

For the Record

Keywords: forensic science, DNA typing, population genetics, short tandem, Argentina

Population Data on Eight STR Loci in Buenos Aires (Argentina)

D. A. Gangitano, M.Sc.,¹ G. J. Juvenal, Ph.D.,²
 J. A. Lorente, M.D., Ph.D.,³ B. Budowle, Ph.D.,⁴
 and R. A. Padula, M.Sc.¹

Blood samples from unrelated individuals were extracted using Chelex procedure (1). DNA samples (2 to 5 ng) were amplified and typed according to manufacturer's instructions (2). Data were analyzed using a program provided by R. Chakraborty (University of Texas School of Biomedical Sciences, Houston, Texas). Power of discrimination and probability of exclusion were calculated. The dataset can be accessed at: <http://www.cnea.gov.ar/cac/radiobiologia/str.doc>

References

- Walsh PS, Metzger DA, Higuchi R. Chelex 100 as a medium for simple extraction of DNA for PCR-based from forensic material. *Biotechniques* 1991;10:506-13.
- Promega Corp. GenePrint™ STR Systems (Silver Stain Detection), Revised ed., June, 1998.

¹ Chemical Laboratory Division, Federal Police, Argentina.
² Nuclear Biochemistry Division, CNEA-CONICET, Argentina.
³ Laboratory of Genetic Identification, Legal Medicine Department, University of Granada, Spain.
⁴ Forensic Science, FBI Academy, VA 22135.

TABLE 1—Allele frequencies in Argentina population.

Allele	FESFPSvWA	CSF1PO	TPOX	TH01	D16S539		D7S820	D13S317
N	123	113	140	140	140	122	119	124
5	...	...	...	...	0	0	...	...
6	...	...	0.0036	0.0036	0.2643	0	0	...
7	0	...	0	0.0036	0.2893	0	0.0042	0
8	0.0285	...	0	0.5286	0.1000	0.0164	0.1555	0.1613
9	0	...	0.0143	0.0857	0.1500	0.1762	0.0840	0.1573
9.3	...	...	...	...	0.1786	...	...	...
10	0.1707	...	0.2607	0.0536	0.0179	0.0984	0.3151	0.0444
11	0.5203	0	0.2714	0.2571	0	0.2910	0.2521	0.2379
12	0.2073	0	0.3607	0.0679	...	0.2254	0.1681	0.2177
13	0.0691	0	0.0786	0	...	0.1803	0.0210	0.1210
14	0.0041	0.0708	0.0071	...	...	0.0082	0	0.0605
15	...	0.1150	0.0036	...	...	0.0041	...	0
16	...	0.2876	...	...	...	...	...	...
17	...	0.2389	...	...	...	...	...	...
18	...	0.1903	...	...	...	...	...	...
19	...	0.0885	...	...	...	...	...	...
20	...	0.0044	...	...	...	...	...	...
21	...	0.0044	...	...	...	...	...	...
Homozygosity test*	0.781	0.417	0.648	0.878	0.043	0.384	0.846	0.586
Exact test†	0.936	0.709	0.967	0.614	0.055	0.704	0.949	0.191

N = number of individuals analyzed.

* χ^2_{dir} based on unbiased estimate with 2000 shufflings.

† Exact test based on 2000 shufflings.

Interclass correlations yielding $p < 0.05$ for pairwise comparisons: FESFPS/D7S820 and TH01/D7S820.

... means that allele not applicable to that locus.

All loci	Power of Discrimination	Power of Exclusion
	0.99999999	0.99803942