

Figure S1 The pathway outline of eicosanoids synthesis from AA

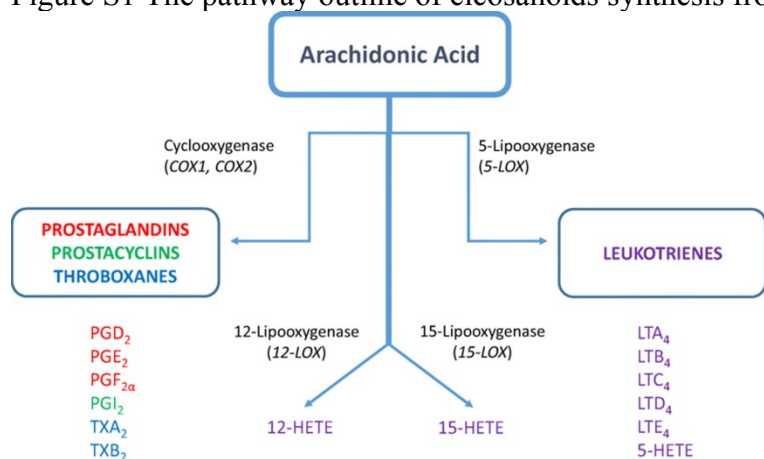


Figure S2 The pathway outline of SPMs from EPA and DHA

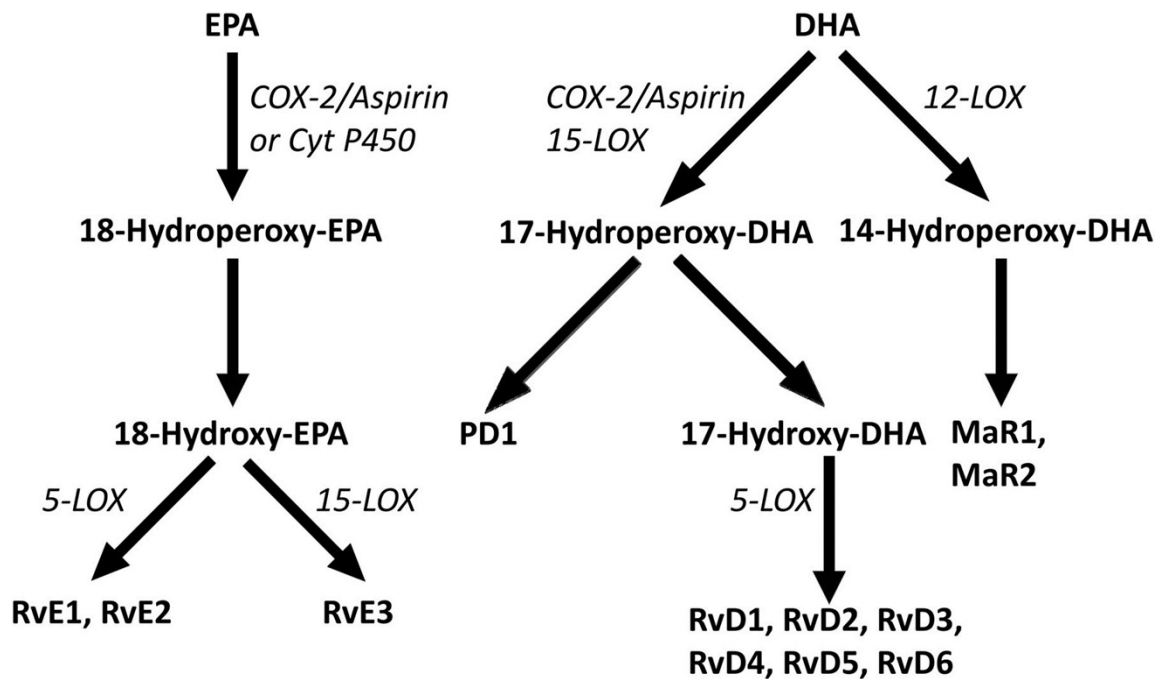
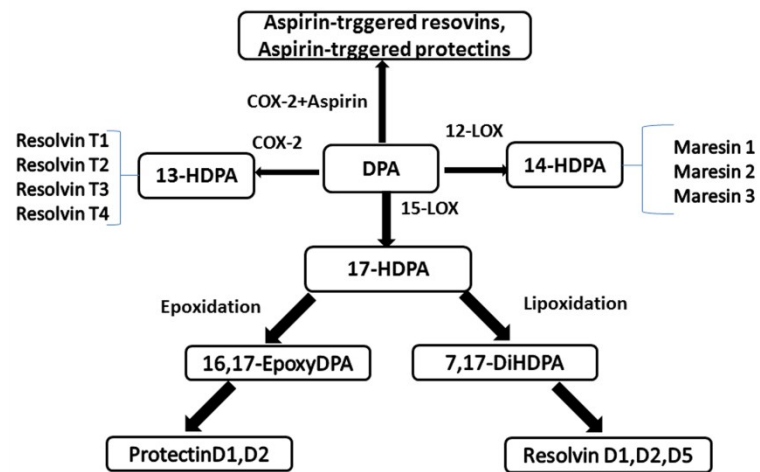


