

FOR THE RECORD

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Allele Frequency of D13S1491 and D16S768 in Two Populations*

POPULATION: Chinese and Thai.

KEYWORDS: forensic science, population genetics, DNA typing, short tandem repeat, Han ethnic group, China, Thai population, Thailand, D13S1491, D16S768

Blood samples was collected from unrelated individuals of a Chinese Han population living in Chengdu and a Thai population from Thailand. Genomic DNA samples were extracted using the Chelex-100 method (1). The volume of PCR reaction for each locus was 20 μ L. The PCR products were analyzed by horizontal nondenaturing polyacrylamide gel electrophoresis with a discontinuous buffer system and then visualized by sliver staining (2). Data of population genetics and forensic science of the loci D13S1491 and D16S768 were analyzed using POWERSTATS program <http://www.promega.com> (3). The genotype distributions of the two loci were analyzed for Hardy–Weinberg equilibrium according to Hou’s method (4). No deviation from Hardy–Weinberg equilibrium was observed (Tables 1–4).

TABLE 1—Allele frequencies of D13S1491 and D16S768 in a Chinese population.

| Allele | Frequency | |
|--------|-------------------|------------------|
| | D13S1491 (N = 95) | D16S768 (N = 96) |
| 7 | 0.316 | |
| 8 | | |
| 9 | | 0.203 |
| 10 | 0.005 | 0.406 |
| 11 | 0.016 | 0.219 |
| 12 | 0.237 | 0.161 |
| 13 | 0.142 | 0.010 |
| 14 | 0.216 | |
| 15 | 0.068 | |
| Total | 1.000 | 1.000 |
| HWE* | $p > 0.05$ | $p > 0.05$ |

*Test for Hardy–Weinberg equilibrium.

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TABLE 2—Allele frequencies of D13S1491 and D16S768 in a Thai population.

| Allele | Frequency | |
|--------|-------------------|------------------|
| | D13S1491 (N = 97) | D16S768 (N = 97) |
| 7 | 0.191 | |
| 8 | | |
| 9 | | 0.186 |
| 10 | 0.005 | 0.459 |
| 11 | 0.026 | 0.206 |
| 12 | 0.247 | 0.139 |
| 13 | 0.170 | 0.010 |
| 14 | 0.247 | |
| 15 | 0.113 | |
| Total | 1.000 | 1.000 |
| HWE* | $p > 0.05$ | $p > 0.05$ |

*Test for Hardy–Weinberg equilibrium.

TABLE 3—Population genetics and forensic data of D13S1491 and D16S768 in a Chinese population.

| Locus | PIC | DP | P_m | EP | H_O | H_e |
|----------|------|-------|-------|-------|-------|-------|
| D13S1491 | 0.74 | 0.905 | 0.095 | 0.542 | 0.232 | 0.768 |
| D16S768 | 0.67 | 0.871 | 0.129 | 0.394 | 0.323 | 0.677 |

PIC, polymorphism information content; DP, power of discrimination; P_m , probability of match; EP, power of exclusion; H_O , observed heterozygosity; H_e , expected heterozygosity.

TABLE 4—Population genetics and forensic data of D13S1491 and D16S768 in a Thai population.

| Locus | PIC | DP | P_m | EP | H_O | H_e |
|----------|------|-------|-------|-------|-------|-------|
| D13S1491 | 0.77 | 0.905 | 0.095 | 0.747 | 0.124 | 0.876 |
| D16S768 | 0.65 | 0.854 | 0.146 | 0.497 | 0.258 | 0.742 |

PIC, polymorphism information content; DP, power of discrimination; P_m , probability of match; EP, power of exclusion; H_O , observed heterozygosity; H_e , expected heterozygosity.

The complete data of this study are available to any interested researcher or group by request to corresponding author Professor Zhang Lin at kjc@scu.edu.cn or accessed at <http://www.legalmed.org/dna/d13s1491.htm> or <http://www.fayi.cn/dna/d13s1491.htm>

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