

SUPPLEMENTARY MATERIAL

Table S1 Rel. mole % values of fatty acids from PL of cerebellum

Table S2 Rel. mole % values of fatty acids from PL of plasma

Table S3 Rel. mole % values of fatty acids from TG of plasma

Table S4 Rel. mole % values of fatty acids from CE of plasma

Table S5 Rel. mole % values of free fatty acids of plasma

Table S6 Rel. mole % values of fatty acids from PL of liver

Table S7 Rel. mole % values of fatty acids from TG of liver

Table S8 Rel. mole % values of fatty acids from CE of liver

Table S7 Rel. mole % values of free fatty acids of liver

Table S1: Fatty acid analysis on phospholipids of cerebellum

Fatty Acid	Balb/c		C57/BL6J	
	<i>wt</i> -SFO	<i>fat-1</i> -SFO	<i>wt</i> -SFO	<i>fat-1</i> -SFO
Saturate				
14:0	0.2 ± 0.0	0.2 ± 0.0	0.3 ± 0.0	0.2 ± 0.0
16:0	24.1 ± 0.3	22.2 ± 0.5	23.3 ± 0.4	21.9 ± 0.3
18:0	21.7 ± 0.5	22.1 ± 0.3	21.3 ± 0.6	21.0 ± 0.4
20:0	0.7 ± 0.0	0.7 ± 0.1	0.6 ± 0.1	0.6 ± 0.1
22:0	0.6 ± 0.0	0.7 ± 0.1	0.6 ± 0.1	0.6 ± 0.1
24:0	1.0 ± 0.1	1.1 ± 0.1	1.0 ± 0.2	0.9 ± 0.1
Monoenoic				
16:1	0.6 ± 0.0	0.6 ± 0.0	0.7 ± 0.1	0.6 ± 0.0
18:1	20.0 ± 0.9	21.9 ± 0.2	21.3 ± 0.4	22.8 ± 0.4
20:1	2.2 ± 0.1	2.8 ± 0.2	2.0 ± 0.1	2.7 ± 0.3
22:1	0.3 ± 0.0	0.4 ± 0.1	0.3 ± 0.1	0.3 ± 0.1
24:1	1.9 ± 0.2	2.2 ± 0.3	1.7 ± 0.3	1.5 ± 0.3
n6				
18:2n6	1.5 ± 0.2	1.6 ± 0.3	1.5 ± 0.2	1.6 ± 0.2
18:3n6	0.1 ± 0.0	0.1 ± 0.0	less than 0.05	less than 0.05
20:2n6	0.6 ± 0.1	0.6 ± 0.1	0.6 ± 0.1	0.6 ± 0.0
20:3n6	0.7 ± 0.1	0.9 ± 0.3	0.6 ± 0.0	0.7 ± 0.0
20:4n6	7.5 ± 0.3	6.2 ± 0.5	8.6 ± 0.4	6.9 ± 0.2
22:4n6	2.5 ± 0.2	1.7 ± 0.3	2.5 ± 0.0	1.4 ± 0.3
22:5n6	5.5 ± 2.1	0.2 ± 0.0	7.4 ± 0.8	0.3 ± 0.0
n3				
18:3n3	0.1 ± 0.0	0.1 ± 0.0	0.1 ± 0.0	0.1 ± 0.0
20:5n3	none detected	0.1 ± 0.0	none detected	0.1 ± 0.0
22:5n3	0.1 ± 0.0	0.2 ± 0.0	0.1 ± 0.0	0.2 ± 0.0
22:6n3	8.0 ± 2.6	13.2 ± 0.5	5.6 ± 1.6	15.1 ± 0.7
n6/n3	2.5 ± 1.0	0.8 ± 0.0	4.1 ± 1.5	0.7 ± 0.0
Saturate/PUFA	1.8	1.8	1.7	1.6

Relative mole percentage (±SD; n=3-4) of fatty acids from phospholipids of cerebellum from Balb/c and C57 BL/6J strains.

wt-SFO, wild type mice fed with a safflower oil diet; *fat-1*-SFO, *fat-1* transgenic mice fed with a safflower oil diet.

