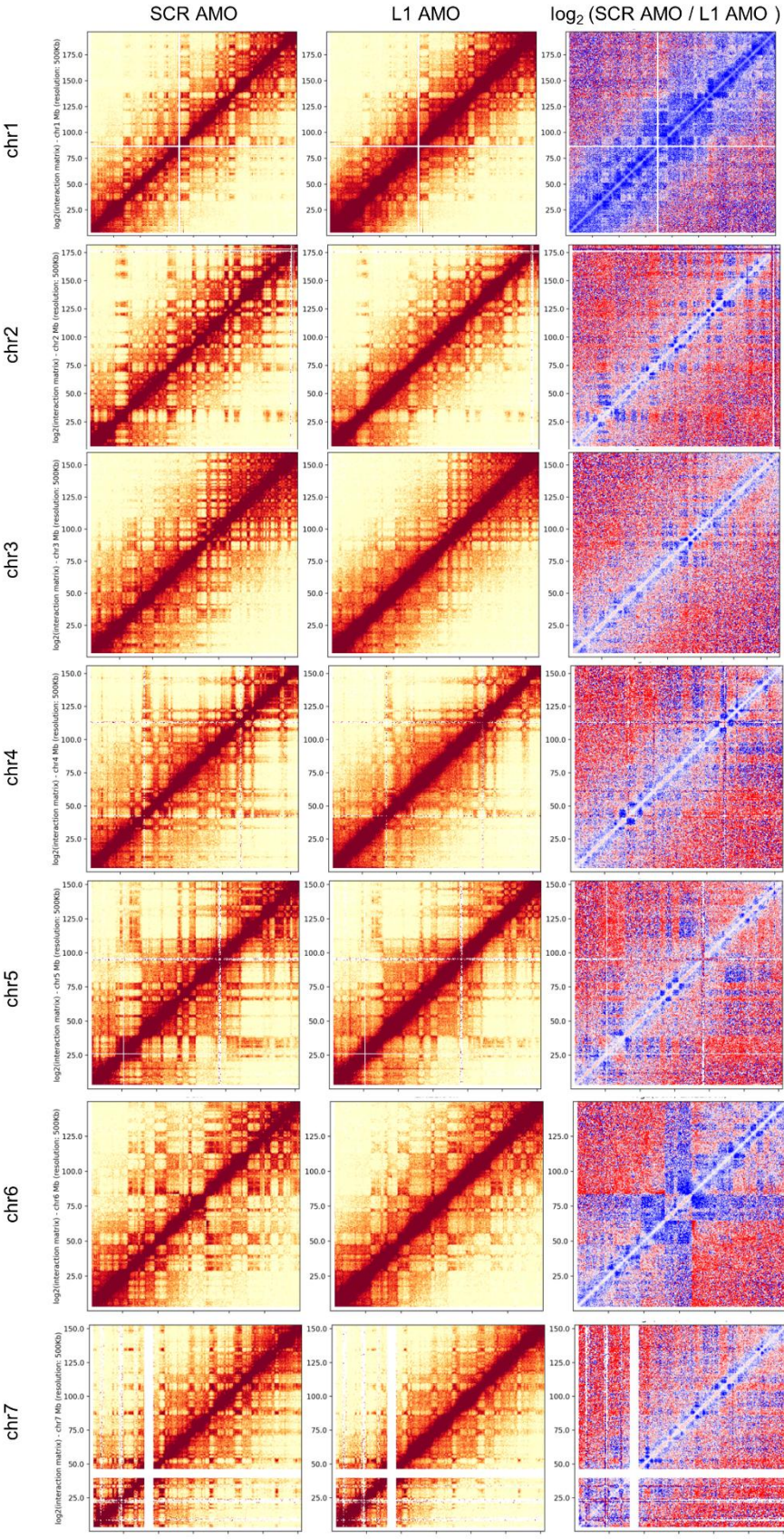
