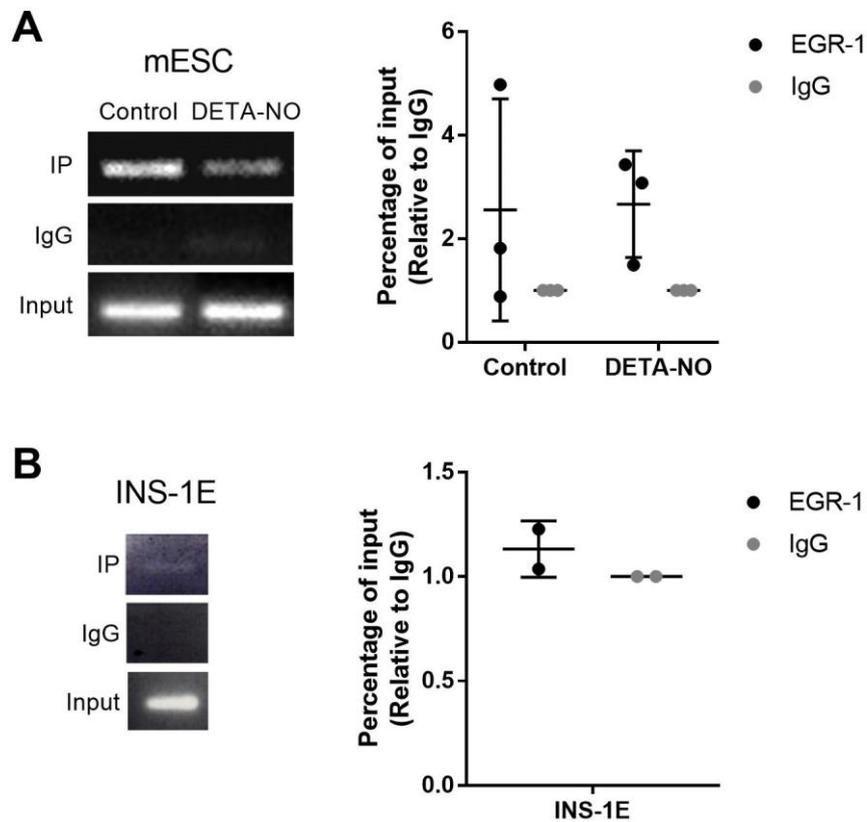


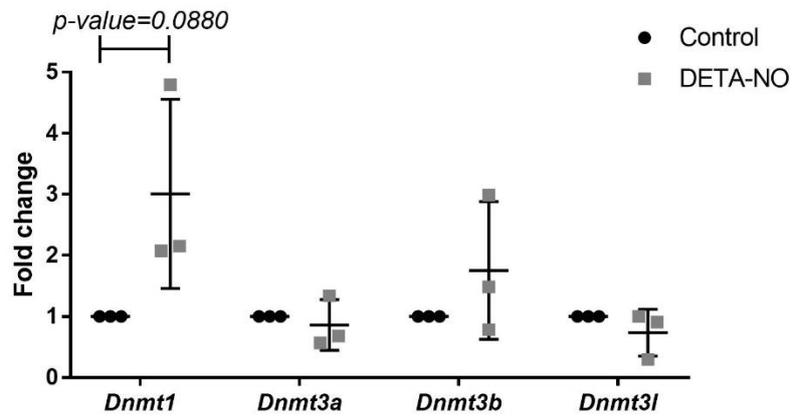
## Supplementary Figures

Figure S1



**Supplementary Figure 1.** Chromatin immunoprecipitation (ChIP) assays of EGR-1 on *Pdx1* promoter at regulatory area III in (a) mESCs and (b) INS-1E cell line. The figure shows (left panels) two representative ChIP results by qualitative PCR and (right panels) the means  $\pm$  SD of two (a) and three (b) independent experiments. The Y axis corresponds to the percent input relativized to IgG binding.

