Electronic Supplementary Material (ESI) for Food & Function.

Gut dysbiosis correction contributes to the hepatoprotective effects of *Thymus quinquecostatus* CELAK extract against alcohol through gut-liver axis

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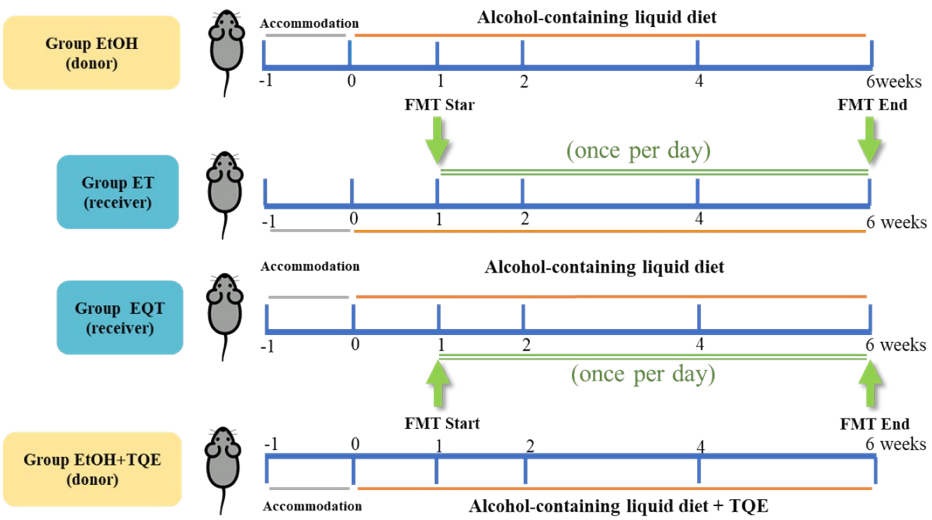

Supplementary Fig. S1. Study design of FMT experiment.

Supplementary Tab. S1. Identified compounds in the TQE by UPLC-MS/MS.

No.	t_R (min)	Ion mode	Formula	Measured mass (*m/z*)	MS/MS data (*m/z*)	Proposed compound
1	16.22	Negative	$C_9H_{10}O_5$	197.0456	151	Salvianic acid A
2	16.39	Positive	$C_8H_8O_4$	169.0492	151, 133, 123	Orsellinic acid
3	17.36	Negative	$C_{13}H_{18}O_7$	285.0982	135, 123	Orcinol glucoside
4	18.05	Negative	$C_{14}H_{20}O_7$	299.1138	261, 161, 119	Salidroside
5	18.26	Positive	$C_7H_6O_3$	139.0388	111, 93, 65	3,4-Dihydroxybenzaldehyde
6	18.31	Positive	$C_{15}H_{16}O_9$	341.0862	179, 161, 151, 133, 123	Esculin
7	18.65	Positive	$C_{15}H_{16}O_8$	325.0913	163, 135, 117	Skimmin
8	18.69	Positive	$C_{15}H_{12}O_7$	305.0649	259, 231, 153	Taxifolin
9	18.96	Positive	$C_{16}H_{18}O_9$	355.1015	163, 145, 135, 117	Chlorogenic acid
10	18.98	Negative	$C_{15}H_{18}O_8$	325.0931	163, 119	Bilobalide
11	19.15	Positive	$C_{21}H_{20}O_{11}$	449.1072	287, 241, 153	Cynaroside
12	19.62	Positive	$C_{15}H_{10}O_7$	303.0491	257, 119, 201	Robinetin
13	20.06	Positive	$C_9H_{10}O_5$	199.0597	181, 155, 140, 95	Syringic acid
14	20.22	Positive	$C_{18}H_{16}O_8$	361.0911	163, 135	Rosmarinic acid
15	20.41	Positive	$C_{15}H_{12}O_6$	289.0700	271, 179, 163, 153, 135, 117	Eriodictyol
16	20.53	Negative	$C_{21}H_{20}O_{11}$	447.0936	327, 297, 135	Orientin
17	20.60	Positive	$C_{27}H_{30}O_{16}$	611.1597	465, 303	Rutin
18	20.76	Positive	$C_{21}H_{18}O_{13}$	479.0813	303, 135	Quercetin 3-*O*-*β*-D-Glucuronide
19	20.81	Positive	$C_{21}H_{20}O_{12}$	465.1018	303, 229, 145, 465	Hyperoside
20	20.96	Positive	$C_{21}H_{20}O_{11}$	449.1068	287, 153, 135	Kuromanin
21	21.21	Negative	$C_{27}H_{32}O_{15}$	595.1677	287, 151, 135	Eriocitrin
22	21.48	Negative	$C_{21}H_{20}O_{10}$	431.0988	413, 311, 282, 151	Vitexin
23	21.52	Negative	$C_{28}H_{34}O_{14}$	593.1858	327, 285	Poncirin

