

Expanded View Figures

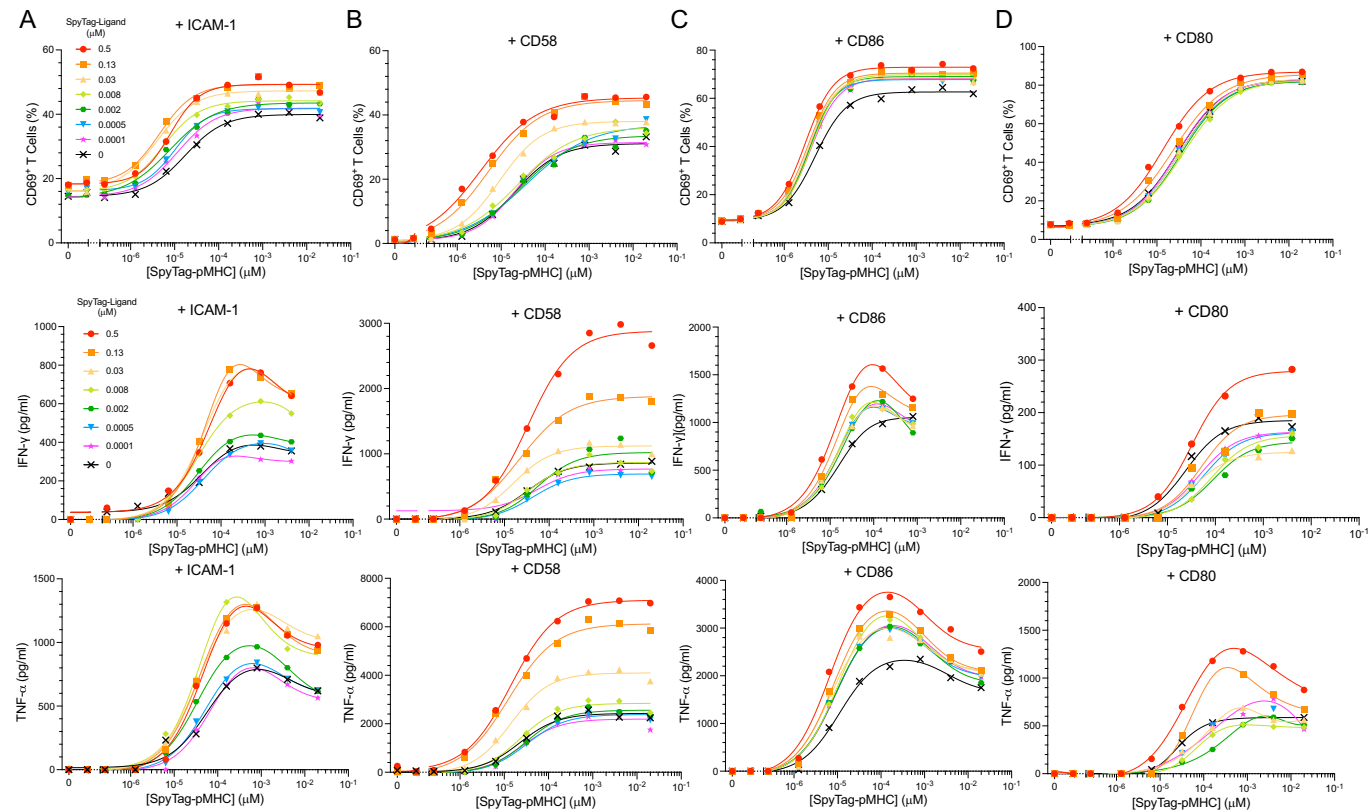


Figure EV1. Additional measures of T cell activation.

Additional measures of T cell activation when coupling (A) ICAM-1, (B) CD58, (C) CD86, or (D) CD80 on CHO-K1 CombiCells along with pMHC (related to Fig. 2).

