Supplemental Table 1 Coding region sites tested by RFLPs analysis.

Haplogroup	*Restriction site*	*Primers*	*Amplicon (bp)*
A	+663HaeIII	L550 5’-TAACCCCATACCCCGAACCA	195
		H706 5’-GGTGAACTCACTGGAACGGG	
B	(CCCCCTCTA) del	L8215 5’-ACAGT TTCATGCCCA TCGTC	121
		H8297 5’-ATGCTAAGTTAGCTTTACAG	
C	+13262 AluI	L13192 5’-GCTTAGGCGCTATCACCACTC	232
		H13384 5’-ATATCTTGTTCATTGTTAAG	
D	-5176 AluI	L5170 5'-CTACTACTATCTCGCACCTG	331
		H5464 5' -GTAGGAGTAGCGTGGTAA	
F	-12406 HincII	L12181 5'- AAAGCTCACAAGAACTGCTAACTCATGC	340
		H12541 5'- GGTTGTGGCTCAGTGTCAGTTCG	
G	+4831 HhaI	L4711 5'- CCGGACAATGAACCATAACCAATACTACCA	259
		H4950 5' -CAACTGCCTGCTATGATGGA	
H	-7025 AluI	L6841 5'- AAGCAATATGAAATGATCTG	243
		H7132 5'- GCGTAGGTTTGGTCTAG	
HV	-14766MseI	L14640 5’ACCCCACAAACCCCATTACT	238
		H14837 5’ AGGAGTGAGCCGAAGTTTCA	
preHV	+11718HeIII	L11580 5'-CCATCTGCCTACGACAAACA	166
		H11745 5' - AGGCAGAATAGTAATGAGGATGTAGG	
preJT	+4216 N1aIII	L3981 5’-TATTCTTCATAGCCGAATAC	444
		H4395 5'-AGCTGACCTTACTTTAGGAT	
JT	-11251 Tsp509I	L11163 5’-CTTGGCTATCATCACCCG	276
		H11402 5’-ACATGGGCTTTAGGGAGTCA	
I	+10028AluI	L9943 5'-ATGTGGTTTGACTATTTCTG	326
		H10268 5'-GGCAATTTCTAGATCAAATA	
L1/L2	+3592HpaI	L3408 5’-CTAGGCTATATACAACTACGC	341
		H3701 5’-AGATTGTTTGGGCTACTGCTCGCAGTG	
L2d	-3693MboI	L3408 5’-CTAGGCTATATACAACTACGC	341
		H3701 5’-AGATTGTTTGGGCTACTGCTCGCAGTG	
M	+10397AluI	L10290 5’-TCCTTTTACCCCTACCATGAG	305
		H10557 5’-TTCCTTCTAGGCATAGTAG	
N	+10871MnlI	L10765 5’-CTAAA CCTACTCCAA TGCTA	282
		H11009 5’-GATAGTGGTTCACTGGATAA	
R	+12705 MboII	L12549 5' AACCCAAACAACCCAGCTCT	353
		H12898 5' ATGCTAAGGCGAGGATGAAA	
U	+12308 HinfI	L12103 5' - CTCAACCCCGACATCATTACC	138
		H12309 5' ATTACTTTTTGGAGTTGCACCAAGATT	
W	-8994 HeIII	L8845 5'- CCTAGCCATGGCCATCC	356
		H9161 5'- GGCTTACTAGAAGTGTGAAAACGT	
X	-1715 DdeI	L1616 5' - AACACAAAGCACCCAACTTACACTTAGGAG	227
		H1873 5'- CCTTGGCTCTCCTTGCAAAGTT	
T	+13366 BamHI	L13192 5’-GCTTAGGCGCTATCACCACTC	232
		H13384 5’-ATATCTTGTTCATTGTTAAG	

Supplemental Table 2 Population samples of Middle Eastern, Caucasian, European, Central Asian, Arabian/North African, Indian and Pakistani ancestry used for MDS and Median Joining networks computations.