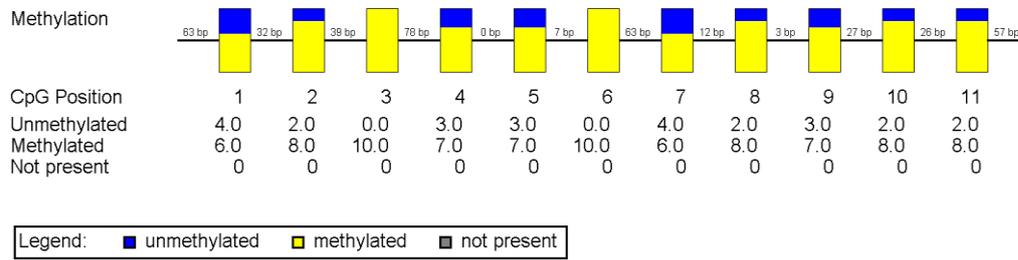
**Figure S2**



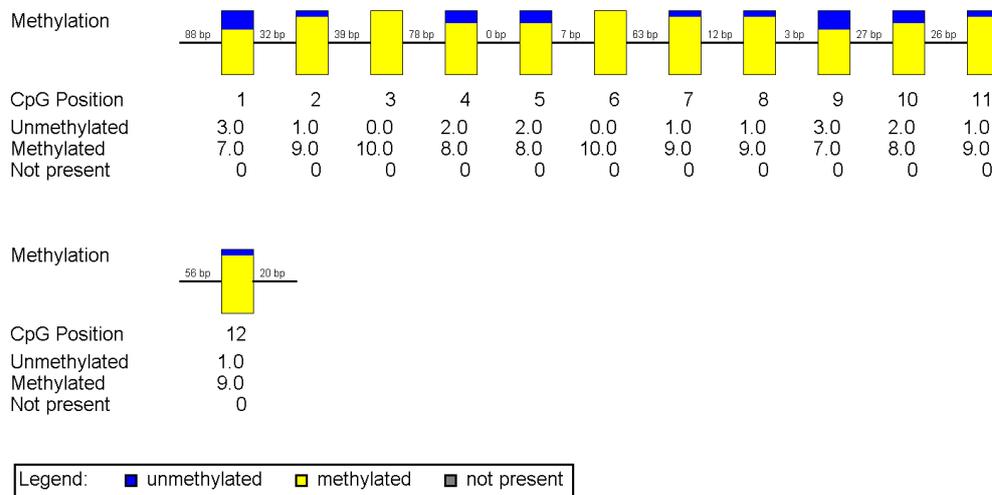
**Supplementary Figure 2.** DNA methyltransferase expression in mESCs. Analysis of DNA methyltransferases (Dnmt) expression after DETA-NO treatment by real time-PCR. These values were normalized to the expression values of the  $\beta$ -Actin, used as loading control. The data is analyzed using  $\Delta\Delta$ Ct algorithm and relativized to control condition. They represent the average of three independent experiments. Data are means  $\pm$  Standard deviation (SD).