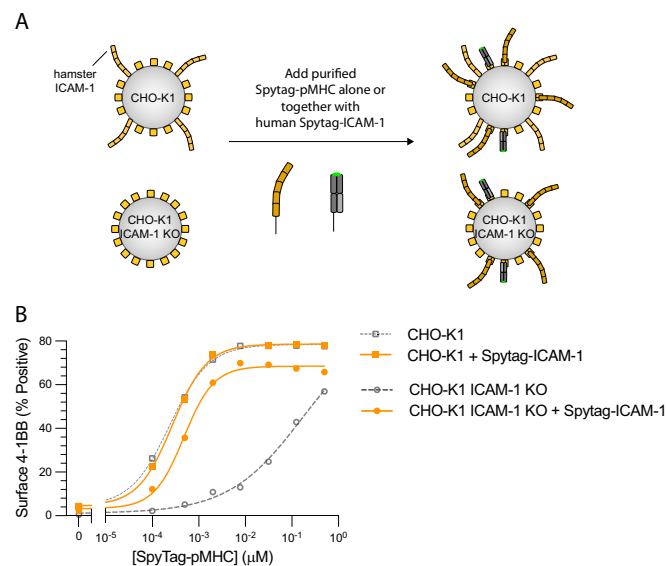
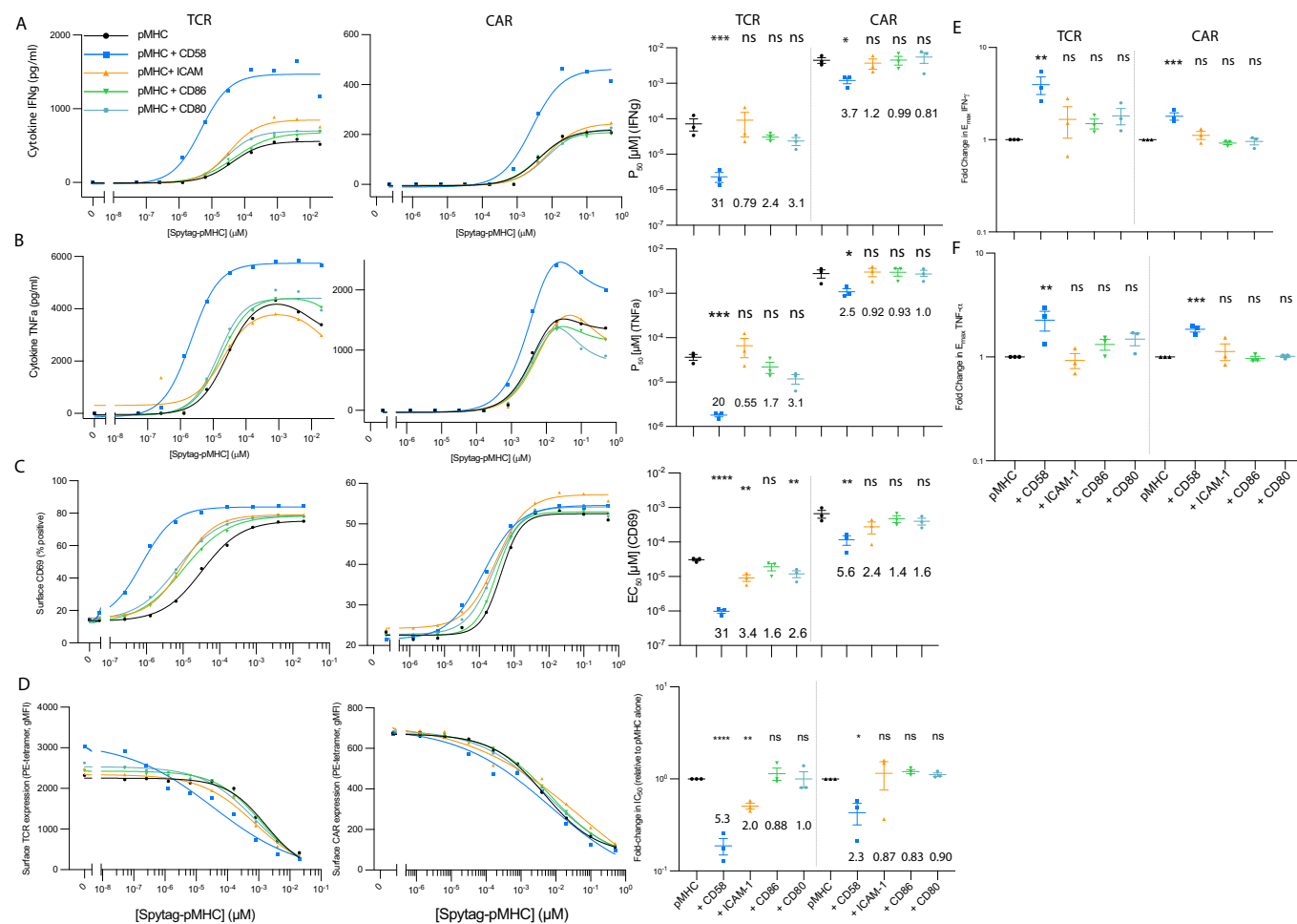


Figure EV2. T cells can exploit endogenously expressed hamster ICAM-1 or exogenous human SpytagICAM-1 when recognizing Spytag-pMHC.

(A) Schematic of CHO-K1 cell lines used. (B) T cell activation measured by the surface marker 4-1BB in response to Spytag-pMHC alone or in combination with 0.5 μM of Spytag-ICAM-1 on the indicated CHO-K1 cell line.



