

## FOR THE RECORD

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# Population Genetics of three STR Loci D19S591, D5S1462 and D3S2432 in a Chinese Han Population

**POPULATION:** Chinese

**KEYWORDS:** forensic science, Han in Sichuan, China, DNA typing, short tandem repeats, polymerase chain reaction, population genetics, D19S591, D5S1462, D3S2432

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

Allele	Frequency		
	D19S591 (N = 100)	D5S1462 (N = 100)	D3S2432 (N = 100)
8	22.5%		
9	36.5%		
10	24.5%	6.5%	
11	10.5%	9.0%	1.0%
12	6.0%	9.5%	7.0%
13		21.5%	15.5%
14		20.0%	24.0%
15		22.5%	24.5%
16		8.0%	19.5%
17		3.0%	5.5%
18			2.5%
19			0.5%
Total	1.000	1.000	1.000
HWE*	P > 0.05	P > 0.05	P > 0.05

\* Test for Hardy-Weinberg equilibrium.

Blood samples were collected from unrelated healthy individuals of Chinese Han ethnic group in Chengdu of Sichuan, China after informed consent. Genomic DNA samples were extracted using Chelex-100 method (1). PCR amplification conditions can be accessed at <http://www.legalmed.org/dna/D19S591.htm>, <http://www.legalmed.org/dna/D5S1462.htm>, and <http://www.legalmed.org/dna/D3S2432.htm>. The volume of PCR reaction 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 of the locus D19S591, D5S1462, D3S2432 was analyzed using POWERSTATS program (3). The

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

Locus	PIC	DP	Pm	EP	H <sub>o</sub>	H <sub>e</sub>
D19S591	0.70	0.886	0.114	0.562	0.78	...
D5S1462	0.81	0.940	0.060	0.675	0.84	0.857
D3S2432	0.79	0.921	0.079	0.656	0.83	0.700

PIC: polymorphism information content; DP: power of discrimination; Pm: probability of match; EP: power of Exclusion; H<sub>o</sub>: observed heterozygosity; H<sub>e</sub>: expected heterozygosity.

genotype distribution was analyzed for Hardy-Weinberg equilibrium 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/D19S591.htm>, <http://www.legalmed.org/dna/D5S1462.htm> and <http://www.legalmed.org/dna/D3S2432.htm>.

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