

Supplemental Figures

Figure S1

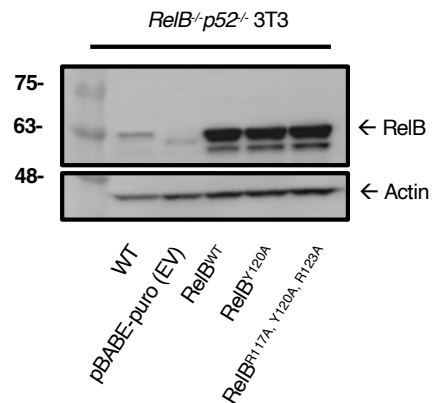


Figure S1: RelB variants have similar protein stability as indicated by expression level. Western Blot for RelB and Actin of unstimulated whole cell lysates from *Relb*^{-/-} 3T3 cells reconstituted with pBABE-puro empty vector (EV), *RelB*^{WT}, *RelB*^{Y120A}, and *RelB*^{R117A, Y120A, E123A}.

Figure S2

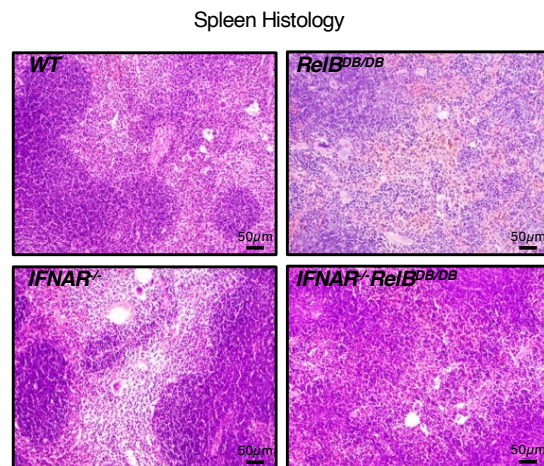


Figure S2: *RelB*^{DB/DB} and *IFNAR*^{-/-} *RelB*^{DB/DB} mice show similar spleen pathology. Representative images from H&E stained sections of WT, *RelB*^{DB/DB}, *IFNAR*^{-/-}, and *IFNAR*^{-/-} *RelB*^{DB/DB} spleen. Scale bar indicates 50 μm; n=3-4

