Supplementary Table 1:

A: Antibodies for flow

BIOLEGEND	APC/Fire™ 750 anti-mouse CD45.2 Antibody
BIOLEGEND	Brilliant Violet 785™ anti-mouse F4/80 Antibody
BIOLEGEND	FITC anti-mouse/human CD11b Antibody
BIOLEGEND	Brilliant Violet 421™ anti-mouse CD80 Antibody
BIOLEGEND	PE anti-mouse CD206 (MMR) Antibody
BIOLEGEND	APC/Fire™ 750 anti-human CD45 Antibody
BIOLEGEND	APC anti-human CD11b Antibody
BD	FITC Mouse Anti-Human CD14
BD	PE-anti-human CD68 Antibody
BD	PE-anti-human CD163 Antibody
BD	PE-anti- human CD206 Antibody
R&D	PE-anti-human CD19 Antibody

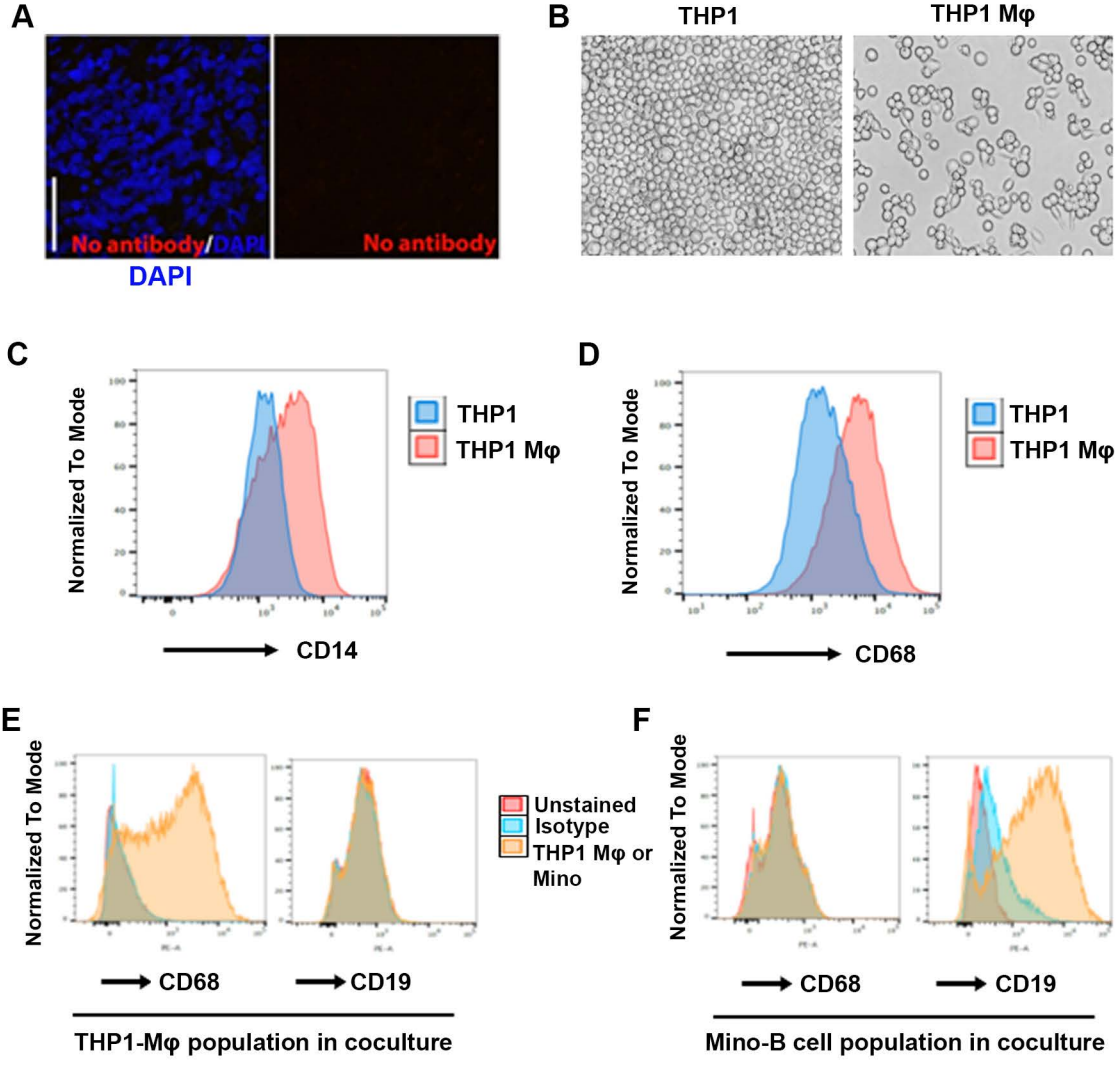
B: Antibodies for IF:

