FOR THE RECORD

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Distribution of D12S2080, D16S2619 and D9S1119 Alleles in Chinese Population Sample

POPULATION: Chinese

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A total of 100 EDTA-blood samples were obtained from unrelated individuals of Chinese Han ethnic group in Chengdu of China. DNA was extracted by utilizing the Chelex-100 method as described by Walsh et al. (1). The allelic variation at three STR loci named as D12S2080, D16S2619 and D9S1119 were analyzed by PCR amplification whose respective conditions can be accessed at Nucleotide Database updated by NCBI (http://www.ncbi.nlm.nih.gov), however, their annealing temperatures do not totally amount to those recommended by Database. The details of PCR conditions are described in Table 1. The volume of PCR reaction for each locus was 20 μL containing 2-10 ng DNA, $1 \times$ Taq buffer, 1.5 mM $MgCl_2$, 200 μM each dNTP (Pharmacia Biotech, Sweden), 2.0 U Taq polymerase and 0.3 μM each primer. PCR amplifications were carried out in a GeneAmp PCR System 9600 (Perkin-Elmer).The respective primers of these three loci are described in Table 2.

The PCR products were analyzed by vertical non-denaturing polyacrylamide gel electrophoresis with $1 \times$ TBE continuous buffer system and visualized by silver staining (2). Data of population genetics and forensic science were analyzed by using POWER-STATS program (3). The details of distribution data are described in Tables 3, 4. The genotype distribution was analyzed for Hardy-Weinberg equilibrium according to Hou's method(4). No deviation from Hardy-Weinberg equilibrium was observed.

TABLE 1—*Details of PCR conditions.*

Locus	Pre-denaturing	Denaturing	Annealing	Extension
D12S2080	94°C 3 min	94°C 35 sec	60°C 35 sec	72°C 50 sec
D16S2619	94°C 3 min	94°C 35 sec	58°C 45 sec	72°C 50 sec
D9S1119	94°C 3 min	94°C 35 sec	60°C 35 sec	72°C 55 sec

Total of 32 cycles finally are followed by 6 min extension at 72°C.

The complete dataset is available to any interested party at http://wcums.chiname.cn

References

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TABLE 2—*Primers of three STR loci.*

Locus	Forward primer	Reverse primer
D12S2080	TCTTGATAGCCTGCCCTATG	GGGCAAGGTATCAATCAGTG
D16S2619	CAAGTCCAAGGGTAATTGGA	CCTATCTCTATCCATGTACCACG
D9S1119	ATTTCGGCCACTATTTCTCC	AGCAGACCCACAATATGCAT

TABLE 3—*Allele frequencies of three STR loci in Chinese population.*

Allele	Frequency		
	D12S2080 ($N = 100$)	D16S2619 ($N = 100$)	D9S1119 ($N = 100$)
9	0.01	0.01	⋯
10	0.125	0.015	0.005
11	0.365	0.27	0.01
12	0.315	0.51	0.115
13	0.18	0.175	0.515
14	0.005	0.02	0.26
15	⋯	⋯	0.065
16	⋯	⋯	0.03
Total	1.000	1.000	1.000
HWE*	$P > 0.05$	$P.0.05$	$P > 0.05$

* Test for Hardy-Weinberg equilibrium.

TABLE 4—*Population genetics and forensic data of three STR loci.*

Locus	PIC	DP	Pm	EP	H_o	H_e
D12S2080	0.67	0.866	0.134	0.510	0.75	0.723
D16S2619	0.58	0.786	0.214	0.476	0.73	0.639
D9S1119	0.60	0.824	0.176	0.268	0.58	0.652

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