FOR THE RECORD

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Allele Frequency Distribution of STR Loci D11S1390 and D11S2008 in Two Populations

POPULATIONS: 105 unrelated Chinese Han volunteer donors, 100 unrelated Thai volunteer donors.

KEYWORDS: forensic science, D11S1390, D11S2008, short tandem repeat, polymerase chain reaction, population genetics, Chinese Han, Thai, DNA typing

Blood Specimens were obtained from 105 unrelated Chinese volunteer donors, 100 unrelated Thai volunteer donors respectively. DNA samples 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, MgCl₂1.5 mmol/L, Tag polymerase 1U.

Primer sequences:

D11S1390: 5'-GGGTGGAATCCTTCAGAATT-3', 5'-AAAT-ATTACCGGGC TTGGAC-3'; D11S2008: 5'-CATCCATCTCA-TCCCATCAT PCR -3', 5'-TTCACCCTACTGCC AACTTC-3'

PCR conditions (D11S1390): start at 94°C for 5 min, followed by 30 cycles consist of 30 s at 94°C, 45 s at 56°C, 55 s at 72°C followed by a 7 min extention at 72°C. The amplified products were electrophoresed in 6% polyacrylamide gel by using 100 bp ladders and allelic markers as size markers, followed by silver staining (2). The amplified products were examined by an ABI PRISMTM 310 Genetic Analyzer. Data were analyzed by The Promega Software, POWERSTATS. The complete dataset is available to any interested researcher by contacting kju@scu.edu.cn.

References

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.

The research was supported by the Chinese Natural Sciences Foundation (No.- 30221001) and Sichuan Youth Foundation (04ZQ026-027).

TABLE 1—Allele frequency distributions for the loci D11S1390 and D11S2008 in Two Populations as well as their forensic parameters in Chinese Han and Thai.

	D118	51390	D11S2008	
Allele	Thai $(N = 100)$	Chinese $(N = 105)$	Thai $(N = 100)$	Chinese $(N = 105)$
10	0.005	0.005		
11	0.255	0.252		
12	0.495	0.471		
13	0.190	0.238		
14	0.050	0.029	0.015	0.010
15	0.005	0.005	0.005	0.005
16			0.050	0.062
17			0.275	0.229
18			0.365	0.381
19			0.200	0.214
20			0.090	0.090
21				0.010
DP	0.831	0.796	0.890	0.890
Het	0.630	0.743	0.720	0.743
PE	0.316	0.498	0.444	0.498
PIC	0.60	0.60	0.70	0.71
HWE * test	P > 0.05	P > 0.05	P > 0.05	P > 0.05

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

2. Bassam BJ, Caetano-Anolles G, Gresshoff PM. Fast and sensitive silver staining of DNA in polyacrylamide gels. Anal Biochem 1991;196:80-3. [PubMed]

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