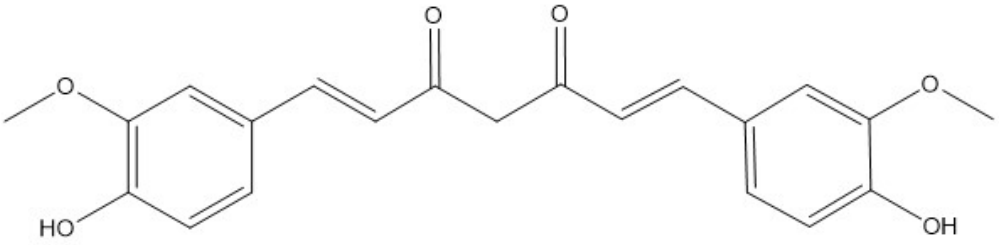
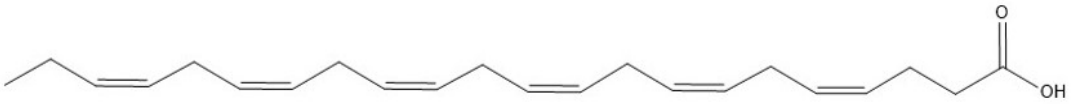
Curcumin



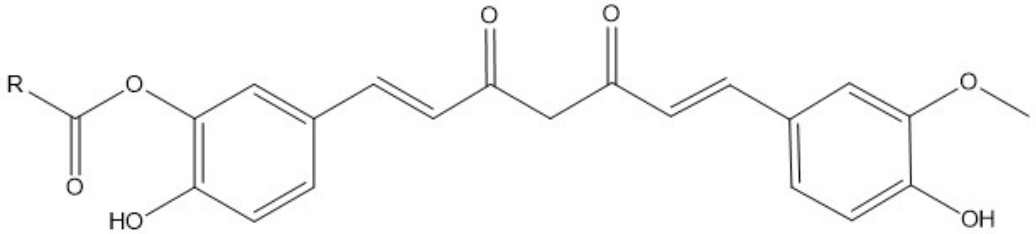
A

DHA



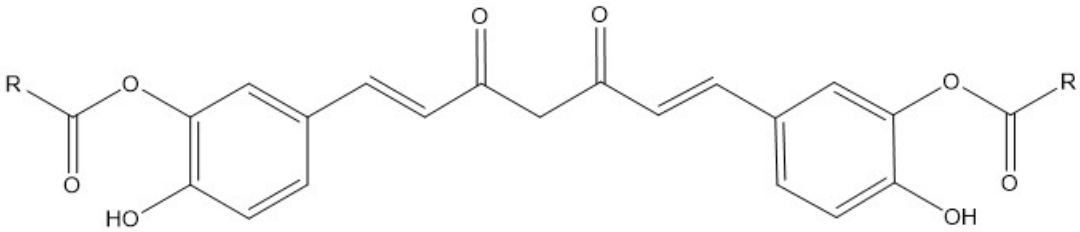
B

Cur-DHA



C

Cur-2DHA



D

Fig. S1. The structure of the curcumin (A), DHA (docosahexaenoic acid, B), Cur-DHA (DHA-acylated curcumin monoester, C) and Cur-2DHA (DHA-acylated curcumin diester, D). R indicates DHA.

