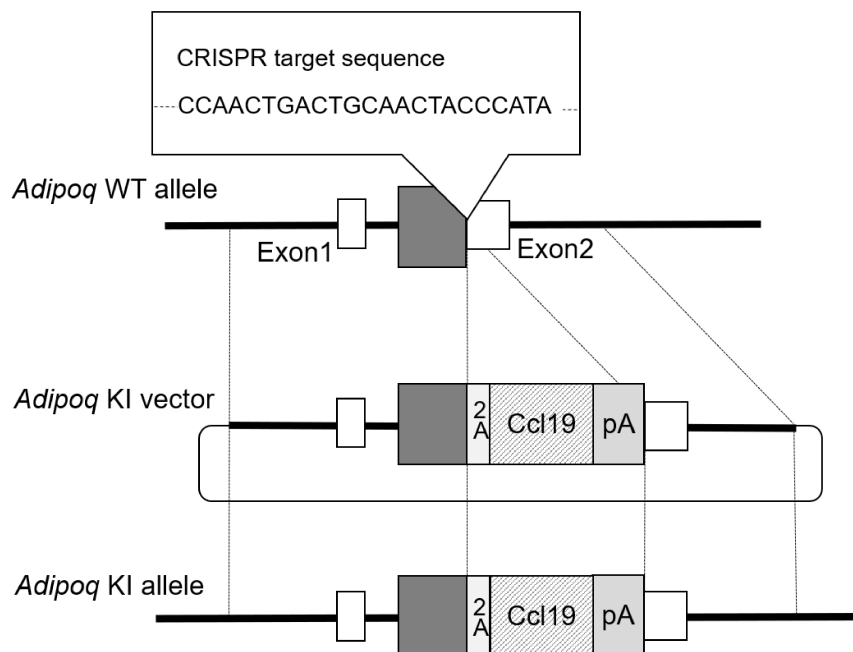


Supplementary Table 1

Primer sequences used for real-time PCR

Gene	Forward	Reverse
<i>Ccr7</i>	CCAGCAAGCAGCTCAACATT	GCCGATGAAGGCATACAAGA
<i>Mcp1</i>	AGGTCCCTGTGATGCTTCTG	TCTGGACCCATTCTTCTTG
<i>Tnfa</i>	GACAGTGACCTGGACTGTGG	TGAGACAGAGGCAACCTGAC
<i>Cd11c</i>	CCTGAGGGTGGGCTGGAT	GCCAATTCCTCCGGACAT
<i>Il12</i>	CAGAAGCTAACCATCTCCTGGTTTG	CCGGAGTAATTTGGTGCTCCACAC
<i>Adiponectin</i>	TGGATCTGACGACCAAAAA	CGAATGGGTACATTGGGAAC
<i>F4/80</i>	CTTTGGCTATGGGCTTCCAGTC	GCAAGGAGGACAGAGTTTATCGTG
<i>Gapdh</i>	TGACGTGCCGCCTGGAGAAA	AGTGTAGCCCAAGATGCCCTTCA

Supplementary Figure 1



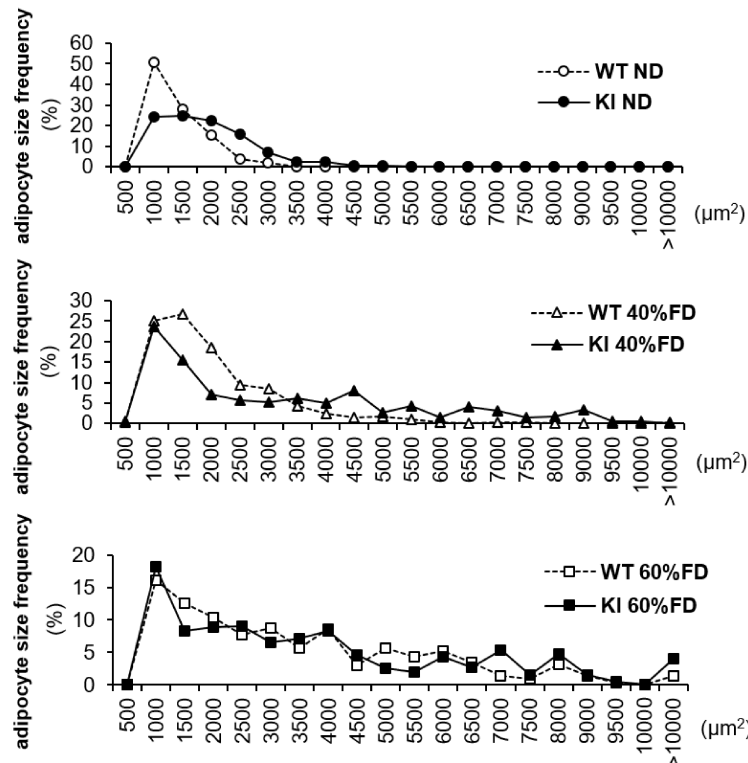
The CRISPR target sequence (5'-CCAACTGACTGCAACTACCCATA-3') was selected for integration of the 2A-Ccl19 sequence just before the stop codon of *Adipoq*. *Adipoq*-CRISPR-F (5'-caccGGGTCTTCGAGAAGACCT-3') and *Adipoq*-CRISPR-R (5'-aacAGGTCTTCTCGAAGACCC-3') were annealed and inserted into the entry site of pX330 as described previously (1). This plasmid was designated as pX330-*Adipoq*. The cleavage activity of pX330-*Adipoq* was confirmed by the traffic reporter system using the p2color vector containing the CRISPR target (2). Transfection to HEK293T cells and fluorescence observations were performed as described (1). CRISPR/Cas9 vector and Knock-in vector for *Adipoq* gene were microinjected into fertilized oocytes.

