

## FOR THE RECORD

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## Allele Frequencies of Four Short Tandem Repeat Loci in Chinese Han Population

**POPULATION:** Over 283 unrelated individuals from Han population living in Wuhan, China.

**KEYWORDS:** forensic science, DNA typing, population genetics, D2S1788, D6S1043, D7S3048, D12S1064, Han population

Genomic DNA was obtained from peripheral blood extracted with Chelex-100 method (1). PCR was performed in a total reaction volume of 20  $\mu$ L containing 20 ng genomic DNA, 0.2  $\mu$ M each primer, 10 mM Tris-HCl buffer (pH 8.3), 50 mM KCl, 1.5 mM MgCl<sub>2</sub>, 200  $\mu$ M each dNTP, and 1 U Taq DNA polymerase (BioStar, Canada). Primer sequences: D2S1788: 5'-aat gga tgg aca aat gga tg-3, 5'-ccc tcc ata att aga tga gcc-3; D6S1043: 5'-caa gga tgg gtg gat caa ta-3, 5'-ttg tat gag cca ctt ccc at-3; D7S3048: 5'-ctg gag ctg cat agt gtc ct-3, 5'-aat cat ccc tgt gtg ctt tc-3; D12S1064: 5'-act act cca agg ttc cag cc-3, 5'-aat att gac ttt etc ttg cta ccc-3. PCR conditions: 95°C for 2 min soak, 32 cycles of 35 s at 94°C, 35 s at 60°C, 40 s at 72°C followed by a 5 min extension period at 72°C. The amplification products were separated in a vertical, native polyacrylamide gel (6% T; 5% C) and visualized by silver staining. Allele frequencies and others statistics parameters for forensic and paternity were determined for each locus by the PowerStats software packages (2). The Hardy-Weinberg equilibrium test (HWE) was performed by an exact test (3). None of the analyzed loci showed deviations from HWE ( $P > 0.05$ ) in the population studied. The complete dataset is available to any interested researcher upon request to the authors.

### References

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TABLE 1—Allele frequencies of the STR loci D2S1788, D6S1043, D7S3048 and D12S1064 in the Chinese Han population.

Allele	D2S1788 (n = 285)	D6S1043 (n = 286)	D7S3048 (n = 283)	D12S1064 (n = 286)
11		0.026		
12		0.103		0.002
13		0.128		
14		0.149	0.014	0.023
15		0.129	0.083	0.046
16		0.021	0.090	0.047
17		0.002	0.150	0.150
18	0.051	0.040	0.129	0.250
19	0.088	0.166	0.080	0.316
20	0.037	0.178	0.171	0.136
21	0.016	0.051	0.164	0.030
22	0.005	0.005	0.090	
22.3		0.002		
23	0.019		0.018	
24	0.077		0.009	
25	0.212		0.002	
26	0.167			
27	0.130			
28	0.112			
29	0.051			
30	0.028			
31	0.007			

n = number of unrelated individuals.

Additional information and reprint requests:

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TABLE 2—Statistic parameters of the four loci analyzed in the Chinese Han population.

Locus	D2S1788	D6S1043	D7S3048	D12S1064
Forensic				
matching probability	0.029	0.033	0.031	0.078
Express as 1 in...	34.7	30.3	32.3	12.9
Power of discrimination	0.971	0.967	0.969	0.922
PIC	0.86	0.86	0.86	0.76
Paternity				
Power of exclusion	0.721	0.715	0.762	0.633
Typical paternity index	3.65	3.58	4.29	2.75
Variability				
heterozygosity	86.3%	86.0%	88.3%	81.8%
Observed				
heterozygosity	87.8%	87.1%	87.6%	79.2%
Expected				
HWE exact test	$P = 0.705$	$P = 0.567$	$P = 0.962$	$P = 0.154$