Positive feedback between retinoic acid and 2-phospho-L-ascorbic acid trisodium salt during somatic cell reprogramming

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Supplementary Information

Supplementary Information

Figure S1

RA had high ability to induce MET and pluripotency

(A-B) The genes which were regulated by RA but not by AscPNa were selected and subjected for GO analysis (upregulated genes in A, while downregulated genes in B).

(C) The expression of epithelial and mesenchymal markers were used to quantify MET.

(D-F) MEFs cultured in N2B27 medium were treated with different concentrations of RA for three days. The expression of *Dppa5a* (D), *Klf4* (E), and *Nanog* (F) was determined by qPCR. The comparisons were preformed between RA-treated and corresponding control (DMSO) groups with one-way ANOVA. Experiments were repeated for at least five times (n≥5). Standard deviations were provided.

Figure S1

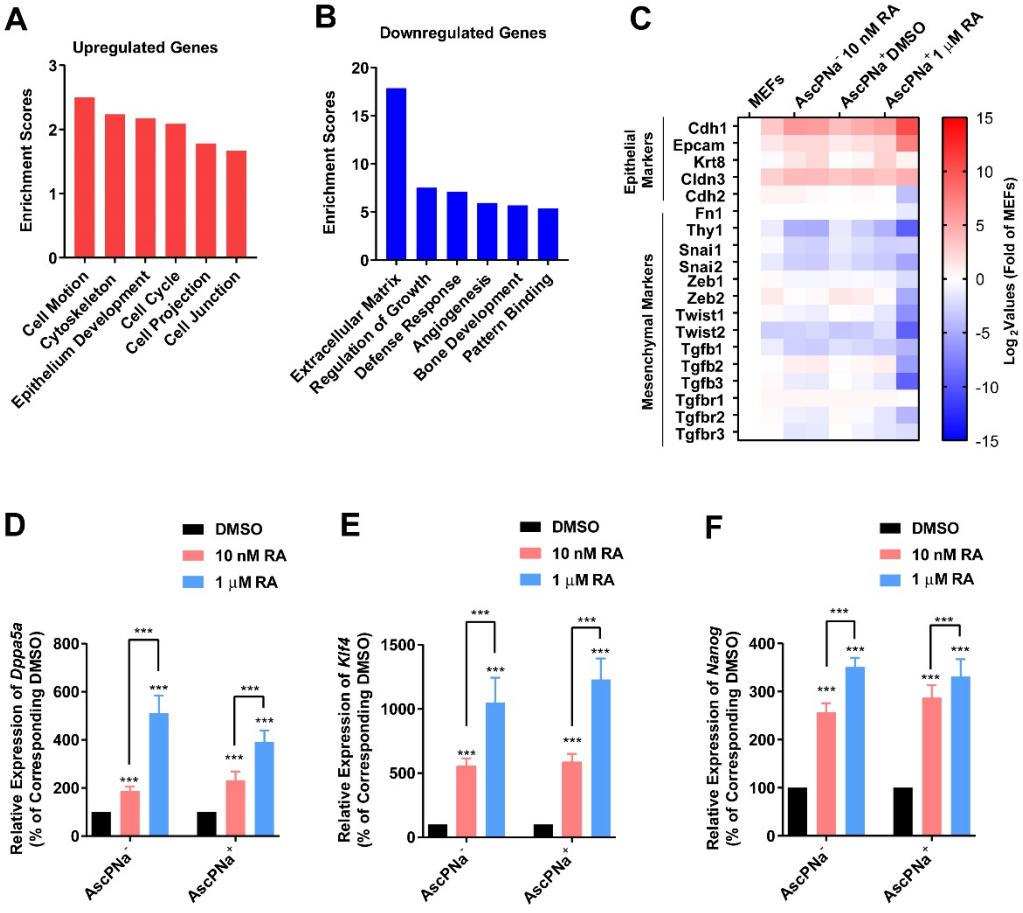


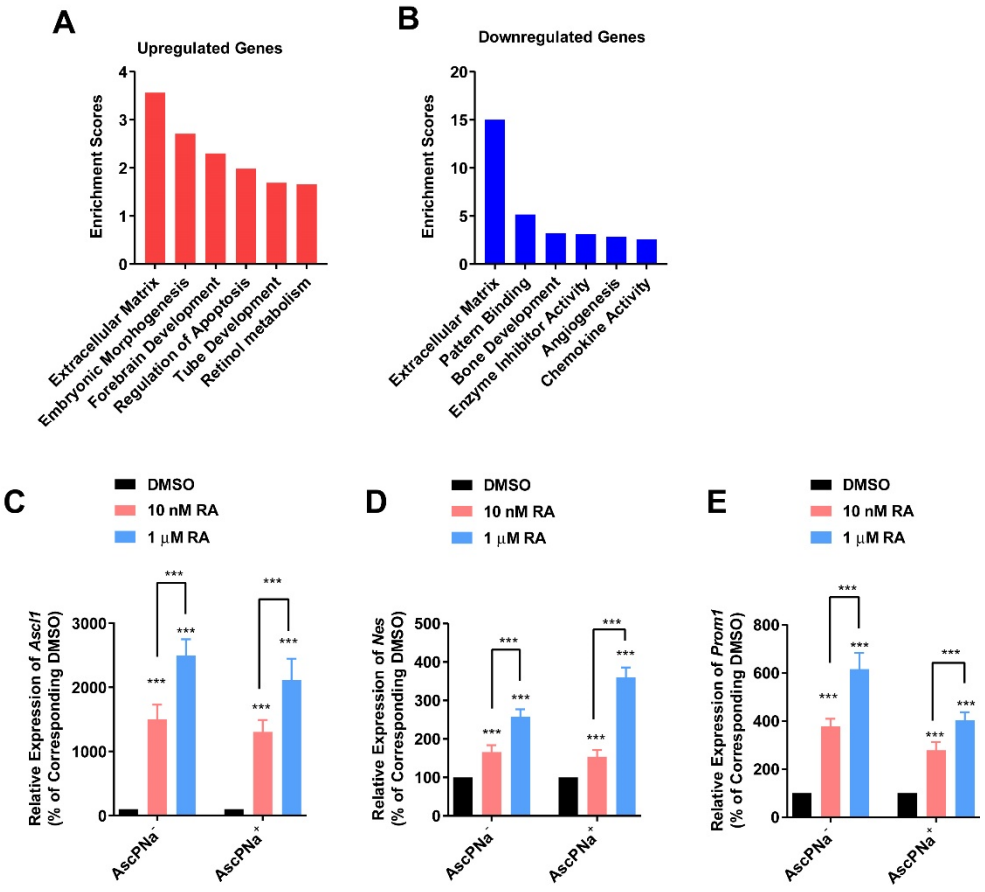
Figure S2.

RA promoted neuronal differentiation during reprogramming

(A-B) The genes which were regulated by 1 μM RA when compared to 10 nM RA were selected and subjected for GO analysis (upregulated genes in A, while downregulated genes in B).

(C-E) MEFs cultured in N2B27 medium were treated with different concentrations of RA for three days. The expression of *Ascl1* (C), *Prom1* (D), and *Nes* (E) was determined by qPCR. The comparisons were preformed between RA-treated and corresponding control (DMSO) groups with one-way ANOVA (n≥5).

Figure S2



Supplementary Table S1

RNA-seq results in the current studies

10 nM or 1 μM RA were used during reprogramming of MEFs with or without 0.16 mM AscPNa. N2B27 medium was used. RNA-seq was performed on day 6. MEFs and ESCs were used as controls. The genes with no detectable expression were removed. The normalized expression was provided.

Supplementary Table S2

The primers used in the current studies

The primers used in the current studies for qPCR were listed.