

FOR THE RECORD

Thomas M. Reid,¹ Ph.D.; David A. Ingala,¹ B.S.; Christopher M. Kraemer,¹ B.S.; Wendy M. Dage,¹ B.S.; Christine Dieckhoner,¹ B.A.; Joseph Fortman,¹ B.S.; Diana M. Hodge,¹ B.A.; Kristie L. Johnson,¹ B.A.; Carla Oatman,¹ B.S.; Holly Schlotman,¹ B.S.; Christina Schuh,¹ A.A.S.; and Michael L. Baird,¹ Ph.D.

Distribution of HUMACTBP2 (SE33) Alleles in Three North American Populations

POPULATION: North American Black, Caucasian, and Hispanic

KEYWORDS: forensic science, SE33, population genetics, human identification, short tandem repeats

DNA samples were isolated from unrelated individuals from three North American populations: Black, Caucasian, and Hispanic, using a modified alkaline lysis method (1). The SE33 locus was amplified using the PowerPlex[®] ES Monoplex System, SE33 (Promega Corp., Madison, WI) according to the manufacturers recommendations. Amplified DNA was analyzed with an ABI Prism 3100 Genetic Analyzer (Applied Biosystems, Foster City, CA). Population data were analyzed for Hardy-Weinberg equilibrium (2) and other population parameters with DNA-View software, version 25.05 (3). The complete data set is available upon request via e-mail from tmr@dnacenter.com.

¹ DNA Diagnostics Center, Fairfield, OH.

References

1. Rudbeck L, Jorgen D. Rapid, simple alkaline extraction of human genomic DNA from whole blood, buccal epithelial cells, semen and forensic stains for PCR. *Biotechniques* 1998;25:588-92.
2. Gou SW, Thompson EA. Performing the exact tests of Hardy-Weinberg proportion for multiple alleles. *Biometrics* 1992;48:361-72.
3. <http://dna-view.com>

Additional information and reprint requests:

Thomas Reid
DNA Diagnostics Center
205 Corporate Court
Fairfield, OH 45014
E-mail: tmr@dnacenter.com

TABLE 1—*SE33 allele frequencies in three North American populations.*

Allele	Black		Caucasian		Hispanic	
	Number	Frequency	Number	Frequency	Number	Frequency
11					1	0.005
a11.2	1	0.005			1	0.005
12	1	0.005				
13	2	0.01	2	0.01		
13.2	1	0.005				
14	12	0.06	11	0.055	3	0.015
15	8	0.04	10	0.05	6	0.03
16	12	0.06	10	0.05	8	0.04
16.2	1	0.005				
17	18	0.09	7	0.035	28	0.14
18	24	0.12	13	0.065	31	0.155
19	29	0.145	20	0.1	16	0.08
20	18	0.09	10	0.05	12	0.06
20.2	1	0.005	2	0.01	1	0.005
21	10	0.05	6	0.03	9	0.045
21.2			2	0.01	2	0.01
22	3	0.015			1	0.005
22.2	1	0.005	7	0.035	5	0.025
23			1	0.005		
23.2	4	0.02	7	0.035	5	0.025
24	1	0.005				
24.2	3	0.015	13	0.065	6	0.03
25.2	6	0.03	5	0.025	2	0.01
26	2	0.01				
26.2	5	0.025	13	0.065	14	0.07
27.2	10	0.05	10	0.05	12	0.06
28			1	0.005		
28.2	13	0.065	19	0.095	9	0.045
29.2	9	0.045	12	0.06	16	0.08
30.2	4	0.02	9	0.045	5	0.025
31.2			8	0.04	2	0.01
32.2			1	0.005	2	0.01
33	1	0.005	1	0.005	1	0.005
33.2					1	0.005
34					1	0.005
<i>n</i>	200		200		200	

TABLE 2—*SE33 population parameters in three North American populations.*

Parameter	Black	Caucasian	Hispanic
H-W Equilibrium, exact test (<i>p</i>)	0.081	0.080	0.701
Observed Heterozygosity	0.940	0.930	0.940
Expected Heterozygosity	0.927	0.944	0.924
Power of Discrimination (PD)	0.990	0.994	0.989
Power of Exclusion (PE)	0.847	0.882	0.838
Typical Paternity Index (PI)	7.290	8.590	7.310