Abcam	Anti-F4/80 antibody for mouse
Santa Cruz	Anti-CD68 antibody for human
Thermo Fisher Scientific	Anti-CD163 antibody for human
Novus Biologicals	Anti-CD19 antibody for human
Cell Signaling Technology	Anti-pSTAT1 antibody for human

C: Antibodies for IHC

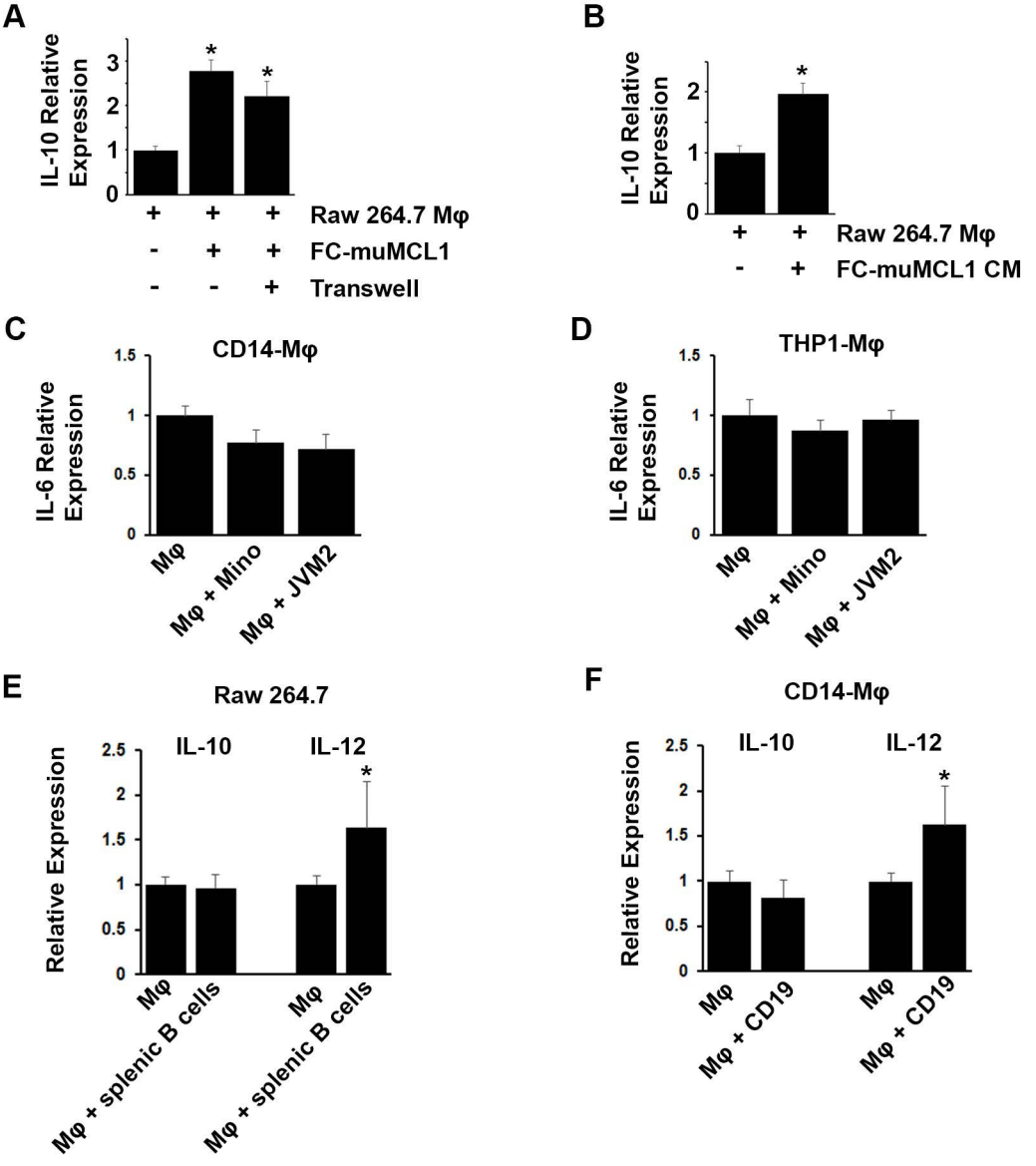
Boster Bio	Anti-CD68 antibody for mouse
Biolegend	Anti-CD206 antibody for mouse
R&D System	Anti-CD80 antibody for mouse