Figure S3 The pathway outline of SPMs from DPA



Raw data of Fig.1A

Time (d)	1	2	3	4	5	6	7
EPA	0	0	0	3.08	7.59	13.83	16.76
DPA	0	0	0	0.23	6.33	11.64	13.20
DHA	0	0	0	1.35	5.83	12.93	15.17
DSS control	0	0	0	1.57	10.28	17.08	18.69
Healthy control	0	0	0	0	0	0	0

Raw data of Fig.1B

Time (d)	1	2	3	4	5	6	7
EPA	0	0.33	0.33	1.3.3	2.33	3.00	3.33
DPA	0	0.33	0.33	1.00	1.67	2.33	2.67
DHA	0	0	0	0.67	1.67	2.33	3.00
DSS control	0	0	0.33	1.67	3.33	4.00	4.00
Healthy control	0	0	0	0	0	0	0

Raw data of Fig.2- Fig.7

Group	EPA	DPA	DHA	DSS control	Healthy control
colon length(cm)	6.23±0.31	6.41±0.47	6.33±0.29	5.13±0.20	7.80±0.21
macroscopic appearances score	3.17±0.21	3.00±0.17	3.00±0.31	3.67±0.21	0.33±0.05
histological assessment	2.51±0.20	2.16±0.11	2.21±0.13	3.51±0.20	0
TNF- α (pg/g)	150.83±1.67	128.48±0.93	130.13±1.15	252.98±1.76	50.57±0.60
IL-1 β (pg/g)	37.81±0.90	28.15±0.66	35.59±0.27	75.21±0.45	15.61±0.90
IL-6 (pg/g)	40.02±0.75	39.53±0.81	32.22±0.38	82.59±0.75	14.29±0.18
IL-10 (pg/g)	119.26±1.51	135.51±1.62	120.82±1.52	55.19±1.25	90.35±0.71
TNF- α	2.67±0.28	1.88±0.20	2.01±0.24	3.51±0.35	1
IL-1 β	3.51±0.38	2.73±0.31	3.46±0.29	7.32±0.63	1
IL-6	1.78±0.02	1.71±0.03	1.52±0.05	1.97±0.07	1
IL-10	1.58±0.06	1.74±0.03	1.56±0.04	0.61±0.03	1
MPO (U/g)	6.68±0.13	3.34±0.08	5.09±0.15	8.36±0.14	1.56±0.05
COX (pg/g)	62.55±1.00	60.35±0.81	61.78±0.75	90.75±1.05	50.15±1.15
5-LOX (pg/g)	42.19±0.65	41.5±0.79	43.62±1.17	60.81±0.96	30.13±0.64
PGE ₂ (pg/g)	1.75±0.05	1.11±0.06	1.25±0.03	3.16±0.04	0.55±0.02
LTB ₄ (pg/g)	3.56±0.10	2.91±0.05	3.11±0.08	7.31±0.10	1.82±0.06