

FOR THE RECORD

Chunmei Shen,^{1,2,3} *M.Sc.* and Shengbin Li,^{1,2,4} *Ph.D., M.D.*

Y-STRs Haplotypes of Han Population in Xi'an of China

POPULATION: Chinese Han population

KEYWORDS: forensic science, DNA typing, silver staining, Y-STRs haplotypes, Chinese Han population, China, population genetics

The studied samples were obtained from 105 unrelated healthy male individuals of Chinese Han population living in Xi'an city of China. The whole blood was obtained by venipuncture and collected into EDTA tubes. Genomic DNA was extracted using the Chelex-100 protocol as described by Walsh et al. (1). Single PCR amplification for five Y-chromosomal STRs loci (DYS438, DYS439, DYS389 I, DYS389 II, and DYS392) was performed in a final volume of 20 μ L. The primer sequences and PCR cycling reactions of five Y-STRs loci were obtained from Genbank (www.gdb.org). Detection and genotyping of five Y-STRs loci PCR products were carried out on polyacrylamide denaturing gel electrophoresis by using silver staining. Haplotypes were estimated by counting method. Haplotypes and gene diversities were estimated according to Nei (2). The gene diversities value of DYS438, DYS439, DYS389 I, DYS389 II, and DYS392 were 0.4668, 0.7152, 0.6928, 0.7531 and 0.8355, respectively. Eighty-eight different haplotypes observed in 105 male individuals, 74 were unique, while 14 haplotypes oc-

curred more than once. The haplotype diversity for 5 Y-STRs loci was 0.9969, and the discrimination capacity was 0.9874.

The complete data are available via electronic mail from corresponding author: shbinlee@mail.xjtu.edu.cn

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References

1. Walsh PS, Metzger DA, Higuchi R. Chelex 100 as a medium for simple extraction of DNA for PCR-based from forensic material, *Biotechniques* 1991;10:506-13. [\[PubMed\]](#)
2. Nei M. *Molecular evolutionary genetics*. New York: Columbia University Press, 1987.

Additional information and reprint requests:
Sheng-bin Li, Ph.D., M.D.

The Key Laboratory of Environment and Gene Related to Diseases
Ministry of Education
The Key Laboratory of Public Health of Ministry for Forensic Sciences
Xi'an Jiaotong University
Yan Ta West Road No.76
Xi'an 710061, Shaanxi
P. R. China
E-mail: shbinlee@mail.xjtu.edu.cn

¹ The Key Laboratory of Environment and Gene Related to Diseases, Ministry of Education, Xi'an Jiaotong University, Xi'an 710061, Shaanxi, P. R. China.

² The Key Laboratory of Public Health of Ministry for Forensic Sciences, Xi'an Jiaotong University, Xi'an 710061, Shaanxi, P. R. China.

³ Shaanxi Blood Center, Xi'an Blood Center, Xi'an 710061, Shaanxi, P. R. China.

⁴ Beijing Genome Institute, Airport Industrial ZoneB-6, Beijing 101300, Beijing, P. R. China.

TABLE 1—*Y-STRs haplotypes in 105 unrelated males of Han population in Xi'an City, China.*