Figure S1



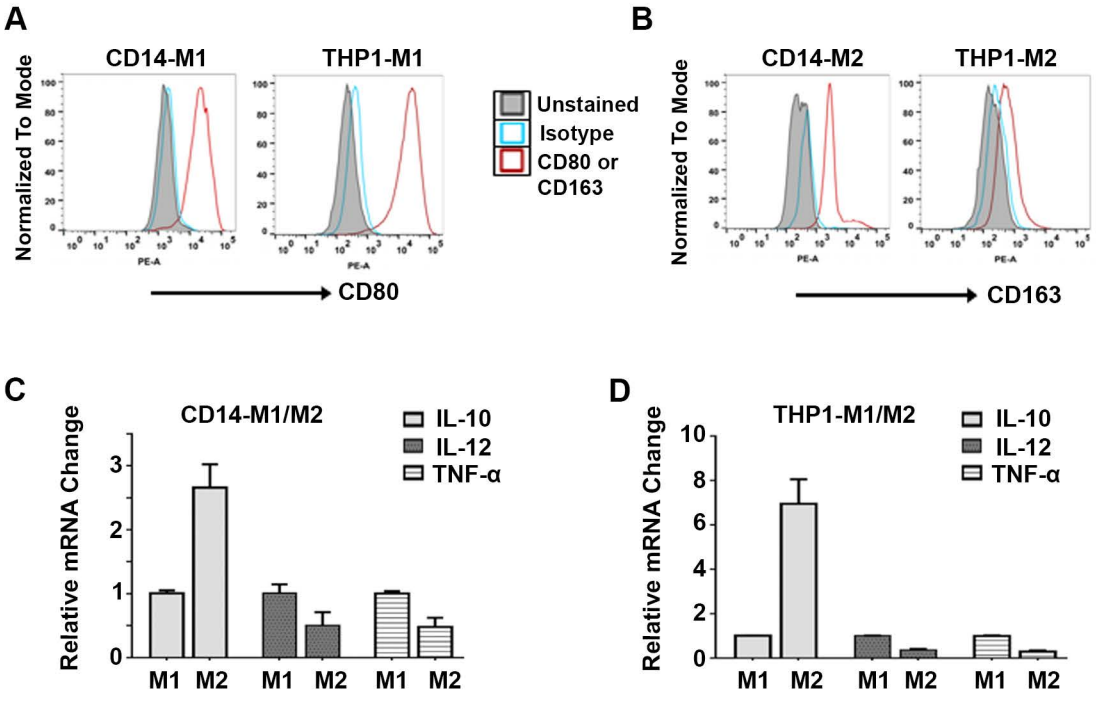
S1. In-vitro monocytes differentiation. (A) Immunofluorescent staining was performed on the paraffin fixed MCL mouse syngeneic tumors using no antibody and stained with DAPI (blue). **(B)** Morphology of the THP1-differentiated macrophages is shown. **(C-D)** CD14 and CD68 expression was assessed in the THP1-monocytic cell line and THP1-differentiated macrophages. **(E-F)** Purity of cocultured THP1-macrophages and MCL B-cells were assessed by flow cytometry using CD68 and CD19 antibodies.

