Supporting Information
Fig. S1

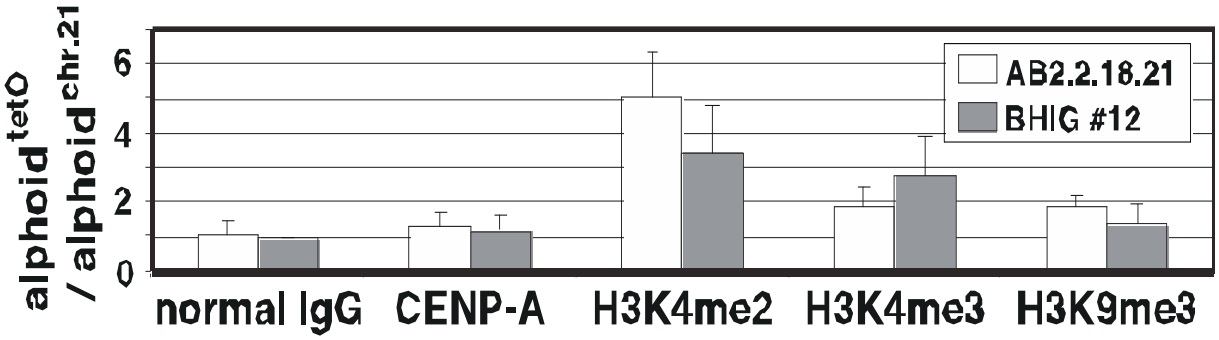

Figure S1. Comparison of the enrichment of tetO-alphoid DNA and the endogenous chromosome 21 alphoid DNA by CENP-A, H3K4me2, H3K4me3 in BHIG#12 and AB2.2.18.21 cells. Calculations of the ratio between IPed tetO-alphoid DNA in the HAC and IPed endogenous chromosome 21 alphoid DNA has been carried out for each cell line. As seen on the graph, a relative enrichment of CENP-A, H3K4me2, H3K4me3 and H3K9me3 on tetO-alphoid DNAs in BHIG#12 cells is not different from that observed in AB2.2.18.21 cells. All p-values were larger than 0.05. This indicates that kinetochore regions in the HAC did not change after multiple steps of HAC transfer via MMCT.

Supporting Information
Fig. S2

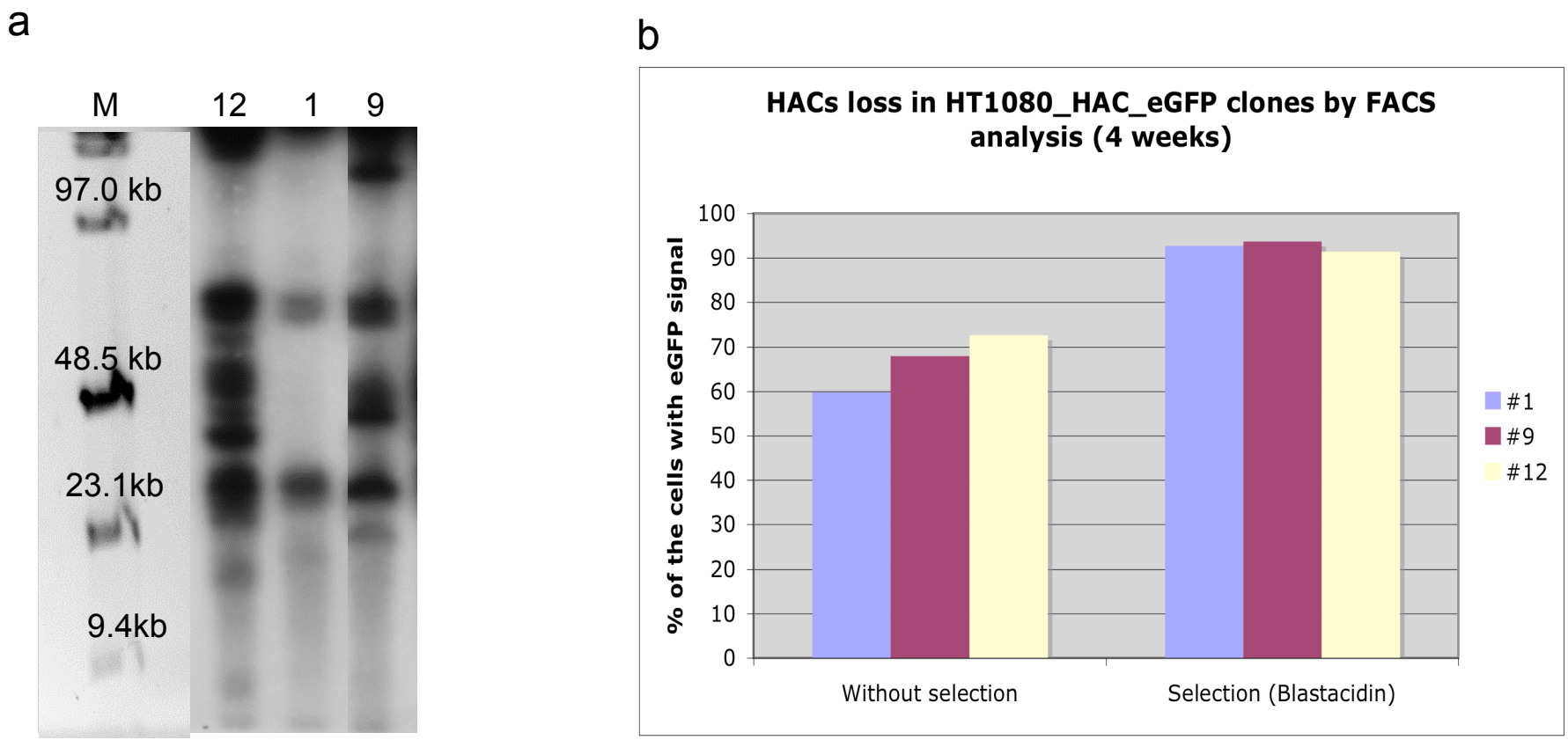

Figure S2. Analysis of the deleted forms of alphoid^{tetO}-HAC obtained during MMCT transfer from hamster CHO to human HT1080 cells. (a) Southern blot analysis of three HAC-containing HT1080 clones. Genomic DNA possessing the HAC was digested with *SpeI* endonuclease and separated by CHEF gel electrophoresis (range 10-70 kb). The transferred membranes were hybridized with the tetO-alphoid probe. Lane 1 - BHIG#12 clone containing the HAC with the 1.1 Mb original alphoid array; lane 2 - BHIG#1 clone containing the HAC with a deleted array (400 kb); lane 3 - BHIG#9 clone containing the HAC with a deleted array (800 kb). M - Pulse Markers. **(b)** Stability of HACs. Each HAC contains the *EGFP* gene. Mitotic stability of the HACs was determined by FACS as described previously (1).

Reference

1. Kim J-H, Ebersole T, Kouprina N et al. Human pericentromeric gamma-satellite DNA maintains open chromatin structure and protects a transgene from epigenetic silencing at an ectopic site. Genome Res. 2009 19:533-544.