

***Bifidobacterium breve* with α -linolenic acid alters the composition, distribution and transcription factor activity associated with metabolism and absorption of fat.**

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SUPPLEMENTARY TABLE 1 Endocannabinoid levels (%mol) in the liver and epididymal adipose tissue of mice fed an ALA enriched diet either alone or in combination with *Bifidobacterium breve* NCIMB 702258 or *B. breve* DPC 6330 or an unsupplemented diet for 6 weeks.

Endocannabinoids and Congeners	CON		ALA-CON		ALA+ NCIMB 702258		ALA+ DPC 6330	
	<i>n</i> = 9		<i>n</i> = 9		<i>n</i> = 8		<i>n</i> = 9	
	<i>mol %</i> * 1000		<i>mol %</i> * 1000		<i>mol %</i> * 1000		<i>mol %</i> * 1000	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Liver								
AEA	2.9 ^a	0.87	1.64 ^b	0.39	0.65 ^c	0.21	1.09 ^c	0.47
PEA	12.58 ^a	4.89	32.2 ^b	15.58	7.37 ^c	2.29	7.52 ^c	3.12
OEA	12.66 ^a	3.00	7.39 ^b	2.57	5.63 ^b	1.41	3.68 ^c	0.99
2AG	74.07 ^a	23.45	30.18 ^b	19.29	20.31 ^b	9.69	24.62 ^b	12.67
DHEA	3.12	2.47	1.54	1.18	0.67	0.37	2.50	1.97
Epididymal Adipose Tissue								
AEA	2.72 ^a	0.40	2.34 ^a	0.65	7.94 ^b	1.33	7.27 ^b	2.60
PEA	0.46 ^a	0.18	0.38 ^a	0.12	1.16 ^b	0.51	0.51 ^a	0.17
OEA	1.00 ^a	0.41	0.99 ^a	0.35	1.87 ^b	0.82	1.02 ^a	0.47
2AG	3.84	1.77	2.42	1.37	6.35	4.86	3.66	2.72
DHEA	0.16 ^a	0.02	0.13 ^a	0.06	0.40 ^b	0.24	0.25 ^b	0.09

AEA, N-arachidonylethanolamide; PEA, N-palmitoylethanolamide; OEA, oleoylethanolamide; 2AG, 2-arachidonoylglycerol; DHEA, docosahexaenoylethanolamide.

^{a,b,c} Mean values within a row with unlike superscript letters were significantly different ($P < 0.05$ ANOVA followed by *post hoc* Tukey's multiple comparison test).