Figure S2



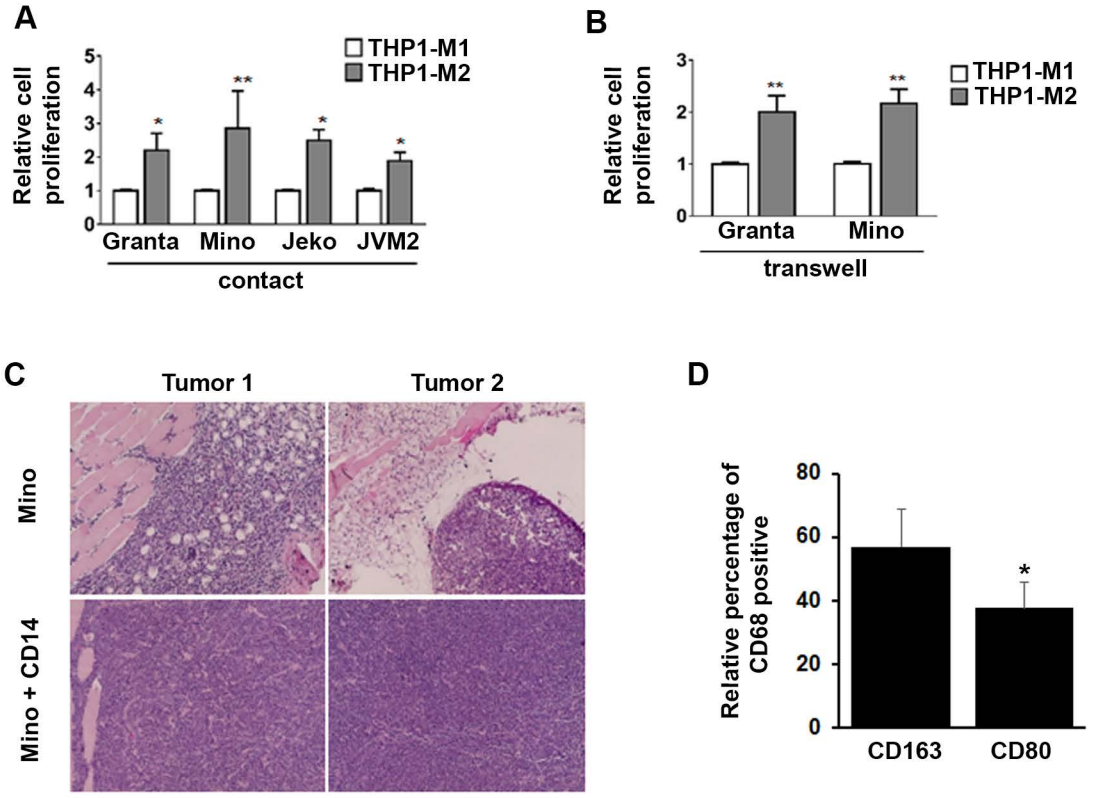
S2. Assessment of cytokine expression in macrophages co-cultured with murine MCL or normal B-cells. (A) The mRNA expression of IL-10 in Raw 264.7 (murine monocytic cell line) was measured by QRT-PCR after co-culturing with FC-muMCL1 (murine MCL cell line) with or without trans-well. **(B)** The mRNA expression of IL-10 in Raw 264.7-Mφ was measured by QRT-PCR after treatment with FC-muMCL1 conditioned media. **(C-D)** The mRNA expression of IL-6 in CD14-Mφ **(C)** or THP1- Mφ **(D)** was measured by QRT-PCR after co-culturing with Mino or JVM2. **(E-F)** The mRNA expression of IL-10 or IL-12 in Raw 264.7 and CD14-Mφ was measured by QRT-PCR after co-culturing with mouse splenic B cells **(E)** and normal CD19+ B cells **(F)**.

