



Figure S4: The *Stag3*^{JAX} mutation supports the hypothesis that STAG3 maintains centromere cohesion, which is primarily mediated by REC8-containing cohesin complexes. (A) Example chromatin spread preparations from purified testicular germ cells of control, *Rad21*, *Rec8*, *Stag3* single mutants and the three possible double mutant combinations aged 15 days post-partum. Chromatin spreads were immunolabeled using antibodies against the SC lateral element protein SYCP3 (red) and the CEN anti-centromere autoantibody (green). Zygotene and pachytene stages are depicted for control, and typical examples for each mutant are given. (B) Scatter dot-plot graph

of the average number of centromere signals per spermatocyte chromatin spread. Mean and standard deviation of the columns of each graph are represented by the black bars and *P* values are given for indicated comparisons (Mann-Whitney, two-tailed), significant differences were defined when the *P* value was < 0.05 otherwise it was considered not significant. Experiments were performed using 2 separate littermate pairs of mutant and control mice. Scale bars = 10 μ m.