

Supplementary Tables

Table S1. The component of standard rat chow diet.

ingredient		content (g)	kcal
protein	Casein, 30 Mesh	200	800
	DL-Methionine	3	12
carbohydrate	Corn Starch	150	600
	Sucrose	500	2000
	Cellulose, BW 200	50	0
fat	Corn Oil	50	450
Mineral Mix S10001		35	0
Vitamin Mix V10001		10	40
Choline Bitartrate		2	0
Total		1000	3902

Table S2. Disease activity index evaluation.

Score	Weight loss (%)	Fecal viscosity	Fecal occult blood
0	0	Normal	None
1	1-5	Soft stools	Yellow stool
2	5-10	Myxoid stools	Blood-tinged
3	10-20	Loose stools	Slight bleeding
4	>20	Diarrhea	Gross blood stool

Table S3. The rules of histopathological scoring.

Score	Inflammation	Crypt damage	Ulceration	Edema
1	No infiltrate	None	None	None
2	A little mucosal infiltration	Crypt peripheral infiltration	Little, focal ulcers	Present

3	Mucosal infiltration	Crypt goblet cell loss	frequent small ulcers	-
4	Submucosa and lamina propria infiltration	Large area crypt absence	Large areas lacking surface epithelium	-
5	Large area mucosal infiltration	No crypts	-	-

Table S4. Metabolites tentatively identified in TP (thyme polyphenols) via UPLC-MS/MS in the positive & negative ionization mode.

Peak no.	Ionization mode	Molecular Formula	Q1(Da)	Q3(Da)	MS ⁿ	Signal intensity	Identification
1	Positive	C18H16O7	345.1	315.06	344.09	1.35E+08	Lysionotin
2	Positive	C27H30O14	579.17	271.07	578.16	4.84E+07	Rhoifolin
3	Positive	C16H12O6	301.07	286.05	300.06	4.93E+07	Hispidulin
4	Negative	C7H6O4	153.02	109.03	154.03	9.01E+07	Protocatechuic acid
5	Positive	C28H32O15	609.18	301.00	608.17	2.94E+07	Diosmin
6	Negative	C24H26O13	521.13	359.08	522.14	5.03E+07	Rosmarinic acid-3-O-glucoside
7	Positive	C16H12O6	301.07	286.05	300.06	2.23E+07	Diosmetin
8	Positive	C30H26O12	579.15	271.06	578.14	4.53E+07	Apigenin-7-O-glucoside
9	Negative	C36H30O16	717.15	519.10	718.15	2.55E+07	Salvianolic acid B
10	Positive	C24H22O14	535.11	287.05	534.10	1.21E+07	Kaempferol-3-O-glucoside
11	Negative	C26H22O10	493.11	298.80	494.12	1.94E+07	Salvianolic acid A
12	Positive	C15H12O5	273.08	153.02	272.07	2.32E+07	Naringenin
13	Positive	C21H18O12	463.09	287.06	462.08	9.60E+06	Scutellarin
14	Negative	C36H30O16	717.15	519.00	718.15	1.72E+07	Lithospermic acid B
15	Positive	C26H20O8	461.12	285.08	460.12	1.54E+07	Acacetin-7-O-glucuronide
16	Positive	C21H20O12	465.10	303.05	464.10	1.31E+07	Isoquercitrin
17	Positive	C21H18O12	463.09	287.06	462.08	1.30E+07	Luteolin-7-O-glucuronide
18	Negative	C9H8O4	179.03	135.05	180.04	4.54E+06	Caffeic acid
19	Negative	C10H14O	149.10	133.07	150.10	3.87E+06	Thymol
20	Negative	C16H18O9	353.09	191.01	354.09	3.58E+06	Chlorogenic acid
21	Positive	C15H12O6	289.07	153.02	288.06	9.51E+06	Eriodictyol
22	Negative	C9H10O5	197.05	123.00	198.05	8.60E+06	Syringic acid
23	Positive	C15H10O5	271.06	153.01	270.05	8.29E+06	Apigenin
24	Negative	C16H18O9	353.09	191.05	354.10	3.58E+06	Cryptochlorogenic acid

25	Positive	C18H16O8	361.09	163.04	360.09	3.51E+06	Rosmarinic acid
26	Positive	C24H22O15	551.10	303.05	550.10	3.32E+06	Quercetin-7-O-glucoside
27	Negative	C21H18O12	461.07	285.04	462.08	2.50E+06	Kaempferol-3-O-glucuronide
28	Negative	C10H10O4	193.05	134.01	194.06	2.33E+06	Ferulic acid
29	Positive	C21H18O11	447.09	271.06	446.09	2.18E+06	Apigenin-7-O-glucuronide
30	Negative	C8H8O4	167.03	108.02	168.04	1.64E+06	Vanillic acid
31	Negative	C10H14O	149.10	107.05	150.10	1.43E+06	Carvacrol
32	Negative	C20H16O13	463.05	300.99	464.06	1.32E+06	Ellagic acid-4-O-glucoside
33	Positive	C9H8O3	165.05	119.00	164.05	1.97E+06	p-Coumaric acid
34	Positive	C27H30O16	611.16	303.05	610.15	1.79E+06	Rutin

Supplementary figures

Figure S1. Schematic of animal experimental design.