# Figure S3

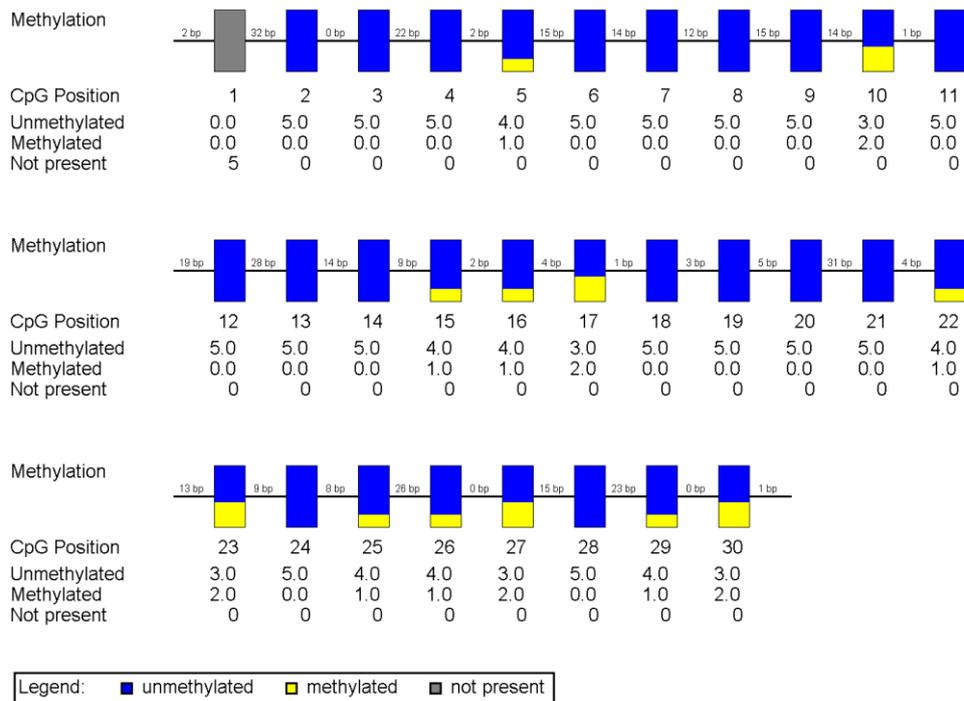
## A) Control condition



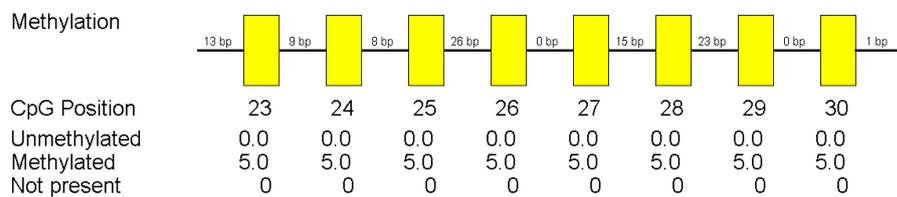
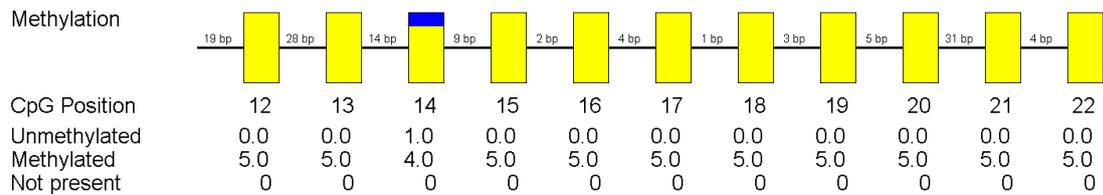
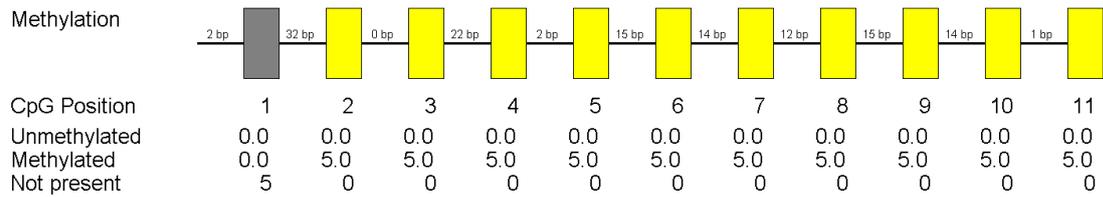
## B) DETA-NO condition



## C) Technical control: Untreated DNA and analysis of *Pdx1* proximal CpG Island



**D) Technical control: DNA treated with the CpG Methyltransferase, M.SssI and analysis of Pdx1 proximal CpG Island**



Legend: ■ unmethylated ■ methylated ■ not present

**Supplementary Figure 3.** Methylation analysis of *Pdx1* promoter by bisulfite sequencing PCR (BSP). The graphs show the CpG sites studied, which are represented by vertical rectangles. The methylation status is represented by the color of the rectangles: yellow-methylated and blue-unmethylated. The number of methylated or unmethylated CpG sites found in each condition is detailed under each rectangle. Graphs show the methylation results of four *Pdx1* promoter regions or cell culture conditions: EGR-1 binding site in mESCs cultured in control (A) and (B) DETA-NO conditions; and *Pdx1* proximal CpG Island in mESCs cultured in control condition, untreated (C) and treated with CpG Methyltransferase, M.SssI (D).