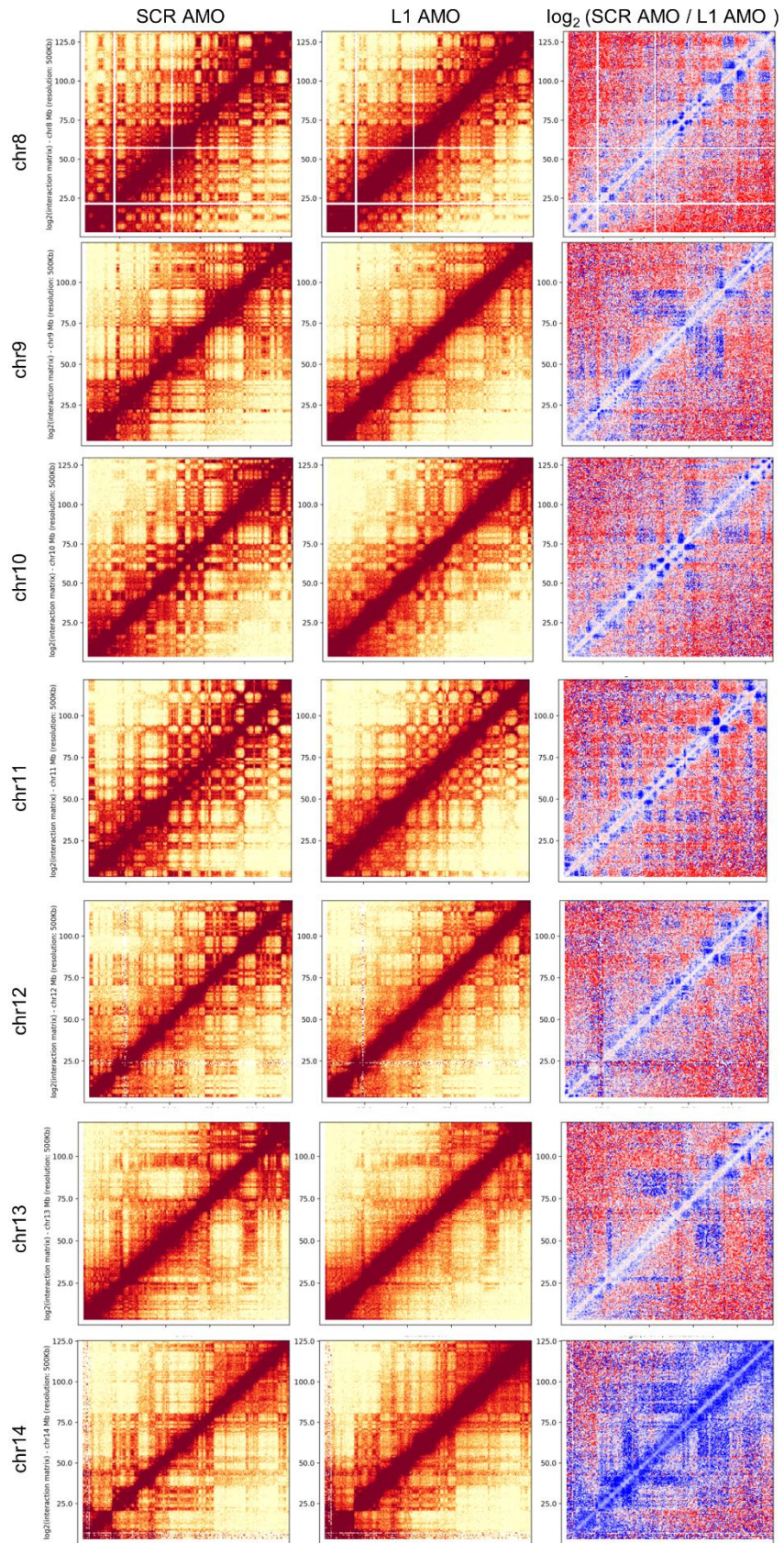


