CRISPR/Cas9 editing reveals IRF8 regulated gene signatures restraining plasmablast differentiation

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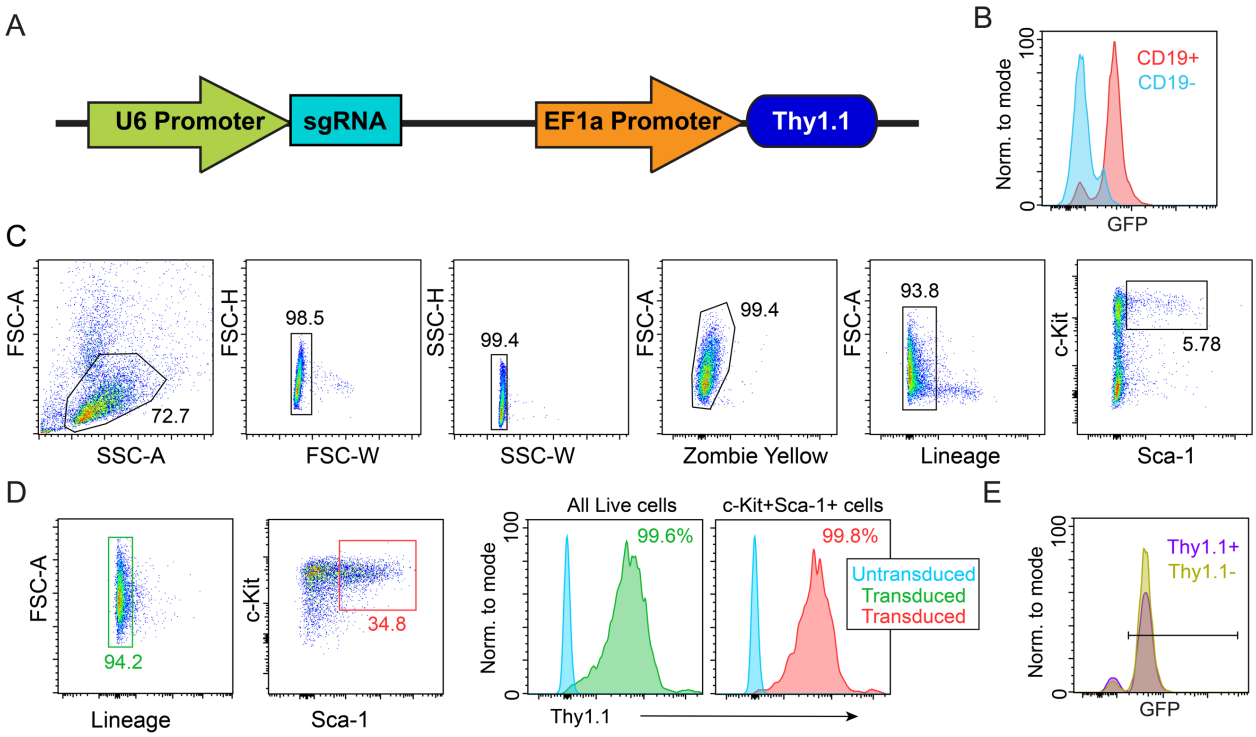
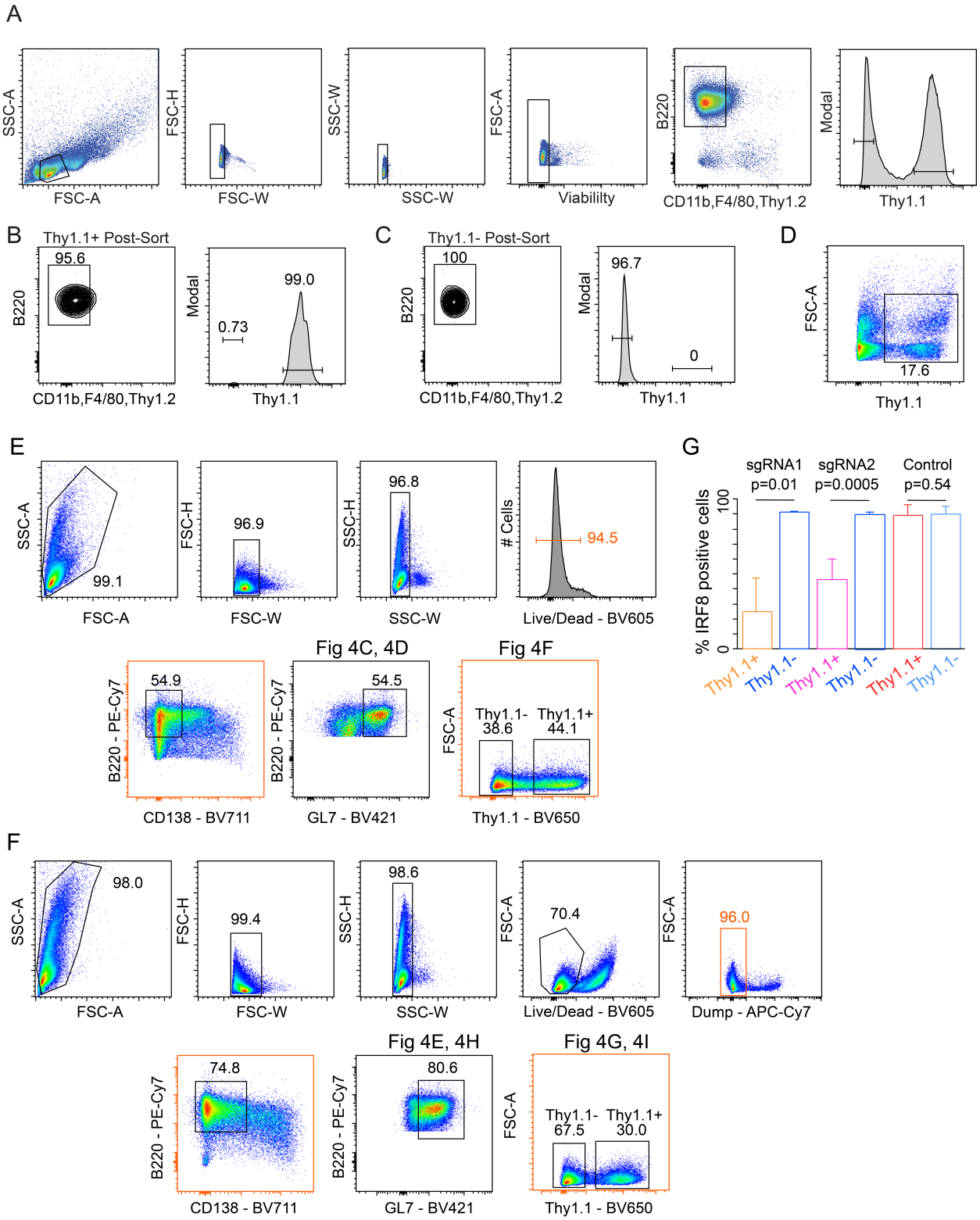
Supplementary Data

