

FOR THE RECORD

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Northwest Italian Population Data for Thirteen Tetrameric and Two Pentameric STR Loci

ABSTRACT: Italians residing in Piedmont (Northwest Italy)

KEYWORDS: forensic science, DNA typing, population genetics, Piedmont, Italians, D3S1358, TH01, D21S11, D18S51, Penta E, D5S818, D13S317, D7S820, D16S539, CSF1PO, Penta D, vWA, D8S1179, TPOX, FGA

Several studies on allelic frequencies of tetrameric STR loci (CODIS loci) in the Italian population have been published; however, data regarding the distribution of recently introduced pentameric loci are still scarce.

Blood/saliva samples were obtained from 147 unrelated Italians residing in Piedmont (North West Italy). Genomic DNA was isolated by means of spin columns (Macherey-Nagel, Düren, Germany). PCR amplification was performed according to the manufacturer's instruction using the GenePrint® PowerPlex™16 System (Promega Corporation, Madison, WI). The amplified products were detected with the 310 Genetic Analyzer (Applied Biosystems, Foster City, CA). Hardy-Weinberg equilibrium was evaluated by exact test using the software GENEPOP Version 3.3 (1).

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The complete data are available to any interested researcher at <http://www.dafml.unito.it/anatomy/torre/databaseitalians.htm>.

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References

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TABLE 1—Observed allele frequencies in the Northwest Italian population (n = 147.)

Allele	D3S1358	TH01	D21S11	D18S51	Penta E	D5S818	D13S317	D7S820	D16S539	CSF1PO	Penta D	vWA	D8S1179	TPOX	FGA
5					.085										
6		.211								.003					.003
7		.180			.129			.031			.003				
8		.126			.020		.119	.184	.037	.007	.010		.027	.503	
9		.201			.003	.054	.058	.119	.116	.020	.201		.010	.126	
9.3		.252													
10		.027		.010	.078	.075	.065	.276	.061	.303	.112		.071	.082	
11		.003		.010	.116	.316	.293	.228	.344	.279	.167		.071	.265	
12	.003			.156	.180	.374	.344	.129	.313	.347	.160		.102	.020	
13	.003			.139	.156	.163	.095	.034	.112	.037	.252		.330		
14	.071			.156	.068	.017	.027		.017	.003	.061	.102	.211		
15	.248			.153	.048						.020	.129	.153		
16	.241			.143	.037						.014	.160	.024		
17	.235			.092	.031							.303			
18	.180			.061	.024							.231			.014
19	.014			.024	.014							.065			.044
20	.003			.024	.010							.007			.102
20.2															.003
21				.014								.003			.228
21.2															.010
22				.014											.129
22.2															.010
23				.003											.163
24															.153
24.2			.003												.003
25															.102
26															.024
27			.014												.010
28			.143												.003
29			.214												
29.2			.007												
30			.224												
30.2			.044												
31			.058												
31.2			.109												
32			.010												
32.2			.119												
33.2			.048												
34			.003												
34.2			.003												
P* =	.560	.675	.086	.056	.612	.701	.413	.059	.383	.087	.352	.788	.971	.740	.486

* Probability value of exact test based on 5000 dememorization steps, 1000 batches and 1000 iterations per batch.