Table S2: Fatty acid analysis on phospholipids of plasma

Fatty Acid	Balb/c		C57/BL6J	
	<i>wt</i> -SFO	<i>fat-1</i> -SFO	<i>wt</i> -SFO	<i>fat-1</i> -SFO
Saturate				
14:0	0.1 ± 0.0	0.1 ± 0.0	0.1 ± 0.0	0.1 ± 0.0
16:0	27.2 ± 0.2	29.6 ± 0.7	27.8 ± 0.9	28.6 ± 2.7
18:0	19.7 ± 1.5	17.1 ± 0.3	18.6 ± 0.5	20.8 ± 2.6
20:0	0.3 ± 0.0	0.3 ± 0.0	0.2 ± 0.1	0.3 ± 0.1
22:0	0.2 ± 0.0	0.2 ± 0.0	0.3 ± 0.1	0.4 ± 0.2
24:0	0.1 ± 0.0	0.1 ± 0.0	0.2 ± 0.1	0.3 ± 0.0
Monoenoic				
16:1	0.4 ± 0.1	0.5 ± 0.1	0.7 ± 0.1	0.6 ± 0.1
18:1	5.2 ± 0.3	5.9 ± 0.4	7.5 ± 0.9	6.5 ± 0.9
20:1	0.2 ± 0.0	0.2 ± 0.0	0.2 ± 0.0	0.2 ± 0.0
22:1	0.1 ± 0.0	0.1 ± 0.0	0.1 ± 0.0	0.1 ± 0.0
24:1	0.3 ± 0.0	0.2 ± 0.0	0.6 ± 0.1	0.7 ± 0.1
n6				
18:2n6	28.5 ± 0.8	29.5 ± 0.9	24.0 ± 0.7	24.7 ± 2.3
18:3n6	0.1 ± 0.0	0.1 ± 0.0	0.2 ± 0.0	0.1 ± 0.1
20:2n6	0.4 ± 0.0	0.4 ± 0.0	0.4 ± 0.0	0.4 ± 0.0
20:3n6	0.9 ± 0.1	1.2 ± 0.1	1.3 ± 0.3	1.1 ± 0.2
20:4n6	11.8 ± 0.5	8.6 ± 0.1	13.0 ± 0.8	9.0 ± 1.5
22:4n6	0.4 ± 0.0	0.1 ± 0.0	0.5 ± 0.1	0.1 ± 0.0
22:5n6	2.7 ± 0.0	0.3 ± 0.0	3.6 ± 0.4	0.4 ± 0.1
n3				
18:3n3	0.4 ± 0.0	0.5 ± 0.0	0.2 ± 0.0	0.4 ± 0.1
20:5n3	less than 0.05	0.4 ± 0.0	none detected	0.4 ± 0.2
22:5n3	less than 0.05	0.2 ± 0.0	less than 0.05	0.2 ± 0.1
22:6n3	0.9 ± 0.1	4.3 ± 0.8	0.6 ± 0.1	4.4 ± 1.0
n6/n3	33.3 ± 4.0	7.5 ± 1.2	56.0 ± 6.5	6.8 ± 1.6
Saturate/PUFA	1.0	1.0	1.1	1.2

Relative mole percentage (±SD; n=3-5) of fatty acids from phospholipids of plasma from Balb/c and C57 BL/6J strains.

wt-SFO, wild type mice fed with a safflower oil diet; *fat-1*-SFO, *fat-1* transgenic mice fed with a safflower oil diet.

