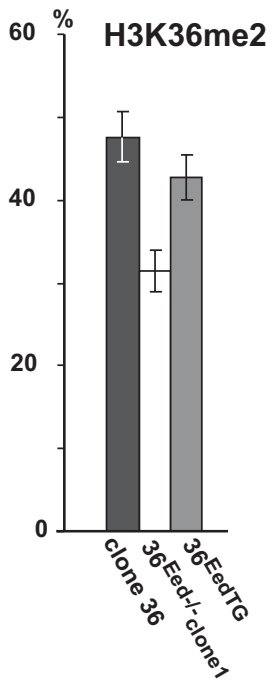
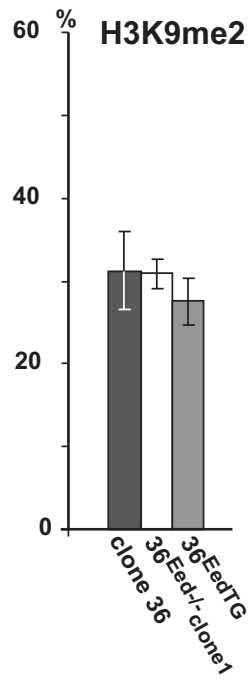
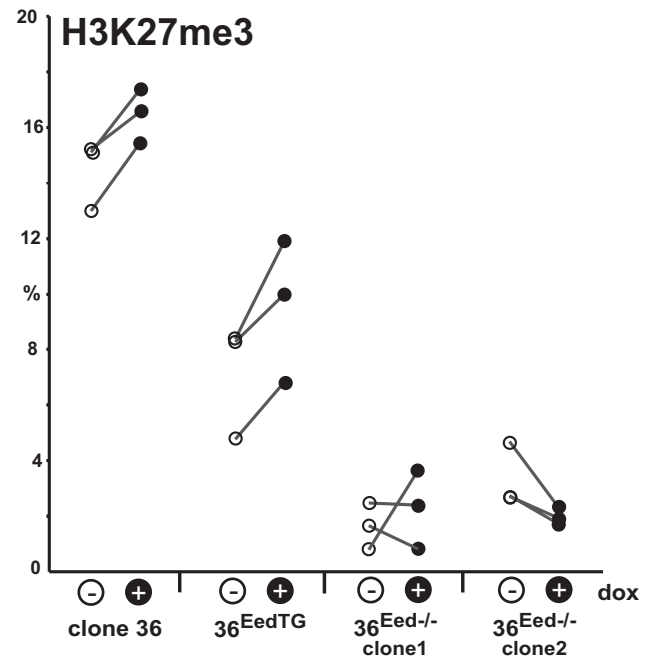


Supplementary Figure 2. Quantitative analysis of histone methylation.

A. Mass-spectrometric analysis of H3K36me2 using nuclear extracts from clone 36, 36^{Eed^{-/-}}, and 36^{Eed^{TG}} ES cells. The bars represent the percentage of the indicated modification state of the lysine. Error bars indicate the standard deviation of three independent experiments. **B.** Analysis of H3K36me2 as in panel A. **C.** Quantitative increase of H3K27me3 upon *Xist* expression. Global levels of H3K27me3 in nuclear extracts from paired samples of clone 36, 36^{Eed^{TG}} and Δ SX cells that had been induced with doxycycline for 3 days (filled circles, +) or not (open circles, -) are plotted. *Xist* induction leads to an estimated increase between 1 and 2 percent total histone H3K27me3. In Eed deficient ES cells no increase was observed upon induction of *Xist* (see Supplementary figure 4).

A**B****C****Supplementary Figure 2**