**S7 Fig**

**S7 Fig. KMT2B regulates E2-dependent genes transcription in MCF-7 cells**. (A) A Venn diagram showing E2-stimulated genes down-regulated by KMT2B knockdown in MCF-7 cells. (B) Expression levels of *PGR*, *BCL2*, *GREB1*, *SIAH2*, and *TFF1* in KMT2B-depleted MCF-7 cells with or without E2 for 4 h. Expression levels were normalized against 18S rRNA. (C) ChIP assay showing the effect of KMT2Bdepletion on the E2-dependent recruitment of ERα at *BCL2*, *GREB1*, and *TFF1* chromatin. (D) ChIP assays showing the effect of ERα depletion on the E2-dependent recruitment of KMT2B at *BCL2*, *GREB1*, and *TFF1* chromatin. ChIP assays showing the effect of ERα or KMT2B depletion on the enrichment of H3K4me1 mark (E) and the recruitment of RNA Pol II (F) at *BCL2*, *GREB1*, and *TFF1* chromatin.