Figure S3



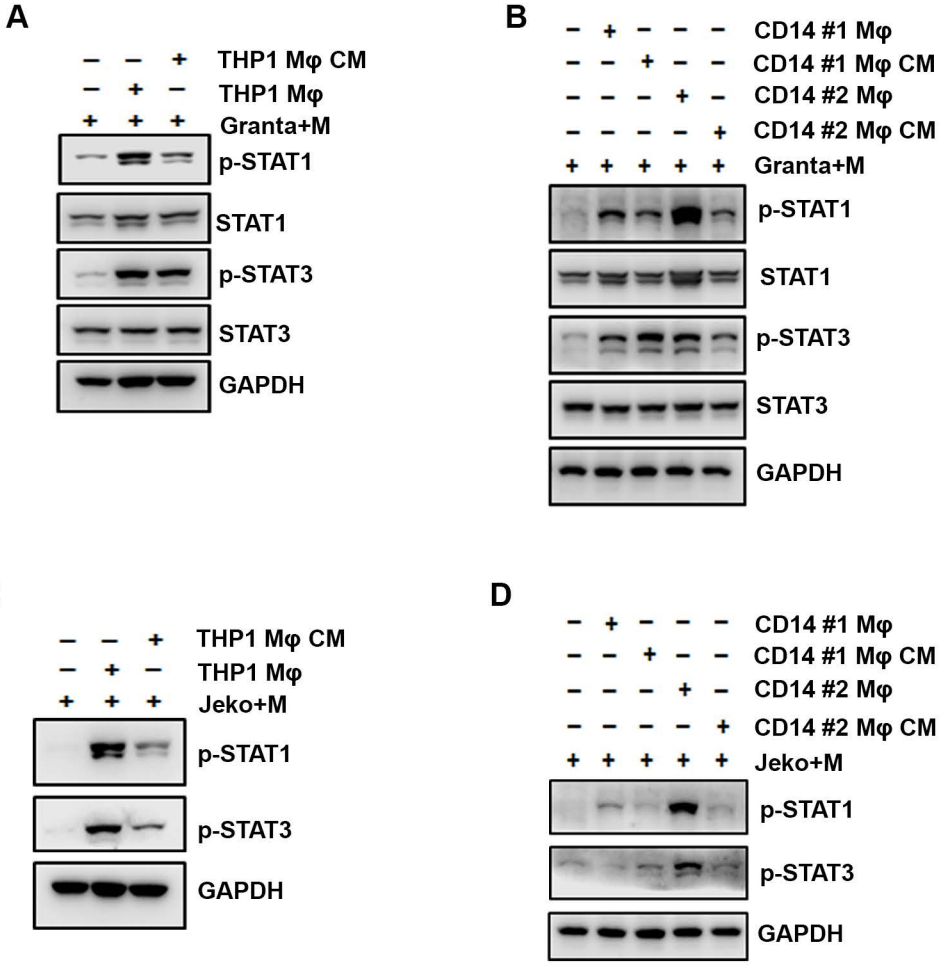
S3. Surface markers and cytokine expression of THP1 or CD14+ derived M1 and M2 macrophages. The expression of surface markers CD80 and CD163 **(A-B)** or cytokines IL-10, IL-12 and TNF-alpha **(C-D)** in M1 or M2 macrophages was measured by flow cytometry or QRT-PCR in CD14 or THP1 polarized macrophages.

Figure S4



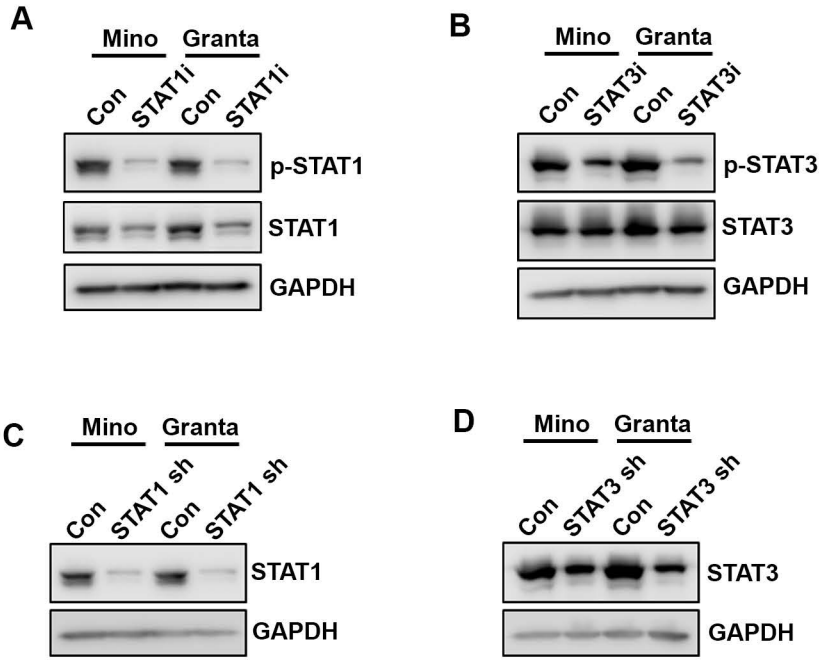
S4. Effect of M1 and M2 macrophages on the MCL growth. (A-B) Cell proliferation in MCL was measured by MTT assay using direct **(A)** or indirect **(B)** co-culture with trans-well in THP1 M1- or M2-macrophages. Data presented as means ± SD from 3 separate experiments. **(C)** H&E staining of the Mino alone and Mino+CD14+ monocytes mouse xenograft samples. **(D)** Relative percentage of CD163 and CD80 positive cells to CD68 positive cells in the mouse xenograft bearing lymphoma with CD14+ monocytes inoculation. Data presented as means ± SD from15-30 feilds of 3 different tumors.

