

TABLE S2 (supplemental): Dose-response effect of dietary ARA intake at constant DHA on plasma metabolite concentrations

Metabolite	Lipid Map ID ^a	Biosynthetic pathway	PUFA	coefficients					p-values					FDR	
				(Intercept)	ARA	Gender	ARA quadratic	ARA x Gender	ARA quadratic x Gender	(Intercept)	ARA	Gender	ARA quadratic		ARA x Gender
9(10)-EpOME	LMFA02000037	CYP	18:2n-6 (LA)	0.27						0.00					1.00
9,10-DiHOME	LMFA01050350	CYP	18:2n-6 (LA)	0.82			0.20			0.00		0.04			0.26
12(13)-EpOME	LMFA02000038	CYP	18:2n-6 (LA)	0.39						0.00					1.00
12,13-DiHOME	LMFA01050351	CYP	18:2n-6 (LA)	0.87		-0.06	0.24			0.00	0.08	0.00			0.02
9-HODE	LMFA01050278	LOX	18:2n-6 (LA)	1.48						0.00					1.00
13-HODE	LMFA01050349	LOX	18:2n-6 (LA)	1.70	0.14					0.00	0.05				0.26
13-KODE	LMFA02000016	LOX	18:2n-6 (LA)	0.57						0.00					1.00
9-HOTrE	LMFA02000024	LOX	18:3n-3 (ALA)	0.07						0.13					1.00
PGF1a	LMFA03010137	COX	20:3n-6 (DGLA)	0.35	-0.16					0.00	0.07				0.26
PGF2a	LMFA03010002	COX	20:4n-6 (ARA)	0.60						0.00					1.00
PGE2	LMFA03010003	COX	20:4n-6 (ARA)	-0.17		0.21				0.02		0.05			1.00
13,14-dihydro-15-keto-PGF2a	LMFA03010027	COX	20:4n-6 (ARA)	0.10						0.01					1.00
TXB2	LMFA03030002	COX	20:4n-6 (ARA)	0.66						0.00					1.00
11-HETE	LMFA03060028	COX	20:4n-6 (ARA)	0.17		0.18				0.02		0.07			1.00

Metabolite	Lipid Map ID ^a	Biosynthetic pathway	PUFA	coefficients						p-values					FDR
				(Intercept)	ARA	Gender	ARA quadratic	ARA x Gender	ARA quadratic x Gender	(Intercept)	ARA	Gender	ARA quadratic	ARA x Gender	
5,6-DiHETrE	LMFA03050004	CYP	20:4n-6 (ARA)	0.01	0.37					0.79	0.00				0.02
11,12-DiHETrE	LMFA03050008	CYP	20:4n-6 (ARA)	0.10						0.00					1.00
14,15-DiHETrE	LMFA03050010	CYP	20:4n-6 (ARA)	0.25	0.72	0.13	-0.45			0.00	0.00	0.00	0.07		0.03
5-HETE	LMFA03060002	LOX	20:4n-6 (ARA)	1.18						0.00					1.00
8-HETE	LMFA03060006	LOX	20:4n-6 (ARA)	0.30	0.28	0.31		-0.50		0.01	0.14	0.04		0.07	1.00
12-HETE	LMFA03060088	LOX	20:4n-6 (ARA)	0.44						0.00					1.00
15-HETE	LMFA03060001	LOX	20:4n-6 (ARA)	0.32						0.00					1.00
PGF3a	LMFA03010138	COX	20:5n-3 (EPA)	0.79						0.00					1.00
17,18-DiHETE	LMFA03060078	CYP	20:5n-3 (EPA)	1.63						0.00					1.00
5(S)-HEPE	LMFA03070010	LOX	20:5n-3 (EPA)	0.13			-0.42			0.15		0.07			0.26
19(20)-EpDPE	LMFA04000038	CYP	22:5n-3 (DHA)	1.98						0.00					1.00
19,20-DiHDPA	LMFA04000043	CYP	22:5n-3 (DHA)	1.24						0.00					1.00

^a Lipid classification according to LIPID MAPS Structure Database (33). Coefficient, p-value, and False Discovery Rate (FDR) for diet and gender (interaction) effects by linear mixed modeling methodology. Terms are linear unless stated otherwise (quadratic).