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## **Supplemental Information**

### **circARF3 Alleviates Mitophagy-Mediated Inflammation by Targeting miR-103/TRAF3 in Mouse Adipose Tissue**

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## Supplemental Information:

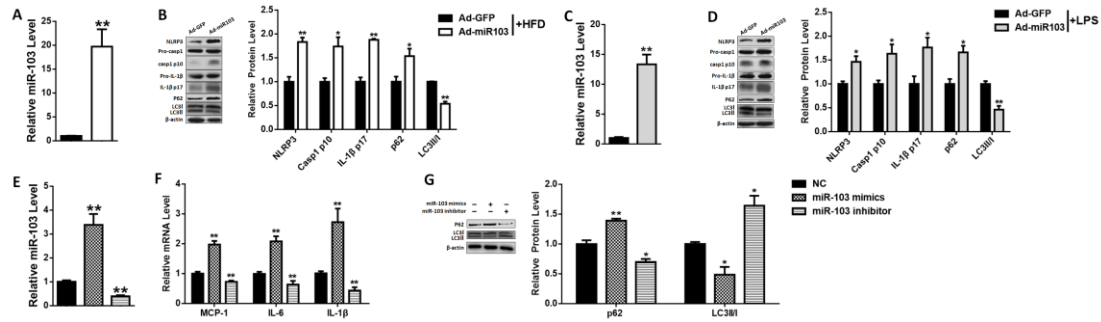


Figure S1. miR-103 promoted adipose inflammation and inhibits mitophagy. (A and B) HFD mice were ip injected with Ad-miR103 or Ad-GFP. (A) The relative miR-103 level in HFD mice adipose tissue. (B) The relative protein levels of NLRP3, Caspase 1, IL-1 $\beta$ , p62 and LC3 were measured. (C and D) ND mice were ip injected with Ad-miR103/Ad-GFP and LPS. (C) The relative miR-103 level in adipose tissue. (D) Western blot analysis of p62 and LC3 protein levels. (E-F) Primary adipocytes were transfected with miR-103 mimics, miR-103 inhibitor and control. The comparative levels of miR-103 (E), *MCP-1*, *IL-6* and *IL-1 $\beta$*  mRNA (F), p62 and LC3 protein (G) were detected. Error bar: SE. Data represented the mean  $\pm$  SEM. (\* $p$  < 0.05; \*\* $p$  < 0.01.  $n \geq 3$ ).

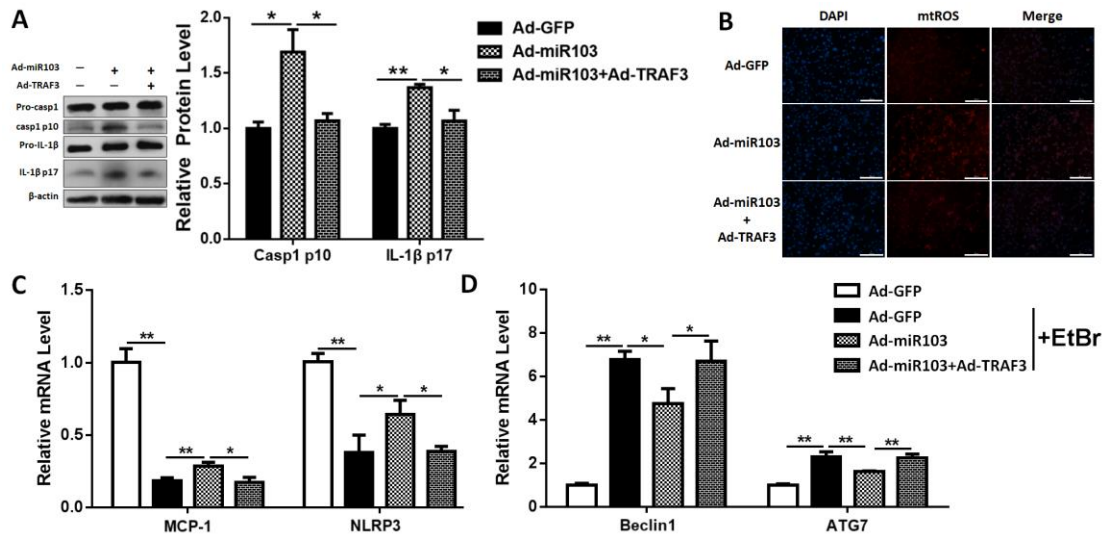


Figure S2. miR-103 promotes inflammation by targeting TRAF3 in adipocytes. (A and B) Adipocytes were treated with Ad-GFP, Ad-miR103 or Ad-miR103+Ad-TRAF3. (A) Western blot analysis of Caspase 1 and IL-1 $\beta$  protein levels. (B) Relative mtROS amounts were observed after MitoSOX staining. (C and D) Adipocytes were treated with EtBr. QPCR were used to detected the relative mRNA levels of MCP-1, NLRP3, Beclin1 and ATG7. Scale bar: 200 $\mu$ m. Error bar: SE. Data represented the mean  $\pm$  SEM. (\* $P$  < 0.05; \*\* $P$  < 0.01.  $n \geq 3$ ).



Figure S4. circARF3 alleviates mitophagy mediated inflammation by inhibiting NF- $\kappa$ B signaling. (A) The sequence of circARF3, and the binding sites with miR-103 were presented in red. (B and C) Adipocytes were treated with circARF3 lentiviruses, circARF3 lentiviruses+miR-103 adenoviruses or control empty viruses. (B) Intracellular distribution of NF- $\kappa$ Bp65. (C) Immunoblot analysis of p65, Caspase 1, IL-1 $\beta$ , p62 and LC3 protein levels are shown with or without BAY11-7082 treatment. Scale bar: 200 $\mu$ m. Error bar: SE. Data represented the mean  $\pm$  SEM. (\* $p < 0.05$ ; \*\* $p < 0.01$ .  $n \geq 3$ ).