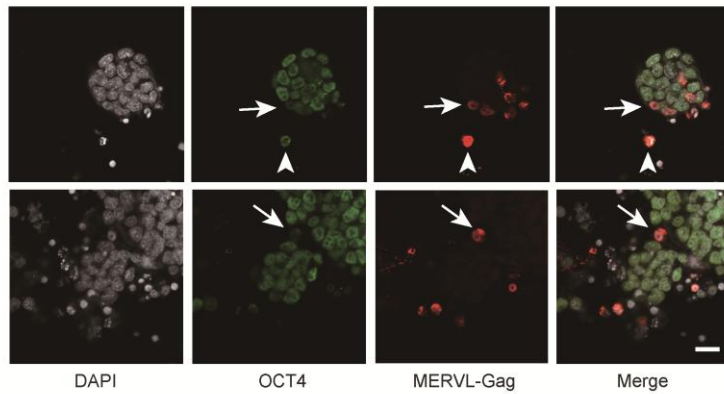
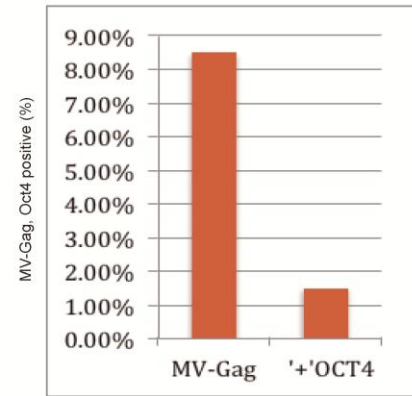


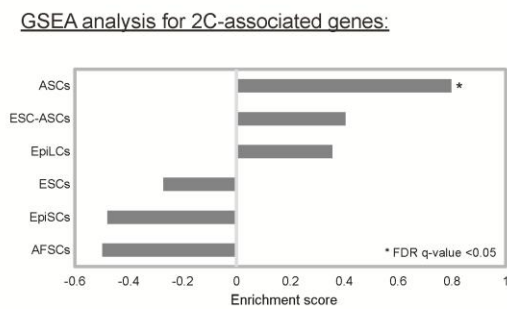
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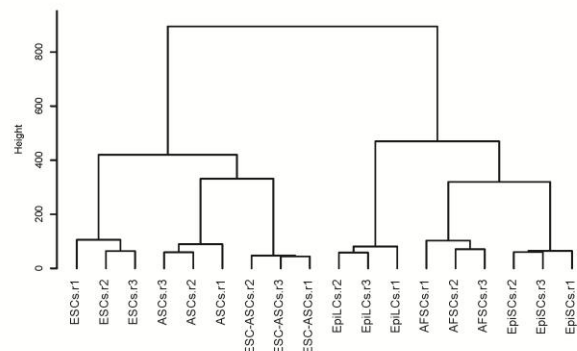
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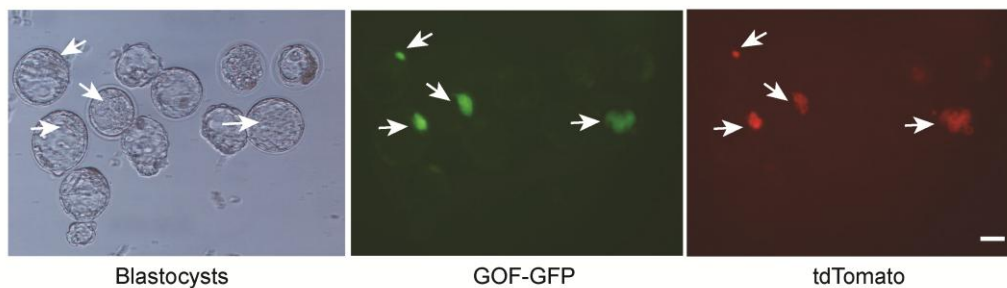
C



D



E



Supplementary information Figure 4 2-cell genes expression in ASCs.

(A) Immunofluorescence of MERVL-gag and OCT4 in ASCs, both rarely expressed (0.05%) in 2i/LIF ESCs. Arrows show MERVL-Gag-positive and OCT4 negative cells; arrowhead show cells positive for both MERVL-Gag and OCT4. Scale bars, 20 μ m. **(B)** Quantification of MERVL-Gag-positive (MV-Gag) and MERVL-Gag + Oct4-positive cells ('+'OCT4) amongst all cells. **(C)** Gene set enrichment analysis (GSEA) of 2C-associated genes [43]. Note that only ASCs were significantly enriched for 2C genes. **(D)** UHC of gene expression showing that ESC-ASCs cluster with ASCs. **(E)** Diagrams showing the injection of a single tdTomato/GOF-GFP ASC into 8-cell stage embryo, observed after culture 48 hours. Arrows show ASCs only exists in ICM. Scale bar, 50 μ m.