

**Table S4.** Spearman's rank correlation rho of H3K4me3 marking comparisons between the experimental populations (AB) and the offspring (A'B')

<b>datasets</b>	<b>AB</b>	<b>A'B'</b>
TSS (11,995 loci)	0.9755	0.9839
TSS (11,070 loci)	0.9715	0.9806
CpG (8,954 locations)	0.9737	0.9842
high expression (5,653 loci)	0.9701	0.9793
medium expression (4,441 loci)	0.9700	0.9796
low expression (2,772 loci)	0.9707	0.9815
differential expression (159 loci)	0.9580	0.9719

Comparison at TSS and at CpG islands included all marked loci; in the TSS dataset of 11,070 loci, small peaks were omitted (see Methods). Comparison at high expressed, medium expressed, low expressed, or differentially expressed genes were at H3K4me3-marked TSS.