Table S3: Fatty acid analysis on triglycerides of plasma

Fatty Acid	Balb/c		C57/BL6J	
	<i>wt</i> -SFO	<i>fat-1</i> -SFO	<i>wt</i> -SFO	<i>fat-1</i> -SFO
Saturate				
14:0	0.6 ± 0.1	0.8 ± 0.2	0.4 ± 0.0	0.4 ± 0.1
16:0	13.5 ± 1.0	13.6 ± 1.7	16.0 ± 1.1	14.9 ± 1.4
18:0	2.9 ± 0.4	3.0 ± 0.4	2.7 ± 0.3	2.9 ± 0.6
20:0	0.3 ± 0.1	0.1 ± 0.0	0.2 ± 0.0	0.2 ± 0.1
22:0	0.1 ± 0.0	0.1 ± 0.0	0.1 ± 0.0	0.1 ± 0.0
24:0	0.1 ± 0.0	0.1 ± 0.0	less than 0.05	less than 0.05
Monoenoic				
16:1	1.6 ± 0.0	1.8 ± 0.4	2.7 ± 0.1	2.4 ± 0.6
18:1	16.8 ± 0.8	17.9 ± 0.7	23.0 ± 2.0	20.7 ± 4.4
20:1	0.8 ± 0.2	0.8 ± 0.1	0.6 ± 0.1	0.7 ± 0.1
22:1	0.3 ± 0.1	0.3 ± 0.1	0.1 ± 0.0	0.2 ± 0.1
24:1	0.1 ± 0.0	0.1 ± 0.0	0.1 ± 0.0	0.1 ± 0.0
n6				
18:2n6	54.7 ± 0.4	52.9 ± 4.4	42.7 ± 1.4	46.8 ± 5.5
18:3n6	0.6 ± 0.1	0.4 ± 0.0	0.7 ± 0.2	0.7 ± 0.1
20:2n6	0.5 ± 0.0	0.5 ± 0.1	0.5 ± 0.1	0.5 ± 0.0
20:3n6	0.8 ± 0.0	0.9 ± 0.1	1.1 ± 0.3	1.0 ± 0.2
20:4n6	4.3 ± 0.9	2.9 ± 0.6	6.0 ± 0.8	4.1 ± 0.8
22:4n6	0.5 ± 0.1	0.4 ± 0.1	0.7 ± 0.1	0.5 ± 0.1
22:5n6	1.0 ± 0.2	0.4 ± 0.1	1.9 ± 0.6	0.6 ± 0.2
n3				
18:3n3	0.2 ± 0.0	0.5 ± 0.1	0.1 ± 0.0	0.4 ± 0.1
20:5n3	none detected	0.4 ± 0.1	none detected	0.5 ± 0.2
22:5n3	less than 0.05	0.2 ± 0.1	less than 0.05	0.2 ± 0.1
22:6n3	0.1 ± 0.0	1.7 ± 0.6	0.1 ± 0.0	1.8 ± 0.7
n6/n3	173.0 ± 26.7	20.9 ± 6.1	162.4 ± 21.2	18.8 ± 8.4
Saturate/PUFA	0.3	0.3	0.4	0.3

Relative mole percentage (\pm SD; n=3-5) of fatty acids from triglycerides of plasma from Balb/c and C57 BL/6J strains.

wt-SFO, wild type mice fed with a safflower oil diet; *fat-1*-SFO, *fat-1* transgenic mice fed with a safflower oil diet.

