

Table 4. Significant effects of dietary $\omega 6/\omega 3$ ratio, ELS and LPS on oxylipins

A) ELS effect on oxylipins in mice fed the HRD or LRD, under basal conditions. * our methodology could not distinguish between ALA and GLA due to similar molecular structure.

Oxylipin	Pathway	p-value	Fold change	Direction
ELS effect in mice fed the HRD (HRD-SAL: CTL versus ELS)				
EPA	$\omega 3$	0.003	0.410	CTL > ELS
9-HoTrE	$\omega 3$	0.029	-0.735	ELS > CTL
DGLA	$\omega 6$	0.027	0.363	CTL > ELS
ELS effect in mice fed the LRD (LRD-SAL: CTL versus ELS)				
4-HDHA	$\omega 3$	0.025	0.420	CTL > ELS
ALA/GLA*	$\omega 3$ or $\omega 6$ *	0.032	0.299	CTL > ELS

B) LPS effect on oxylipins in CTL mice fed the HRD or LRD. * unique LPS induced effect per experimental group

LPS effect in CTL mice fed the HRD (CTL-HRD: SAL versus LPS)				
PGE2	$\omega 6$	0.000	-0.756	lps > sal
LPS effect in CTL mice fed the LRD (CTL-LRD: SAL versus LPS)				
DPAn-3*	$\omega 3$	0.024	0.612	sal > lps
10-HDHA*	$\omega 3$	0.030	0.421	sal > lps
AA*	$\omega 6$	0.022	0.569	sal > lps
5-HETE*	$\omega 6$	0.005	0.559	sal > lps
8-HETE*	$\omega 6$	0.029	0.546	sal > lps
12-HETE*	$\omega 6$	0.015	0.760	sal > lps
5-KETE*	$\omega 6$	0.017	0.500	sal > lps
12-KETE*	$\omega 6$	0.045	0.675	sal > lps
15-KETE*	$\omega 6$	0.010	0.578	sal > lps
TxB2*	$\omega 6$	0.020	0.587	sal > lps
PGF2a*	$\omega 6$	0.028	0.550	sal > lps
PGE2	$\omega 6$	0.002	-0.840	lps > sal

C) LPS effect on oxylipins in ELS mice fed the HRD or LRD. * unique LPS induced effect per experimental group

LPS effect in ELS mice fed the HRD (ELS-HRD: SAL versus LPS)				
EPA	$\omega 3$	0.000	-0.804	lps > sal
18-HEPE	$\omega 3$	0.042	-0.966	lps > sal
DGLA *	$\omega 6$	0.027	-0.401	lps > sal
PGE2	$\omega 6$	0.000	-0.977	lps > sal
LPS effect in ELS mice fed the LRD (ELS-LRD: SAL versus LPS)				
ALA/GLA*	$\omega 3$ or $\omega 6$ *	0.022	-0.320	lps > sal
EPA	$\omega 3$	0.000	-0.689	lps > sal
4-HDHA *	$\omega 3$	0.034	-0.361	lps > sal
18-HEPE	$\omega 3$	0.013	-1.190	lps > sal
AA	$\omega 6$	0.041	0.256	sal > lps

PGE2	$\omega 6$	0.001	-0.809	lps > sal
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