

## **Supporting Information for**

### **Effects of taurine on gut microbiota homeostasis:**

### **An evaluation based on two models of gut dysbiosis**

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The file includes:

Table S1 to S4

**Table S1.** The elution gradient

Time (min)	A	B
0	80%	20%
0-6	80-40%	20-60%
6-25	0%	100%
25-26	0%	100%
26-28	0-50%	100-50%
28-30	50-80%	50-20%
30-32	80%	20%

Flow rate of 0.3 mL/min, column temperature was maintained at 30°C.

**Table S2.** Aldex2 analysis of differences in the microbial taxa between Taurine and Control I group. Positive values indicate higher abundances in Taurine group, while negative values correspond to higher abundances in Control I group.

Name	Effect	Name	Effect
<i>Rikenellaceae RC9 gut group</i>	0.82418	<i>Alistipes</i>	-1.18895
<i>Bifidobacterium</i>	0.757043	<i>Ruminococcaceae UCG-014</i>	-0.68847
<i>Intestinimonas</i>	0.623993	<i>unidentified rumen bacterium RF32</i>	-0.67556
<i>Catabacter</i>	0.577016	<i>Hungatella</i>	-0.66442
<i>Parabacteroides</i>	0.561738	<i>[Eubacterium] fissicatena group</i>	-0.59929
<i>Bilophila</i>	0.561361	<i>Ruminococcaceae UCG-010</i>	-0.59161
<i>Butyricimonas</i>	0.499737	<i>Phascolarctobacterium</i>	-0.58475
<i>ASF356</i>	0.443217	<i>Ruminococcaceae NK4A214 group</i>	-0.50662

**Table S3.** Aldex2 analysis of differences in the microbial taxa between Antibiotic-Tau and Antibiotic group. Positive values indicate higher abundances in Antibiotic-Tau, while negative values correspond to higher abundances in Antibiotic group.

Name	Effect	Name	Effect
<i>Lactobacillus</i>	1.547984	<i>Erysipelatoclostridium</i>	-1.05332
<i>Enterobacter</i>	1.082583	<i>[Ruminococcus] torques group</i>	-0.97657
<i>Proteus</i>	0.808426	<i>Alistipes</i>	-0.42612
f__Enterobacteriaceae	0.691757	<i>uncultured bacterium</i>	-0.42288
<i>Enterococcus</i>	0.492112		
<i>Akkermansia</i>	0.434226		

**Table S4.** Aldex2 analysis of differences in the microbial taxa between C.R-Tau and C.R group. Positive values indicate higher abundances in C.R-Tau, while negative values correspond to higher abundances in C.R group.

Name	Effect	Name	Effect
<i>Morganella</i>	4.401302	<i>Akkermansia</i>	-4.88299
<i>Proteus</i>	4.07961	<i>Erysipelatoclostridium</i>	-1.64422
<i>Escherichia-Shigella</i>	1.539724	f__Enterobacteriaceae	-1.19842
<i>Family XIII AD3011 group</i>	0.805517	<i>Lactobacillus</i>	-1.05555
<i>Bacteroides</i>	0.701172	f__Muribaculaceae	-0.91965
<i>Stenotrophomonas</i>	0.658571	f__Erysipelotrichaceae;g__uncultured	-0.88847
		[ <i>Clostridium</i> ] <i>innocuum group</i>	-0.82702
		f__Lachnospiraceae	-0.68934