

SHORT COMMUNICATION

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Distribution of D1S80 alleles in the Jordanian population

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Abstract This study demonstrates that the locus D1S80 is highly polymorphic, with 24 different alleles and 66 genotypes in 215 Jordanians. This data set conforms to Hardy-Weinberg expectations (HWE).

Key words D1S80 locus · VNTR · Allele frequency · Jordanian population

Introduction

Population data on the D1S80 locus can be useful for forensic, paternity testing and evolutionary studies [1–3]. This paper presents allele frequency data for the D1S80 locus in the Jordanian population.

Materials and methods

Blood samples from 215 unrelated Jordanians were collected, dried stains prepared and DNA was extracted as described previously [4]. Amplification and typing was carried out using standard protocols. The frequency of each allele was calculated and conformity to Hardy-Weinberg expectations (HWE) was determined as described previously [1].

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Results and discussion

This study demonstrates that D1S80 is highly polymorphic in the Jordanian population (Table 1). There were 24 different D1S80 alleles and 66 genotypes observed in 215

Table 1 Allele frequencies in the Jordanian population

| Allele | Frequency (%) |
|--------|---------------|
| < 14 | 0.23 |
| 14 | 0.23 |
| 15 | 0.00 |
| 16 | 0.23 |
| 17 | 0.00 |
| 18 | 16.05 |
| 19 | 0.23 |
| 20 | 1.16 |
| 21 | 4.42 |
| 22 | 5.12 |
| 23 | 1.63 |
| 24 | 38.84 |
| 25 | 3.49 |
| 26 | 2.33 |
| 27 | 0.47 |
| 28 | 6.98 |
| 29 | 5.81 |
| 30 | 0.47 |
| 31 | 5.58 |
| 32 | 1.40 |
| 33 | 0.00 |
| 34 | 0.93 |
| 35 | 0.23 |
| 36 | 0.47 |
| 37 | 0.70 |
| 38 | 0.00 |
| 39 | 0.23 |
| 40 | 0.00 |
| 41 | 0.00 |
| > 41 | 2.79 |
| Total | 100.02 |

Observed homozygosity = 0.228

Expected homozygosity (unbiased) = 0.194

HWE-homozygosity test ($p = 0.209$)

Likelihood ratio test

($p = 0.200$) and Exact test ($p = 0.155$)

Jordanians. The observed heterozygosity was 77.0% and the data are in agreement with HWE (Table 1).

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