

Description of Additional Supplementary Files

Title: Supplementary Data 1

Description: List of inversions in the 20 Japanese haplotypes. Coordinates are based on T2T-CHM13.

Title: Supplementary Data 2

Description: Japanese-specific SDs not overlapping with SDs in the haplotypes of the HPRC and Chinese pangenomes. Coordinates are based on T2T-CHM13.

Title: Supplementary Data 3

Description: KIR gene annotation for HGVC3 haplotypes.

Title: Supplementary Data 4

Description: Potentially biased gene conversions in the *SMN* region (two-sided binomial test with a significance level of $P < 0.01$). Coordinates are based on T2T-CHM13.

Title: Supplementary Data 5

Description: Potentially biased gene conversions in the *DEFB-FAM90A* region (two-sided binomial test with a significance level of $P < 0.01$). Coordinates are based on T2T-CHM13.