

Apolipoprotein E (ApoE) orchestrates adipose tissue inflammation and metabolic disorders through NLRP3 inflammasome

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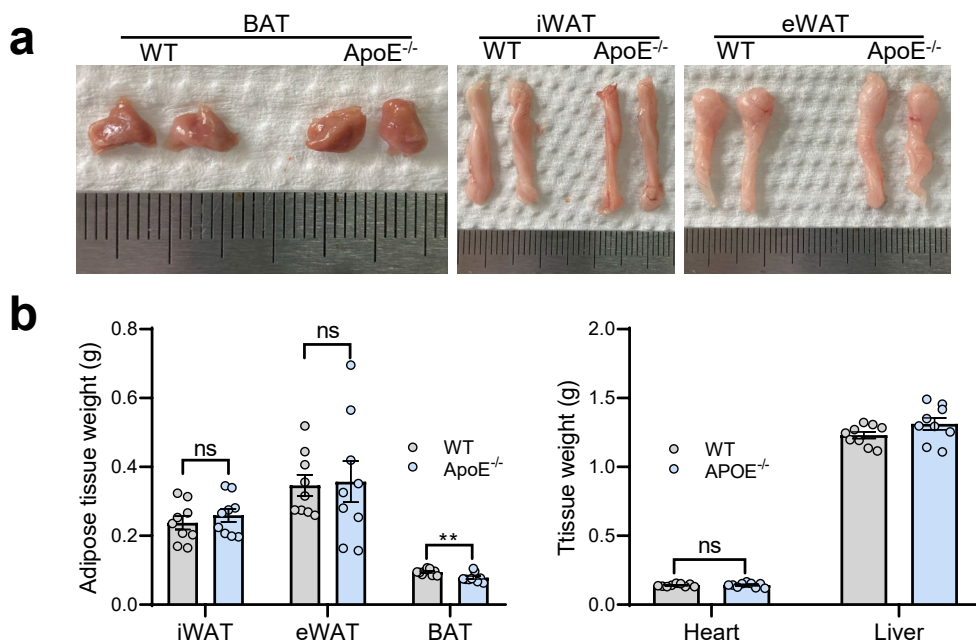


Fig. S1. Representative tissue images and weight of WT and ApoE^{-/-} mice in chow diet. a Representative images of indicated tissues. **b** Tissue weight following chow-fed for 12 weeks (n=9). Data represent mean $\pm$ SEM. ** $P < 0.01$, ns, no significance.

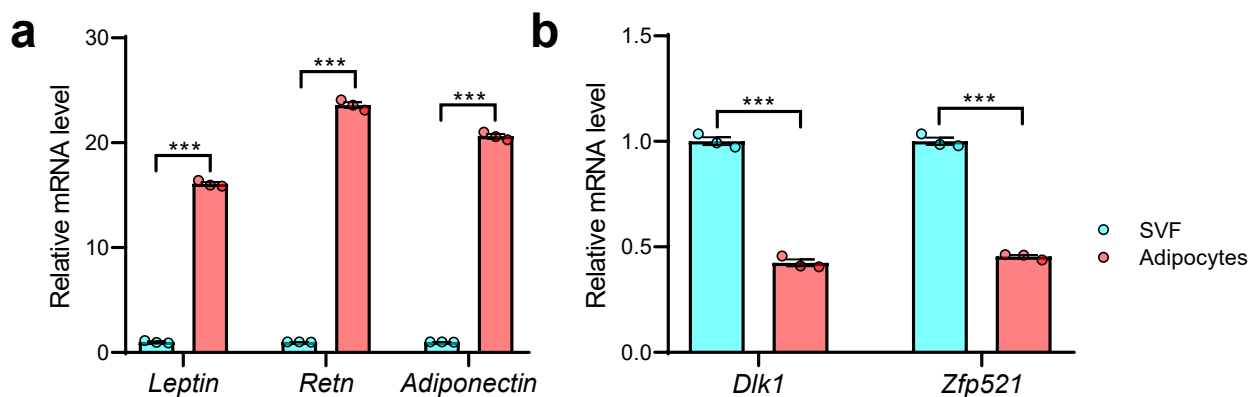


Fig. S2. QPCR analysis for verification of isolation SVF and mature adipocytes. a, b Representative marker gene expression of adipocytes (a) and SVF (b) isolated from WAT of WT mice (n=3). SVF, stromal vascular fraction. Data represent mean $\pm$ SEM. *** $P < 0.001$.