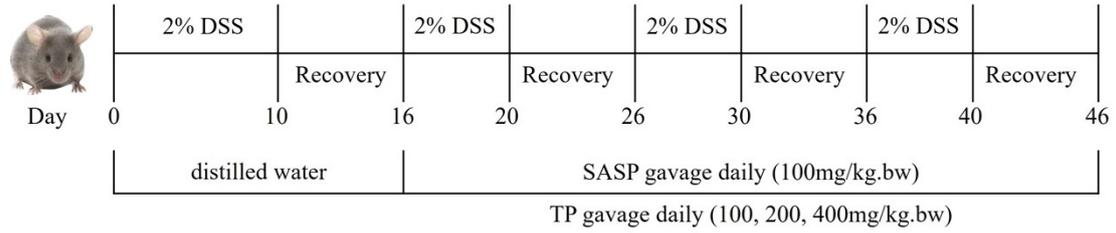


Figure S2. Shannon curve of 30 samples (n = 5).

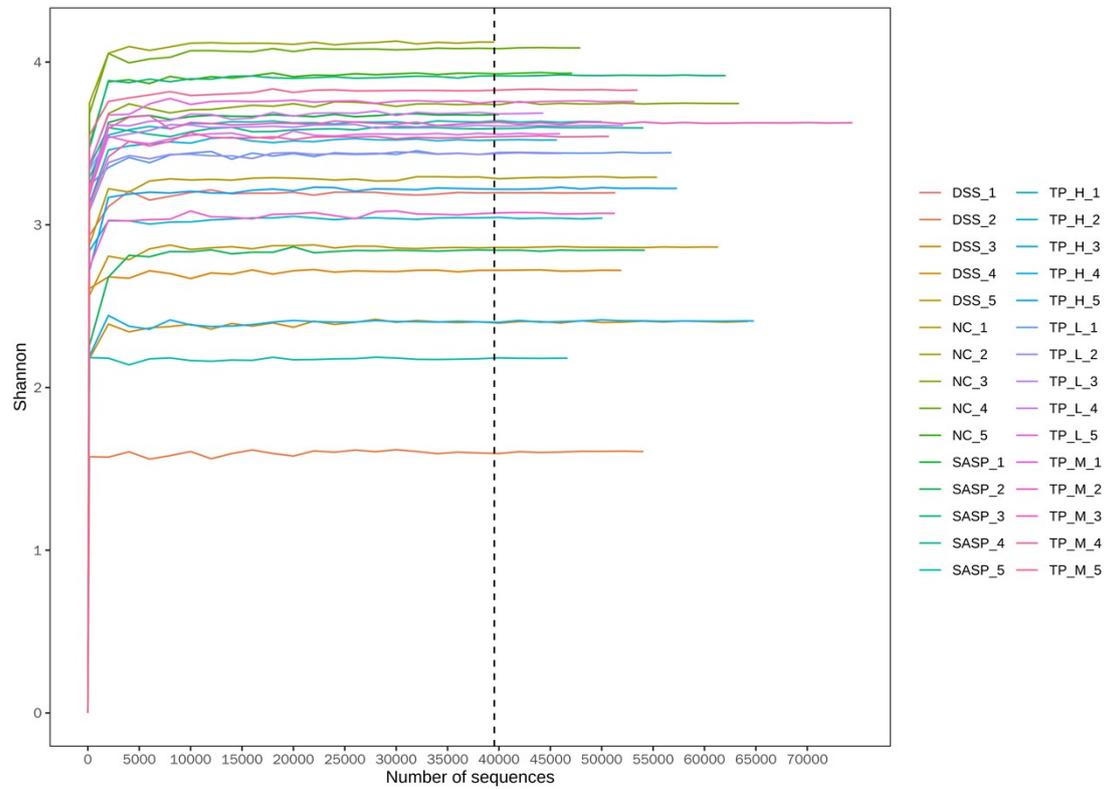


Figure S3. Linear discriminant analysis (LDA) score distribution histograms of different administration groups.

