

For the Record

Uruguayan Population Data for Eight STR Loci (Using the PowerPlex 1.2™ Kit)

Sinthia Pagano, M.S.,¹ J. Carlos Alvarez, M.S.,²,
Carmen Entrala, M.S.,² Jose A. Lorente, M.D., Ph.D.,²,
Miguel Lorente, M.D., Ph.D.,² Bruce Budowle, Ph.D.,³
and Enrique Villanueva, M.D., Ph.D.²

Population: Montevideo, Uruguay; 188 unrelated persons.

Keywords: CSF1PO, TPOX, TH01, D16S539, D7S820, D13S317, D5S818, vWA, PowerPlex, Uruguay, population genetics, DNA typing

Blood samples were obtained by venipuncture, placed on FTA paper (Fitzco Corp., Minneapolis, MN), and the immobilized DNA washed according to the manufacturer's recommendations.

A 1-mm punch was placed in the PCR. The eight loci were amplified using the Gene Print 1.2 Kit (Promega Corp., Madison, WI)

¹ Laboratory of Criminalistics—DNA. Policia Técnica del Uruguay. Montevideo, R.O. Uruguay.

² Laboratory of Genetic Identification. Dept. de Medicina Legal. Facultad de Medicina. Universidad de Granada. E-18012 Granada, Spain.

³ Senior scientist FBI Laboratory. FBI Academy. Quantico, VA.

according to manufacturer's recommendations. The amplified products were separated by capillary electrophoresis using the ABI Prism 310 (PE Biosystems, Foster City, CA. Alleles were designated by comparison with the allelic ladders included in the kits and based on the number of repeat units.

The frequency of each allele for each locus was calculated from the numbers of each genotype in the sample set (i.e., the gene count method). Population statistics data were calculated as described in Budowle, et al. (1).

Summary data for the eight loci are shown in the table below. The complete data set is available to any interested researcher upon request. All loci except CSF1PO ($p = 0.037$) met Hardy-Weinberg expectations.

Acknowledgments

To the Fundacion Marcelino Botin for kindly supporting this study through the "Taller de Identificación Genética."

Reference

1. Budowle B, Moretti TR, Baumstark AL, Defenbaugh DA, Keys KM. Population data on the thirteen CODIS core short tandem loci in African Americans, U.S. Caucasians, Hispanics, Bahamians, Jamaicans and Trinidadians. J Forensic Sci 1999;44(6):1277-86.

Additional information and reprint requests:
Prof. Dr. Jose A. Lorente
Dept. Medicina Legal—University of Granada
Av. Madrid 11
E-18012 Granada, Spain
Tel: + 34 958 243546
Fax: + 34 958 246107
E-mail: jllorete@ugr.es

TABLE 1—Observed allele frequencies and descriptive statistics for the eight STR loci.

	D5S818	D13S317	D7S820	D16S539	vWA	TH01	TPOX	CSF1PO
5						0.003		
6						0.215	0.005	
7	0.021	0.005	0.016			0.247	0.011	
8	0.008	0.104	0.144	0.021		0.085	0.481	0.016
9	0.037	0.090	0.125	0.122		0.184	0.090	0.019
9.3						0.255		
10	0.066	0.064	0.242	0.093		0.011	0.061	0.266
11	0.356	0.290	0.255	0.338	0.003		0.303	0.311
12	0.322	0.266	0.170	0.253			0.048	0.327
13	0.184	0.125	0.045	0.144				0.059
14	0.003	0.056	0.003	0.029	0.072			0.003
15	0.003				0.117			
16					0.261			
17					0.322			
18					0.168			
19					0.048			
20					0.005			
21					0.005			
Obs. Homozygosity	0.287	0.191	0.239	0.229	0.266	0.176	0.378	0.335
Exp. Homozygosity	0.269	0.194	0.189	0.221	0.219	0.212	0.336	0.277
Homozygosity Test (p)	0.565	0.919	0.079	0.809	0.117	0.225	0.229	0.073
Exact test (p)	0.801	0.257	0.365	0.325	0.611	0.598	0.053	0.037
P.D.	0.884	0.932	0.936	0.917	0.921	0.915	0.842	0.870
P.E.	0.494	0.620	0.620	0.573	0.575	0.575	0.418	0.470