Fig. S9

a





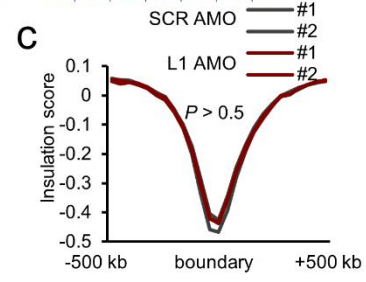
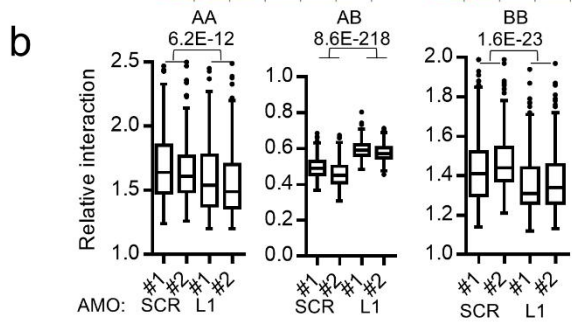
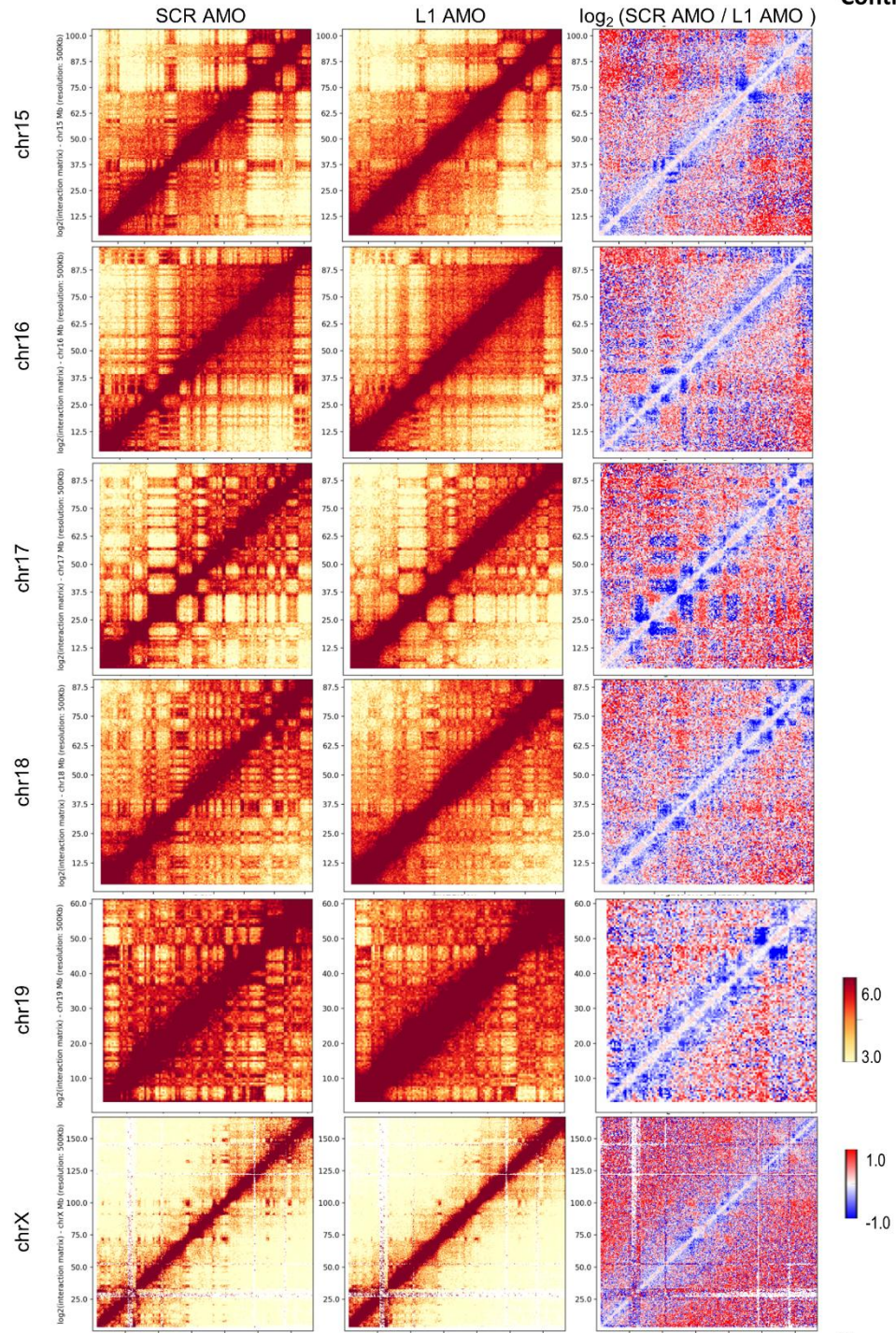


Fig. S9 L1 RNA is required for the formation and maintenance of higher-order chromatin structure.

- (a) Hi-C analysis of mESCs treated with scramble (SCR) and L1 AMOs for 36 hours (pooled data from 2 biological replicates). Hi-C heatmaps show the contact frequencies for SCR and L1 AMO and the comparison of contact frequencies between SCR and L1 AMOs [$\log_2(\text{SCR}/\text{L1})$]. All chromosomes are shown at 500-kb resolution.
- (b) Analysis of compartment strength showing decreased compartmentalization in mESCs treated with L1 AMOs for 36 hours compared to SCR AMO. Boxplots of A-A, B-B, A-B interaction are shown. L1 AMO led to decreased A-A and B-B but increase of A-B interaction compared to SCR AMO. The p value was calculated by the two-tailed Student's t -test.
- (c) Metagene analysis of insulation scores around the TAD boundary in mESCs treated with L1 or SCR AMO. Two biological replicates are shown.