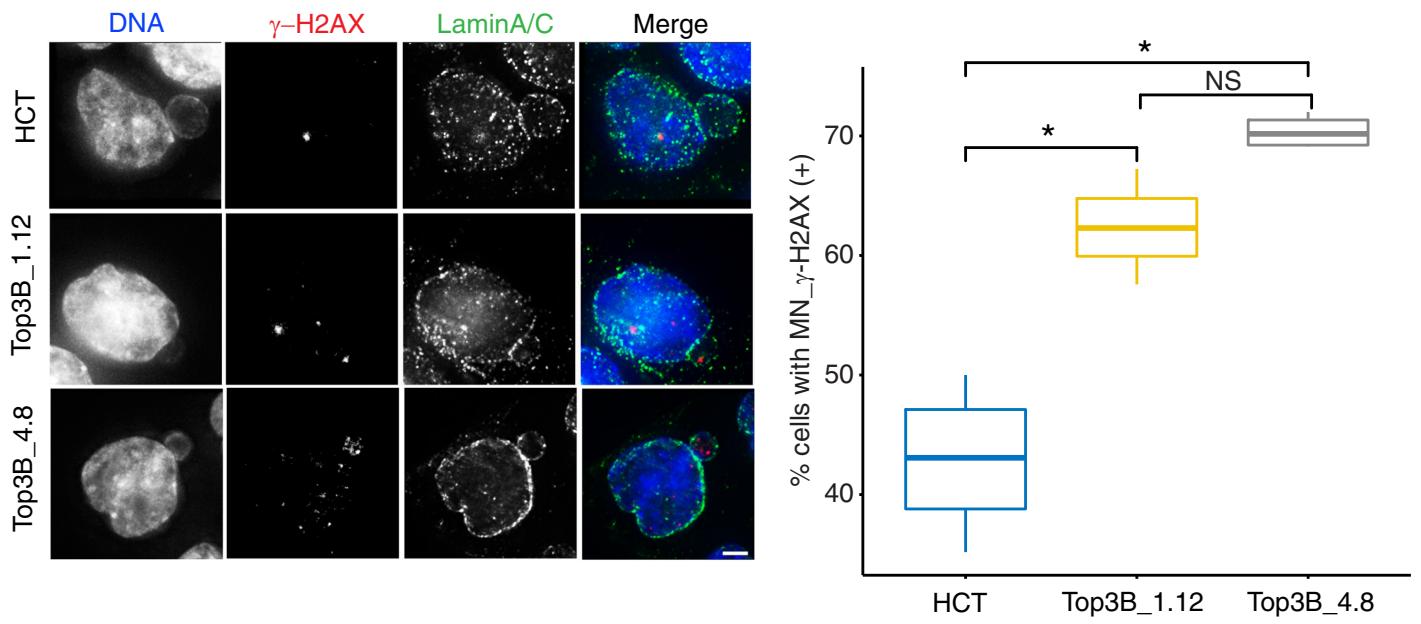
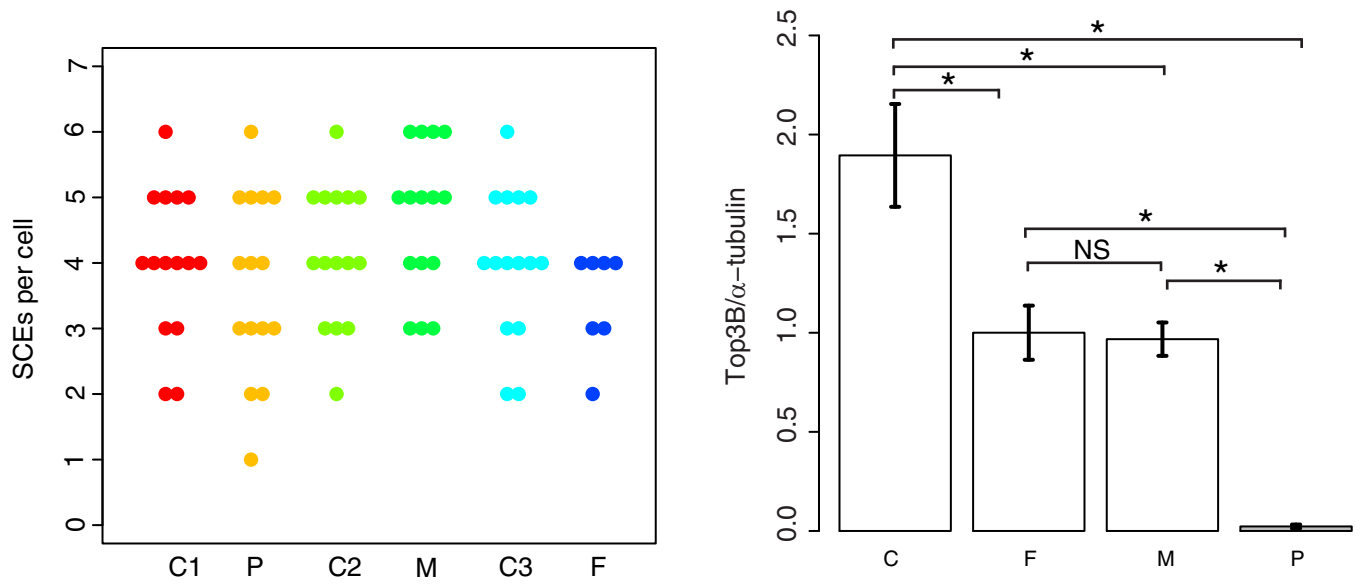


