SIX Y-CHROMOSOME STR FREQUENCIES IN A POPULATION FROM CENTRAL SPAIN

Ana López-Parra, Sara Alvarez, Maria-Soledad Mesa, Fernando Bandrés, Ana Arratzio, Eduardo Arroyo-Pardo

Departamento de Toxicología y Legislación Sanitaria, Facultad de Medicina; Universidad Complutense de Madrid, Spain
Sección de Antropología, Departamento de Biología Animal I, Facultad de Ciencias Biológicas, Universidad Complutense de Madrid, Spain
Biotools, B & M Labs S. A. c/Valle de Tobalina 53 nave 43, 28021-Madrid, Spain

---

Population: 51 males from Vera-Jerte Valley, Cáceres province (Central Spain)

Keywords: forensic science, DNA typing, population genetics, DYS390, DYS391, DYS393, DYS434, DYS 437, DYS439, Spain

Specimens were collected from unrelated apparently healthy males, autochtonous to the geographic region of Vera-Jerte Valley (the four grandparents were born within the region). DNA was extracted from blood specimens using a standard phenol/chloroform procedure and typed in an ALF-Sequencer (Pharmacia) according to protocols and alleles kindly supplied by Peter de Knijff (1) for DYS390, DYS391, DYS393. Systems DYS434, DYS437 and DYS439 were typed according to Ayub et al (2) using allelic ladders from our laboratory. Frequencies were calculated through the gene counting method and gene diversity was estimated according to Nei (3).

A more complete data set can be accessed at http://www.ucm.es/info/antropo/trancho/eduardo/trabajos.htm

References

1. Chromosome Y microsatellite protocols and ladders, University of Leiden, The Netherlands, http://www.medfac.leidenuniv.nl/fldo/

2.- Ayub Q, Mohyuddin A, Qamar R, Mazhar K, Zerjal T, Mehdi SQ, Tyler-Smith C. Identification and characterization of a

novel human Y-chromosome microsatellites from sequence database information. Nucleic Acid Res 2000; 28: e8.

3.- Nei M. Molecular evolutionary genetics. Columbia University Press, New York, 1987.

LOCUS	ALLELES	N	%	DIVERSITY
DYS434	9	51	1,000	0,000
DYS437	8	18	0,353	0,491
	9	32	0,627	
	10	1	0,020	
DYS439	10	7	0,137	0,708
	11	16	0,314	
	12	21	0,412	
	13	7	0,137	
DYS390	22	2	0,039	0,607
	23	8	0,157	
	24	29	0,569	
	25	12	0,235	
DYS391	9	2	0,039	0,588
	10	27	0,529	
	11	19	0,372	
	12	3	0,059	
DYS393	12	7	0,137	0,482
	13	35	0,686	
	14	9	0,176	
COMBINED				0,988

HAPLOTYPES	DYS434	DYS437	DYS439	DYS390	DYS391	DYS393	N	%
1	9	8	10	24	10	12	1	0,020
2	9	8	10	24	10	13	2	0,039
3	9	8	10	24	11	13	1	0,020
4	9	8	10	25	10	14	1	0,020
5	9	8	11	24	10	13	1	0,020
6	9	8	11	24	11	12	1	0,020

7	9	8	11	25	10	13	1	0,020
8	9	8	11	25	12	12	1	0,020
9	9	8	12	23	10	13	2	0,039
10	9	8	12	24	10	12	1	0,020
11	9	8	12	24	11	13	2	0,039
12	9	8	12	24	11	14	1	0,020
13	9	8	12	25	11	13	1	0,020
14	9	8	13	22	10	12	1	0,020
15	9	8	13	24	10	13	1	0,020
16	9	9	10	23	10	13	1	0,020
17	9	9	10	24	10	13	1	0,020
18	9	9	11	23	10	13	1	0,020
19	9	9	11	23	10	14	1	0,020
20	9	9	11	24	10	13	3	0,059
21	9	9	11	24	11	13	3	0,059
22	9	9	11	25	10	13	2	0,039
23	9	9	11	25	11	13	1	0,020
24	9	9	11	25	12	14	1	0,020
25	9	9	12	23	10	13	1	0,020
26	9	9	12	23	10	14	1	0,020
27	9	9	12	23	11	13	1	0,020
28	9	9	12	24	9	12	1	0,020
29	9	9	12	24	9	13	1	0,020
30	9	9	12	24	10	13	3	0,059
31	9	9	12	24	11	13	2	0,039
32	9	9	12	25	11	12	1	0,020
33	9	9	12	25	11	13	1	0,020
34	9	9	12	25	11	14	1	0,020
35	9	9	12	25	12	13	1	0,020
36	9	9	13	24	10	14	1	0,020
37	9	9	13	24	11	13	2	0,039
38	9	9	13	24	11	14	1	0,020
39	9	10	13	22	10	14	1	0,020