

Supplementary Materials: MicroRNA-155 Mediates Augmented CD40 Expression in Bone Marrow Derived Plasmacytoid Dendritic Cells in Symptomatic Lupus-Prone NZB/W F1 Mice

Sheng Yan, Lok Yan Yim, Rachel Chun Yee Tam, Albert Chan, Liwei Lu, Chak Sing Lau and Vera Sau-Fong Chan

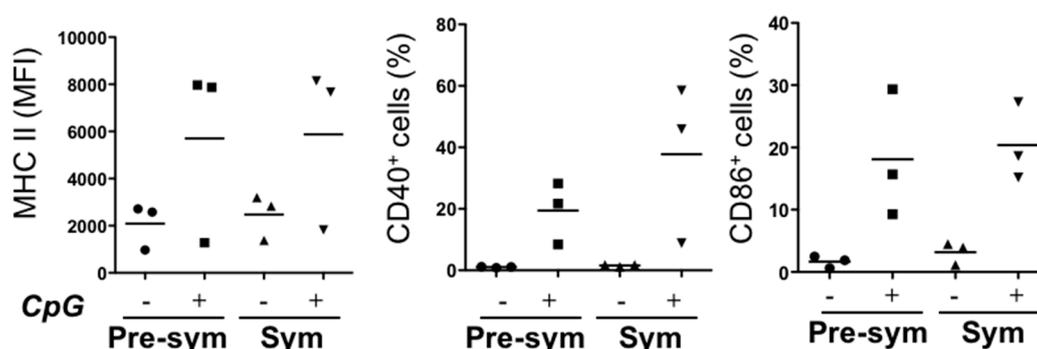


Figure S1. pDCs response to TLR-9 stimulation is not affected in SLE. Purified BM-derived pDCs from pre-symptomatic (Pre-sym) or symptomatic (Sym) NZB/W F1 mice were treated with (+) or without (-) 1 μ M of CpG for 48 h and examined for expression of MHC class II, CD40 and CD86. Collective data illustrating changes in the mean fluorescence intensity (MFI) of MHC class II or percentages (%) of CD40 and CD86 are shown. Each symbol represents one experimental mouse ($n = 3$). Bar: mean value. No statistical significances can be found (two-tailed Student's *t*-test, unpaired).

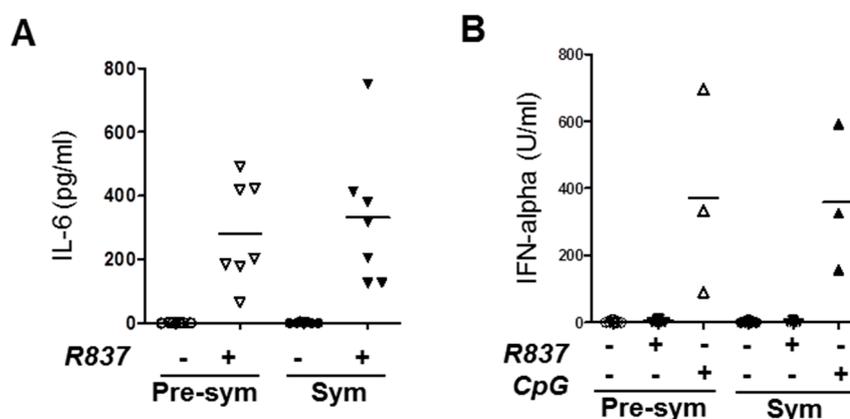


Figure S2. Production of IFN- α or IL-6 by activated pDCs is not affected by lupus. Secretion of (A) IL-6 and (B) IFN- α by BM-derived pDCs from pre-symptomatic (Pre-sym) and symptomatic (Sym) NZB/W F1 mice was analyzed following incubation with (+) or without (-) R837 (5 μ g/mL) or CpG (1 μ M) for 48 h by ELISA. Each symbol represents one experimental mouse. For IL-6, $n = 7$; for IFN- α with R837 stimulation, $n = 9$; for IFN- α with CpG stimulation, $n = 3$. Bar: mean value. No statistical significances can be found (two-tailed Student's *t*-test, unpaired).

