FOR THE RECORD

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

POPULATION: Chinese

KEYWORDS: forensic science, DNA typing, short tandem repeat, population genetics, polymorphism chain reaction, Chengdu, Sichuan, China

TABLE 1—Allele frequencies of two STR loci in Chinese population.

	Frequency			
Allele	D3S4014 (N = 119)	D20S604 $(N = 119)$		
7		0.0008		
8	0.013	0.063		
9	0.567	0.104		
10	0.382	0.067		
11	0.021	0.317		
12	0.017	0.354		
13		0.058		
14		0.029		
HWE	p > 0.05	p > 0.05		

HWE: Test for Hardy-Weinberg equilibrium.

Blood samples were collected from unrelated individuals of Chinese Han ethnic group in Chengdu of China. DNA was extracted using Chelex method (1). PCR amplification conditions can be accessed at http://www.legalmed.org/dna/d3s4014.htm. The PCR reaction volume for each locus was 37.5 µL. The PCR products were analyzed by horizontal non-denaturing polyacrylamide gel electrophoresis with discontinuous buffer system and visualized by silver staining (2). Data of population genetics and forensic science were analyzed using POWERSTATS program (3). The genotype distribution was analyzed for Hardy-Weinberg equilibrium

TABLE 2—Population genetics and forensic parameters of two STR loci.

Locus	PIC	DP	Pm	EP	H _o	H _e	SE
D3S4014 D20S604							

PIC: polymorphism information content, DP: power of discrimination, Pm: probability of match, EP: power of exclusion, H_o : observed heterozygosity, H_e : expected heterozygosity, SE: standard error.

according to Hou's method (4). No deviation from Hardy-Weinberg equilibrium was observed.

The complete data can be accessed at http://www.legalmed.org/dna/d3s4014.htm.

References

- Singer-Sam J, Tanguay RL, Riggs AD. Use of Chelex to improve the PCR signal from a small number of cells. Amplification 1998;3:11.
- Allen CR, Graves G, Budowle B. Polymerase chain reaction amplification products separated on rehydratable polyacrylamide gels and stained with silver. Biotechniques 1990;7:736–44.
- 3. http://www.promega.com.
- Hou Y, Prinz M, Staak M. Comparison of different tests for deviation from Hardy-Weinberg equilibrium of AMPFLP population data. In: Bar W, Fiori A, Rossi U, editors. Advances in forensic haemogenetics 5. Berlin: Springer-Verlag, 1994;511–4.

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