Supplemental Table 1. Differentially expressed genes between KO and WT cell types. Related to **Fig. 5** and **Fig. 6**.

Supplemental Table 2. List of 66 IFN genes derived from a GSEA Leading Edge Analysis. Related to **Fig. 6E**.



Supplementary Figure 1. **Lentiviral infection of HSCs and sorting strategy.** Related to **Fig. 2**. (**A**) Schematic of the Thy1.1 expressing lentiviral construct. (**B**) Histogram showing GFP expression in CD19^{+} versus CD19^{-} cells from *Rosa26*$^{\text{LSL-Cas9-GFP}}$*Cd19*$^{\text{CRE/+}}$ mice. (**C**) Gating strategy to sort c-Kit^{+}Sca-1^{+} HSCs by FACS. (**D**) Flow cytometry analysis of Thy1.1 transduced HSCs 24 hr post-infection. Plots for all live HSCs and c-Kit^{+}Sca-1^{+} cells are shown. (**E**) Histogram showing the GFP expression in CD19^{+}Thy1.1^{+} and CD19^{+}Thy1.1^{-} B cells.



Supplementary Figure 2. Sorting and gating strategy to phenotype CRISPRgenic B cells. Related to **Fig. 4**. (**A**) Sorting strategy to isolate Thy1.1^{+} and Thy1.1^{-} naïve splenic B cells from IRF8 CRISPRgenic mice to perform TIDE assay. Post-sort purity of

(**B**) Thy1.1^{+} and (**C**) Thy1.1^{-} populations isolated in **A**. (**D**) Representative enrichment of Thy1.1^{+} cells prior to *ex vivo* culture. Related to **Fig. 4B-H**. (**E**) Gating strategy associated with **Fig. 4C**, **4D**, and **4F**. (**F**) Gating strategy associated with **Fig. 4E**, **4G**, **4H**, and **4I**. (**G**) Bar plot showing the percentage of IRF8 positive cells in the Thy1.1^{+} and Thy1.1^{-} cell populations from sgRNA1, sgRNA2, and control CRISPRgenic mice. Data associated with **Fig. 4C and 4D**.