Table S4: Fatty acid analysis on cholesterol esters of plasma

Fatty Acid	Balb/c		C57/BL6J	
	<i>wt</i> -SFO	<i>fat-1</i> -SFO	<i>wt</i> -SFO	<i>fat-1</i> -SFO
Saturate				
14:0	0.3 ± 0.0	0.4 ± 0.0	0.4 ± 0.0	0.4 ± 0.1
16:0	4.5 ± 0.2	4.8 ± 0.2	4.9 ± 0.8	4.4 ± 0.3
18:0	0.9 ± 0.1	1.0 ± 0.2	1.3 ± 1.0	1.1 ± 0.6
20:0	0.1 ± 0.0	0.1 ± 0.0	0.1 ± 0.0	0.1 ± 0.0
22:0	0.1 ± 0.0	0.1 ± 0.0	0.1 ± 0.0	less than 0.05
24:0	less than 0.05	less than 0.05	less than 0.05	less than 0.05
Monoenoic				
16:1	2.4 ± 0.1	2.7 ± 0.5	3.0 ± 0.2	3.2 ± 1.0
18:1	7.1 ± 0.7	8.3 ± 1.0	7.1 ± 1.1	7.1 ± 1.2
20:1	0.1 ± 0.0	0.1 ± 0.0	0.1 ± 0.0	less than 0.05
22:1	0.2 ± 0.0	0.2 ± 0.1	0.1 ± 0.0	0.2 ± 0.1
24:1	0.1 ± 0.0	none detected	less than 0.05	0.1 ± 0.1
n6				
18:2n6	43.1 ± 1.3	46.9 ± 0.1	39.4 ± 1.4	42.5 ± 3.4
18:3n6	0.6 ± 0.1	0.6 ± 0.1	0.9 ± 0.2	0.8 ± 0.2
20:2n6	0.1 ± 0.0	0.1 ± 0.0	0.1 ± 0.0	less than 0.05
20:3n6	0.4 ± 0.1	0.6 ± 0.0	0.8 ± 0.3	0.6 ± 0.1
20:4n6	38.2 ± 0.8	28.4 ± 1.3	39.8 ± 1.2	32.7 ± 2.6
22:4n6	0.1 ± 0.0	less than 0.05	0.1 ± 0.0	less than 0.05
22:5n6	1.0 ± 0.0	0.1 ± 0.0	1.3 ± 0.1	0.2 ± 0.1
n3				
18:3n3	0.1 ± 0.0	0.4 ± 0.1	less than 0.05	0.7 ± 0.3
20:5n3	less than 0.05	1.2 ± 0.1	none detected	1.4 ± 0.5
22:5n3	less than 0.05	0.1 ± 0.0	none detected	0.1 ± 0.0
22:6n3	0.6 ± 0.1	3.7 ± 0.4	0.5 ± 0.1	4.1 ± 0.4
n6/n3	106.1 ± 9.7	14.0 ± 0.8	139.1 ± 27.4	12.0 ± 2.2
Saturate/PUFA	0.1	0.1	0.1	0.1

Relative mole percentage (±SD; n=3-5) of fatty acids from cholesterol esters of plasma from Balb/c and C57 BL/6J strains.

wt-SFO, wild type mice fed with a safflower oil diet; *fat-1*-SFO, *fat-1* transgenic mice fed with a safflower oil diet.

Table S5: Fatty acid analysis on free fatty acids of plasma

Fatty Acid	Balb/c		C57/BL6J	
	<i>wt</i> -SFO	<i>fat-1</i> -SFO	<i>wt</i> -SFO	<i>fat-1</i> -SFO
Saturate				
14:0	1.5 ± 0.2	1.2 ± 0.3	2.5 ± 0.6	1.3 ± 0.5
16:0	26.9 ± 1.1	29.5 ± 2.3	26.2 ± 1.4	25.0 ± 1.2
18:0	13.2 ± 1.0	13.9 ± 1.3	10.6 ± 1.8	16.1 ± 7.3
20:0	0.3 ± 0.0	0.3 ± 0.0	0.3 ± 0.1	0.4 ± 0.1
22:0	0.1 ± 0.0	0.2 ± 0.0	0.1 ± 0.0	0.2 ± 0.1
24:0	0.1 ± 0.0	0.1 ± 0.0	0.1 ± 0.0	0.1 ± 0.0
Monoenoic				
16:1	2.8 ± 0.2	2.3 ± 0.3	6.1 ± 0.5	4.4 ± 0.4
18:1	12.6 ± 0.5	13.5 ± 0.8	17.1 ± 0.8	14.3 ± 3.0
20:1	0.5 ± 0.1	0.5 ± 0.1	0.4 ± 0.1	0.4 ± 0.1
22:1	0.3 ± 0.1	0.3 ± 0.0	0.2 ± 0.0	0.6 ± 0.2
24:1	none detected	none detected	0.1 ± 0.0	0.1 ± 0.1
n6				
18:2n6	32.9 ± 1.0	30.4 ± 3.5	30.5 ± 3.0	29.3 ± 7.1
18:3n6	0.4 ± 0.1	0.3 ± 0.0	0.3 ± 0.0	0.3 ± 0.1
20:2n6	0.5 ± 0.0	0.5 ± 0.0	0.4 ± 0.0	0.4 ± 0.1
20:3n6	0.6 ± 0.1	0.6 ± 0.1	0.4 ± 0.1	0.5 ± 0.1
20:4n6	4.9 ± 0.4	3.4 ± 0.8	2.9 ± 0.6	2.9 ± 1.0
22:4n6	0.4 ± 0.0	0.2 ± 0.0	0.4 ± 0.1	0.2 ± 0.1
22:5n6	1.0 ± 0.1	0.3 ± 0.1	1.0 ± 0.1	0.3 ± 0.1
n3				
18:3n3	0.3 ± 0.0	0.5 ± 0.1	0.3 ± 0.3	0.4 ± 0.1
20:5n3	none detected	0.2 ± 0.1	none detected	0.3 ± 0.1
22:5n3	0.1 ± 0.0	0.2 ± 0.0	less than 0.05	0.2 ± 0.1
22:6n3	0.3 ± 0.1	1.5 ± 0.3	0.1 ± 0.0	1.5 ± 0.3
n6/n3	59.8 ± 7.8	14.5 ± 3.5	82.5 ± 27.3	12.2 ± 4.0
Saturate/PUFA	1.0	1.2	1.1	1.2

