

Cell Reports, Volume 16

Supplemental Information

**MII-AF4 Confers Enhanced Self-Renewal
and Lymphoid Potential
during a Restricted Window in Development**

**Neil A. Barrett, Camille Malouf, Chrysa Kapeni, Wendi A. Bacon, George
Giotopoulos, Sten Eirik W. Jacobsen, Brian J. Huntly, and Katrin Ottersbach**

Supplemental Figures:

Figure S1: Mll-AF4 does not cause major changes to embryonic hematopoiesis. Related to Figure 2.

The proportion of distinct hematopoietic cell populations was determined in embryonic tissues of indicated genotypes by flow cytometry. (A) HSPCs in the E11 YS, n=3-10; (B) HSPCs, n=3-6, and (C) B cells in the E11 AGM, n=3-4; (D) HSPCs, n=3-10; (E) B cells, n=3-10 and (F) LMPPs (Lin⁻ B220⁻ CD19⁻ ckit⁺ CD45⁺ Sca1⁺ Flt3⁺) in the E12 FL, n=2-7; (G) ESLAM (EPCR⁺ CD45⁺ CD150⁺ CD48⁻), n=5-8; (H) B cells, n=3-9, and (I) LMPPs in the E14 FL, n=3-7. Error bars = SEM. Statistical analysis was performed using the non-parametric Kruskal-Wallis test with Dunn's multiple comparisons, but no significant differences were found.

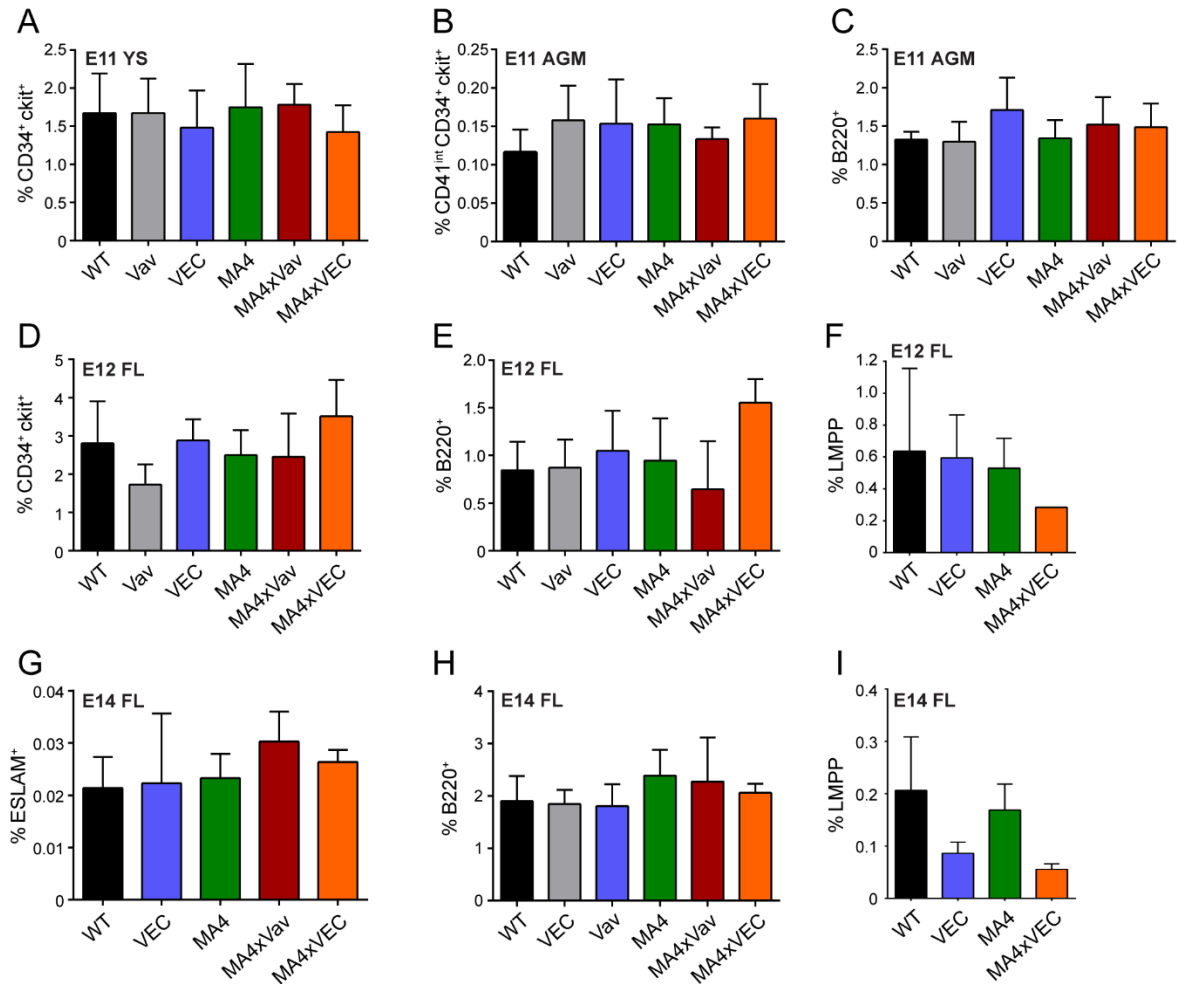
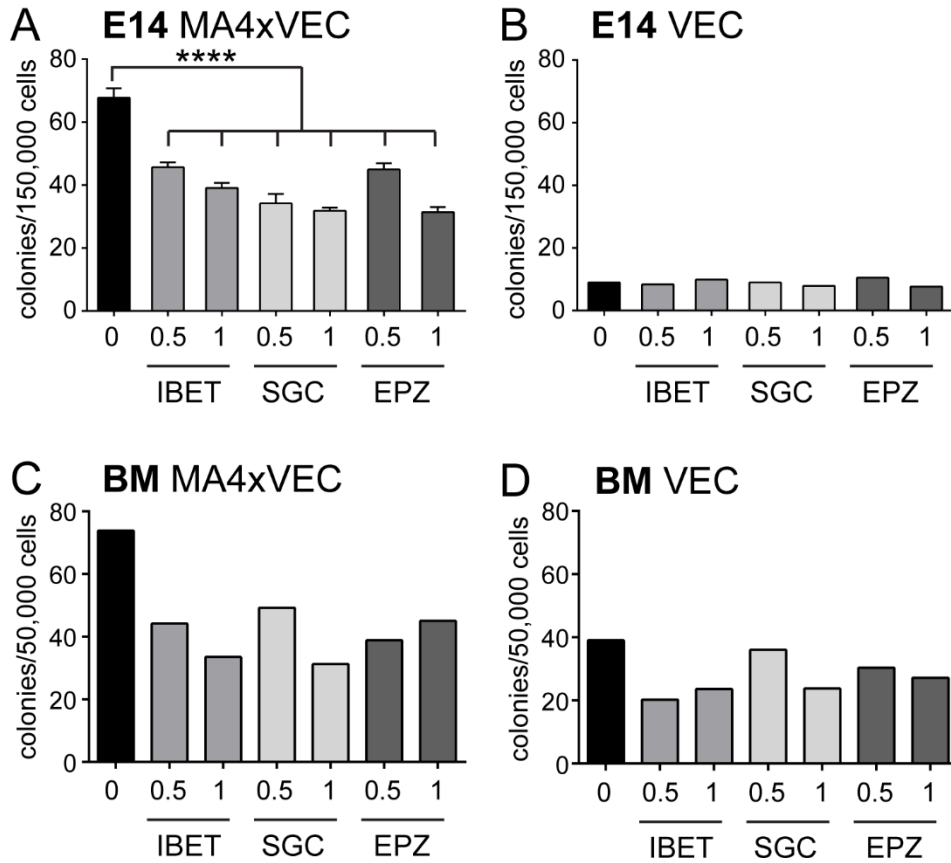


