

FOR THE RECORD

Jian Guo Dong,¹ Ph.D.; Yi Ping Hou,¹ M.D.; Ying Bi Li,¹ M.D.; Jin Wu,¹ M.D.; Jian Pin Tang,¹ Ph.D.; and Qiang Ji,¹ Ph.D.

Allele Frequencies of Y-Chromosome STR Locus DYS445 in a Chinese Population

POPULATION: Chinese

KEYWORDS: forensic science, DNA typing, population genetics, Y-chromosome, short tandem repeats, polymerase chain reaction, Sichuan, China

Specimens of 126 unrelated male individuals were collected from Han ethnic group in Sichuan province of China. DNA was extracted from blood specimens using Chelex 100 method (1). DNA typing was carried out by PCR. Each PCR reaction contained 2 to 20 ng human genomic DNA, 1 × Taq buffer, 1.5 mM MgCl₂, 200 μM each nucleotide, 1.5 U Taq polymerase, 0.25 μM each primer in a total volume of 37.5 μL. In the PCR Protocol the DNA was initially denatured at 94°C for 1 min. This was followed with 94°C 50 s, 63°C 70 s, and 72°C for 7 s. A total of 38 cycles was carried out in a GenAmp PCR System 9600. The PCR products were analyzed using a horizontal nondenaturing polyacrylamide gel electrophoresis with a discontinuous buffer system (2). The gels were silver-stained (3). Allele determination was carried out by comparison with the sequenced human allele ladder, which was made in-house and contained all the alleles found in this study. Following the rec-

ommendations of the International Society of Forensic Genetics (4), the allele classification for the DYS445 locus was based on the number of repeat motifs. The parameters dealing with forensic genetics were calculated according to Hou's method (5).

The dataset can be accessed at <http://www.legalmed.org/dna/DYS445.htm>.

References

- Walsh BS, Petzger DA, Higuchi R. Chelex-100 as medium for simple extraction of DNA for PCR-based typing from forensic material. *Biotechniques* 1991;10:506–10.
- Hou Y, Gill P, Schmitt C, Staak M, Prinz M. Population genetics of three STR polymorphisms in a Chinese population. In: Bär W, Fiori A, Rossi U, editors. *Advances in forensic haemogenetics 5*. Berlin: Springer-Verlag, 1994;508–10.
- 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.
- Bär W, Brinkmann B, Budowle B, Carracedo A, Gill P, Lincoln P, et al. DNA recommendations; further report of the DNA Commission of the ISFH regarding the use of short tandem repeat systems. *Int J Legal Med* 1997;110:175–6.
- Hou YP, Zhang J, Li YB, Wu J, Zhang SZ, Prinz M. Allele sequences of six new Y-STR loci and haplotypes in Chinese Han population. *Forensic Sci Int* 2001;118(2–3):147–52.

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

TABLE 1—Alleles of DYS445 locus.

	9	10	11	12	13	14	
N	2	2	33	77	9	3	126
Frequencies	0.016	0.016	0.262	0.611	0.071	0.024	

Gene Diversity = 0.5563; Standard error = 0.0269; Discrimination probability = 0.5563; Probability of exclusion = 0.5563.

Additional information and reprint requests:

Yi Ping Hou, M.D.
West China School of Preclinical and Forensic Medicine
Sichuan University
Chengdu 610041, Sichuan
P. R. China