Figure S1

(a)



(b)



(c)

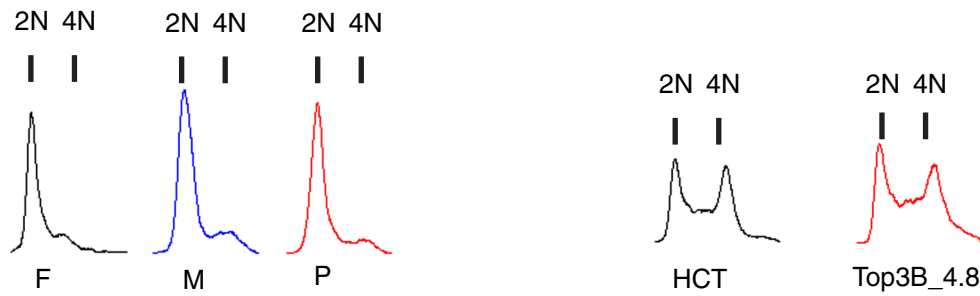


Figure S1. (a) Representative images of HCT116 control (HCT) and HCT116 TOP3B null clones stained for lamin A/C (green), γ -H2AX (red) and DNA (DAPI, blue). Right, cells with micronuclei displaying γ -H2AX (MN_ γ -H2AX) were scored from three independent experiments with at least 150 cells from each experiment. * denotes $P < 0.05$. NS: no significant difference. Scale bar equals 5 μ m. (b) Left, sister chromatid exchanges were counted from 15 cells individually from age-matched-controls (C1, C2 and C3), parental controls (F, M) and patient (P) samples. Right, intensity measurement of TOP3B, with α -tubulin as the loading control from three different immunoblots of control (C), parental heterozygote controls (F=father, M=mother) and homozygous TOP3B^{-/-} patient (P) lymphoblasts as shown in Fig. 1B. (c) FACS analysis shows no difference in ploidy between TOP3B null lymphoblast and HCT116 TOP3B null cells versus controls (F, M: TOP3B^{+/-}, P: TOP3B^{-/-} and wild-type HCT116 TOP3B^{+/+} (HCT), HCT116 TOP3B^{-/-} (Top3B_4.8)).#