CT26 Tumor Natural killer cells Cytotoxic T cells M1 macrophages M2 macrophages CT26 Tumor + C34 CT26 Tumor + C34 Natural killer cells Cytotoxic T cells M1 macrophages M2 macrophages



A

B

C

15-

10

5

0

20

Relative percentage(%)





Supplementary Figure S1. Tumor-infiltrating immune cell profiles under different dietary interventions. Fluorescence-activated Cell Sorting (FACS) showing the percentage of natural killer (NK), cytotoxic T cells, M1 and M2 macrophages in the (A) CT26 tumor and (B) CT26 tumor with daily intratumoral injection of C34 (1mg/kg), under HFD or CD feeding for 18 days, and in the (C) CT26 tumor with daily intratumoral injection of C34 (1mg/kg) under PAD or C-PAD feeding for 18 days. NK cells are CD3-CD49b+NCR1+, cytotoxic T cells are CD3+CD8+, M1 macrophages are CD80+, M2 macrophages are CD206+. HFD, high fat diet; CD, matched control diet for HFD; PAD, palmitic acid-rich diet; C-PAD, matched control diet for PAD. Data are shown as means \pm SEM, n = 4 mice in each group. *p<0.05 compared to CD.

Supplementary Figure S2



Supplementary Figure S2. GO pathway enrichment analysis on the (A) cellular component and (B) biological pathway,s and (C-D) GO pathway enrichment analysis of the highlighted metabolic enzymes that show significant differences between the wild-type HCT116 or HCT116^{TLR4-KO} tumor tissues.