Supplementary Figure 2 Α В Control siRNA NPR-A siRNA 3 days Nanog β-actin -LIF/RA С D siRNA siRNA Brachyury Oct4 GATA4 Nanog GATA6 Sox2 **AFP GAPDH** Nestin **Eomes** NPR-A siRNA Ε Control siRNA Hand1 Nanog **GAPDH** Phase

Supplementary Figure 2. NPR-A knockdown affects differentiation of ES cells. (A) Western blot analysis of ES cells treated with control siRNA or NPR-A siRNA at 40 hours after transfection (just before induction of differentiation) in the presence of LIF,

showing a marked reduction of protein level of Nanog. β -actin was used as a loading control. (B) Embryoid body (EB) formed from control siRNA and NPR-A siRNA treated ES cells. Note the defective and smaller EB formation in NPR-A-deficient cells compared to control siRNA-treated cells. (C) RT-PCR analysis showing the expression of lineage specific markers for ectoderm (nestin), endoderm (GATA4, GATA6 and AFP), mesoderm (Brachyury) and trophoectoderm (Hand1and Eomes) layers in EBs generated from control siRNA- and NPR-A siRNA-treated ES cells. (E) Immunofluorescence images of plated EBs after 7 days from induction of differentiation, stained with antibodies against Nanog. Scale bar = 100 μ m