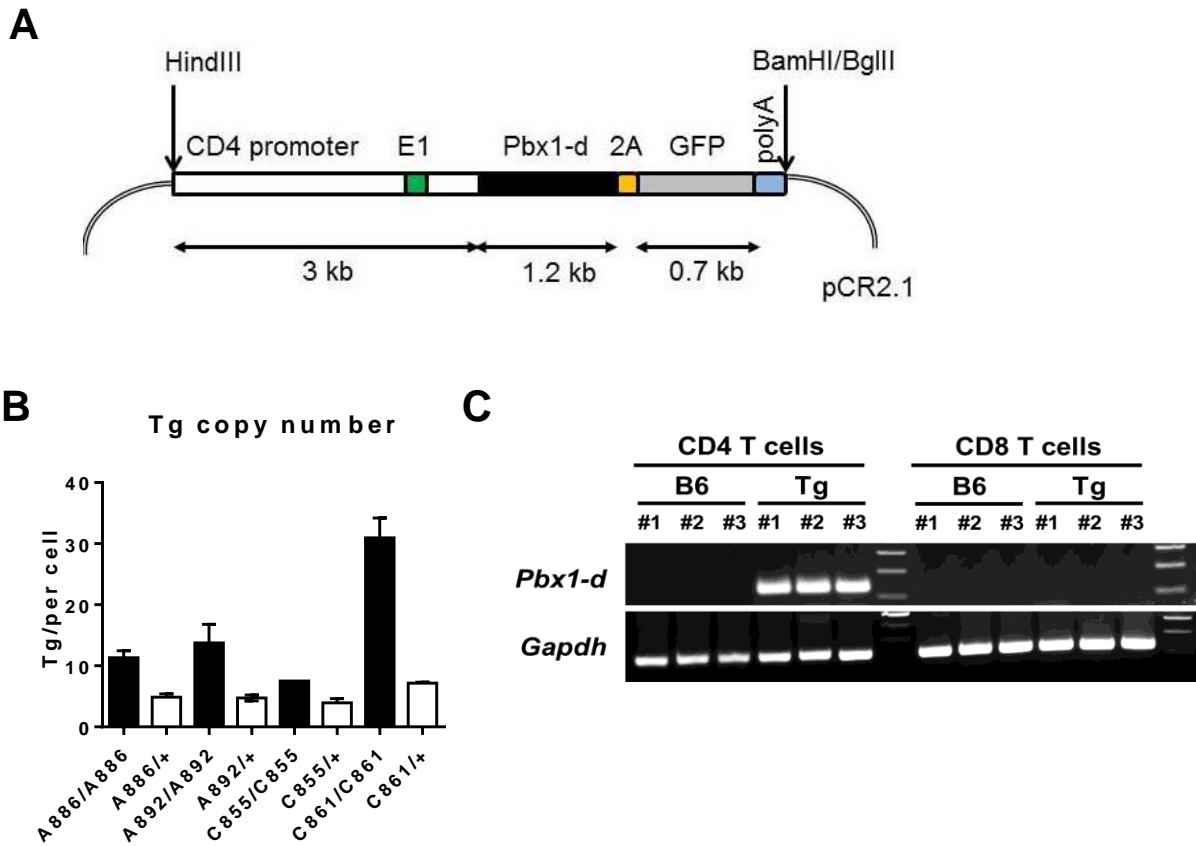


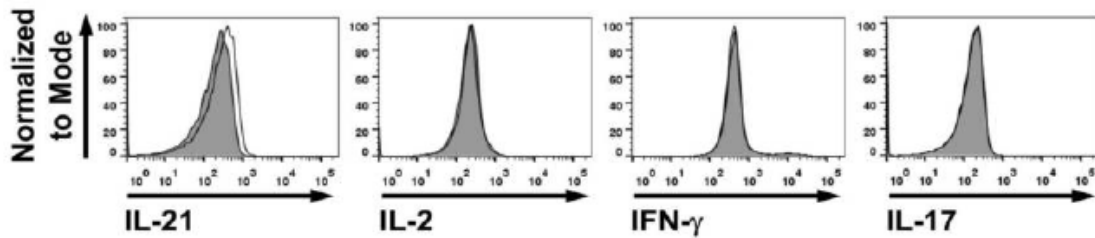
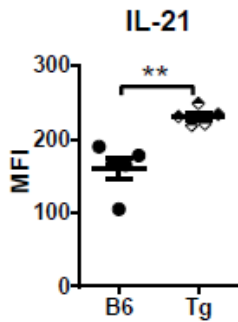
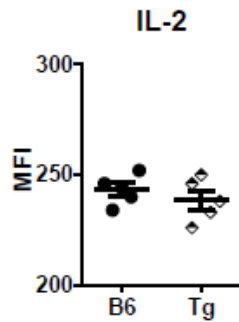
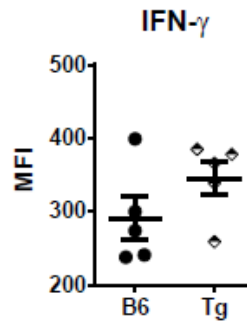
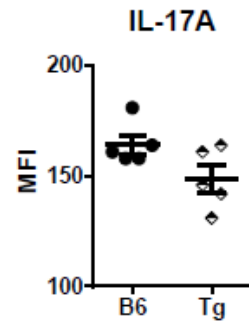
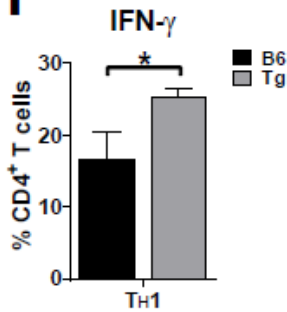
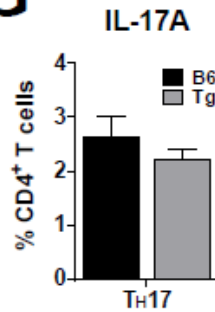
Supplemental Table 1. miRNAs expression in GFP⁺ FOXP3⁺ and GFP⁻ FOXP3⁻ CD4⁺ T cells in 2~3 or 7~8 month-old *Pbx1-d Tg* and B6.*Sle1a1* relative to B6 mice (N = 3-4 mice per group).

	<i>Pbx1-d Tg</i>				<i>Sle1a1</i>			
	Young		Old		Young		Old	
	GFP (+)	GFP(-)	GFP (+)	GFP(-)	GFP (+)	GFP(-)	GFP (+)	GFP(-)
miR-17	1.88 ± 0.45	0.88 ± 0.24	1.58 ± 0.30	1.09 ± 0.49	* 11.3 ± 9.11	0.63 ± 0.30	1.59 ± 0.50	0.87 ± 0.23