No.	t_R (min)	Ion mode	Formula	Measured mass (*m/z*)	MS/MS data (*m/z*)	Proposed compound
24	21.54	Positive	$C_{14}H_{12}O_3$	229.0856	201, 158, 157, 141, 129, 105	Trioxsalen
25	21.71	Positive	$C_{21}H_{18}O_{12}$	463.0859	287, 269, 169, 119	Scutellarin
26	21.93	Positive	$C_{21}H_{20}O_{10}$	433.1122	271, 153	Genistin
27	22.17	Negative	$C_{27}H_{32}O_{14}$	579.1730	271, 151, 119	Narirutin
28	22.23	Positive	$C_{27}H_{30}O_{14}$	579.1698	433, 271, 153	Rhoifolin
29	22.53	Negative	$C_{16}H_{18}O_9$	353.0878	191, 179, 173, 135, 93, 85	Neochlorogenic acid
30	22.54	Positive	$C_{21}H_{20}O_{11}$	449.1069	287, 213	Astragalin
31	22.60	Positive	$C_{28}H_{32}O_{15}$	609.1805	463, 301, 271, 153, 119	Neodiosmin
32	22.63	Positive	$C_{10}H_8O_5$	209.0442	194, 181, 163, 149, 135, 107	Fraxetin
33	22.77	Positive	$C_{21}H_{20}O_{10}$	433.1122	271, 153, 119	Apigenin-7-*O*-*β*-D-glucoside
34	22.88	Negative	$C_{15}H_{10}O_5$	269.0458	227, 225, 201, 151, 117	Apigenin
35	22.89	Positive	$C_{21}H_{18}O_{11}$	447.0913	271, 153, 119	Apigenin 7-*O*-glucuronide
36	22.90	Negative	$C_{25}H_{24}O_{12}$	515.1196	353, 299, 179, 173, 135	Isochlorogenic acid C
37	23.00	Positive	$C_{36}H_{30}O_{16}$	719.1596	719, 539, 521, 341, 323, 281	Salvianolic acid B
38	23.19	Positive	$C_9H_8O_4$	181.0491	163, 145, 139, 135	Caffeic acid
39	23.26	Positive	$C_{27}H_{22}O_{12}$	539.1174	163, 135	Lithospermic acid
40	23.27	Positive	$C_{15}H_{10}O_4$	255.0645	181, 153	Chrysin
41	23.72	Positive	$C_{29}H_{34}O_{15}$	623.1955	477, 315	Pectolinarin
42	24.24	Positive	$C_{15}H_{10}O_6$	287.0543	269, 169, 123	Scutellarein
43	24.30	Positive	$C_{11}H_{12}O_5$	225.0752	207, 175, 147, 119, 91	Sinapinic acid
44	24.46	Positive	$C_{16}H_{14}O_6$	303.0856	258, 177, 153,	Hesperetin
45	24.48	Positive	$C_{10}H_{10}O_4$	195.0648	145, 117, 89	Ferulic acid
46	24.63	Positive	$C_{28}H_{32}O_{14}$	593.1855	447, 285, 270	Linarin
47	24.67	Positive	$C_{26}H_{22}O_{10}$	495.1278	315, 297, 205, 199, 181, 163, 135	Salvianolic acid A

