



**SUPPLEMENTARY FIG. S2.** Positive and negative ChIP controls. (A, B) Positive control transcription start site (TSS) of P16 showed enrichment EZH2 and H3K27me3 compared with IgG control. (C, D) Negative control TSS of GAPDH showed no enrichment of EZH2 and H3K27me3 compared with IgG control. (E) Positive control for H3K4me3 was the TSS of GAPDH, which showed enrichment for MSC and OB compared with IgG control. (F) Negative control for H3K4me3 TSS of IL-2 showed no enrichment for MSC and OB compared with IgG. Mean values  $\pm$  SEM,  $n = 3$  independent MSC donors ( $*P < 0.05$ , 2-way ANOVA with Sidak's multiple comparisons test).