

Supplemental Figure 1. Kinetics of IL-18 and IL-1β expression stimulated by gardiquimod.

(A) Real-time qPCR analysis of the genes encoding IL-18 and IL-1 β and immunoblot analysis of pro-IL-18, pro-IL-1 β and β -actin (loading control) in WT BMDMs at various times after treated with gardiquimod. Data are representative of 3 independent experiments.



Supplemental Figure 2. Type I IFNs induce IL-18 expression via ISGF3 and a model of differential regulation of proinflammatory cytokines IL-18 and IL-1β.

(A) Immunoblot analysis of pro-IL-18 and β -actin (loading control) in WT, *Ifnar2^{-/-}*, *Irf9^{-/-}* or *Stat1^{-/-}* BMDMs at various times after treated with IFN β . (B) Real-time qPCR analysis of the gene encoding IL-18 in WT, *Irf1^{-/-}*, *Irf3^{-/-}*, *Irf5^{-/-}*, *Irf7^{-/-}* or *Irf8^{-/-}* BMDMs at various times after treated with IFN β . (C) Real-time qPCR analysis of the gene encoding IL-18 in WT or *Irf4^{fl/fl}-Lysm-Cre* BMDMs at various times after treated with IFN β . (D) Expression of IL-18 is induced and sustained by stimulations of TLR2, TLR4, or TLR7 ligand, while IL-1 β expression declines soon after reaching its peak level. The TLR3 and cGAS–STING pathways also upregulate IL-18 expression but are modest at inducing IL-1 β expression. Importantly, type I IFN signaling downstream of TLRs and cGAS–STING pathway is crucial in mediating IL-18 induction. Data are representative of 3 independent experiments. Supplemental Figure 2