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FOR THE RECORD

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Allele Frequency Distribution of STR Loci D5S2845 in Four Populations*

POPULATIONS: 100 unrelated Chinese volunteer donors, 100 unrelated Thai volunteer donors, 100 unrelated Mongol volunteer donors, 100 unrelated Germany volunteer donors

KEYWORDS: forensic science, D5S2845, short tandem repeat, Chinese, Thai, Mongol, Germany, population genetics, DNA typing

Blood Specimens were obtained from 100 unrelated Chinese volunteer donors, 100 unrelated Thai volunteer donors, 100 unrelated Mongol volunteer donors, 100 unrelated Germany volunteer donors respectively. DNAs were extracted from blood specimens using Chelex-100 (1). Genotyping were carried out by PCR in a PE9600 cycler. The components of a 20 μL reaction mixture were as follows: template DNA 20 ng, primer 0.2 μmol/L each, dNTPs 200 μmol/L each, KCl 50 μmol/L, Tris-HCl(pH 8.3) 10 mmol/L, $MgCl_2$ 1.5 mmol/L, Taq polymerase

TABLE 1—*Allele frequency distributions of D5S2845 in four populations.*

	Populations			
Allele	Chinese ($n = 100$)	Menggu ($n = 100$)	Thai ($n = 100$)	Germany ($n = 100$)
9	0.075	0.070	0.070	0.030
10	0.005	0.005	0.030	...
11	0.034	0.035	0.080	0.020
12	0.255	0.420	0.295	0.475
13	0.345	0.310	0.265	0.280
14	0.196	0.140	0.200	0.150
15	0.069	0.015	0.060	0.045
16	0.015	0.005	...	...
DP	0.908	0.852	0.913	0.835
Het	0.730	0.750	0.800	0.680
PE	0.476	0.510	0.599	0.398
PIC	0.730	0.650	0.760	0.620
HWE test*	0.863	0.9746	0.711	0.8391

* Probability values.
DP: power of discrimination.
Het: heterozygosity.
PE: power of exclusion.
PIC: polymorphism information content.

TABLE 2—*Genotype distributions of D5S2845 in four populations.*

	Populations			
Genotypes	Chinese ($n = 100$)	Menggu ($n = 100$)	Thai ($n = 100$)	Germany ($n = 100$)
9–9	...	...	2	1
9–10	...	...	1	...
11–11	...	1	...	...
9–12	5	7	5	2
10–12	...	...	1	...
11–12	3	3	7	2
12–12	5	16	7	22
9–13	3	5	1	2
10–13	1	1	2	...
11–13	2	1	7	1
12–13	18	29	20	28
13–13	15	7	5	6
9–14	5	2	3	...
10–14	...	...	1	...
11–14	2	1	1	1
12–14	10	11	10	14
13–14	8	11	9	9
14–14	7	1	6	3
9–15	2	...	...	...
10–15	...	...	1	...
11–15	...	...	1	...
12–15	4	1	2	5
13–15	6	1	4	4
14–15	1	1	4	...
12–16	1	1	...	...
13–16	1	...	...	...
15–16	1	...	...	...
Total	100	100	100	100

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1U. Primer sequences: D5S2845: 5′-caaattccaaaagccttgat-3′, 5′-gctgcttccctaaacctaga-3′. PCR conditions: start at 94°C for 4 min, followed by 36 cycles consist of 35 s at 94°C, 40 s at 57°C, 50 s at 72°C followed by a 10 min extention at 72°C. The amplified products were electrophoresed in 6% polyacrylamide gel by using 100 bp ladder and allelic markers as size markers, followed by silver staining. The amplified products were examined by an ABI PRISM™ 310 Genetic Analyzer. Data were analyzed by The Promega Software, POWERSTATS. The complete dataset is available to any interested researcher upon request.

Reference

1. Singer-Sam J, Tanguary RL, Riggs AD. Use of Chelex to improve the PCR signal from a small number of cells. Amplification 1989(3)11.

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