References

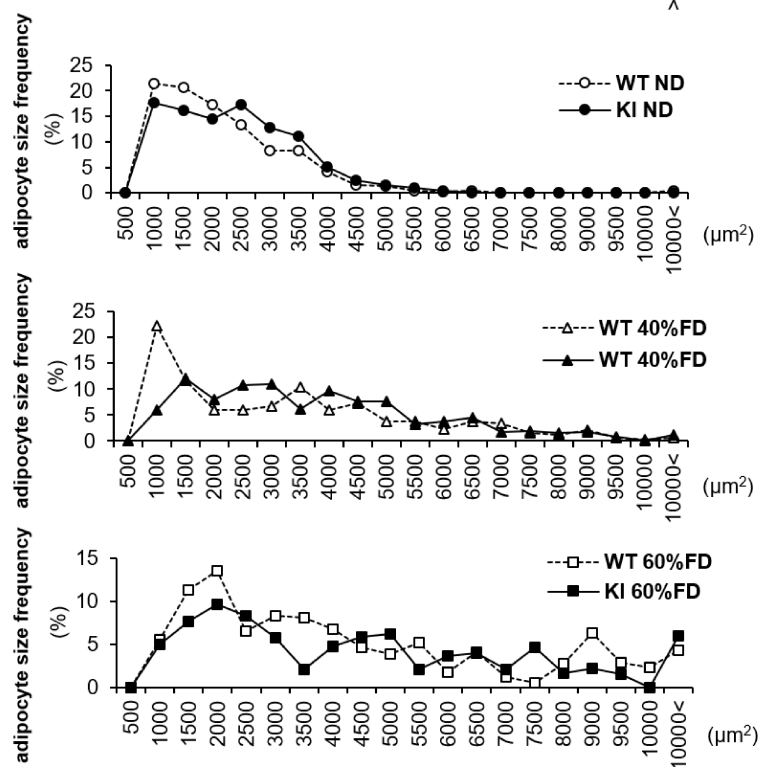
1. Mizuno S, Dinh TT, Kato K, et al. Simple generation of albino C57BL/6J mice with G291T mutation in the tyrosinase gene by the CRISPR/Cas9 system. *Mamm Genome* 2014;25:327–34.
2. Hasegawa Y, Hoshino Y, Ibrahim AE, et al. Generation of CRISPR/Cas9-mediated bicistronic knock-in ins1-cre driver mice. *Exp Anim* 2016;65:319–27.