miR-19a	1.42 ± 0.37	0.93 ± 0.28	1.14 ± 0.27	0.77 ± 0.31	* 3.75 ± 1.25	0.70 ± 0.41	* 1.64 ± 0.30	0.90 ± 0.27
miR-19b	1.30 ± 0.28	0.99 ± 0.17	1.23 ± 0.16	1.00 ± 0.49	* 2.93 ± 0.91	0.67 ± 0.52	* 1.86 ± 0.23	0.78 ± 0.23
miR-20a	1.16 ± 0.28	0.85 ± 0.26	3.61 ± 2.16	1.37 ± 0.44	* 6.80 ± 4.78	0.70 ± 0.41	* 2.16 ± 0.34	0.89 ± 0.14
miR-92	1.24 ± 0.18	1.00 ± 0.15	2.90 ± 1.59	1.01 ± 0.22	* 3.46 ± 1.66	0.58 ± 0.19	* 1.60 ± 0.14	1.08 ± 0.36
miR-181a	1.59 ± 0.43	* 1.45 ± 0.10	* 0.65 ± 0.08	2.31 ± 1.66	* 2.22 ± 0.30	1.60 ± 0.55	0.74 ± 0.26	2.50 ± 1.30
miR-181b	* 1.94 ± 0.33	1.45 ± 0.17	* 0.77 ± 0.04	2.01 ± 1.23	* 1.61 ± 0.29	* 1.73 ± 0.47	0.81 ± 0.22	2.40 ± 1.16

