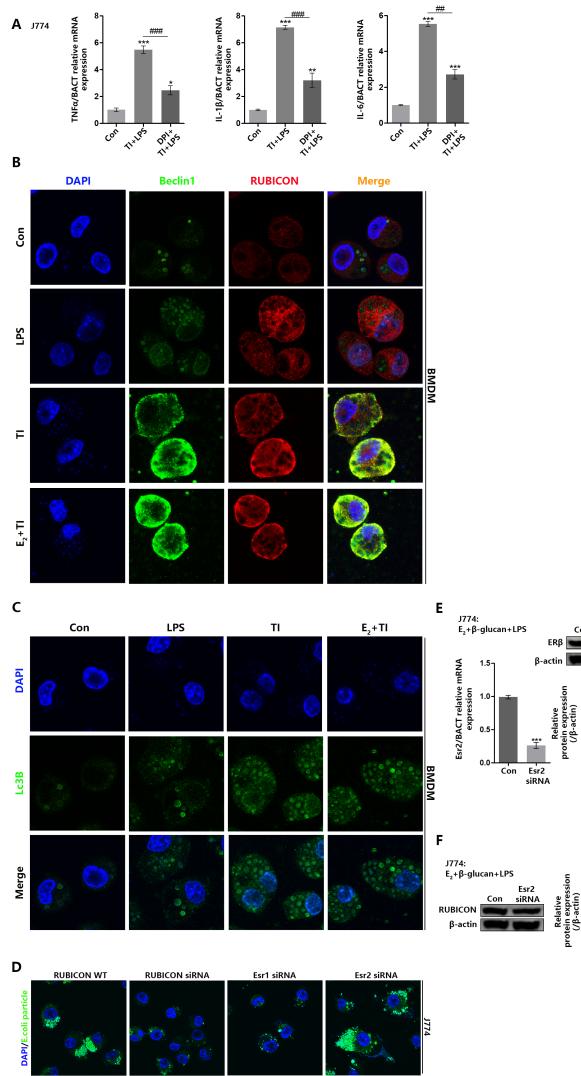
Supplemental Data



Esr2 siRNA

> Esr2 siRNA

> > Esr2 siRNA

Con

1.0

0

0.0

1.5

1.0

0.

0.0

Con

Con

 $E_2 + \beta$ -glucan + Particle

Supplemental data:

Figure SA: The addition of NOX2 inhibitor DPI to trained immunity J774 suppresses inflammatory cytokines expression. The mRNA levels of TNF α , IL-1 β and IL-6 in J774 were detected by qPCR to determine the effect of DPI on inflammatory cytokines in TI + LPS group (n \ge 3/group). *p<0.05, **p<0.01 and ***p<0.001 when compared to control group. ##p<0.01 and ###p<0.001 comparing TI + LPS and DPI + TI + LPS group.

Figure SB: Estradiol and trained immunity facilitate the co-localization of RUBICON and Beclin1 in BMDMs. Immunofluorescence observation found that estradiol and trained immunity promote the co-localization of RUBICON and Beclin1 in BMDMs ($n\geq 3$ /group).

Figure SC: Estradiol and trained immunity increased the number of LC3B formed autophagosomes in BMDMs LAP ($n\geq 3/group$).

Figure SD: Knockdown of estrogen receptor α in J774 reduced phagocytic ability of J774 in E₂ + TI + particle group, however knockdown of estrogen receptor β in J774 had no effect on phagocytic ability of J774 in E2 + TI + particle group (n \geq 3/group).

Figure SE: qPCR and western blot verified Esr2 siRNA can knock down ER β expression in mRNA and protein level in J774.

Figure SF: Knockdown of ER β in J774 had no effect on RUBICON expression in E₂ + TI + LPS group (n \geq 3/group).