Relative mole percentage (\pm SD; n=3-5) of fatty acids from free fatty acids of plasma from Balb/c and C57 BL/6J strains.

wt-SFO, wild type mice fed with a safflower oil diet; *fat-1*-SFO, fat-1 transgenic mice fed with a safflower oil diet.

Table S6: Fatty acid analysis on phospholipids of liver

Fatty Acid	Balb/c		C57/BL6J	
	<i>wt</i> -SFO	<i>fat-1</i> -SFO	<i>wt</i> -SFO	<i>fat-1</i> -SFO
Saturate				
14:0	0.1 ± 0.0	0.1 ± 0.0	0.1 ± 0.0	0.1 ± 0.0
16:0	22.1 ± 0.8	24.4 ± 0.7	21.5 ± 0.8	21.9 ± 1.6
18:0	17.5 ± 1.9	16.3 ± 0.3	19.6 ± 1.8	19.1 ± 2.1
20:0	0.2 ± 0.1	0.2 ± 0.1	0.1 ± 0.0	0.2 ± 0.1
22:0	0.3 ± 0.1	0.3 ± 0.1	0.3 ± 0.0	0.4 ± 0.2
24:0	0.2 ± 0.0	0.2 ± 0.0	0.3 ± 0.1	0.2 ± 0.0
Monoenoic				
16:1	0.8 ± 0.1	0.8 ± 0.1	1.0 ± 0.3	0.8 ± 0.1
18:1	6.8 ± 0.5	6.7 ± 1.0	7.8 ± 0.9	6.7 ± 0.9
20:1	0.2 ± 0.0	0.2 ± 0.0	0.2 ± 0.0	0.2 ± 0.0
22:1	0.2 ± 0.1	0.1 ± 0.1	0.1 ± 0.0	0.1 ± 0.0
24:1	0.3 ± 0.0	0.3 ± 0.0	0.5 ± 0.1	0.3 ± 0.1
n6				
18:2n6	19.4 ± 0.2	18.9 ± 1.5	17.6 ± 1.8	19.8 ± 2.2
18:3n6	0.3 ± 0.0	0.2 ± 0.0	0.3 ± 0.1	0.3 ± 0.1
20:2n6	0.6 ± 0.1	0.6 ± 0.0	0.6 ± 0.2	0.6 ± 0.1
20:3n6	1.2 ± 0.0	1.5 ± 0.3	1.3 ± 0.4	1.4 ± 0.2
20:4n6	21.9 ± 0.5	17.4 ± 1.7	20.6 ± 1.5	17.8 ± 1.3
22:4n6	0.7 ± 0.0	0.3 ± 0.0	0.7 ± 0.1	0.3 ± 0.0
22:5n6	5.5 ± 0.7	0.5 ± 0.1	6.3 ± 2.3	0.6 ± 0.1
n3				
18:3n3	0.2 ± 0.1	0.2 ± 0.1	0.1 ± 0.0	0.2 ± 0.0
20:5n3	none detected	0.3 ± 0.2	none detected	0.3 ± 0.2
22:5n3	less than 0.05	0.4 ± 0.0	less than 0.05	0.3 ± 0.0
22:6n3	1.5 ± 0.1	10.2 ± 0.6	1.0 ± 0.1	8.4 ± 0.6
n6/n3	28.0 ± 1.8	3.6 ± 0.2	40.4 ± 3.8	4.5 ± 0.4
Saturate/PUFA	0.8	0.8	0.9	0.8