Figure S5



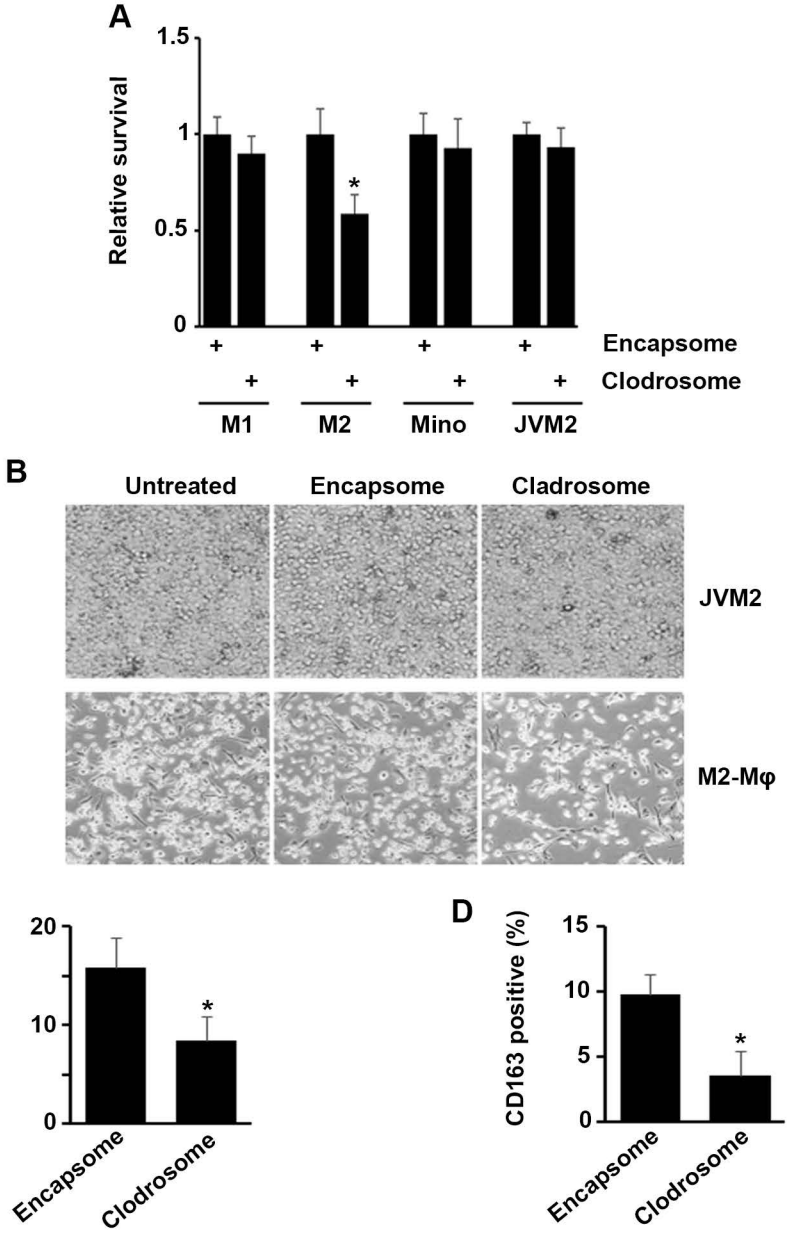
S5. Effect of macrophage and MCL cell interaction on STAT1 signaling. STAT1 and STAT3 phosphorylation in Granta **(A-B)** or in Jeko **(C-D)** was measured after direct co-culturing of THP1 or CD14 Mφ or with CM (conditioned-media) collected from the THP1- or CD14-Mφ.

Figure S6



S6. Effect of STAT1 and STAT3 inhibitors or shRNA on STAT1/3 activation. **(A-B)** STAT1 and STAT3 phosphorylation in Mino or Granta was measured after treatment with STAT1 inhibitor fludarabine **(A)** and STAT3 inhibitor stattic **(B)**. **(C-D)** Mino or Granta cells were infected with scramble, STAT1, or STAT3 shRNA, and the expression level of STAT1 and STAT3 was measured by western blotting.

Figure S7



S7. In-vitro effect of cladrosome on the MCL and macrophages viability. (A-B) In-vitro polarized THP1-M1 and M2 macrophages or MCL cell lines Mino and JVM2 were exposed to cladrosome or encapsome at a 200 µg/mL concentration and viability **(A)** or cell numbers **(B)** were examined by trypan blue or under microscope respectively.**(C-D)** Positivity of CD68 and CD163 in the mouse bearing lymphoma treated with cladrosome (200 µg/mL) or control (encapsome).