Supplementary Figure 2

A IWAT



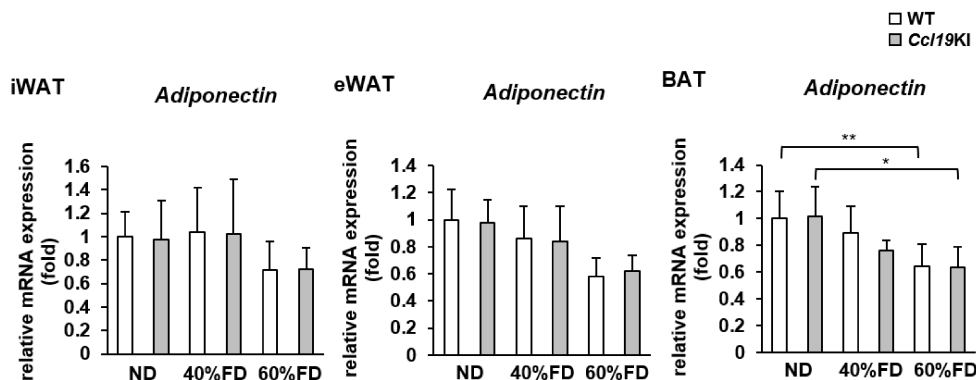
B eWAT



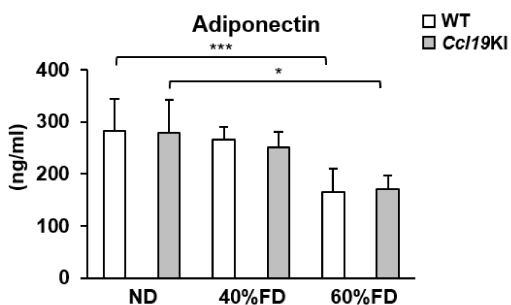
Distribution of adipocytes (based on size) in inguinal white adipose tissue (iWAT) (A), epididymal white adipose tissue (eWAT) (B). All mice were fed with a normal diet (ND) up to 7 weeks after weaning. From 7 weeks of age, mice were fed either ND, a diet containing 40% calories from fat (40%FD), or a diet containing 60% calories from fat (60%FD) for 8 weeks. n = 4 per group, with four random fields per animal.

Supplementary Figure 3

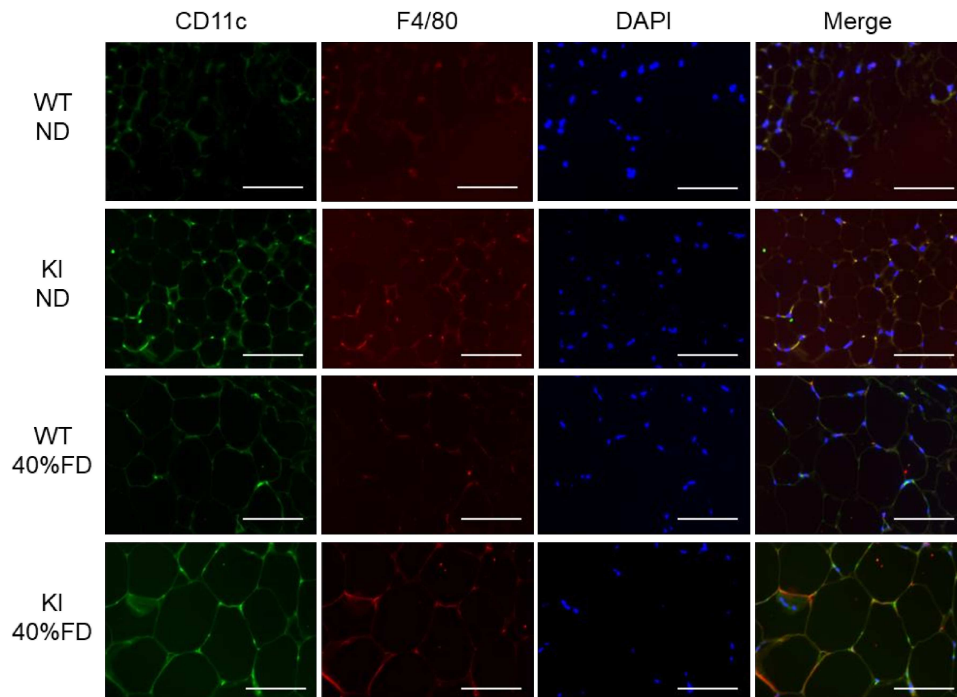
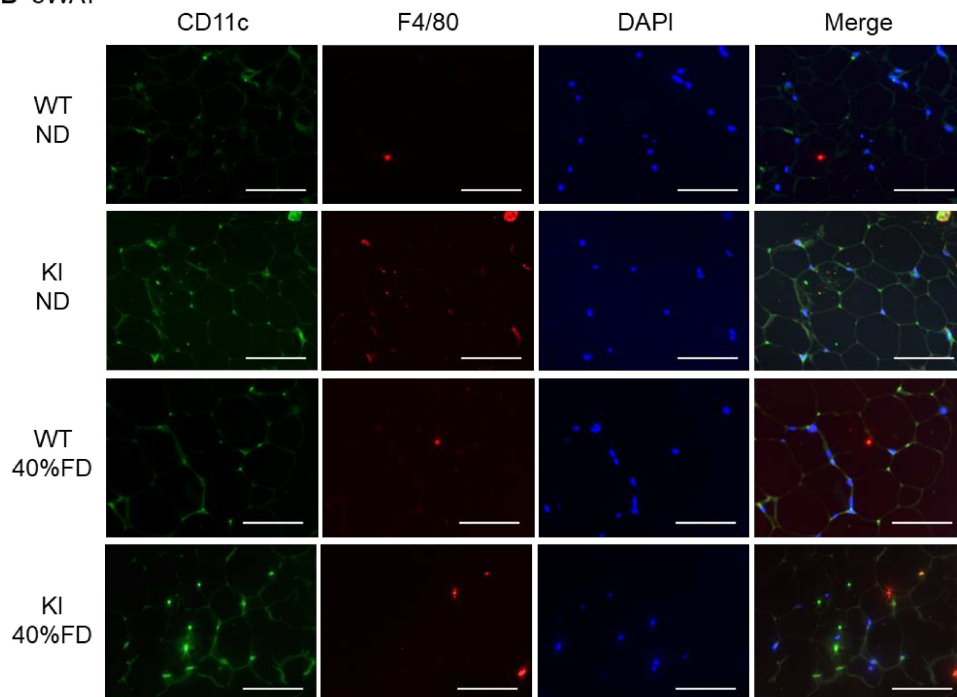
A