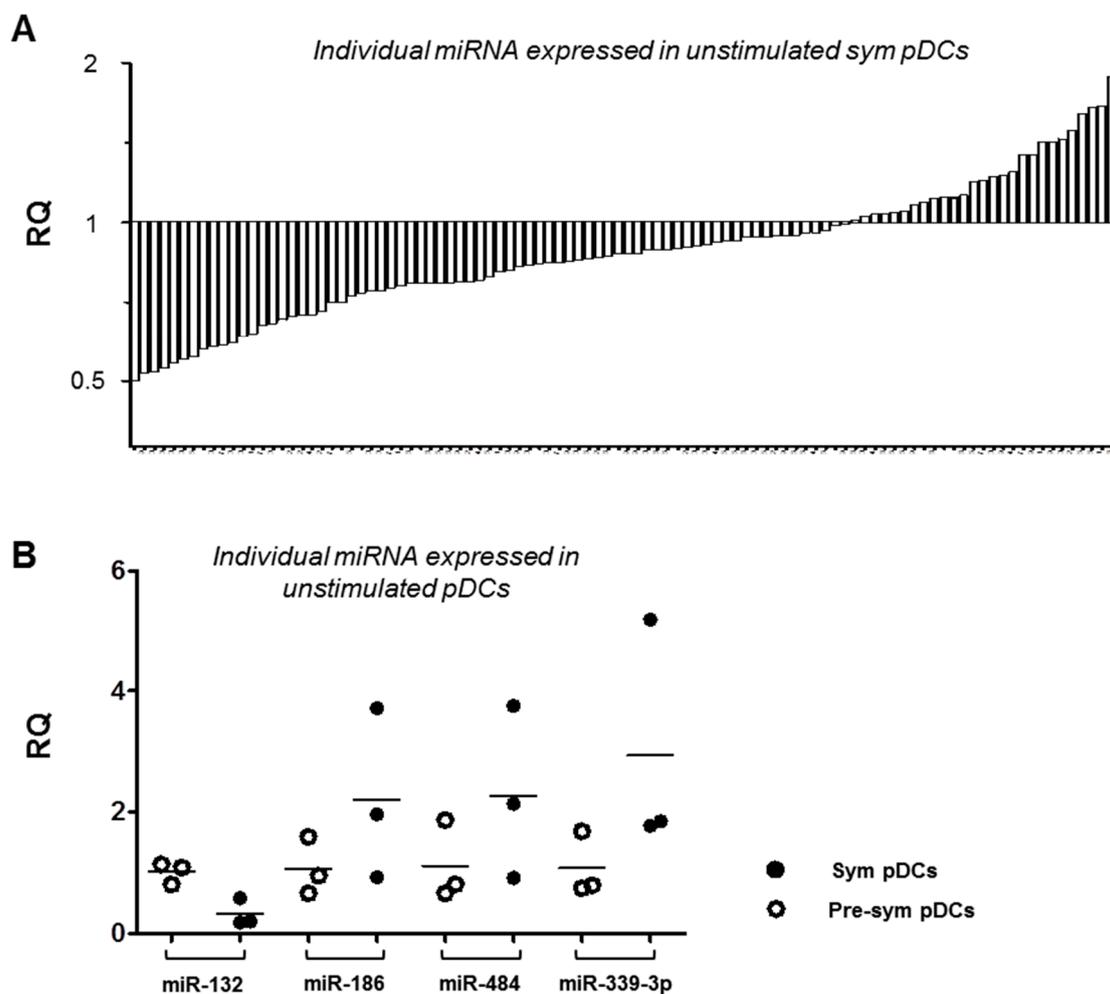


Figure S3. miRNA expression profile in unstimulated BM-derived-pDCs is comparable between pre-symptomatic and symptomatic mice. (A) The miRNA expression profiles in unstimulated pDCs from symptomatic (Sym) NZB/W F1 mice were compared with pre-symptomatic (Pre-sym) pDCs and presented as relative quantities (RQ). Each column represents the average expression of an individual miRNA target from three independent experiments. Majority of the miRNAs had a RQ within the two-fold cut off except 4 miRNAs that were further analyzed individually and results were illustrated in (B). The miRNAs with lowest (miR-132) and top three highest expressions (miR-186, miR-484 and miR339-3p) in unstimulated sym pDCs were compared with pre-sym pDCs. Each symbol represents one experimental mouse. *Bar*: mean values. No statistical significance can be found (two-tailed Student's *t*-test, unpaired).

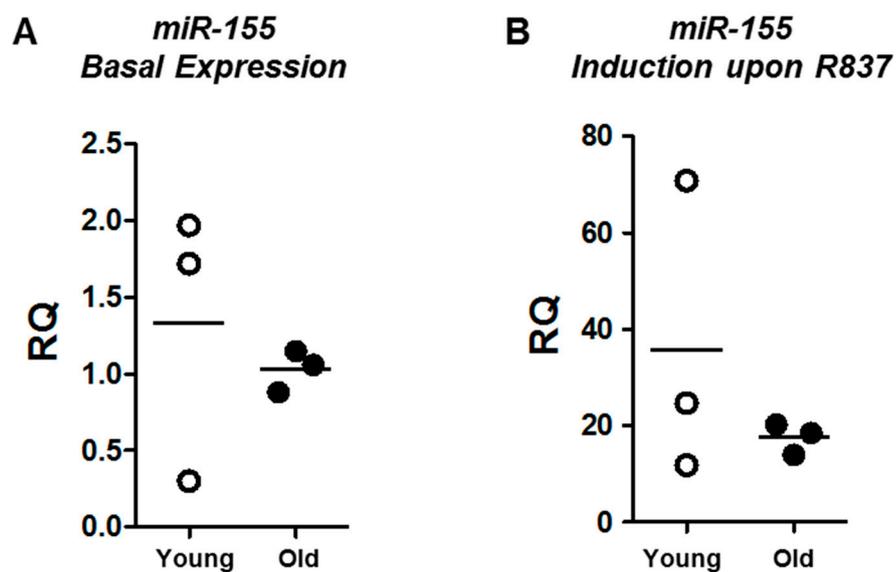


Figure S4. Induction of miR-155 upon TLR7 stimulation is comparable in young and old NZW mice. Expression of miR-155 in unstimulated pDCs (A) and R837-stimulated pDCs (B) from young (Young, open circles) and old NZW mice (Old, black circles) were compared. Each symbol represents sample from one experimental mouse ($n = 3$). Bar: mean value. N statistical significance can be found (two-tailed Student's t -test, unpaired).