

FOR THE RECORD

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Microsatellite Markers in the Population from Rio Grande Do Norte, Northeastern Brazil

POPULATION: The trihybrid population (admixture of Caucasians, Africans and Amerindians) of the State of Rio Grande do Norte, Northeastern Brazil

KEYWORDS: forensic science, population genetics, DNA typing, HUMTH01, TPOX, CSF1PO, LPL, F13B, D16S539, D7S820, D13S317

Samples of venous blood were collected using the anticoagulant ACD (citric acid 0.038 M; tribasic sodium citrate 0.075 M; dextrose 0.033 M), from 247 non-related, healthy individuals from the population of the State of Rio Grande do Norte, in Northeastern Brazil. The DNA was extracted by rapid mini salting-out and digestion with proteinase K (1). The PCR was performed in a Perkin-Elmer 2400 thermal cycler, using amplification protocols described in Promega Manual (Madison, WI). The amplified products underwent electrophoresis in a denaturing polyacrylamide gel in a manual sequencer from Amersham Pharmacia (SQ3 Sequencer). The statistical analysis was performed using the Genetic Data Analysis (2) and the PowerStat (3) softwares. The complete dataset is available in www.nlink.com.br/mauricio.

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TABLE 1—Allelic frequency and application of 8 STR loci in the population from the State of Rio Grande do Norte, Brazil.

Alleles	HUMTH01	TPOX	CSF1PO	LPL	F13B	D16S539	D7S820	D13S317
5	0.0020	...	...	...	...	...	...	...
6	0.1930	0.0180	...	...	0.1570	...	...	...
7	0.2670	0.0060	0.0120	...	0.0160	...	0.0120	...
8	0.1520	0.4610	0.0220	0.0020	0.1980	0.0120	0.1590	0.1000
9	0.1750	0.1400	0.0160	0.0510	0.2350	0.1710	0.1390	0.1100
9.3	0.2050	...	...	...	...	...	...	...
10	0.0060	0.0430	0.2570	0.4170	0.3940	0.0800	0.2760	0.0670
11	...	0.2490	0.3220	0.2650	...	0.2880	0.2140	0.2730
12	...	0.0830	0.3060	0.2240	...	0.2860	0.1610	0.2820
13	...	...	0.0590	0.0350	...	0.1470	0.0350	0.1390
14	...	...	0.0060	0.0060	...	0.0160	0.0040	0.0290
Forensic								
Matching Probability	0.0760	0.1390	0.1250	0.1430	0.1230	0.0840	0.0680	0.0700
Expressed as 1 in	13.1	7.2	8.0	7.0	8.2	11.9	14.7	14.3
Power of Discrimination	0.9240	0.8610	0.8750	0.8570	0.8770	0.9160	0.9320	0.9300
PIC	0.7600	0.6500	0.6800	0.6500	0.6800	0.7400	0.7800	0.7700
Paternity								
Power of Exclusion	0.5780	0.3810	0.5080	0.4000	0.4440	0.4910	0.6140	0.6140
Typical Paternity Index	2.3700	1.5100	1.9900	1.5700	1.7300	1.9100	2.6100	2.6100
Variability								
Homozygotes	0.2110	0.3320	0.2510	0.3180	0.2900	0.2610	0.1920	0.1920
Heterozygotes	0.7890	0.6680	0.7490	0.6820	0.7100	0.7390	0.8080	0.8080
Total Alleles	492	494	494	490	490	490	490	490