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Phylogenetic analysis and forensic characteristics of 12 populations using 23 Y-STR loci

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Highlights

- The 23 Y-STR haplotype data provided detailed substructure and forensic value in 12 populations.
- A novel variation of DYS549 locus due to single-base deletion was confirmed.
- A close relationship was found among China and other East Asia populations.

Abstract

Genetic analysis of Y STRs has the potential to be used to explore the complexity in population substructures and to perform forensic ancestry inference. In this study, 334 individuals from 12 populations were typed using the PowerPlex® Y23 System (Promega, USA) to investigate their relationship. Population comparisons with other East Asian populations collated from YHRD (Y-STR Haplotype Reference Database) were also performed. Variant alleles, including seven intermediate alleles in 15 samples

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