Relative mole percentage (\pm SD; n=3-4) of fatty acids from phospholipids of liver from Balb/c and C57 BL/6J strains.

wt-SFO, wild type mice fed with a safflower oil diet; *fat-1*-SFO, fat-1 transgenic mice fed with a safflower oil diet.

Table S7: Fatty acid analysis on triglycerides of liver

Fatty Acid	Balb/c		C57/BL6J	
	<i>wt</i> -SFO	<i>fat-1</i> -SFO	<i>wt</i> -SFO	<i>fat-1</i> -SFO
Saturate				
14:0	0.6 ± 0.1	0.9 ± 0.6	0.6 ± 0.0	0.6 ± 0.1
16:0	19.1 ± 3.4	19.6 ± 1.6	21.6 ± 0.2	20.6 ± 1.4
18:0	2.8 ± 0.3	2.5 ± 0.5	2.4 ± 0.6	2.4 ± 0.3
20:0	0.2 ± 0.1	0.2 ± 0.1	0.1 ± 0.1	0.2 ± 0.2
22:0	0.1 ± 0.0	less than 0.05	less than 0.05	0.1 ± 0.0
24:0	less than 0.05	less than 0.05	none detected	less than 0.05
Monoenoic				
16:1	2.3 ± 0.5	3.0 ± 0.5	3.0 ± 0.7	2.6 ± 0.7
18:1	19.4 ± 2.1	22.4 ± 3.1	26.9 ± 4.1	24.0 ± 8.1
20:1	0.6 ± 0.2	0.6 ± 0.1	0.6 ± 0.2	0.6 ± 0.1
22:1	0.3 ± 0.1	0.2 ± 0.0	0.1 ± 0.1	0.1 ± 0.1
24:1	none detected	0.0 ± 0.0	none detected	none detected
n6				
18:2n6	42.6 ± 1.1	43.1 ± 4.3	35.6 ± 3.3	40.7 ± 6.6
18:3n6	1.0 ± 0.2	0.7 ± 0.4	0.9 ± 0.1	0.8 ± 0.1
20:2n6	0.9 ± 0.3	0.7 ± 0.2	0.9 ± 0.4	0.8 ± 0.1
20:3n6	2.0 ± 1.0	1.5 ± 0.8	1.6 ± 0.3	1.6 ± 0.5
20:4n6	4.5 ± 2.0	2.0 ± 1.4	2.9 ± 0.5	2.1 ± 0.8
22:4n6	1.2 ± 0.8	0.5 ± 0.4	0.9 ± 0.4	0.4 ± 0.2
22:5n6	1.9 ± 1.6	0.3 ± 0.3	1.8 ± 1.5	0.3 ± 0.2
n3				
18:3n3	0.1 ± 0.0	0.3 ± 0.0	0.1 ± 0.0	0.3 ± 0.1
20:5n3	none detected	0.1 ± 0.0	none detected	0.2 ± 0.1
22:5n3	less than 0.05	0.2 ± 0.1	less than 0.05	0.3 ± 0.1
22:6n3	0.1 ± 0.1	1.1 ± 0.5	0.1 ± 0.0	1.0 ± 0.4
n6/n3	124.4 ± 25.2	30.7 ± 13.4	218.2 ± 36.5	26.4 ± 8.9
Saturate/PUFA	0.4	0.5	0.6	0.5

Relative mole percentage (±SD; n=3-5) of fatty acids from triglycerides of liver from Balb/c and C57 BL/6J strains.

wt-SFO, wild type mice fed with a safflower oil diet; *fat-1*-SFO, *fat-1* transgenic mice fed with a safflower oil diet.

