

**Supplement 1.** The comparison of mtDNA hypervariable I region (np 16,024 to 16,365) based diversity parameters among current and previously studied subpopulations of India

Parameter	Present study	Southeast Indian (a)	North Indian (b)	Indian Muslim (c)	Northeast Indian (d)	Indian Brahmins (e)	Southern Indian (f)	Kashmiri (g)
Genetic diversity	0.9819	0.9648	0.9513	0.9908	0.9874	0.9809	0.6487	0.9919
Nucleotide diversity	0.0202 +/- 0.010	0.0173 +/- 0.0092	0.0173 +/- 0.0094	0.0163 +/- 0.0087	0.0183 +/- 0.00968	0.0167 +/- 0.0090	0.0040 +/- 0.0027	0.0172 +/- 0.0091
Mean number of pairwise differences	6.9638 +/- 3.3192	5.9808 +/- 2.8851	5.9394 +/- 2.9032	5.6151 +/- 2.6998	6.3623 +/- 3.0284	5.7655 +/- 2.7946	1.3694 +/- 0.8550	5.9379 +/- 2.8411
Random mach probability (P)	0.03444	0.048641	0.07580	0.01127	0.01757	0.03404	0.36051	0.01123
Power of discrimination (PD)	0.9655	0.9513	0.9241	0.9887	0.9824	0.9650	0.6394	0.9888
Sample size	60	72	35	471	196	66	71	317

a: Kumar *et al.*, 2008; b: Chaubey *et al.*, 2008; c: Easwarkhanth *et al.*, 2010; d: Rej *et al.*, 2017; e: Verma *et al.*, 2018; f: Sylvester *et al.*, 2018; g: Rakha *et al.*, 2016

**Supplement 2.** mtDNA control region haplogroups for 60 unrelated Indian Muslims.

Sample	HG	HVI	HVII	HVIII#
1	M65	16075, 16092, 16189, 16193.1C, 16223	73, 152, 263, 309.1C, 315.1C	489, 511
2	M57b	16148, 16223, 16311	73, 146, 189, 263, 315.1C	489
3	R5a2	16266, 16304, 16311, 16356	73, 152, 263, 315.1C	CRS
4	M5a2a1a	16129, 16223, 16265	73, 263, 315.1C	489
5	M5	16129, 16223	73, 195, 200, 263, 309.1C, 309.2C, 315.1C	489
6	M2b	16169.1C, 16183, 16189, 16223, 16274, 16319, 16320	73, 152, 182, 195, 263, 315.1C	447, 489, 523D, 524D
7	J1	16069, 16126, 16183, 16189, 16243	73, 228, 263, 295, 315.1C, 354, 329	462, 489
8	M30b	16129, 16192, 16223, 16243, 16278, 16295	73, 152, 195, 263, 309.1C, 309.2C, 315.1C	489, 523D, 524D
9	M2b	16169.1C, 16183, 16189, 16223, 16256, 16274, 16319, 16320	73, 152, 182, 195, 263, 315.1C	447, 489, 523D, 524D
10	R8a1a3	16187, 16242, 16292	73, 263, 315.1C	508
11	M*	16086, 16223	73, 263, 315.1C	489, 574
12	R5a2	16266, 16304, 16311, 16356	73, 152, 263, 315.1C	522D, 523D
13	U7a3b	16187, 16207, 16309, 16318	73, 151, 152, 188, 263, 309.1C, 315.1C	522D, 523D

