



Supplementary Figure 1 Spermatogenesis of the B10-T43H/+ males is arrested at the pachytene stage of spermatocytes.

(a) The histological sections of gonads from the B10-T43H/+ (BT) male heterozygous for the translocation, from the B10-T43H/T43H male (T) homozygous for the translocation, and from the C57BL/10 male (B), respectively, are shown. The sections were stained with Mason's blue trichrome. The sections of seminiferous tubules from the BT male display several abnormalities when compared to the tubules from the homozygous T, and B males. (1) The tubules of the BT male are smaller in diameter; (2) the spermatocytes show slightly reduced abundance and a portion of them show aberrant nuclear morphology; (3) a number of spermatids is reduced greatly and the spermatozoa are almost undetectable. Upper panel – original magnification, 20x; lower panel – original magnification, 60x. Bars: 50 μm.

(b) FACS analysis of the germ cell suspension and assessment of the testicular cellularity of the males of the three genotypes. Proportions of mid-late pachytene spermatocytes and spermatids related to pre-mid-pachytene spermatocytes are shown for fertile B10 (B), B10-T43H/T43H (T) and sterile B10-T43H/+ (BT) males. Averages from 5 males with the standard deviations are displayed.