FOR THE RECORD

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Distributions of Allelic Frequencies and Haplotypes of Two New Y-STR Loci in a Chinese Han Population

POPULATION: Chinese Han

KEYWORDS: forensic science, DNA typing, Y-chromosome, DYS513, DYS542, short tandem repeats, population genetics, Chinese Han population

Blood samples were collected from 109 unrelated males of Han ethnic group in Chengdu of China. DNA was extracted using Chelex method (1). The volume of PCR reaction for each locus was 37.5 μ L, which contained 2–10 ng human genome, 1 × Taq buffer, 1.5 mM MgCl₂, 1.6 μg/mL BSA, 200 μM each dNTP (Pharmacia Biotech, Sweden), 1.5 U Taq polymerase (Promega Corporation, Madison, WI), 0.3 µM each primer. PCR amplifications were carried out in a GeneAmp PCR System 9600 (Perkin-Elmer, Foster City, CA) with pre-denaturing for 3 min at 94°C, 36 cycles of denaturing for 30 s at 94°C, annealing for 60 s at 61°C and extension for 30 s at 72°C. The amplicons were analyzed by horizontal nondenaturing polyacrylamide gel electrophoresis with discontinuous buffer system and visualized by silver staining (2). Alleles were designated according to recommendation of the DNA commission of the International Society of Forensic Genetics (3). Data of population genetics and forensic science were analyzed according to Hou's method (4).

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The complete dataset can be accessed at:http://www.legalmed.org/dna/DYS513.htm

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TABLE 1—Allele frequencies at two Y-STR loci in a Chinese Han population.

Allele	DYS513	DYS542
10	0.0275	
11	0.0642	0.1101
12	0.4128	0.3945
13	0.3945	0.3670
14	0.0917	0.1193
15	0.0092	0.0092
Gene diversity	0.6667	0.6896
Standard error	0.0180	0.0158

TABLE 2—Haplotypes of two Y-STR loci in a Chinese Han population.

Haplotype	DYS513	DYS542
1	10	12
2	10	14
3	11	11
4	11	12
4 5	11	13
6	12	11
7	12	12
8	12	13
9	12	14
10	12	15
11	13	11
12	13	12
13	13	13
14	13	14
15	14	12
16	14	13
17	14	14
18	15	13