Figure S3

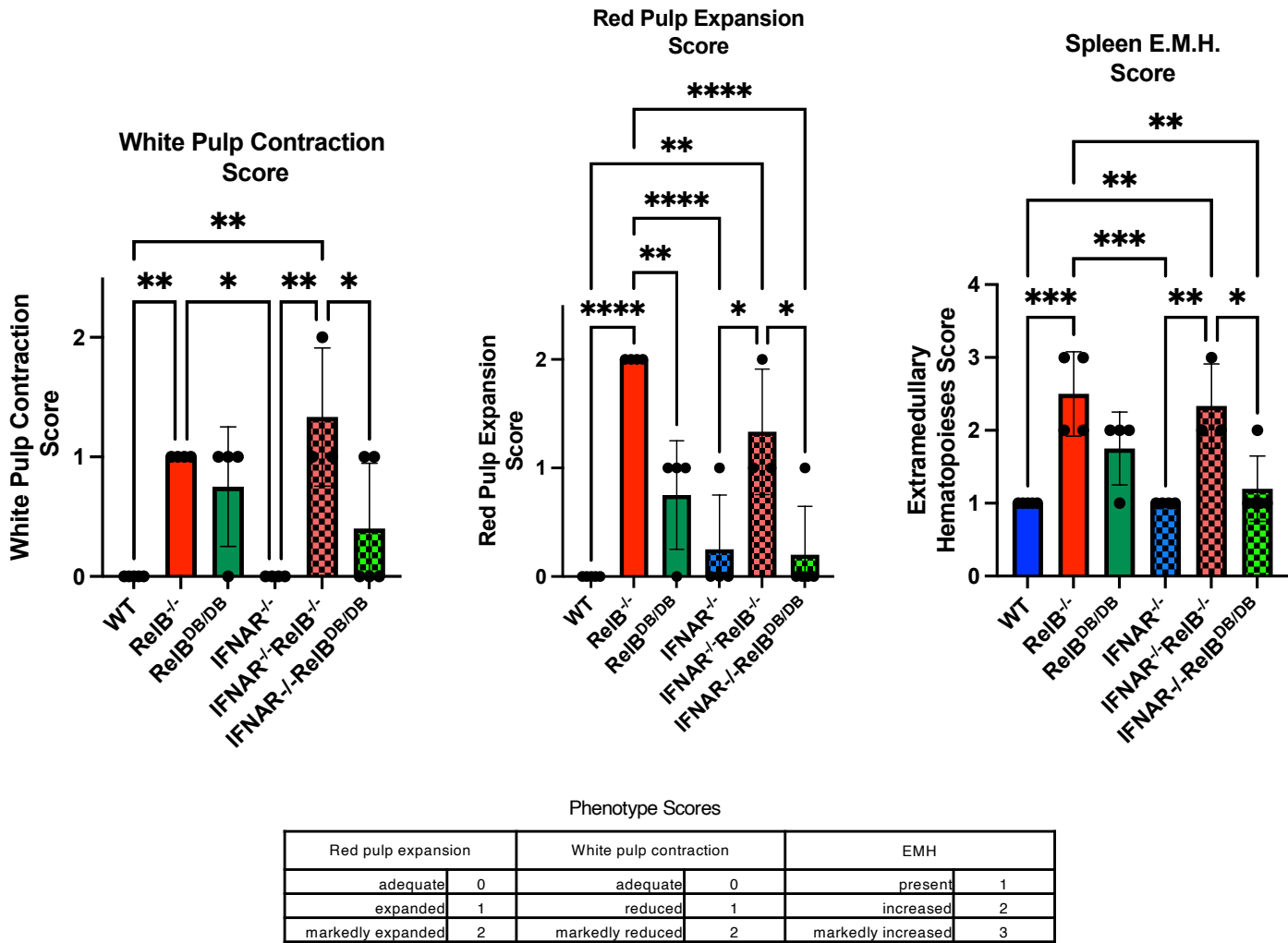


Figure S3: Spleen pathology of WT, *RelB*^{-/-}, *RelB*^{DB/DB}, *IFNAR*^{-/-}, *IFNAR*^{-/-} *RelB*^{-/-}, and *IFNAR*^{-/-} *RelB*^{DB/DB} mice.

Bar graphs of quantification of blinded analysis of spleen pathology. Red pulp expansion scored as adequate= 0, expanded= 1, markedly expanded =2. White pulp contraction quantified as adequate= 0, reduced= 1, markedly reduced =2. Extramedullary hematopoiesis scored as present= 1, increased=2, marked=3. WT (dark blue), *RelB*^{-/-} (dark red), *RelB*^{DB/DB} (dark green), *IFNAR*^{-/-}(light blue, checkered), *IFNAR*^{-/-}*RelB*^{-/-} (light red, checkered), *IFNAR*^{-/-}*RelB*^{DB/DB} (light green, checkered) mice. (****=p<.0001, ***=p<.001, **=p<.01, *=p<.05, absent= n.s.); error bars indicate S.D. Statistical analysis was done using one way ANOVA.

