



Supplementary Figure 2: *Sle1a* does not impact B cell activation and ER α does not modulate B cell activation in B6.*Sle1a* mice. (A) Dot plots show the percentage of splenocytes in female B6.*ER* α ^{+/+} (N=14), B6.*ER* α ^{-/-} (N=9), B6.*Sle1a*.*ER* α ^{+/+} (N=24), and B6.*Sle1a*.*ER* α ^{-/-}

(N=12) mice that were B220⁺CD86⁺ activated B cells. (B) Representative contour plots from female B6.ERα^{+/+}, B6.ERα^{-/-}, B6.Sle1a.ERα^{+/+}, and B6.Sle1a.ERα^{-/-} mice show the frequency of B220⁺CD86⁺ B cells. (C) Dot plots show the percentage of splenocytes in male mice B6.ERα^{+/+} (N=15), B6.ERα^{-/-} (N=9), B6.Sle1a.ERα^{+/+} (N=16), and B6.Sle1a.ERα^{-/-} (N=18) mice that were B220⁺CD86⁺ activated B cells. (D) Representative contour plots from male B6.ERα^{+/+}, B6.ERα^{-/-}, B6.Sle1a.ERα^{+/+}, and B6.Sle1a.ERα^{-/-} mice show the frequency of B220⁺CD86⁺ B cells. (E) Dot plots show CD22 surface expression measured as mean fluorescence intensity (MFI) in B220⁺CD22⁺ B cells in female B6.ERα^{+/+} (N=10), B6.ERα^{-/-} (N=7), B6.Sle1a.ERα^{+/+} (N=24), and B6.Sle1a.ERα^{-/-} (N=13) mice. (F) Dot plots show CD22 surface expression measured as mean fluorescence intensity (MFI) in B220⁺CD22⁺ B cells in male B6.ERα^{+/+} (N=13), B6.ERα^{-/-} (N=5), B6.Sle1a.ERα^{+/+} (N=30), and B6.Sle1a.ERα^{-/-} (N=18) mice is shown. Splenocytes were collected from mice that were 5-6 months of age. The longer horizontal bar in each panel denotes the mean for each group, and the shorter black bars indicate the standard error of the mean. The * indicates p≤0.05, and the ** indicates p≤0.01.