Haplotype	<i>n</i>	Frequency	DYS438	DY439	DYS389 I	DYS389 II	DYS392
H1	1	0.0095	9	10	12	28	12
H2	1	0.0095	9	10	14	30	10
H3	1	0.0095	9	11	11	28	13
H4	1	0.0095	9	11	12	28	11
H5	1	0.0095	9	11	12	28	12
H6	1	0.0095	9	11	12	28	14
H7	1	0.0095	9	11	13	31	11
H8	1	0.0095	9	11	15	28	10
H9	1	0.0095	9	12	12	28	13
H10	2	0.0190	9	12	12	27	14
H11	1	0.0095	9	12	12	27	15
H12	1	0.0095	9	12	14	32	13
H13	1	0.0095	9	13	12	28	11
H14	1	0.0095	9	13	13	27	10
H15	1	0.0095	10	9	12	27	13
H16	1	0.0095	10	10	11	28	10
H17	1	0.0095	10	10	12	28	10
H18	2	0.0190	10	10	12	29	10
H19	1	0.0095	10	10	12	31	10
H20	1	0.0095	10	10	12	27	11
H21	1	0.0095	10	10	12	29	11
H22	1	0.0095	10	10	12	32	11
H23	2	0.0190	10	10	12	29	12
H24	1	0.0095	10	10	12	28	13
H25	1	0.0095	10	10	12	30	13
H26	1	0.0095	10	10	12	28	14
H27	1	0.0095	10	10	13	30	10
H28	1	0.0095	10	10	13	29	11
H29	1	0.0095	10	10	13	29	12
H30	1	0.0095	10	10	13	28	13
H31	2	0.0190	10	10	13	29	14
H32	1	0.0095	10	10	15	28	12
H33	1	0.0095	10	11	10	28	10
H34	1	0.0095	10	11	11	28	11
H35	1	0.0095	10	11	11	28	13
H36	1	0.0095	10	11	11	28	14
H37	2	0.0190	10	11	12	29	10
H38	1	0.0095	10	11	12	28	11
H39	1	0.0095	10	11	12	29	11
H40	1	0.0095	10	11	12	28	12
H41	1	0.0095	10	11	12	30	12
H42	2	0.0190	10	11	12	27	13
H43	1	0.0095	10	11	12	28	15
H44	1	0.0095	10	11	13	28	10
H45	2	0.0190	10	11	13	29	11
H46	1	0.0095	10	11	13	30	11
H47	3	0.0285	10	11	13	29	13
H48	1	0.0095	10	11	14	30	11
H49	1	0.0095	10	11	14	29	13
H50	1	0.0095	10	11	14	30	14
H51	1	0.0095	10	12	12	29	10
H52	1	0.0095	10	12	12	30	11
H53	1	0.0095	10	12	12	30	12
H54	1	0.0095	10	12	12	27	13
H55	1	0.0095	10	12	12	28	13
H56	1	0.0095	10	12	12	30	14
H57	2	0.0190	10	12	12	28	15
H58	1	0.0095	10	12	13	29	11
H59	1	0.0095	10	12	13	30	11
H60	3	0.0285	10	12	13	28	12
H61	1	0.0095	10	12	13	29	15
H62	1	0.0095	10	12	13	30	15
H63	1	0.0095	10	12	14	28	9
H64	1	0.0095	10	12	14	29	10
H65	2	0.0190	10	12	14	30	12
H66	1	0.0095	10	12	14	31	13
H67	1	0.0095	10	12	14	28	15
H68	1	0.0095	10	12	15	32	12
H69	1	0.0095	10	13	12	29	13
H70	1	0.0095	10	13	14	29	11
H71	1	0.0095	10	13	15	29	12
H72	1	0.0095	10	13	15	30	13

TABLE 2—Continued.

Haplotype	<i>n</i>	Frequency	DYS438	DY439	DYS389 I	DYS389 II	DYS392
H73	1	0.0095	11	10	12	30	12
H74	1	0.0095	11	10	13	31	11
H75	1	0.0095	11	10	14	29	13
H76	1	0.0095	11	11	11	30	13
H77	1	0.0095	11	11	12	32	10
H78	2	0.0190	11	11	12	28	14
H79	1	0.0095	11	11	13	28	10
H80	1	0.0095	11	11	14	29	15
H81	2	0.0190	11	12	12	28	14
H82	1	0.0095	11	12	13	27	13
H83	1	0.0095	11	12	14	28	12
H84	1	0.0095	11	12	14	29	14
H85	1	0.0095	11	13	15	30	14
H86	1	0.0095	12	10	12	30	13
H87	2	0.0190	10	10	12	30	10
H88	2	0.0190	10	12	13	28	15
D			0.4668	0.7152	0.6928	0.7531	0.8355

n: Number of individuals observed for each haplotype.

D: Gene diversity value of Y-STRs loci.