

FOR THE RECORD

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Allele Frequencies for Three STR Loci D10S1418, D8S1477, and D10S1426 in a Chinese Population

POPULATION: Chinese ($n = 100$).

KEYWORDS: forensic science, Han in Sichuan, China, DNA typing, short tandem repeats, polymerase chain reaction, population genetics, D10S1418, D8S1477, D10S1426

Whole-blood samples were collected from 100 selected and unrelated individuals of a Chinese Han ethnic group in Chengdu, China. Genomic DNA was extracted using the Chelex method (1). The volume of PCR reaction for each locus was 37.5 μ L. The amplified products were separated by horizontal nondenaturing polyacrylamide gel electrophoresis with a discontinuous buffer system and visualized by silver staining (2). Population genetics and forensic science data were analyzed using POWERSTATS program (3). The genotype distribution was analyzed for Hardy–Weinberg equilibrium according to Hou’s method. No deviation from Hardy–Weinberg equilibrium was observed (Tables 1 and 2).

The complete data can be obtained by any interested researcher from the authors on request to watercrowd@tom.com

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

Allele	Frequency		
	D10S1418	D8S1477	D10S1426
8		0.220	
9		0.230	
10		0.155	0.095
11	0.055	0.230	0.235
12	0.100	0.095	0.375
13	0.015	0.025	0.280
14	0.255	0.025	0.010
15	0.270	0.015	
16	0.165	0.005	
17	0.190		
18	0.030		
19	0.010		
Total	1.000	1.000	1.000
HWE*	$p > 0.05$	$p > 0.05$	$p > 0.05$

*Test for Hardy–Weinberg equilibrium.

TABLE 2—Population genetics and forensic data of three STR loci.

Locus	PIC	DP	P_m	CE	H_o	H_e
D10S1418	0.76	0.919	0.081	0.675	0.840	0.798
D8S1477	0.78	0.930	0.070	0.545	0.770	0.815
D10S1426	0.66	0.870	0.130	0.369	0.660	0.717

PIC, polymorphism information content; DP, power of discrimination; P_m , probability of match; PE, power of exclusion; H_o , observed heterozygosity; H_e , expected heterozygosity.

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