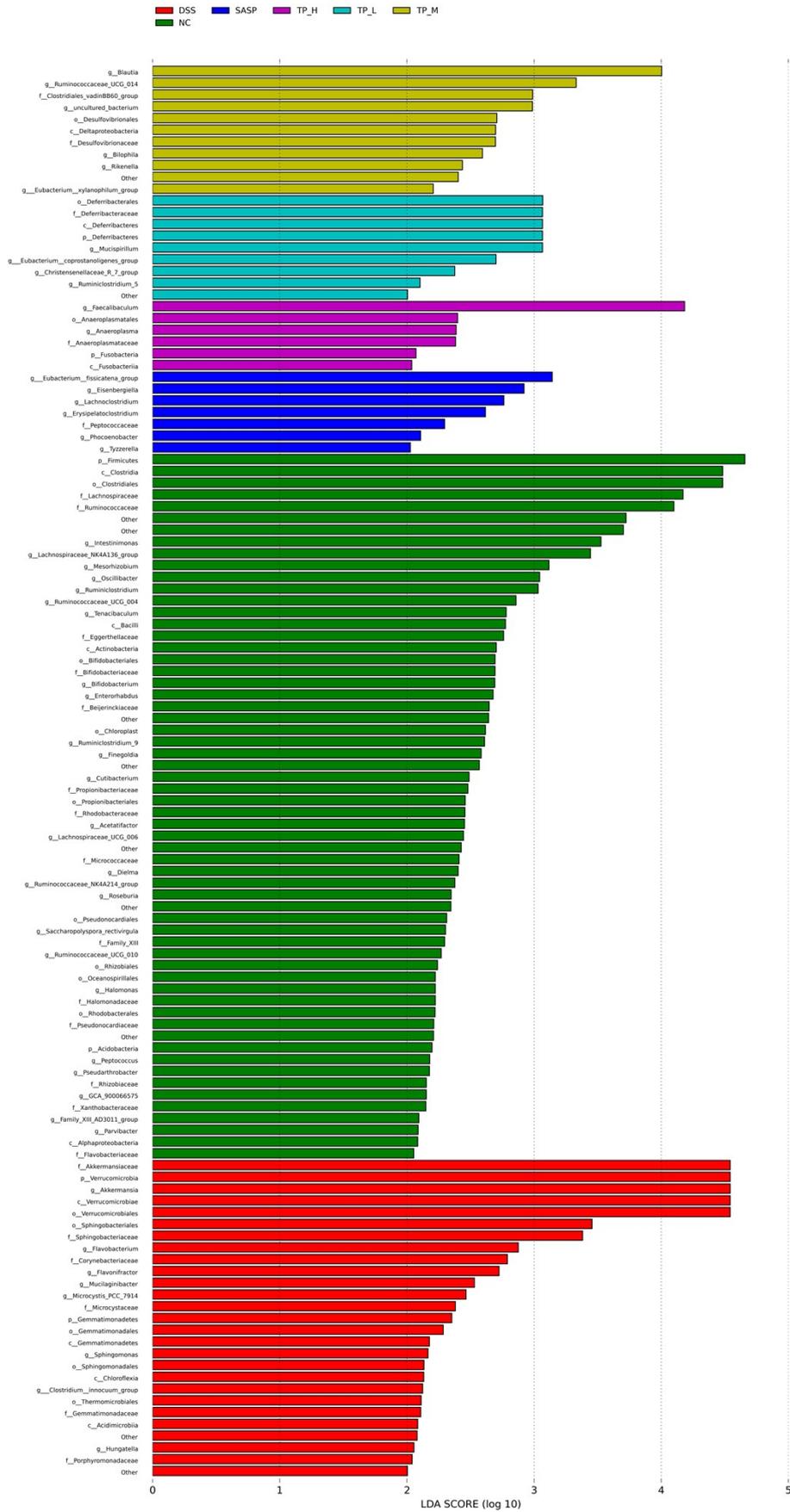
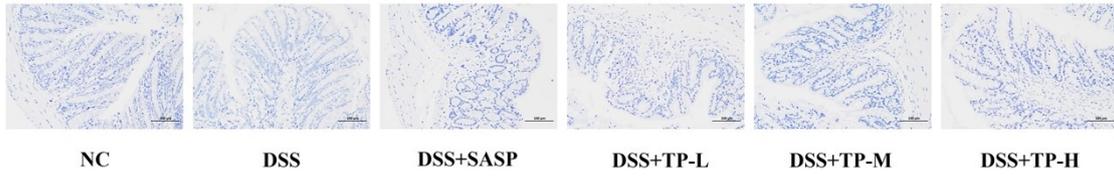


Figure S4. Negative controls of Immunohistochemistry (IHC) and Immunofluorescence (IF) analysis. The original magnifications: $\times 200$ and $\times 100$, respectively.

Negative Controls



Negative Controls

