

Y-Specific Polymorphisms in the Japanese and Taiwanese Populations

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Six short tandem repeat (STR) loci on the non-recombining portion of the human Y chromosome (DYS19, DYS388, DYS390, DYS391, DS392 and DYS393) were examined to determine the usefulness of Y-chromosome haplotyping for human identification purposes in the Japanese and Taiwanese populations. Allele frequency distributions were significantly different between these two populations in DYS391, DYS392 and DYS393. Y-chromosome haplotypes were constructed from 45 Japanese and 43 Taiwanese individuals, yielding 25 and 31 different haplotypes respectively. Two haplotypes were shared by both populations. In addition to STR loci, a Y-chromosome *Alu* insertion polymorphism (YAP) was tested in the Japanese samples. However, combining YAP and STRs did not increase the number of haplotypes due to the strong association between YAP types (YAP+, YAP-) and DYS390 and DYS392 alleles. Haplotype diversity was 0.92 and 0.96 for the Japanese and Taiwanese respectively, indicating valid potential in discriminating paternally unrelated male individuals.