Table S8: Fatty acid analysis on cholesterol esters of liver

Fatty Acid	Balb/c	
	<i>wt</i> -SFO	<i>fat-1</i> -SFO
Saturate		
14:0	0.9 ± 0.2	1.2 ± 0.6
16:0	12.5 ± 1.5	13.8 ± 2.2
18:0	7.7 ± 1.7	7.5 ± 2.5
20:0	0.3 ± 0.1	0.4 ± 0.2
22:0	0.2 ± 0.1	0.3 ± 0.1
24:0	0.1 ± 0.1	none detected
Monoenoic		
16:1	5.9 ± 0.5	7.4 ± 1.1
18:1	27.5 ± 1.7	31.8 ± 6.0
20:1	0.4 ± 0.1	0.4 ± 0.1
22:1	3.0 ± 2.2	1.8 ± 0.5
24:1	none detected	none detected
n6		
18:2n6	31.4 ± 3.8	29.1 ± 2.7
18:3n6	0.3 ± 0.0	0.2 ± 0.0
20:2n6	0.3 ± 0.1	0.2 ± 0.0
20:3n6	0.5 ± 0.1	0.4 ± 0.1
20:4n6	6.0 ± 0.9	2.6 ± 0.4
22:4n6	0.3 ± 0.1	0.1 ± 0.1
22:5n6	0.7 ± 0.2	less than 0.05
n3		
18:3n3	0.2 ± 0.1	0.5 ± 0.1
20:5n3	none detected	0.1 ± 0.1
22:5n3	none detected	none detected
22:6n3	0.5 ± 0.5	1.0 ± 0.3
n6/n3	21.6 ± 2.8	11.9 ± 2.6
Saturate/PUFA	0.5	0.7

Relative mole percentage (±SD; n=3) of fatty acids from cholesterol esters of liver from Balb/c strain.

wt-SFO, wild type mice fed with a safflower oil diet; *fat-1*-SFO, fat-1 transgenic mice fed with a safflower oil diet.

Table S9: Fatty acid analysis on free fatty acids of liver

Fatty Acid	Balb/c	
	<i>wt</i> -SFO	<i>fat-1</i> -SFO
Saturate		
14:0	1.2 ± 0.1	0.9 ± 0.2
16:0	26.9 ± 0.8	26.4 ± 0.7
18:0	17.6 ± 2.5	14.4 ± 1.4
20:0	0.4 ± 0.0	0.4 ± 0.1
22:0	0.4 ± 0.1	0.3 ± 0.1
24:0	0.1 ± 0.0	0.1 ± 0.0
Monoenoic		
16:1	1.7 ± 0.3	1.7 ± 0.2
18:1	10.0 ± 1.2	10.8 ± 1.9
20:1	0.4 ± 0.1	0.4 ± 0.1
22:1	2.1 ± 0.6	2.7 ± 1.1
24:1	none detected	less than 0.05
n6		
18:2n6	22.1 ± 1.3	24.7 ± 1.8
18:3n6	0.5 ± 0.0	0.4 ± 0.1
20:2n6	0.6 ± 0.1	0.5 ± 0.1
20:3n6	0.9 ± 0.2	1.0 ± 0.2
20:4n6	10.5 ± 2.1	9.8 ± 1.3
22:4n6	0.7 ± 0.2	0.3 ± 0.1
22:5n6	1.8 ± 0.5	0.3 ± 0.1
n3		
18:3n3	0.3 ± 0.1	0.4 ± 0.0
20:5n3	none detected	0.3 ± 0.1
22:5n3	none detected	0.2 ± 0.0
22:6n3	0.4 ± 0.0	3.4 ± 0.5
n6/n3	20.8 ± 3.6	7.5 ± 0.5
Saturate/PUFA	1.2	1.0

Relative mole percentage (±SD; n=3) of fatty acids from free fatty acids of liver from Balb/c strain.

wt-SFO, wild type mice fed with a safflower oil diet; *fat-1*-SFO, fat-1 transgenic mice fed with a safflower oil diet.