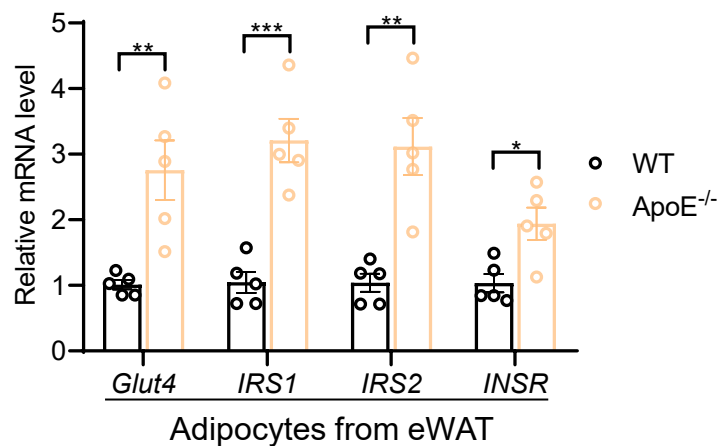
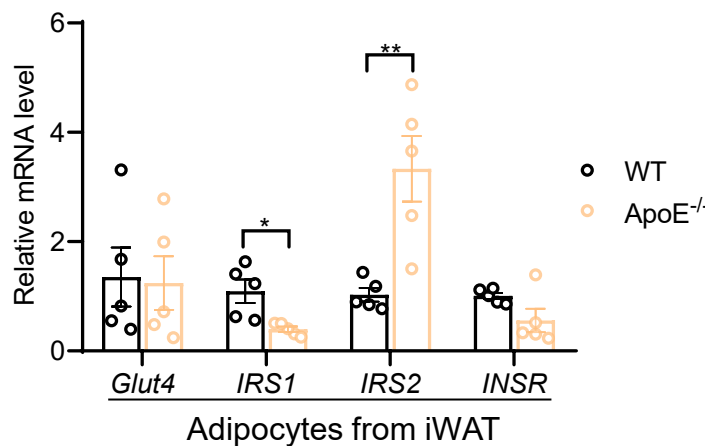
a**b**

Fig. S3. QPCR analysis of Glut4 and genes related to insulin

pathway. a, b Transcription analysis of Glut4, IRS1, IRS2, and INSR in adipocytes of eWAT (a) and iWAT (b) from WT and ApoE^{-/-} mice. Data represent mean ± SEM. * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$.

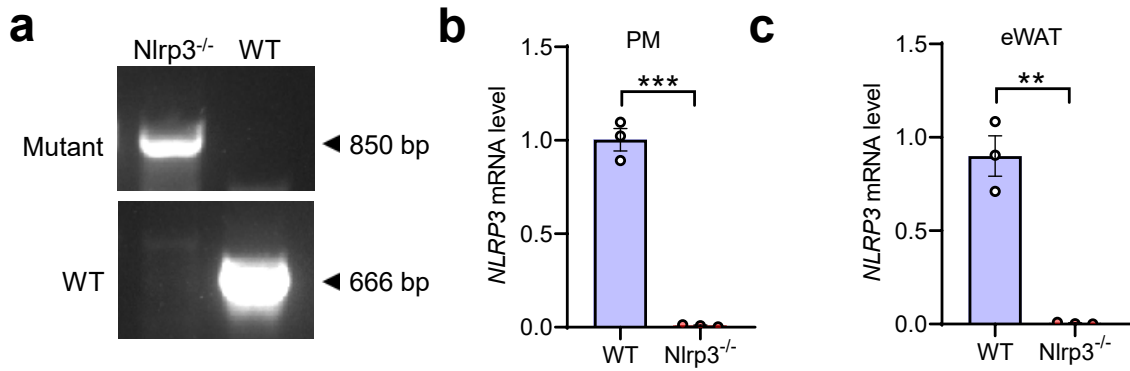


Fig. S4. Generation of NLRP3 knockout (*Nlrp3*^{-/-}) mice. **a** Genotypic PCR analysis of mice. **b, c** NLRP3 expression in PM (**b**) and eWAT (**c**) from WT and *Nlrp3*^{-/-} mice were determined by QPCR (n=3). Data represent mean $\pm$ SEM. ** $P < 0.01$, *** $P < 0.001$.

1 **Supplementary Table 1.** The baseline characteristics of the participants

	(1) BMI < 24	(2) BMI ≥ 24	P-value
Samples (n)	30	17	
Age	63.5. (13.8)	65.2 (9.59)	0.66
Sex, n (%)			
Woman	6 (20%)	5 (29.4%)	-
Man	24 (80%)	12 (70.6%)	-
BW (kg)	60.3 (10.6)	74.8 (14.6)	< 0.001
Height (cm)	164 (11.6)	167 (8.93)	0.46
BMI (kg/m ²)	21.3 (1.82)	27.4 (2.86)	< 0.001
BG (mmol/L)	4.62 (0.47)	5.64 (1.56)	0.0016

2 Information of the human subjects in indicated groups. BW, body weight; BMI, body
3 mass index; BG, blood glucose. **Data are represented as mean (SD) for age, BW, height,**
4 **BMI and BG.**

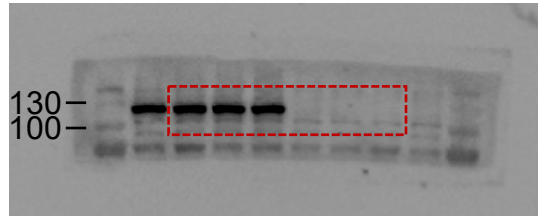
1 **Supplementary Table 2.** Primers used in this study

