

FOR THE RECORD

Z. J. Jia,¹ M.D.; J. Wu,¹ M.D.; Y. P. Hou,¹ M.D.; X. P. Zhou,¹ M.D.; W. J. Zhang,¹ M.D.; J. Q. Deng,¹ Ph.D.; J. Zhang,¹ Ph.D.; B. W. Ying,¹ Ph.D.; M. S. Shi,¹ Ph.D.; J. Yan¹, Ph.D.; Y. B. Li,¹ M.D.

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

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 condition can be accessed at <http://www.legalmed.org/dna/d2s2955.htm>. The PCR reaction volume for each locus was 37.5 μ L. 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 according to Hou's method (4), no deviation from Hardy-Weinberg equilibrium was observed.

¹ School of Preclinical and Forensic Medicine, Sichuan University, Chengdu 610041, Sichuan, P. R. China.

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

D2S2955 (N = 114)		D22S689 (N = 119)	
Allele	Frequency	Allele	Frequency
10	0.149	10	0.05
11	0.259	11	0.013
12	0.421	12	0.025
13	0.171	13	0.113
		14	0.176
		15	0.361
		16	0.185
		17	0.055
		18	0.021
HWE	$p > 0.05$		$p > 0.05$

HWE: Test 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
D2S2955	0.65	0.863	0.137	0.257	0.570	0.704	0.0150
D22S689	0.76	0.923	0.077	0.535	0.765	0.785	0.0155

* 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.

The complete data can be accessed at <http://www.legalmed.org/dna/d2s2955.htm>.

References

1. Singer-Sam J, Tanguay R L, Riggs A D. Use of Chelex to improve the PCR signal from a small number of cells. *Amplification* 1998;3:11.
2. 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>
4. 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*. Berlin:Springer-Verlag, 1994;511–4.

Additional information and reprint requests:
Associate Professor Ying Bi Li
Institute of Forensic Medicine
Sichuan University (West China University of Medical Sciences)
Chengdu 610041, Sichuan
P. R. China
E-mail: liyingbiscu@163.com