

**Supplementary Table 3.** Significance of differences in combined expression levels along each chromosome.

Chr	window size		
	10	50	100
1	0.0028	0.1760	0.0180
2	<0.0001	0.0022	0.0054
3	<0.0001	<0.0001	<0.0001
4	0.0008	0.0004	<0.0001
5	<0.0001	<0.0001	<0.0001

For each chromosome, sliding windows of different sizes were analyzed and compared to 10,000 permutations of each chromosome. The 95<sup>th</sup> percentile of the natural chromosome was compared to the permuted chromosomes. A two-tailed p-value was calculated by counting the occurrences where the 95<sup>th</sup> percentile of the permuted chromosome was greater than that of the natural chromosome, then dividing by the number of permutations, and multiplying by 2 for the two-tailed test.