



**SUPPLEMENTARY FIG. S4.** Mk production and differentiation are strongly influenced by serum-free media and IL-3 sources. CD34<sup>+</sup> HSPCs were cultured in X-VIVO 10, X-VIVO 20, HPGM, StemSpan H3000, or StemLine II media with IL-3 from Peprotech or R&D Systems. Cells were supplemented with cocktail “c” (Table 1) at 5% O<sub>2</sub>/pH 7.2 from days 0 to 5. On day 5, cells were washed and resuspended in the same media at pH 7.4/20% O<sub>2</sub> with cocktail 3. On day 7, cells were washed and resuspended in the same media and cytokines at pH 7.6/20% O<sub>2</sub>. **(A)** Total cell fold-expansion, the percentages of **(B)** CD34<sup>+</sup> and **(C)** CD41<sup>+</sup> cells in the viable population, **(D)** the number of CD41<sup>+</sup> cells produced per input HSPC, **(E)** the percentage of high-ploidy (>4N) Mks, and **(F)** the number of high-ploidy Mks produced per HSPC. Data represent the mean ± SEM for *n* = 3 donors.