*p < 0.05

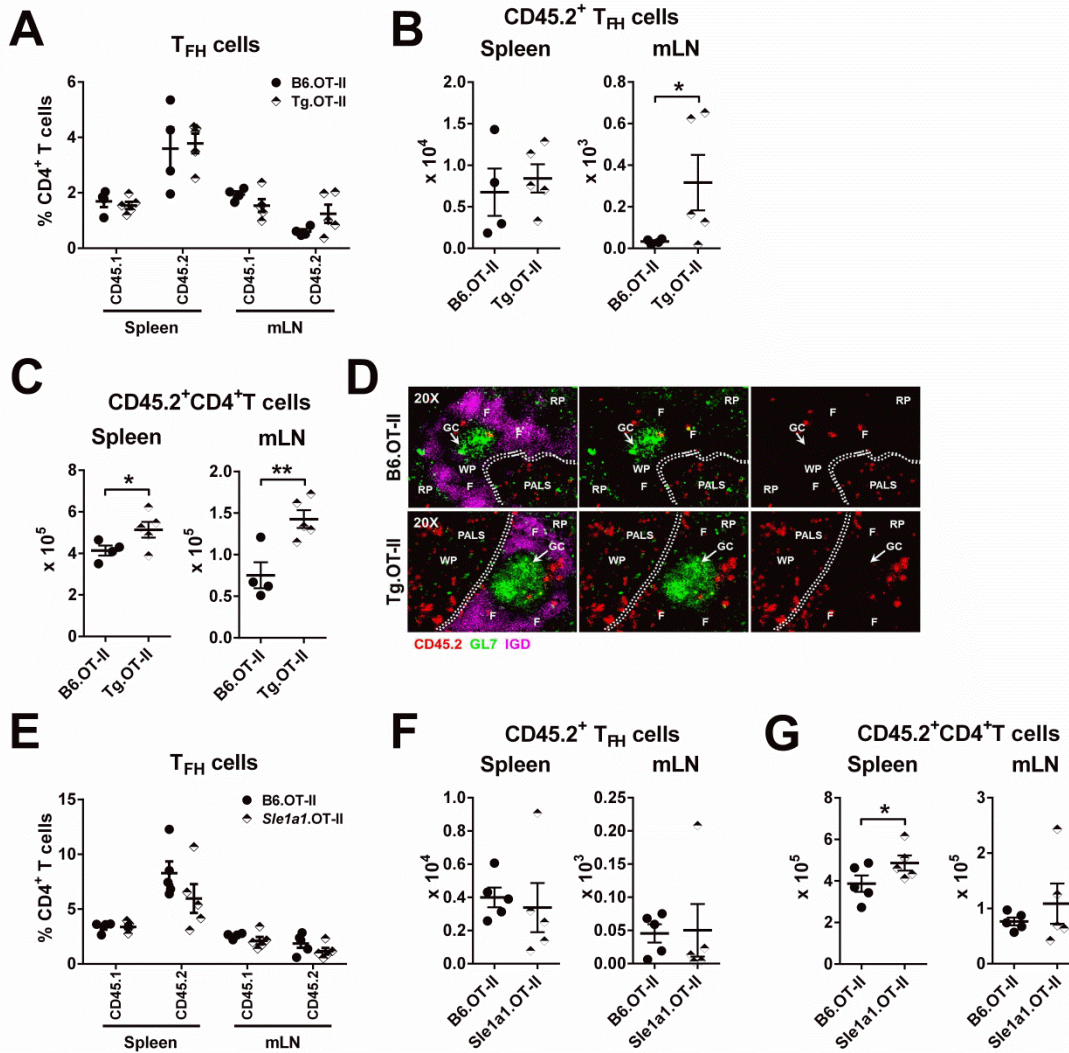


Supplemental Figure 1. Production of *Pbx1-d* Tg mice. **A.** Tg construct. **B.** Tg copy number calculated for each of the 4 hemizygous and homozygous lines (n = 4) using a *Pbx1-d* Taqman probe and a *Pbx1-d* plasmid standard curve. **C.** *Pbx1-d* message expression in splenic CD4⁺ and CD8⁺ T cells isolated from B6 and A886 *Pbx1-d* Tg mice with *Gapdh* shown as control (n = 3).

A**B****C****D****E****F****G**

Supplemental Figure 2. Cytokine production by *Pbx1-d* Tg CD4⁺ T cells. Intracellular staining of CD4⁺ T cells isolated from the spleens of 2 month-old B6 (grey filled histograms) and *Pbx1-d* Tg (open histograms) mice and stimulated with PMA and ionomycin. Representative histograms (**A**) and mean fluorescence intensity (MFI) each of the cytokines (**B-E**). Each symbol represents a mouse. Intracellular IFN γ (**F**) and IL-17A (**G**) in B6 and *Pbx1-d* Tg CD4⁺ T cells polarized under T_H1 and T_H17 conditions, respectively (n = 3). ** $P < 0.01$.

Supplemental Figure 3



Supplemental Figure 3. Expansion of Pbx1-d.OT-II and Sle1a1.OT-II T cells 7 days after OVA immunization. **A.** Percentages of CD45.2⁺ donor B6.OT-II or *Pbx1-d* Tg.OT-II cells and CD45.1⁺ recipient T_{HH} cells. **B.** Numbers of CD45.2⁺ donor B6.OT-II or *Pbx1-d* Tg.OT-II T_{HH} cells. **C.** Numbers of total CD45.2⁺ donor B6.OT-II or *Pbx1-d* Tg.OT-II T cells. **D.** Representative 20x spleen sections of B6.OT-II or *Pbx1-d* Tg.OT-II cell recipients, as in Fig. 4D. **E.** Percentages of CD45.2⁺ donor B6.OT-II or *Sle1a1*.OT-II cells and CD45.1⁺ recipient T_{HH} cells. **F.** Numbers of CD45.2⁺ donor B6.OT-II or *Sle1a1*.OT-II T_{HH} cells. **G.** Numbers of total CD45.2⁺ donor B6.OT-II or *Sle1a1*.OT-II T cells. **P* < 0.05, ***P* < 0.01.