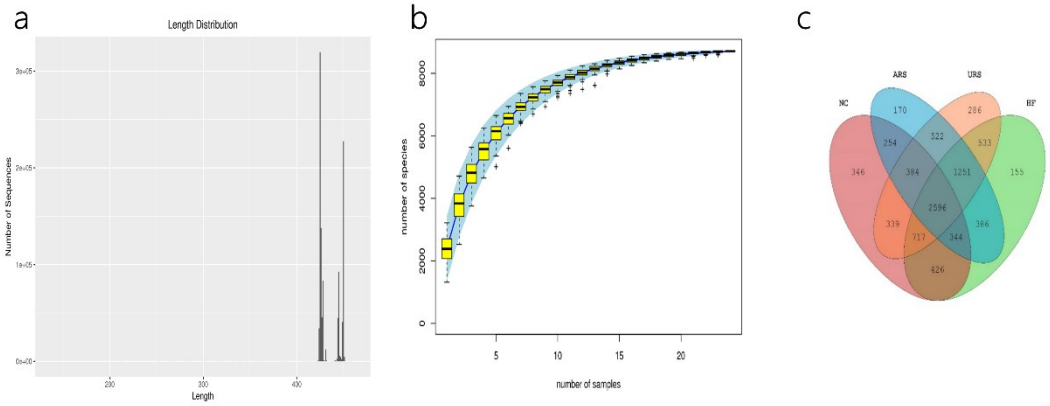

Fig. S1. (a): DNA sequencing number and length; (b): estimation of the sample size by species accumulation analysis; (c): a Venn graph of OTU of the gut microbiota from different groups.