QPCR primers	5'→3'
<i>Adiponectin</i> -F	GCCCAGTCATGCCGAAGATGAC
<i>Adiponectin</i> -R	AGTGCCATCTCTGCCATCACGG
<i>Apoe</i> -F	CTGACAGGATGCCTAGCCG
<i>Apoe</i> -R	CGCAGGTAATCCCAGAAGC
<i>Leptin</i> -F	GAGACCCCTGTGTCGGTTC
<i>Leptin</i> -R	CTGCGTGTGTGAAATGTCATTG
<i>Retn</i> -F	ACAAGACTTCAACTCCCTGTTTC
<i>Retn</i> -R	TTTCTTCACGAATGTCCACG
<i>Zfp521</i> -F	GGCTGTTCAAACACAAGCG
<i>Zfp521</i> -R	GCACATTTATATGGCTTGTTG
<i>Dlk1</i> -F	GCTGGGACGGGAAATTCTGCGA
<i>Dlk1</i> -R	AACCCAGGTGTGCAGGAGCA
<i>Ccl2</i> -F	AGGTCCCTGTCATGCTTCTG
<i>Ccl2</i> -R	TCTGGACCCATTCTTCTTG
<i>Ccl5</i> -F	TGCCCACGTCAAGGAGTATTT
<i>Ccl5</i> -R	TTCTCTGGGTTGGCACACACT
<i>Il6</i> -F	AGTTGCCTTCTTGGGACTGA
<i>Il6</i> -R	TCCACGATTTCCCAGAGAAC
<i>Il23</i> -F	ATGCTGGATTGCAGAGCAGTA
<i>Il23</i> -R	ACGGGGCACATTATTTTATGCTCT
<i>Tnf</i> -F	AGCCCCCAGTCTGTATCCTT
<i>Tnf</i> -R	CTCCCTTTGCAGAACTCAGG
<i>Il1b</i> -F	TGGCAACTGTTCTGAACCTCAA
<i>Il1b</i> -R	AGCAGCCCTTCATCTTTTGG
<i>Il12p40</i> -F	CCAGAGACATGGAGTCATAG
<i>Il12p40</i> -R	AGATGTGAGTGGCTCAGAGT
<i>Mrc1</i> -F	CTCTGTTTCAGCTATTGGACGC
<i>Mrc1</i> -R	CGGAATTTCTGGGATTCAGCTTC
<i>Il10</i> -F	GCCAAGCCTTATCGGAAATG
<i>Il10</i> -R	CACCCAGGGAATTCAAATGC
<i>Chil3</i> -F	GGGCATACCTTTATCCTGAG

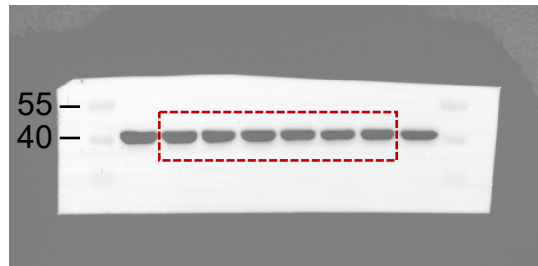
<i>Chil3</i> -R	CCACTGAAGTCATCCATGTC
<i>Arg1</i> -F	ACACGGCAGTGGCTTTAACC
<i>Arg1</i> -R	TGGCGCATTACAGTCACTT
<i>Retnla</i> -F	TACTTGCAACTGCCTGTGCTTACT
<i>Retnla</i> -R	TATCAAAGCTGGGTTCTCCACCTC
<i>NLRP3</i> -F	ATTACCCGCCCCGAGAAAGG
<i>NLRP3</i> -R	TCGCAGCAAAGATCCACACAG
<i>Rplp0</i> -F	GAAACTGCTGCCTCACATCCG
<i>Rplp0</i> -R	GCTGGCACAGTGACCTCACACG
<i>IRS1</i> -F	TGGACATCACAGCAGAATGAAG
<i>IRS1</i> -R	AGACGTGAGGTCCTGGTTGT
<i>IRS2</i> -F	CACAACCTATCGTGGCACCT
<i>IRS2</i> -R	AAGGTCTCTGAACTGTGGCG
<i>Glut4</i> -F	GCTCTGACGTAAGGATGGGGA
<i>Glut4</i> -R	TTGTGGGATGGAATCCGGTC
<i>INSR</i> -F	TGTCCCCAGAAAAACCTCTTCA
<i>INSR</i> -R	AAGGGATCTTCGCTTTCGGG

Raw gel data of Figure 6k

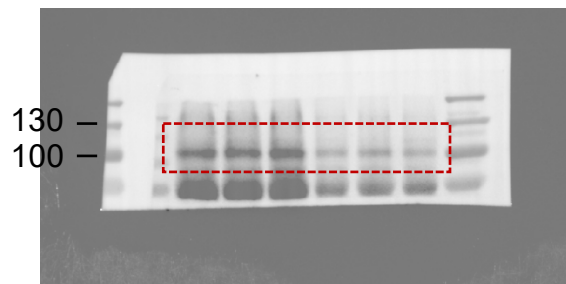
Peritoneal macrophage, Nlrp3



Peritoneal macrophage, β -actin



eWAT-Nlrp3



eWAT- β -actin

