

Additional file 8: Targeted Eicosanoid Analysis of EBC. EBC was collected from four groups of volunteers: healthy smokers, healthy non-smokers, non-smokers with nasal congestion, and non-smokers with the common cold. Samples were pooled, lyophilized, reconstituted in LC-MS buffer, and analyzed using targeted LC-MS on a triple quadrupole mass spectrometer.

Compound Method				Smoker	Nasal Congestion	Common Cold	Healthy
Name	Transition	Associated pathway	Fatty acid	Final Conc (pg/ml)	Final Conc (pg/ml)	Final Conc (pg/ml)	Final Conc (pg/ml)
11(12)-EET	319.2 -> 178.8	CYP450	AA	0.0	0.0	0.0	0.0
11B-PGF2a	353.2 -> 193.1	Cyclooxygenase	AA	1144.0	0.0	0.0	0.0
12S-HETE	319.2 -> 178.7	12-Lipoxygenase	AA	0.0	0.0	0.0	0.0
14(15)-EET	319.2 -> 175.0	CYP450	AA	0.0	0.0	0.0	0.0
15R-PGF2a	353.2 -> 309.2	Cyclooxygenase	AA	2091.5	0.0	0.0	0.0
15S-HETE	319.2 -> 219.1	15-Lipoxygenase	AA	0.0	0.0	0.0	0.0
5S-HETE	319.2 -> 115.0	5-Lipoxygenase	AA	0.0	0.0	0.0	0.0
6-a-Prostaglandin (PGI2 analog)	353.2 -> 129.0	Cyclooxygenase	AA	0.0	0.0	0.0	0.0
8(9)-EET	319.2 -> 301.1	CYP450	AA	0.0	0.0	0.0	0.0
8-iso-15R-PGF2a	353.2 -> 193.1	Lipid peroxidation/oxidative stress	AA	2383.2	0.0	0.0	0.0
8-iso-PGF2a	353.2 -> 193.1	Lipid peroxidation/oxidative stress	AA	1635.4	0.0	0.0	0.0
8S-HETE	319.2 -> 154.9	8-hydroxylation	AA	0.0	0.0	0.0	0.0
Carbocyclic Thromboxane A2 (TXA2 analog)	347.3 -> 247.0	Cyclooxygenase	AA	40.1	0.0	0.0	0.0
Lipoxin A4 (LXA4)	351.2 -> 114.9	5-Lipoxygenase	AA	100.8	0.0	0.0	0.0
LTB4	335.2 -> 195.1	5-Lipoxygenase	AA	136.4	0.0	0.0	0.0
LTD4_NEG	495.3 -> 176.9	5-Lipoxygenase/Glutathione-S-transferase	AA	0.0	0.0	0.0	0.0
LTE4_NEG	438.2 -> 333.1	5-Lipoxygenase/Glutathione-S-transferase	AA	29.9	0.0	0.0	0.0
PGE2	351.2 -> 315.2	Cyclooxygenase	AA	963.2	0.0	0.0	0.0
PGF2a	353.2 -> 309.2	Cyclooxygenase	AA	1296.3	0.0	0.0	0.0
Prostaglandin D2	351.2 -> 315.3	Cyclooxygenase	AA	106.4	0.0	0.0	0.0
TXB2	369.2 -> 168.9	Cyclooxygenase	AA	792.6	0.0	0.0	0.0
10(S),17(S)-DiHDoHE (Protectin DX)	359.2 -> 153.0	8-hydroxylation	DHA	96.6	0.0	0.0	0.0
14(S)-HDHA	343.2 -> 205.0	12-Lipoxygenase	DHA	67.3	0.0	0.0	0.0
17(S)-HDHA	343.2 -> 281.2	15-Lipoxygenase	DHA	57.6	0.0	0.0	0.0
7R Maresin-1	359.2 -> 250.0	12-Lipoxygenase	DHA	100.5			0.0
7S Maresin-1	359.2 -> 341.2	12-Lipoxygenase	DHA	164.2	0.0	0.0	0.0
Resolvin D1 (RVD1)	375.2 -> 141.0	12-Lipoxygenase	DHA	112.9	0.0	0.0	0.0
Resolvin D2 (RVD2)	375.2 -> 141.0	12-Lipoxygenase	DHA	74.8	0.0	0.0	0.0
13-HODE	295.2 -> 277.1	15-Lipoxygenase	LA	566.5	561.1	79.8	166.5
13-OxoODE	293.2 -> 113.0	15-Lipoxygenase	LA	129.7	135.6	91.0	105.9
9-HODE	295.2 -> 277.0	12-Lipoxygenase	LA	586.6	702.8	218.1	119.3
9-OxoODE	293.2 -> 185.0	12-Lipoxygenase	LA	267.3	410.8	131.7	64.4

AA = Arachidonic acid

DHA = Docosahexaenoic acid

LA = Linoleic acid