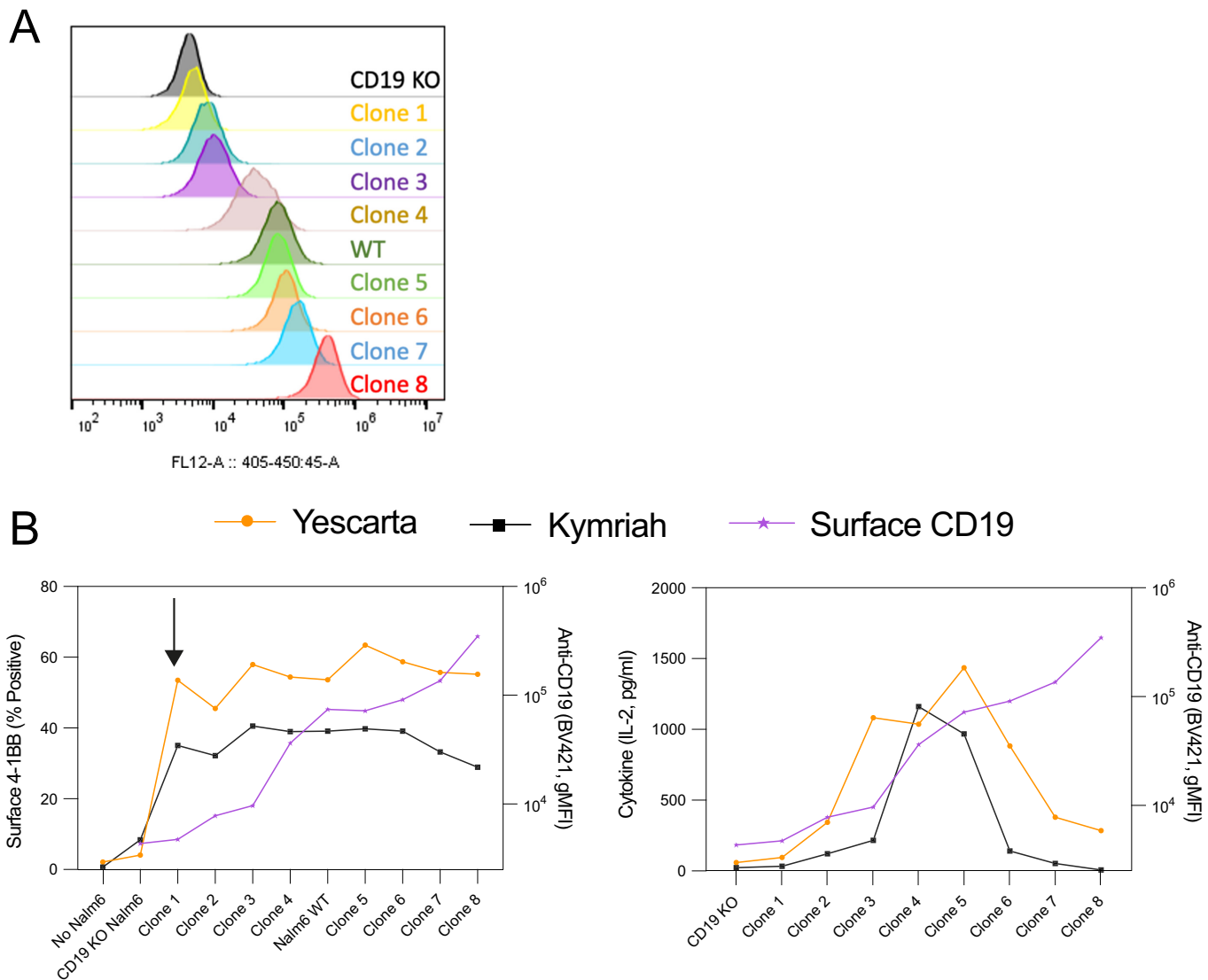


Figure EV4. CAR-T cells recognizing CD19 endogenously expressed at different levels on the surface of a panel of Nalm6 cell lines.

(A) Surface expression of CD19 on the indicated Nalm6 clone. (B) Primary human CD8⁺ T cells were co-cultured with the indicated Nalm6 clone for 6 h before T cell activation was assessed by surface 4-1BB (left) and the supernatant levels of IL-2 (right). The complete activation of 4-1BB is observed in response to the Nalm6 cell line expressing the lowest level of CD19 (Clone 1, see right y-axes for CD19 level on each Nalm6 cell line). Data information: A representative experiment out of 2 independent experiments is shown.

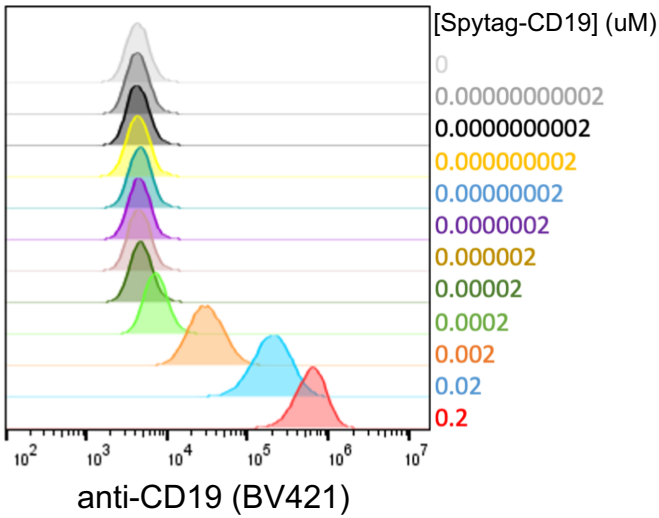


Figure EV5. Variation in surface levels of CD19 on Nalm6 CombiCells produced by titration of Spytag-CD19.

The indicated concentration of purified Spytag-CD19 was coupled to Nalm6 CombiCells before being detected by flow cytometry. Data information: A representative example out of 3 independent experiments is shown.