

Supplemental Table 1. Fatty acid profiles in fat-1 and wt mouse tails

PUFA	Wild type	Fat-1
n-6 (mol%)		
AA (20:4 n-6)	7.06± 1.05 ^a	1.01± 0.21 ^b
DTA (22:4 n-6)	1.34± 0.31 ^a	0.21± 0.11 ^b
DPA (22:5 n-6)	1.25± 0.48 ^a	0.14± 0.11 ^b
Total n-6 PUFA	9.65	1.36
n-3 (mol%)		
EPA (20:5 n-3)	0.01± 0.04 ^a	2.33± 0.34 ^b
DPA (22:5 n-3)	0.09± 0.13 ^a	2.17± 0.30 ^b
DHA (22:6 n-3)	0.52± 0.33 ^a	1.85± 0.27 ^b
Total n-3 PUFA	0.62	6.34
Ratio n-6/n-3	29.60^a	0.22^b

Values are means ± SEM, n=30 mice per group. Different letters indicate differences (P<0.05) between *fat-1* and wild type groups.

Supplemental Table 2. CD4⁺ Splenic (systemic) T-cell fatty acid profiles in Fat-1 and wild type mice

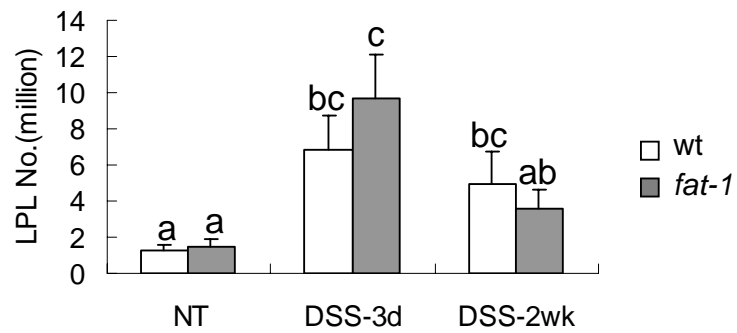
PUFA	Wild type	Fat-1
n-6 (mol%)		
AA (20:4 n-6)	14.10± 1.84 ^a	12.25± 1.41 ^a
DTA (22:4 n-6)	1.68± 0.29 ^a	0.42± 0.26 ^b
DPA (22:5 n-6)	1.60± 0.33 ^a	0.70± 0.33 ^a
Total n-6 PUFA	17.38	13.37
n-3 (mol%)		
EPA (20:5 n-3)	0± 0 ^a	0.16± 0.16 ^a
DPA (22:5 n-3)	0± 0 ^a	1.68± 0.85 ^b
DHA (22:6 n-3)	0.31± 0.31 ^a	3.63± 0.65 ^b
Total n-3 PUFA	0.31	5.47
Ratio n-6/n-3	56.06^a	2.44^b

Values are means ± SEM, n=5 mice per group. Different letters indicate differences (P<0.05) between the *fat-1* and wild type groups.

Supplemental Table 3. Colonic mucosa fatty acid content in Fat-1 and wild type mice

PUFA	Wild type	Fat-1
n-6 (mol%)		
AA (20:4 n-6)	14.71± 0.25 ^a	10.33± 0.49 ^b
DTA (22:4 n-6)	1.25± 0.07 ^a	0.85± 0.04 ^b
DPA (22:5 n-6)	1.61± 0.08 ^a	0.54± 0.02 ^b
Total n-6 PUFA	16.96	13.64
n-3 (mol%)		
EPA (20:5 n-3)	0.00± 0.00 ^a	2.13± 0.15 ^b
DPA (22:5 n-3)	0.12± 0.12 ^a	0.54± 0.05 ^b
DHA (22:6 n-3)	0.81± 0.17 ^a	2.28± 0.12 ^b
Total n-3 PUFA	0.93	5.05
Ratio n-6/n-3	18.24^a	2.70^b

