

Supplement Figure 1. TCDD treatment suppressed the generation of early-B and pro-B cells. Cord blood-derived human CD34<sup>+</sup> HSPCs were treated with vehicle (VH, 0.02% DMSO) or TCDD (0.01, 0.1, 1 and 10 nM) on day 0 and cultured for 28 days. Cells were harvested on day 14, 21 and 28. The percentage of CLPs (CD10<sup>+</sup> CD79α<sup>-</sup> CD19<sup>-</sup>), early-B cells (CD10<sup>+</sup> CD79α<sup>+</sup> CD19<sup>-</sup>) and pro-B cells (CD10<sup>+</sup> CD79α<sup>+</sup> CD19<sup>+</sup>) was assessed by flow cytometry. Data are presented as mean  $\pm$  SE of triplicate measurements. \* p <0.05, \*\*p <0.01, \*\*\*p <0.001, compared to VH by one way ANOVA with Dunnett's multiple comparison test. Data are representative of three independent experiments with similar results.



Supplement Figure 2. AHR antagonist reversed the TCDD-mediated suppression of early-B and pro-B cell generation. HSPCs were treated on day 0 by vehicle (0.02% DMSO), AHR antagonist CH223191 (CH) (0.3, 1, 3 and 10  $\mu$ M), TCDD (1 nM) or combination of CH and TCDD. Cells were cultured for 28 days and harvested at indicated time points. The percentage of CLPs (CD10<sup>+</sup> CD79 $\alpha$ <sup>-</sup> CD19<sup>-</sup>), early-B cells (CD10<sup>+</sup> CD79 $\alpha$ <sup>+</sup> CD19<sup>-</sup>) and pro-B cells (CD10<sup>+</sup> CD79 $\alpha$ <sup>+</sup> CD19<sup>+</sup>) was assessed by flow cytometry. Data are presented as mean  $\pm$  SE of triplicate measurements. a = significant difference compared to vehicle control group, b = significant difference compared to the TCDD (1 nM) treated group, by one way ANOVA with Bonferroni's multiple comparison posttest. Data are representative of two independent experiments with similar results.