

**Figure S1** The informativeness for assignment for all SNPs (A, B) and five-SNP haplotypes (C, D) genome-wide based on (A, C) K = 2 and (B, D) K = 6. The horizontal dashed line is the 95th percentile. The grey vertical dashed lines delineate the two high  $F_{ST}$  regions based on comparison between the Eastern and Western populations. The green vertical dashed lines indicate the centromeric regions. Note the scale of y-axis in panel D.