Figure S4

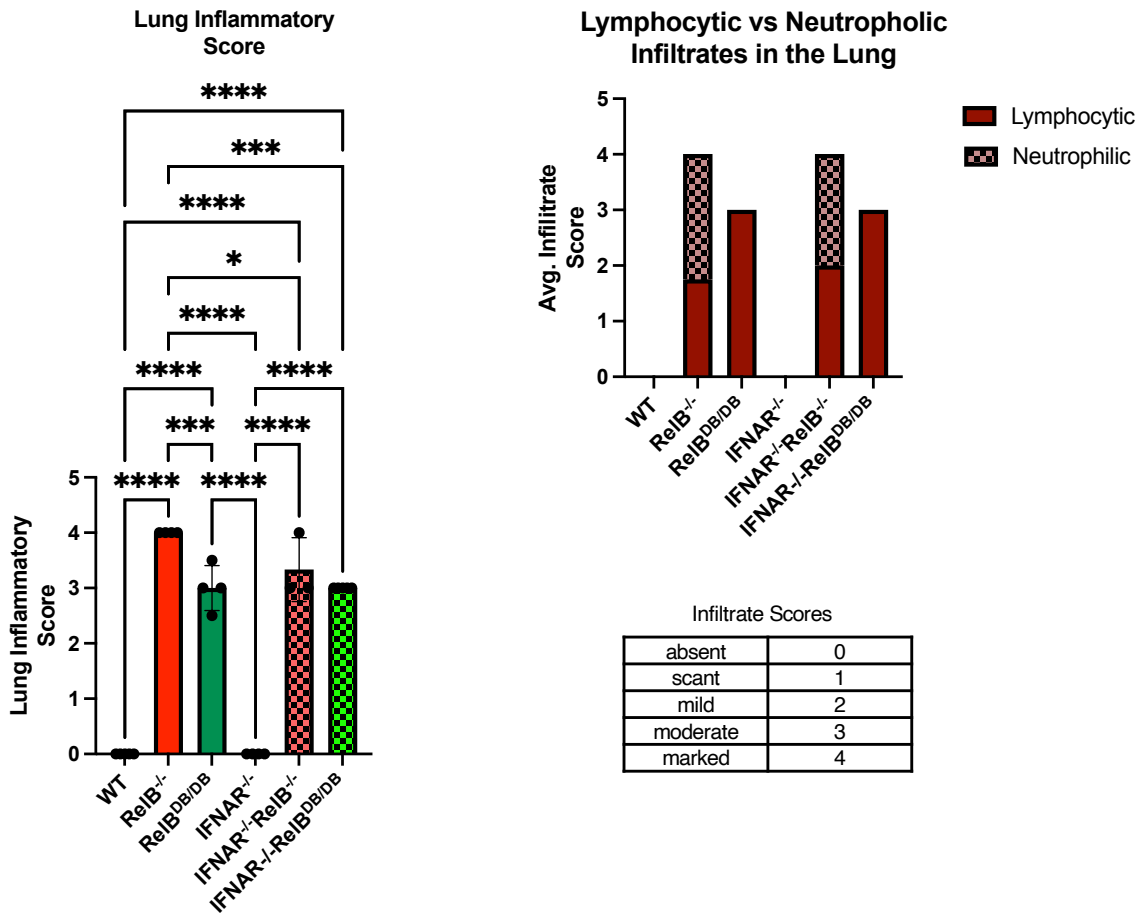


Figure S4: Lung inflammatory pathology of WT, *RelB*^{-/-}, *RelB*^{DB/DB}, *IFNAR*^{-/-}, *IFNAR*^{-/-}*RelB*^{-/-}, and *IFNAR*^{-/-}*RelB*^{DB/DB} mice.

Bar graphs of quantification of blinded analysis of lung pathology. Lung inflammation scored as absent= 0, scant= 1, mild =2, moderate=3, marked =4. Lymphocyte and neutrophilic infiltrates scored as absent= 0, scant= 1, mild =2, moderate=3, marked =4. WT (dark blue), *RelB*^{-/-} (dark red), *RelB*^{DB/DB} (dark green), *IFNAR*^{-/-} (light blue, checkered), *IFNAR*^{-/-}*RelB*^{-/-} (light red, checkered), *IFNAR*^{-/-}*RelB*^{DB/DB} (light green, checkered) mice. (****=p<.0001, ***=p<.001, **=p<.01, *=p<.05, absent= n.s.); error bars indicate S.D. Statistical analysis was done using one way ANOVA.

