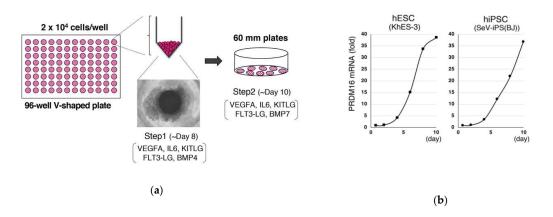
## **Supplementary Materials**



**Figure S1.** A directed differentiation of feeder-free hESCs into classical BA using 96-well v-shaped plates. (a) Schematic presentation of the procedure. hESCs and hiPSCs, which were maintained using StemFitTM AK02N (Ajinomoto Healthy Supply Co.) on vitronectin-coated plates, were dissociated into single cell in the presence of a ROCK inhibitor and subjected to spheroid formation by seeding in a low attachment V-shaped 96-well plate (PrimeSurfaceTM 96V well culture plate). Cells were cultured for eight days using the differentiation medium supplemented by a cytokine cocktail with half-change of medium every other day, followed by adherent culture for successive two days in 60 mm gelatin-coated plates using the differentiation medium supplemented by another cytokine cocktail as previously described. (b) hESC and hiPSC were collected at indicated time after an induction of differentiation. PRDM16 mRNA expressions were examined by RT-qPCR.