



**Figure S1: ShRNA-mediated knockdown of Tet2 in Tet1 knockout ES cells**

(A&B) Relative Tet2 mRNA levels (A) and Tet3 mRNA levels (B) in mESCs of indicated genotypes. Data are normalized to GAPDH. Error bars represent SEM. Note that Tet2 and Tet3 are not induced in Tet1 knockout ES cells. (C) Relative Tet2 mRNA levels in Tet2 or control knockdown mESCs. Data are normalized to GAPDH. Error bars represent SEM. (D) Dot blot for 5hmC levels in Tet2 knockdown Tet1<sup>-/-</sup> mESCs using antibody against 5hmC. (E-G) Tet2 knockdown Tet1<sup>-/-</sup> mESCs have normal ES cell morphology and stain positive for alkaline phosphatase, Nanog and Oct4. In all knockdown cell lines GFP is co-expressed from the same U6 promoter that drives expression of the control or Tet2 shRNA. Related to Figure 2.