

For the Record

Allelic Distribution for Two Short Tandem Repeat loci:
D10S2325 and D20S161

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Population: Western Germany, unrelated people $n = 102$ for D10S2325; $n = 100$ for D20S161

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DNA extraction from venous blood and DNA quantification was done as described previously (1).

The components of the PCR were 5 ng of genomic DNA, 1.5 U Taq polymerase, 10 mM Tris-HCl pH 9.0, 50 mM KCl, 1.5 mM MgCl₂, 200 μM of each dNTP (Ready-To-Go™ PCR beads, Amersham Pharmacia Biotech), the final volume was brought to 25 μL with sterile double distilled water.

The primers were D10S2325 primer 1:5'-CTCACGAAA-GAAGCCTTCTG-3', primer 2:5'-GAGCTGAGAGATCACG-CACT-3' 2; amplification protocol: initial denaturation 94°C for 5min, 94°C for 1min, 61°C for 1min, 72°C for 2min; 30 cycles. D20S161 primer 1:5'-CCCCTTCAACTTGTCAGC-3', primer 2: 5'-TCCTTCCAACCTGGTATCTTG-3', 3; amplification protocol: initial denaturation 94°C for 5min, 94°C for 1min, 58°C for 1min, 72°C for 2min; 28 cycles. The PCR was carried out in a Trio-thermoblock (Biometra).

The PCR products were resolved by nondenaturing polyacrylamide gel electrophoresis with a discontinuous buffer system (4). Polyacrylamide gels (7.4% acrylamide) cast on Gelbond (Biozym),

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were 0.75 mm thick with 0.08 M tris formate in the gel and 0.28 M tris borate buffer in the agarose plugs. The electrophoresis was run up to 16 cm. Settings for power limitations were 1000 V, 40 mA, 15 W. The DNA fragments were visualized by silver staining.

The mean exclusion chance (ME) and the discrimination power (DP) was calculated according to Jones (5). Exact tests were performed using the DNA-view software (C. Brenner, Berkeley, CA) for checking the Hardy-Weinberg expectations.

The distribution of observed genotypes and allelic frequencies in our German population sample for D10S2325 is shown in Table 1, and for D20S161 in Table 2.

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TABLE 1—Observed allele frequencies and genotype values for D10S2325 in 102 unrelated German individuals.

Allele Frequencies					
	6	1	0.005		
	7	28	0.137		
	8	9	0.044		
	9	17	0.083		
	10	29	0.142		
	11	39	0.191		
	12	29	0.142		
	13	29	0.142		
	14	14	0.069		
	15	5	0.025		
	16	3	0.015		
	18	1	0.005		
Genotype Frequencies					
Genotypes	Number	Proportion	Genotypes	Number	Proportion
6-9	1	0.01	10-10	1	0.01
7-7	3	0.029	10-11	8	0.078
7-8	2	0.02	10-12	6	0.059
7-9	3	0.029	10-13	2	0.02
7-10	2	0.02	10-14	2	0.02
7-11	4	0.039	10-15	1	0.01
7-12	1	0.01	10-16	1	0.01
7-13	6	0.059	10-18	1	0.01
7-14	2	0.02	11-11	5	0.049
7-15	1	0.01	11-12	5	0.049
7-16	1	0.01	11-13	4	0.039
8-10	2	0.02	11-14	2	0.02
8-11	1	0.01	12-12	2	0.02
8-12	1	0.01	12-13	7	0.069
8-13	1	0.01	12-14	1	0.01
8-14	1	0.01	12-15	1	0.01
8-15	1	0.01	13-13	2	0.02
9-10	2	0.02	13-14	3	0.029
9-11	5	0.049	14-14	1	0.01
9-12	3	0.029	14-16	1	0.01
9-13	2	0.02			
9-15	1				

Heterozygosity: 0.87.

Mean exclusion chance (ME): 0.736.

Discrimination power (DP): 0.969.

P-value (exact test): 0.80483.

TABLE 2—*Observed allele frequencies and genotype values for D20S161 in 100 unrelated German individuals.*

Allele Frequencies		
14	1	0.05
15	1	0.05
16	4	0.02
17	41	0.205
18	94	0.47
19	40	0.2
20	11	0.055
21	8	0.04

Genotype Frequencies		
Genotypes	Number	Proportion
14-21	1	0.01
15-16	1	0.01
16-17	1	0.01
16-18	2	0.02
17-17	7	0.07
17-18	16	0.16
17-19	5	0.05
17-20	4	0.04
17-21	1	0.01
18-18	21	0.21
18-19	25	0.25
18-20	5	0.05
18-21	4	0.04
19-19	3	0.03
19-20	2	0.02
19-21	2	0.02

Heterozygosity: 0.692.
 Mean exclusion chance (ME): 0.46.
 Discrimination power (DP): 0.862.
 P-value (exact test): 0.16094.