



**Supplementary Figure 4: Disruption of  $ER\alpha$  has no impact on loss of tolerance in  $B6.Sle1a$  congenic mice** (A) The proportion of  $B6.Sle1a$  female and male mice of all three  $ER\alpha$  genotypes ( $ER\alpha^{+/+}$ ,  $ER\alpha^{+/-}$ ,  $ER\alpha^{-/-}$ ) producing anti-chromatin IgG autoantibodies at 5 months of age is shown. (B) The concentration of anti-chromatin IgG autoantibodies in female  $ER\alpha^{+/+}$  (N=29),  $ER\alpha^{+/-}$  (N=28), and  $ER\alpha^{-/-}$  (N=25)  $B6.Sle1a$  congenic mice is shown. (C) The concentration of anti-chromatin IgG autoantibodies in male  $ER\alpha^{+/+}$  (N=24),  $ER\alpha^{+/-}$  (N=27), and  $ER\alpha^{-/-}$  (N=24)  $B6.Sle1a$  congenic mice is shown. In (B) and (C), the dashed line represents the threshold used to designate a positive autoantibody titer in the experimental mice. This threshold was set at 2 standard deviations above the mean of a group of age-matched control B6 mice as has been described previously (23, 24). The longer black horizontal bar indicates the mean for each group, and the shorter black bars indicate the standard error of the mean. The \* indicates  $p \leq 0.05$ , and the \*\* indicates  $p \leq 0.01$ .