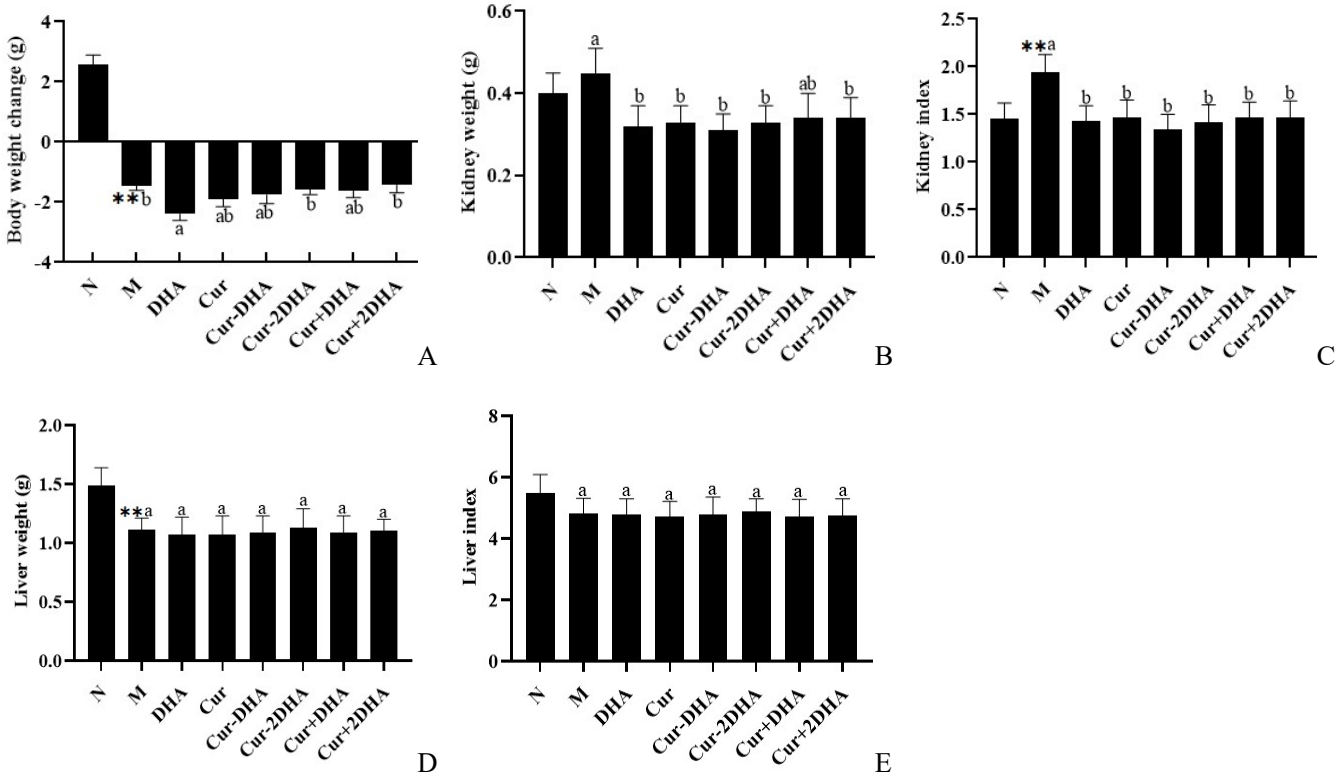


Fig. S2. Effects of different samples on body weight change (A), kidney weight (B), kidney index (C) liver weight (D), and liver index (E) in mice.

Note: All data were expressed as mean ± S.E.M. for 8 mice. **Significantly different compared to normal group ($p < 0.01$). Different letters represented significant differences among experimental groups. BUN represented blood urea nitrogen, Cr represented creatinine.

Table S1 Change of alpha diversity index

	Shannon index	Simpson index	Chao1 index	ACE index
N	6.58±0.66	0.98±0.09	349.7±31.2	325.8±33.2
M	5.31±0.46	0.93±0.09	323.8±28.8	324.3±30.1
DHA	5.97±0.58	0.97±0.08	364.6±32.7	364.2±35.9
Cur	5.82±0.54	0.96±0.09	347.4±31.2	349.4±32.4
Cur-DHA	5.81±0.55	0.95±0.08	360.3±31.5	357.5±33.2
Cur-2DHA	5.80±0.53	0.96±0.08	355.1±31.5	352.2±35.1
Cur+DHA	5.84±0.54	0.96±0.09	358.5±35.2	358.7±33.3
Cur+2DHA	5.81±0.49	0.96±0.08	362.0±32.3	362.9±32.9

Note: All data were expressed as mean ± S.E.M. for 8 mice.

Table S2 Fatty acid compositions of the kidney in mice

Fatty acid (%)	N	M	DHA	Cur	Cur-DHA	Cur-2DHA	Cur+ DHA	Cur+2DHA
C16:0	21.15±1.86	19.08±1.65	19.81±2.31	19.68±1.59	20.06±2.36	20.45±1.96	20.07±2.65	18.97±1.71
C16:1	0.81±0.09	0.43±0.05**ab	0.33±0.03b	0.39±0.05b	0.53±0.04a	0.34±0.04b	0.32±0.03b	0.54±0.07a
C18:0	14.98±1.69	14.42±1.71	14.16±1.52	14.53±1.65	13.56±1.25	14.38±1.65	14.94±1.53	14.01±1.76
C18:1	7.02±0.61	8.67±0.73**ab	9.58±0.76a	8.82±0.89ab	9.06±1.14ab	8.26±0.96ab	7.60±0.69b	10.16±1.25a
C18:2	12.17±1.12	14.12±1.15**	14.35±1.83	13.44±1.51	14.82±1.62	13.75±1.34	13.67±1.55	15.80±1.72
C20:4	17.73±0.97	19.42±1.07a	17.79±0.98ab	18.83±1.04ab	16.87±0.93b	17.00±0.94b	17.97±0.99ab	17.07±0.93b
C20:5	1.58±0.17	1.19±0.13c	1.47±0.17bc	1.16±0.13c	1.59±0.10b	2.07±0.13a	1.66±0.09b	1.81±0.11ab
C24:0	2.22±0.23	2.26±0.25	2.16±0.24	2.17±0.23	2.29±0.26	2.18±0.27	2.16±0.26	2.00±0.19
C22:6	13.32±0.83	11.94±0.75b	13.53±0.85ab	12.95±0.81ab	14.28±0.89ab	15.14±0.95a	14.58±0.91ab	14.89±0.93a

Note: All data were expressed as mean ± S.E.M. for 8 mice. **Significantly different compared to controls ($p < 0.01$), Different letters represented significant differences among experimental groups.