No.	t_R (min)	Ion mode	Formula	Measured mass (*m/z*)	MS/MS data (*m/z*)	Proposed compound
48	24.81	Negative	$C_{10}H_{12}O_2$	163.0765	148, 121, 93	Eugenol
49	25.02	Positive	$C_{16}H_{12}O_5$	285.0751	270, 242, 153	Acacetin
50	25.53	Positive	$C_{15}H_{10}O_6$	287.0544	269, 241, 213, 153, 135	Luteolin
51	25.62	Positive	$C_{15}H_{10}O_7$	303.0494	229, 183, 153, 137,	Quercetin
52	25.82	Negative	$C_{22}H_{20}O_{11}$	459.0940	285, 269, 175, 113	Wogonoside
53	26.33	Positive	$C_{16}H_{12}O_7$	317.0651	302, 168, 137	Nepetin
54	26.49	Positive	$C_{17}H_{14}O_7$	331.0805	316, 301, 151, 183	Jaceosidin
55	26.87	Positive	$C_{15}H_{10}O_4$	255.0646	227, 181, 153	Daidzein
56	26.93	Negative	$C_{20}H_{22}O_9$	405.1192	243, 225, 159	Astringin
57	27.37	Positive	$C_{15}H_{12}O_5$	273.0751	255 , 153， 119	Naringenin
58	27.86	Positive	$C_{15}H_{10}O_6$	287.0544	269, 153, 133, 121	Kaempferol
59	29.27	Positive	$C_{18}H_{16}O_7$	345.0961	330, 329, 301	Eupatilin
60	30.61	Positive	$C_{17}H_{14}O_6$	315.0854	282, 254, 226, 136	Scrophulein
61	31.03	Negative	$C_{19}H_{18}O_8$	373.0931	343, 328	Chrysosplenetin B
62	31.25	Positive	$C_{17}H_{14}O_6$	315.0853	300, 257	Pectolinarigenin
63	32.16	Positive	$C_{18}H_{16}O_7$	345.0960	330, 315, 227, 119	Xanthomicrol
64	32.48	Positive	$C_{16}H_{14}O_5$	287.0906	167, 147, 119	Sakuranetin
65	32.83	Positive	$C_{16}H_{12}O_5$	285.0750	270, 242	Genkwanin
66	32.89	Positive	$C_{18}H_{16}O_7$	345.0960	330, 315, 183, 213, 133	Lysionotin
67	33.83	Positive	$C_{30}H_{46}O_5$	487.3408	405, 119	Quillaic acid
68	36.17	Positive	$C_{20}H_{20}O_8$	389.1221	359, 341, 331, 313, 227, 197, 169, 163	5-*O*-Demethylnobiletin
69	38.18	Positive	$C_{19}H_{18}O_7$	359.1115	329, 311, 197, 169	Gardenin B
70	38.48	Positive	$C_{15}H_{18}O_2$	231.1373	129, 119	Dehydrocostus lactone
71	41.49	Positive	$C_{30}H_{46}O_4$	471.3461	407, 235	18 β-Glycyrrhetintic Acid

No.	t_R (min)	Ion mode	Formula	Measured mass (*m/z*)	MS/MS data (*m/z*)	Proposed compound
72	43.28	Positive	$C_{17}H_{24}O_3$	277.1792	137	Shogaol
73	43.93	Positive	$C_{15}H_{24}O$	221.1895	203, 165, 149, 147, 121, 107	Caryophyllene oxide
74	45.43	Positive	$C_{30}H_{48}O_4$	473.3617	409, 249, 203	Maslinic acid
75	47.14	Positive	$C_{30}H_{48}O_3$	457.3665	439, 411, 393, 249, 191	Ursolic acid
76	49.97	Positive	$C_{30}H_{50}O_2$	443.3877	425, 407, 235, 217, 203, 189, 175, 161, 121	Betulin