**Supplement 2 (continued).** mtDNA control region haplogroups for 60 unrelated Indian Muslims.

Sample	HG	HVI	HVII	HVIII#
14	M2b	16169.1C,16183,16189,16223, 16256, 16274, 16319, 16320	73, 152, 182, 195, 263, 315.1C	447, 489, 523D, 524D
15	M49	16223, 16234, 16295, 16311	73, 263, 309.1C, 315.1C	489
16	J1C	16069, 16126, 16183, 16189, 16243	73, 228, 263, 295, 315.1C, 324, 329	462, 489
17	U2a	16051, 16206, 16291	73, 263, 315.1C	573.1C
18	M*	16223, 16249, 16256, 16324, 16362	73, 263, 315.1C	489, 524.1A, 524.1C
19	N5	16051, 16111, 16223, 16311	73, 263, 309.1C, 315.1C	CRS
20	M3a1a	16126, 16223	73, 204, 263, 315.1C	482, 489
21	M35a	16093, 16223	73, 146, 199, 263, 315.1C	482, 489
22	U4'9	16355, 16361	73, 195, 263, 309.1C 309.2C, 315.1C	499, 574
23	M18b	16213, 16223, 16318, 16325	73, 246, 263, 309.1C, 315.1C	489
24	M65	16075, 16092, 16189, 16193.1C, 16223	73, 152, 263, 309.1C, 315.1C	489, 511
25	R7ab	16189, 16259, 16260, 16261, 16297, 16319, 16324, 16362	73, 263, 282, 315.1C	CRS
26	U2b2	16051, 16209, 16239, 16352, 16353	73, 146, 152, 234, 263, 315.1C	CRS
27	R8a1a3	16261, 16292	73, 195, 214, 263, 315.1C	CRS
28	R8a1a3	16292	73, 263, 315.1C	CRS
29	T2	16126, 16153, 16294, 16296	73, 152, 263, 315.1C	CRS
30	T2	16126, 16153, 16294, 16296	73, 152, 263, 315.1C	CRS
31	M2b	16169.1C, 16183, 16189, 16223, 16274, 16319, 16320	73, 152, 182, 195, 263, 315.1C	447, 489, 523D, 524D
32	M35a	16093, 16223	73, 199, 263, 315.1C	482, 489
33	J2a	16069, 16126, 16183, 16189, 16243	73, 152, 182, 195, 263, 315.1C	447, 489, 523D, 524D
34	M2b	16169.1C,16183,16189,16193.1C,16223,16274, 16319, 16320	73, 152, 182, 195, 263, 315.1C	447, 489, 523D, 524D
35	M66b	16184, 16223, 16311	73, 150, 189, 195, 198, 204, 207, 263, 309.1C, 315.1C	489, 524.2A, 524.2C
36	J1c	16069, 16126, 16183, 16189, 16243	73, 228, 263, 295, 315.1C, 324, 329	462, 489

**Supplement 2 (continued).** mtDNA control region haplogroups for 60 unrelated Indian Muslims.

Sample	HG	HVI	HVII	HVIII#
37	J1c	16069, 16126, 16183, 16189, 16243	73, 228, 263, 295, 315.1C, 324, 329	462, 489
38	J1c	16069, 16126, 16183, 16189, 16243	73, 228, 263, 295, 315.1C, 324, 329	462,489
39	M2a1a	16223, 16270, 16319, 16352	73, 195, 204, 263, 309.1C, 315.1C	447, 489
40	T1b	16126, 16163, 16183, 16189, 16243, 16294, 16309, 16346	73, 263, 309.1C, 315.1C	CRS
41	U7a	16153, 16309, 16318	73, 151, 152, 189, 263, 315.1C	522D,523D
42	M35a	16093, 16223	73, 199, 263, 315.1C	482, 489
43	R8a1a3	16261, 16292	73, 195, 214, 263, 315.1C	CRS
44	M35a	16093, 16223	73, 199, 263, 294, 309.1C, 315.1C	482, 489
45	T1b	16126, 16163, 16183, 16189, 16243, 16294, 16309, 16346	73, 263, 309.1C, 310, 315.1C	CRS
46	R*	16249	73, 263, 309.1C, 315.1C	CRS
47	M35a	16223	73, 199, 263, 309.1C, 315.1C	482, 489, 523D, 524D
48	HV14	16304, 16311	73, 150, 263, 315.1C	480
49	M14	16092, 16129, 16192, 16223	73, 234, 263, 315.1C, 334	489
50	M6a	16223, 16231, 16356, 16362	73, 263, 315.1C	461, 489, 523D, 524D
51	R7ab	16260, 16261, 16311, 16319, 16362	73, 195, 263, 309.1C, 315.1C	489
52	M3	16126, 16223, 16311	73, 263, 309.1C, 315.1C	482, 489, 574
53	M4'67	16148, 16223, 16311	73, 263, 309.1C, 315.1C	489
54	R7a'b	16188, 16214, 16260, 16261, 16311, 16319, 16362	73, 195, 263, 315.1C	522D, 523D
55	M6a1a	16213, 16223, 16231, 16356, 16362	73, 153, 263, 309.1,315.1C	461, 489, 523D, 524D
56	T1b	16126, 16163, 16182, 16183, 16189, 16243, 16294, 16309, 16346	73, 263, 309.1C, 315.1C	CRS
57	T2	16126, 16153, 16294, 16296	73, 152, 263, 315.1C	CRS
58	M*	16223, 16325	73, 186, 263, 315.1C	489,523D, 524D
59	M5a4	16129, 16223, 16224, 16261, 16293	73,146,263,309.1C, 315.1C	489
60	M35a	16223	73, 199, 263, 309.1C, 315.1C	482, 489, 523D, 524D

HG: haplogroup names; .1, .2: insertions; D: deletions; \*:unclassified; #: Samehsalari and Chandrasekar 2021.