Figure S2: Mll-AF4 recruits SEC and DOT1L. Related to Figure 4.

Effect of inhibitors of BET proteins (IBET) and DOT1L (SGC, EPZ) at indicated concentrations (μM) on B lymphoid colony formation from (A) E14 FL Mll-AF4-expressing cells, n=3-4; (B) E14 FL Cre-only control cells, n=2; (C) adult BM (~1 year old, pre-morbid) Mll-AF4-expressing cells, n=2; (D) adult BM (~1 year old, pre-morbid) Cre-only control cells, n=2. Error bars = SEM. Statistical analysis was performed using a parametric one-way ANOVA with Tukey's multiple comparisons test. **** $p < 0.0001$, *** $p < 0.001$, ** $p < 0.01$.



Supplemental Table S1: Disease development in transplant recipients. Related to Figure 5.

	MA4xVEC				VEC		
	No.sick/ total	latency (days)	% donor chimerism	phenotype	No. sick/total	% donor chimerism	phenotype
Primary							
E12 Plac	1/6	186	0	no donor cells expansion of recipient T cells	0/6		
E12 FL	5/7	293-405	95-100	splenomegaly hepatomegaly mesenteric tumor mediastinal disease reduced B cells increased myeloid cells	0/5		
E14 FL	1/14	345	95-100	slight splenomegaly reduced B cells increased myeloid cells increased T cells increased ckit+ cells	1/10	6	expansion of recipient myeloid cells
	2/14	150-186	0-10	slight hepatomegaly expansion of recipient T cells			
Secondary							
E14 FL	1/10	280	95-100	splenomegaly increased myeloid cells increased T cells	1/11	0	splenomegaly slight hepatomegaly reduced recipient leukocytes