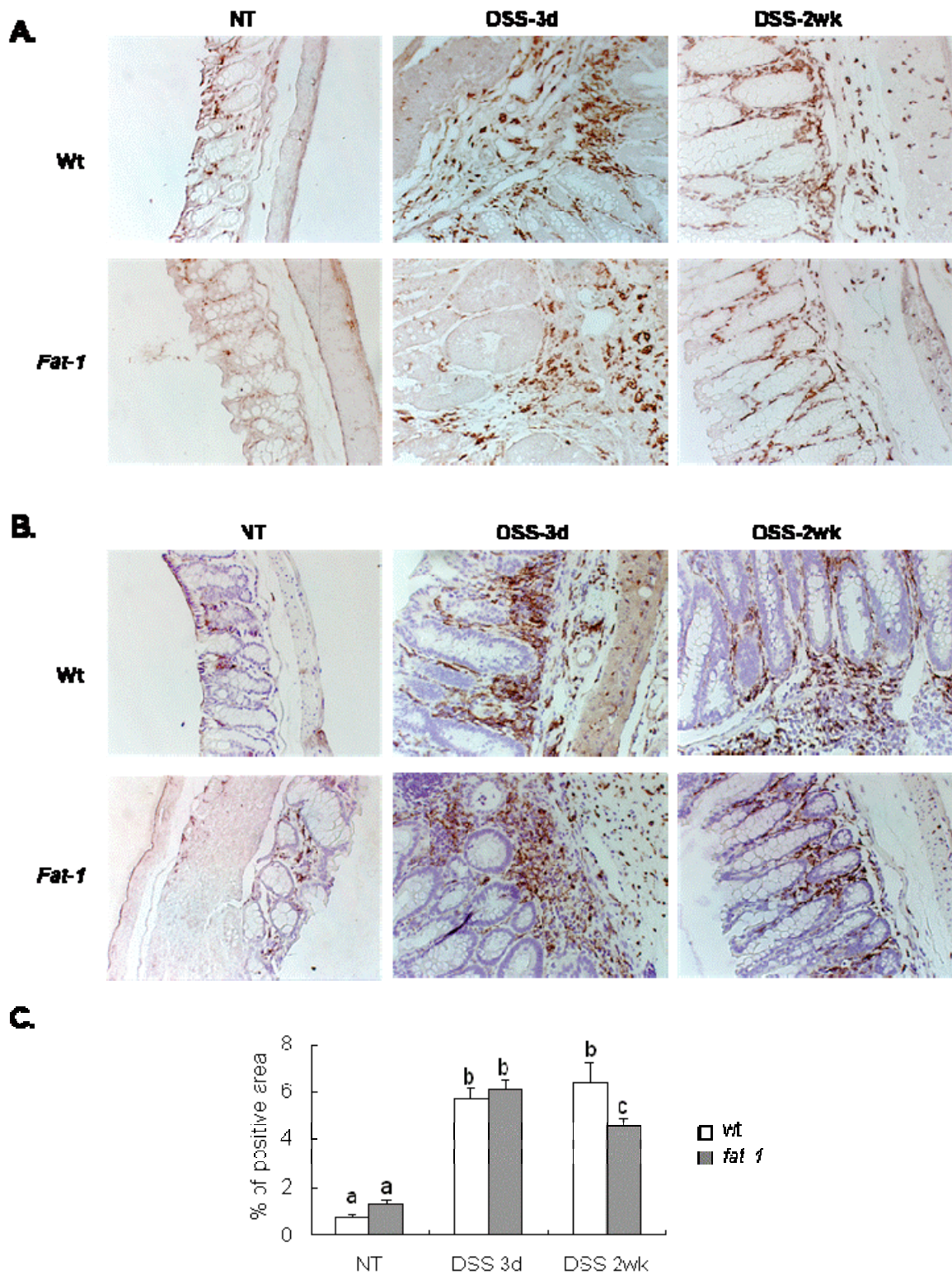
Values are means ± SEM, n=4-8 mice per group. Different letters indicate differences (P<0.05) between *fat-1* and wild type groups.

Supplemental Figure 1. Colonic lamina propria lymphocyte (LPL) yield

NT, no treatment; DSS-3d, 3 d after DSS exposure; DSS-2wk, 2 wk after DSS exposure.

Data are expressed as LPL $\times 10^6$ per colon. Values are means \pm SEM, n=14-18 mice per group. Different letters indicate differences (P<0.05) among groups.

Supplemental Figure 2. Macrophage (F4/80 positive staining) accumulation in DSS-treated mouse colon



Representative micrographs from sections probed with F4/80 antibody. A. Immunoreactivity was detected as a brownish product in the absence of counterstain, 200X (refer below for details). B. Immunoreactive sections were counterstained using hematoxylin, 200X. C. Semi-quantitative

measurement of macrophage infiltration. NT, no treatment; DSS-3d, 3 d after DSS exposure; DSS-2wk, 2 wk after DSS exposure. Data are expressed as the % of positive area per sample. Values are means \pm SE, n=5-8 mice per group. Different letters indicate significant differences ($P<0.05$) among groups.

Tissues were fixed in 4% paraformaldehyde, paraffin embedded, and sectioned at 5 μ m. Analyses were performed as previously described (1, 2) with minor modification. Following peroxidase blocking using 3% H₂O₂, diluted (1:150) primary macrophage/monocyte F4/80 (Cl:A3-1, rat IgG2b, Serotec) antibody was incubated overnight at 4°C. After washing in PBS, sections were incubated with biotin-conjugated secondary antibody (rabbit anti rat IgG, mouse absorbed, Vector) for 1 h at room temperature, followed by the addition of avidin-biotin-peroxidase complex (ABC kit, Vector). Peroxidase activity was visualized using diaminobenzidine (Sigma). Negative controls were prepared by omission of primary antibody. Morphometric analysis of F4/80 positive area was performed using image analysis software (NIS-Elements AR2.30, Nikon). Ten different randomly chosen areas, which together covered representative fields from submucosa, lamina propria and crypts, were taken from each animal. Results are shown as the percentage of positive area.

1. Motomura Y, Khan WI, El-Sharkawy RT, Verma-Gandhu M, Verdu EF, Gauldie J, Collins SM. Induction of a fibrogenic response in mouse colon by overexpression of monocyte chemoattractant protein 1. *Gut* 2006; 55: 662-70.
2. Sund M, Xu L, Rhaman A, Qian BF, Hammarstrom ML, Danielsson A. Reduced susceptibility

to dextran sulphate sodium-induced colitis in the interleukin-2 heterozygous (IL-2^{+/-}) mouse.

Immunology 2005; 114:554-64.