Supporting Information

Differential effects of ellagic acid on non-alcoholic fatty liver disease in mice: grouped by urolithin A -producing capacity

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Table S1. The initial content of urolithin A in feces of EA administration mice

Mouse ID	Urolithin A (UroA) Concentration (ng/g feces)
25	145.34
36	136.99
27	131.31
24	130.84
21	128.26
35	125.82
31	125.33
29	118.48
39	111.55
23	109.16
34	68.05
40	64.36
30	54.79
32	52.72
22	51.53
38	42.35
26	30.31
37	26.25
28	22.55
33	15.14

Table S2. Content of urolithins in feces of HFFD-induced NAFLD mice (n = 5).

Group	Uro A (ng/g)
C	NF
M	NF
H	128.59 ± 7.00 a
L	27.32 ± 10.09 b

NF: not found. C, control group; M, model group; H, high UroA production group; L, low UroA production group; UroA, urolithin A. Values are expressed as mean ± SEM, and different letters represent significant differences ($p < 0.05$) among groups.

Table S3. The detailed results from the pathway analysis.

Pathway Name	Total	Expected	Hits	Raw p	-log10(p)	Holm adjust	FDR	Impact
Biosynthesis of unsaturated fatty acids	36	0.73143	6	5.46E-05	4.2625	0.004371	0.004371	0
Phenylalanine, tyrosine and tryptophan biosynthesis	4	0.08127	2	0.00234	2.6307	0.18488	0.093612	1
Histidine metabolism	16	0.32508	3	0.003568	2.4476	0.27826	0.095132	0.34426
Pantothenate and CoA biosynthesis	20	0.40635	3	0.006871	2.163	0.52909	0.11861	0.04762
beta-Alanine metabolism	21	0.42667	3	0.007906	2.102	0.60089	0.11861	0.39925
Valine, leucine and isoleucine biosynthesis	8	0.16254	2	0.010379	1.9839	0.77839	0.11861	0
Phenylalanine metabolism	8	0.16254	2	0.010379	1.9839	0.77839	0.11861	0.35714
Primary bile acid biosynthesis	46	0.9346	3	0.064037	1.1936	1	0.64037	0.00758
Linoleic acid metabolism	5	0.10159	1	0.097661	1.0103	1	0.86716	1
Nitrogen metabolism	6	0.1219	1	0.11605	0.93534	1	0.86716	0
Lysine degradation	30	0.60952	2	0.12236	0.91235	1	0.86716	0
Thiamine metabolism	7	0.14222	1	0.13408	0.87263	1	0.86716	0
Glycine, serine and threonine metabolism	33	0.67048	2	0.14313	0.84428	1	0.86716	0
Taurine and hypotaurine metabolism	8	0.16254	1	0.15175	0.81886	1	0.86716	0.42857
Arginine and proline metabolism	36	0.73143	2	0.1646	0.78357	1	0.87786	0.02442
Pyrimidine metabolism	39	0.79238	2	0.18663	0.72903	1	0.91326	0.05261
Valine, leucine and isoleucine degradation	40	0.8127	2	0.19407	0.71205	1	0.91326	0
Arachidonic acid metabolism	44	0.89397	2	0.22421	0.64935	1	0.99647	0.29133
Arginine biosynthesis	14	0.28444	1	0.25067	0.60089	1	1	0.11675
Butanoate metabolism	15	0.30476	1	0.26603	0.57506	1	1	0
Nicotinate and nicotinamide metabolism	15	0.30476	1	0.26603	0.57506	1	1	0.1943
Ubiquinone and other terpenoid-quinone biosynthesis	18	0.36571	1	0.31031	0.50821	1	1	0
Propanoate metabolism	22	0.44698	1	0.36533	0.43731	1	1	0
Pyruvate metabolism	23	0.4673	1	0.37841	0.42204	1	1	0
Glycolysis / Gluconeogenesis	26	0.52825	1	0.4161	0.38081	1	1	0
Purine metabolism	70	1.4222	2	0.42046	0.37628	1	1	0.02769
Glutathione metabolism	28	0.56889	1	0.43998	0.35657	1	1	0.01966
Alanine, aspartate and glutamate metabolism	28	0.56889	1	0.43998	0.35657	1	1	0.19712
Porphyrin metabolism	31	0.62984	1	0.47404	0.32418	1	1	0
Glyoxylate and dicarboxylate metabolism	32	0.65016	1	0.48494	0.31431	1	1	0
Sphingolipid metabolism	32	0.65016	1	0.48494	0.31431	1	1	0.06191
Cysteine and methionine metabolism	33	0.67048	1	0.49562	0.30485	1	1	0.10446
Glycerophospholipid metabolism	36	0.73143	1	0.5264	0.27869	1	1	0.02582
Steroid hormone biosynthesis	87	1.7676	2	0.53632	0.27057	1	1	0.03729
Fatty acid elongation	39	0.79238	1	0.55535	0.25544	1	1	0
Fatty acid degradation	39	0.79238	1	0.55535	0.25544	1	1	0
Tyrosine metabolism	42	0.85333	1	0.58258	0.23464	1	1	0.13972
Fatty acid biosynthesis	47	0.95492	1	0.62442	0.20452	1	1	0.01473