B



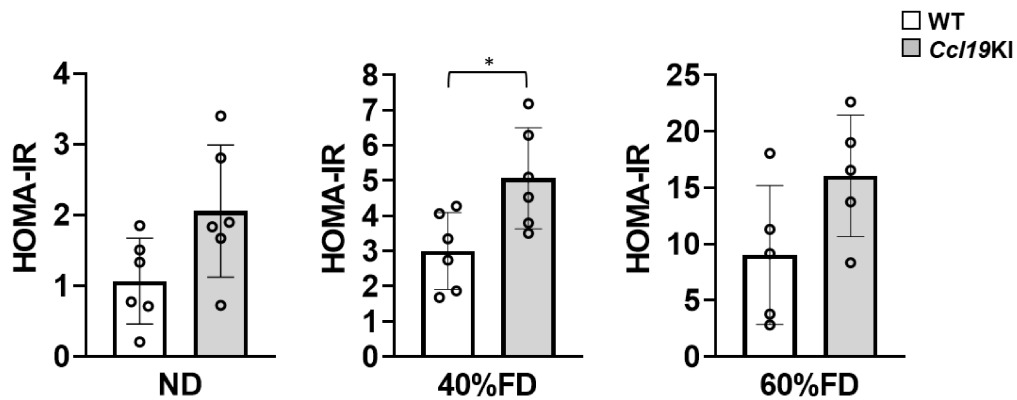
All mice were fed with a normal diet (ND) up to 7 weeks after weaning. From 7 weeks of age, mice were fed an ND, a 40%, or a 60% fat diet (40%FD, 60%FD) for 8 weeks. A) Relative mRNA expression level of *Adiponectin* in iWAT, eWAT, and BAT of WT and *Ccl19KI* mice was measured by RT-PCR. B) Serum Adiponectin concentration was measured by ELISA as described. Data are expressed as mean (SD). $n=3-5$. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. iWAT, inguinal white adipose tissue. eWAT, epididymal white adipose tissue. BAT, interscapular brown adipose tissue.

Supplementary Figure 4**A iWAT****B eWAT**

All mice were fed with a normal diet (ND) up to 7 weeks after weaning. From 7 weeks of age, mice were fed an ND or a 40% fat diet (40%FD) for 8 weeks.

A, B) Representative images of immunofluorescence staining for CD11c (green) and F4/80 (red) of iWAT (A) and eWAT (B) are shown. Colocalization (yellow) of CD11c and F4/80 are shown in merged images. Scale bar, 100 μ m for 40 \times magnification. iWAT, inguinal white adipose tissue. eWAT, epididymal white adipose tissue.

Supplementary Figure 5



All mice were fed with a normal diet (ND) up to 7 weeks after weaning. From 7 weeks of age, mice were fed an ND, a 40%, or a 60% fat diet (40%FD, 60%FD) for 8 weeks. The HOMA-IR was calculated using the equation $[(\text{fasting glucose} \times \text{fasting insulin}) / 405]$. $n = 4-6$ per group. Data are expressed as mean (SD). $*p < 0.05$.