

А





Supplemental Fig 1. A. Equal amounts of GFP+ EL4 cells stably transduced with either WT/triple mutant T-bet or empty vector were plated and stimulated with PMA/Ionomycin overnight. Supernatants were harvested and analyzed for IFN $\gamma$  production using ELISA. B. The same transduced EL4 cells that were used for ELISA were stained for T-bet. C. EL4 cells stably transduced with either WT/triple mutant T-bet or empty vector were lysed in RIPA buffer and 30 µg of protein was separated by SDS-PAGE and transferred to PVDF membrane. Western blot was performed with anti T-bet (eBioscience, clone eBio4B10) or anti b-actin (Cell Signaling, clone D6A8) and antimouse IgG-HRP or anti-rabbit IgG-HRP, respectively (GE Healthcare). Protein expression was detected using ECL-Prime reagent (GE Healthcare) and quantified on a UVP Biochemi 500 imaging system. Relative expression is T-bet area density/b-actin area density with WT T-bet expression normalized to 100. Results shown are representative of 3 independent experiments.

A



В







No Stain Control

Supplemental Figure 2. A. CD4+ T cells were isolated from either WT or T-bet KO mice and stimulated with 3  $\mu$ g/ml plate-bound anti-CD3 and 2  $\mu$ g/ml of soluble anti-CD28 antibody. Stimulated cells were harvested at indicated time points and pS6K1, pS6, total S6, Rheb and  $\beta$ -actin expression were measured by Western blot. B. CD4+ T cells from WT and T-bet KO mice were stimulated as in A in the presence of IL-12 and T-bet expression was measured after 72 hours by flow cytometry. Results shown are representative of 2 independent experiments with 2 biological replicates of each genotype per experiment.



Wt 1 Stim Tbet KO 1 Stim No Stim Control

Comp-APC-A :: IFN-y

10<sup>2</sup>

. 10<sup>3</sup> . 10<sup>4</sup> . 10<sup>5</sup>

> Wt 2 Stim Tbet KO 2 Stim No Stim Control







Wt 2 Stim Tbet KO 2 Stim

Α

100

80

60

40

20

0

100

. 10<sup>1</sup>

Normalized To Mode

В

IFN-y

TNFα

Supplemental Figure 3. CD4+ T cells cultured as in Supplemental Figure 1B were stimulated with PMA/ionomycin in the presence of Golgi transport inhibitor for 6 hours IFN $\gamma$  (A) and TNF $\alpha$  (B) expression was measured by intracellular cytokine staining. Data are representative of staining of cells from 4 WT and 4 KO mice.



В



Supplemental Fig 4. EL4 cells were co-transfected with either WT/mutant T-bet or empty vector (EV) and SOCS3 luciferase reporter plasmid in the absence or presence of Bcl-6, as in Figure 8C. A. T-bet expression levels were measured by intracellular protein staining detected by flow cytometry and are depicted as % T-bet positive cells and mean channel fluorescence (MCF), gated on live, GFP+ transfected cells. B. Bcl-6 levels were measured in the same manner as in A. Results shown are representative of 3 independent experiments.