Figure S5

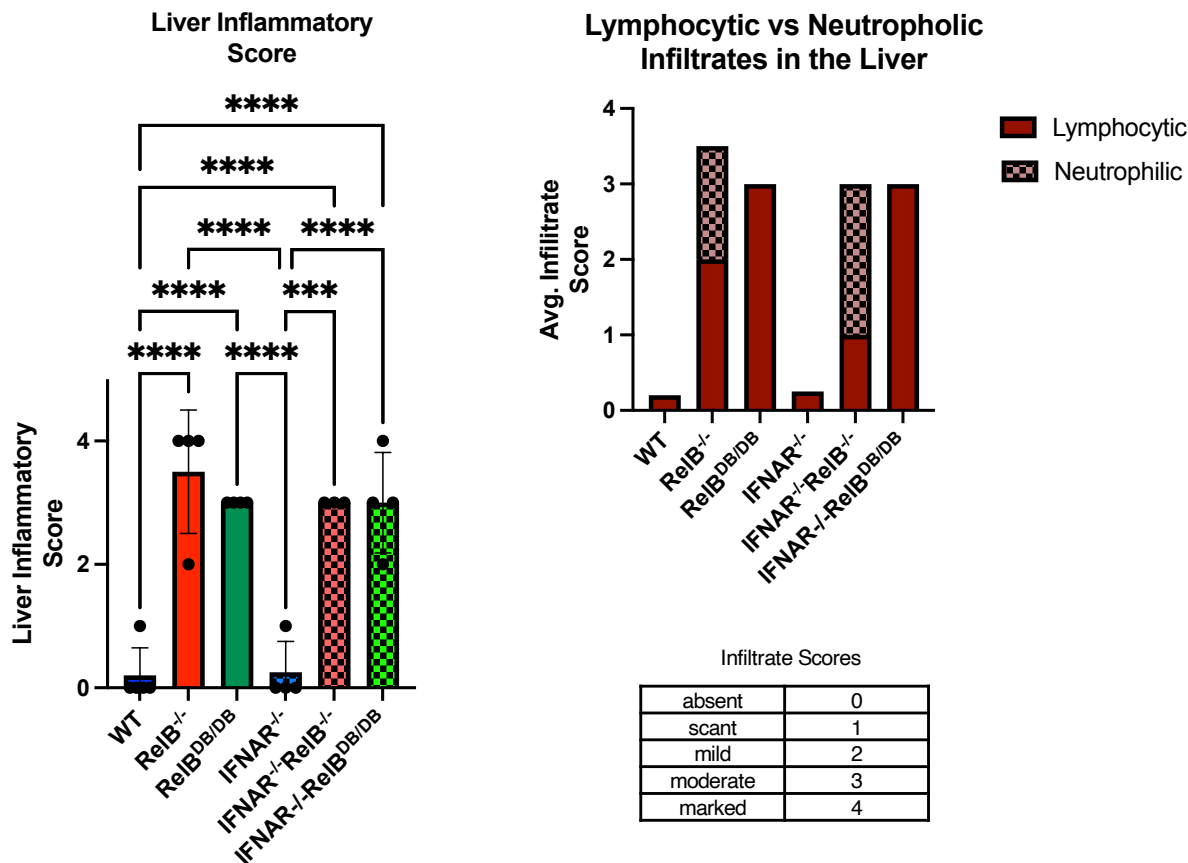


Figure S5: Liver inflammatory pathology of WT, *RelB*^{-/-}, *RelB*^{DB/DB}, *IFNAR*^{-/-}, *IFNAR*^{-/-}*RelB*^{-/-}, and *IFNAR*^{-/-}*RelB*^{DB/DB} mice.

Bar graphs of quantification of blinded analysis of liver pathology. Liver inflammation scored as absent= 0, scant= 1, mild =2, moderate=3, marked =4. Lymphocyte and neutrophilic infiltrates scored as absent= 0, scant= 1, mild =2, moderate=3, marked =4. WT (dark blue), *RelB*^{-/-} (dark red), *RelB*^{DB/DB} (dark green), *IFNAR*^{-/-} (light blue, checkered), *IFNAR*^{-/-}*RelB*^{-/-} (light red, checkered), *IFNAR*^{-/-}*RelB*^{DB/DB} (light green, checkered) mice.

(****=p<.0001, ***=p<.001, **=p<.01, *=p<.05, absent= n.s.); error bars indicate S.D. Statistical analysis was done using one way ANOVA.

Figure S6

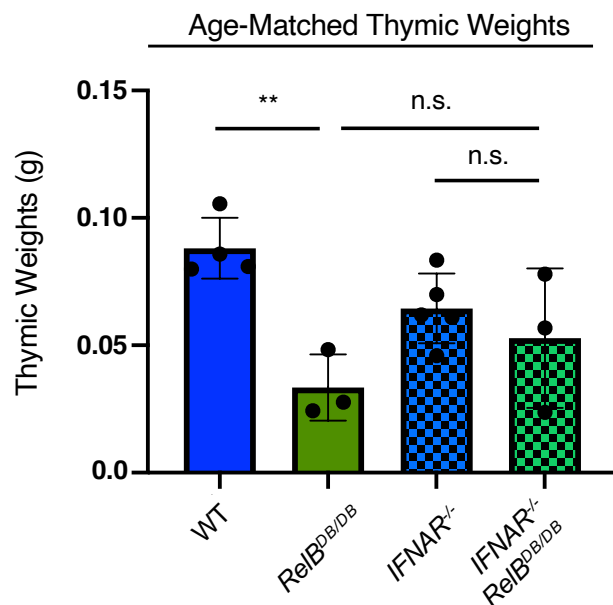


Figure S6: *RelB^{DB/DB}* mice show reduced thymi similar to *RelB^{-/-}* mice.

