

For the Record

Allele Frequency Distributions for Four VNTR Loci in the Chinese Han Population

Mei Yun Wu, M.D.,¹ Guang Yun Sun, Ph.D.,¹
Dai Xin Huang, Ph.D.,¹ Lin Zhang, Ph.D.,¹ and
Yu Bo Chen, Ph.D.¹

Population: Han population living in Chengdu, China

Keywords: DNA typing, population genetics, short tandem repeats, Han population, polymerase chain reaction, China

Specimens were collected from unrelated volunteer blood donors. DNA was obtained from blood specimens using the organic extraction (1). DNA typing by PCR, using 20 ng target DNA. Primer sequences: D4S43: 5'-gac cac aga gag ctt agt gga gct t-3',

5'-gac cac ttc act gac atc cac atc t-3'; D4S111: 5'-tag gtg tct cct cag aga gg-3', 5'-agg acc tgg tgg aca cct ca-3'; HVR-Ig: 5'-ggg ccc tgt ctg agc tgg gga-3', 5'-tgg cct ggc tgc cct gag cag-3'; Ha-ras: 5'-gag cta gca ggg cat gcc gc-3', 5'-agc acg gtg tgg aag gag cc-3'. PCR conditions: D4S43: 30 cycles of 1 min at 94°C, 1 min at 55°C, 1 min, 30 s at 72°C followed by a 10 min extension at 72°C; D4S111: start at 95°C of 7 min, 30 cycles of 1 min at 93°C, 1 min at 65°C, 1 min, 30 s at 71°C followed by a 10 min extension at 71°C; HVR-Ig: 30 cycles of 1 min at 94°C, 1 min at 65°C, 2 min at 72°C followed by a 10 min extension at 72°C; Ha-ras: 30 cycles of 1 min at 94°C, 2 min at 65°C, 4 min at 71°C followed by a 10 min extension at 71°C. The amplified products of D4S43 and D4S111 were electrophoresed in 2% ethidium bromide stained agarose gel, while those of HVR-Ig and Ha-ras were electrophoresed in 1.5% ethidium bromide stained agarose gel by using PBR322/HaeIII for D4S43, 100bp ladder for both D4S111 and HVR-Ig and 123 bp ladder for Ha-ras as size marker. Data were analyzed by The Promega Software, POWERSTATS. Chi-square test was carried out for testing Hardy-Weinberg equilibrium for each locus.

The complete data set is available to any interested researcher upon request.

Reference

1. Sambrook J, Fritsch EF, Maniatis T. Molecular cloning. A laboratory manual. 2nd ed. Cold Spring Harbor NY: Cold Spring Harbor Laboratory Press, 1989.

¹ College of Forensic Medicine, West China University of Medical Sciences, No. 17, Section 3, South Renmin Road, Chengdu (610041), The People's Republic of China. E-mail: meiyun@public.sc.cninfo.net

Allele	D4S43 (n = 107)	D4S111 (n = 110)	HVR-Ig (n = 114)	Ha-ras (n = 119)
A1	0.897	0.214	...	...
A2	0.065	0.241	...	...
A3	0.023	0.545	...	...
A4	0.005	...	...	...
A5	0.009	...	...	...
5	...	...	0.759	...
6	...	...	0.009	...
7	...	...	0.022	...
8	...	...	0.044	...
9	...	...	0.096	...
10	...	...	0.004	...
13	...	...	0.066	...
859 bp	...	...	...	0.004
915 bp	...	...	...	0.004
971 bp	...	...	...	0.025
999 bp	...	...	...	0.050
1027 bp	...	...	...	0.307
1111 bp	...	...	...	0.450
1167 bp	...	...	...	0.004
1335 bp	...	...	...	0.025
1475 bp	...	...	...	0.004
1559 bp	...	...	...	0.008
1839 bp	...	...	...	0.101
2595 bp	...	...	...	0.017
DP	0.284	0.765	0.599	0.781
H	0.121	0.618	0.298	0.681
PE	0.011	0.313	0.063	0.399
PIC	0.180	0.530	0.390	0.640

Based on Chi-square test, the four loci meet Hardy-Weinberg equilibrium expectations ($p > 0.05$).

DP: discriminating power.

H: heterozygosity.

PE: power of exclusion.

PIC: polymorphism information content.