Bar graphs of thymic weights from age-matched WT (dark blue), *RelB^{DB/DB}* (dark green), *IFNAR^{-/-}* (light blue, checkered), *IFNAR^{-/-} RelB^{DB/DB}* (light green, checkered) mice. (**= $p<0.01$, n.s.= not significant); error bars indicate S.D. Statistical analysis was done using unpaired 2-tailed students t-test.

Figure S7

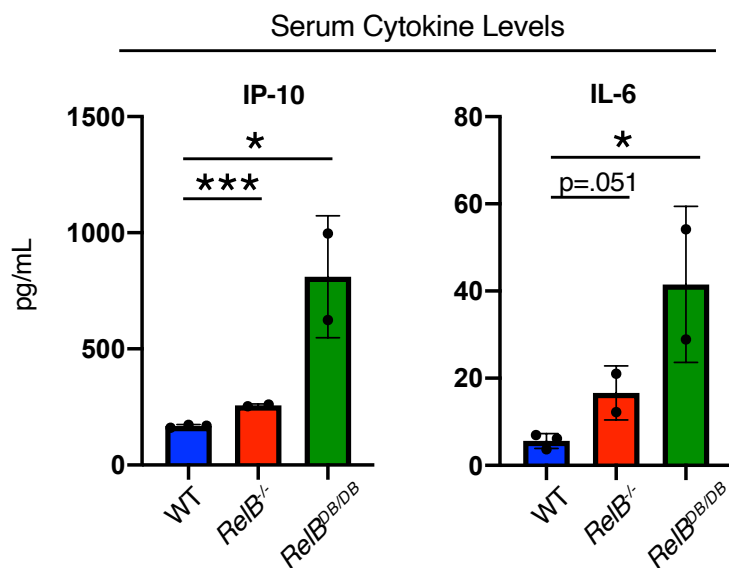


Figure S7: Serum levels of IL-6 and IP-10 cytokines in the blood of WT, *RelB^{-/-}*, *RelB^{DB/DB}* mice.

Bar graphs of quantification of serum levels of IL-6 and IP-10 protein. WT (dark blue), *RelB^{-/-}* (dark red), *RelB^{DB/DB}* (dark green) mice. (***= $p<0.001$, *= $p<0.05$); error bars indicate S.D. Statistical analysis was done using unpaired 2-tailed students t-test.

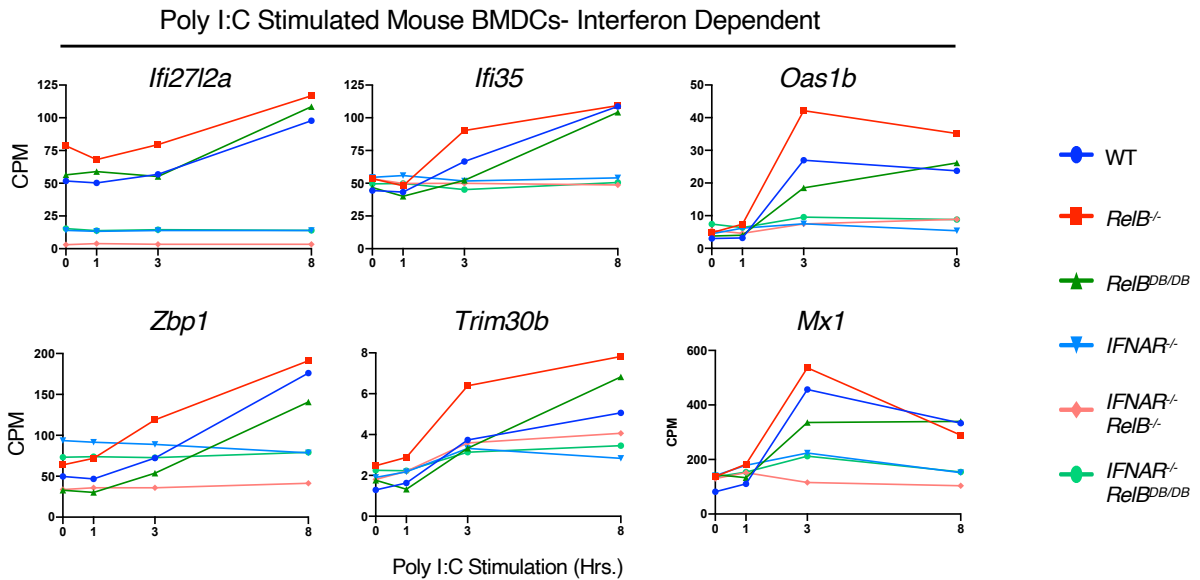
Figure S8

Figure S8: IFN-dependent gene expression in poly I:C stimulated BMDCs derived from WT, *RelB*^{-/-}, *RelB*^{DB/DB}, *IFNAR*^{-/-}, *IFNAR*^{-/-} *RelB*^{-/-}, and *IFNAR*^{-/-} *RelB*^{DB/DB} mice.

Line graphs of gene expression (CPM) for interferon stimulated genes upon poly I:C-stimulation (0,1,3, and 8hr) dark blue line (circle) represents WT BMDCs, dark red line (square) represents *RelB*^{-/-} BMDCs, dark green line (triangle) represents *RelB*^{DB/DB} BMDCs, light blue line (inverted triangle) represents *IFNAR*^{-/-} BMDCs, light red line (diamond) represents *IFNAR*^{-/-} *RelB*^{-/-} BMDCs, light green line (circle) represents *IFNAR*^{-/-} *RelB*^{DB/DB} BMDCs.

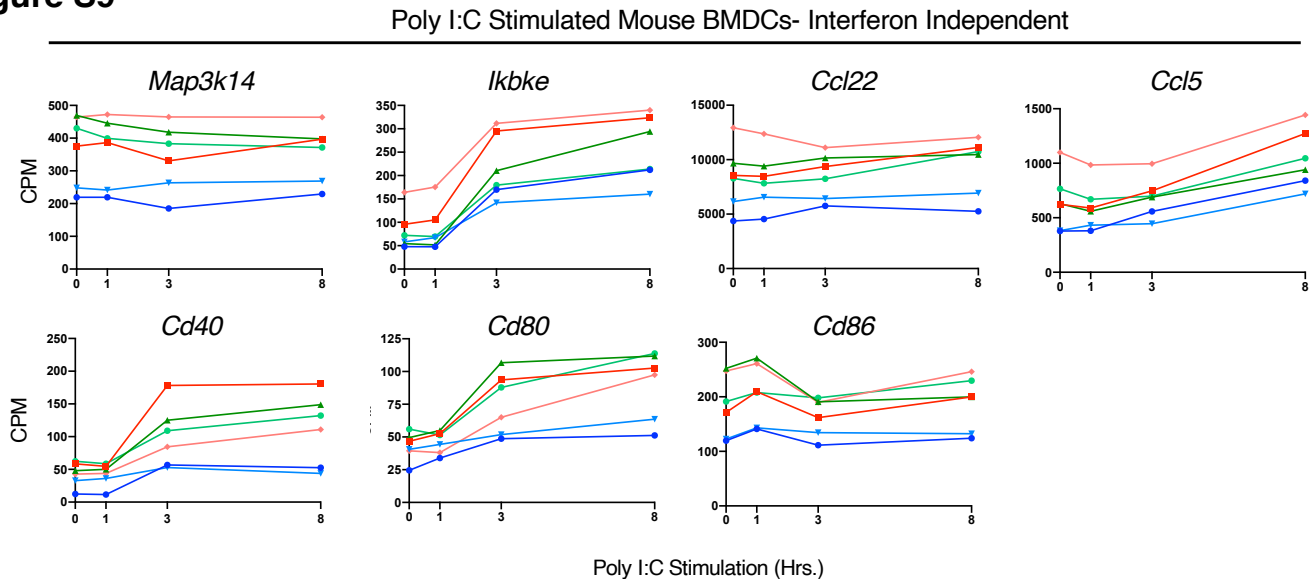
Figure S9

Figure S9: IFN-independent pro-inflammatory gene expression in poly I:C stimulated BMDCs derived from WT, *RelB*^{-/-}, *RelB*^{DB/DB}, *IFNAR*^{-/-}, *IFNAR*^{-/-} *RelB*^{-/-}, and *IFNAR*^{-/-} *RelB*^{DB/DB} mice.

Line graphs of gene expression (CPM) for IFN-independent hyper-expressed upon poly I:C-stimulation (0,1,3, and 8hr) dark blue line (circle) represents WT BMDCs, dark red line (square) represents *RelB*^{-/-} BMDCs, dark green line (triangle) represents *RelB*^{DB/DB} BMDCs, light blue line (inverted triangle) represents *IFNAR*^{-/-} BMDCs, light red line (diamond) represents *IFNAR*^{-/-} *RelB*^{-/-} BMDCs, light green line (circle) represents *IFNAR*^{-/-} *RelB*^{DB/DB} BMDCs.