Population	*Acronym*	*N*	*Reference*[a]
Abazinians	Aba	23	Nasidze and Stoneking 2001
Adygeians	Ad	50	Macaulay et al.1999
Albania	Alb	42	Bosch et al. 2006
Algeria	Alg	85	Corte-Real et al. 1996
Altai	Alt	16	Shields et al. 1993
Arabian Peninsula	ArP	43	Behar 2008
Armenia	Arm2	42	Nasidze and Stoneking 2001
Aromuns	Aro	175	Bosch et al. 2006
Azerbaijan	Az2	41	Nasidze and Stoneking 2001
Bangladesh	Ban	30	Metspalu et al. 2004
Bosnia	Bos	134	Babalini et al. 2005
Bukharan Arabs	Bar	20	Comas et al. 2004
Bulgaria	Bul	30	Calafell et al. 1996
Byelorussia	Bel	55	Belayeva et al. 2003
Chechenians	Che	23	Nasidze and Stoneking 2001
Cherkessians	Chk	44	Nasidze and Stoneking 2001
Crimean Tatars	Tat	20	Comas et al. 2004
Croatians	Cro	96	Babalini et al. 2005
Czech Republic	CzR	82	Richards et al. 2000
Dargins	Dar	37	Nasidze and Stoneking 2001
Druze	Dru	90	Macaulay et al. 1999
Dungans	Dun	16	Comas et al. 2004
Egypt	Egy	124	Stevanovitch et al. 2003
Georgia	Geo	102	Nasdize and Stoneking 2001; Comas et al. 2000
Greeks	Gre	25	Bosch et al. 2006
Hungarians Csango	Ung	181	Brandstätter et al. 2007
India Chenchu	Ich	96	Kivisild et al. 2003
India Gujarat	Igu	57	Thangaraj et al. 2006
India Karnataka	Ika	201	Thangaraj et al. 2006
India Kerala	Ike	228	Thangaraj et al. 2006
India Koya	Iko	80	Kivisild et al. 2003
India Maharastra	Ima	117	Thangaraj et al. 2006
India Pradesh	Pra	121	Thangaraj et al. 2006
India Tamil Nadu	Ita	149	Kivisild et al. 2003
India WestBengal	IWB	196	Kivisild et al. 2003
Ingusch	Ing	35	Nasidze and Stoneking 2001
Iran	Irn	20	Comas et al. 2004
Iraq	Irq	52	Richards et al. 2000
Karakalpaks	Kar	19	Comas et al. 2004
Kazaks	Kaz1	55	Comas et al. 1998
Kazaks	Kaz2	43	Comas et al. 2004
Kazaks	Kaz3	20	Yao et al. 2004; Comas et al. 2004

Khoremians	Kho	20	Comas et al. 2004
Kirghiz highland	KirH	47	Comas et al. 1998
Kirghiz lowland	KirL	48	Comas et al. 1998
Kurds	Kur	29	Comas et al. 2000
Kyrgyzs	Kyr	20	Comas et al. 2004
Macedonia	Mac	37	Bosch et al. 2006
Moroccans	MarA	32	Rando et al. 1998
Moroccans Berbers	MarB	60	Rando et al. 1998
Pakistan Baluch	PkBal	39	Quintana-Murci et al. 2004
Pakistan Brahui	PkBra	39	Quintana-Murci et al. 2004
Pakistan Karachi	PkKar	98	Quintana-Murci et al. 2004
Pakistan Parsi	PkPar	44	Quintana-Murci et al. 2004
Pakistan Sindhi	PkSin	23	Quintana-Murci et al. 2004
Romania Costanta	Rom1	59	Bosch et al. 2006
Romania Ploiesti	Rom2	46	Bosch et al. 2006
Russian and Ukrainians	Rus	241	Belayeva et al. 2003; Malyarchuk and Derenko 2001
Slovakia	Slk	374	Richards et al. 2000; Vanecek et al. 2004
Sri Lanka	Sri	132	Kivisild et al. 2003
Syria	Syr	49	Vernesi et al. 2001
Tajiks	Taj	20	Comas et al. 2004
Tunisians Berbers	Tun	155	Fadhlaoui-zid et al. 2004
Turkmens	Tur1	20	Comas et al. 2004
Turks	Tur2	93	Calafell et al. 1996; Comas et al. 1996; Richards et al. 1996
Uyghurs	Uig1	16	Comas et al. 1998
Uyghurs	Uig2	55	Comas et al. 2004
Uzbeks	Uzb	20	Comas et al. 2004
Yemen	Yem	115	Kivisild et al. 2004
Yemenite Jewish	YemJ	119	Behar 2008

N, sample size.

[a]Reported in the supplemental references file.

Supplemental Table 3 mtDNA haplogroups frequency distribution among the examined Iranian ethnic groups.

Hg	*Ab*	*Ar*	*Az*	*B*	*G*	*J*	*K*	*L_1*	*L_2*	*M*	*P*	*Qa*	*Qe*	*T*	*Z*
A	-	-	-	-	-	-	-	-	-	-	0.017	-	0.091	0.018	-
C	0.022	-	-	-	-	-	0.018	-	-	-	-	-	0.018	0.018	-
D	-	-	-	-	-	-	0.036	-	0.034	-	-	-	-	0.036	-
F1b	-	-	-	-	-	-	-	-	-	-	-	-	-	0.018	-
G2a1	-	-	0.019	-	-	-	-	-	-	-	-	-	-	0.018	-
H	0.156	0.231	0.170	0.129	0.174	0.091	0.145	0.200	0.034	0.157	0.172	0.304	0.327	0.073	-
H1b	-	-	-	-	-	-	-	-	-	-	-	-	-	0.018	-
H2a1	-	-	-	-	-	-	-	-	-	-	-	-	-	0.018	-
H6	-	-	-	0.016	-	-	-	-	-	-	-	-	-	0.018	-
HV	0.022	0.038	0.019	0.016	0.087	0.127	0.091	0.100	0.103	0.137	0.034	0.087	0.127	0.018	-
HV1	0.022	0.058	0.019	-	-	-	0.018	0.033	-	-	-	0.022	-	-	-
I	0.044	0.019	-	0.016	0.043	-	0.018	-	-	-	0.017	-	0.018	-	-
J*	-	0.019	-	0.016	-	-	0.018	0.033	-	0.118	0.017	0.022	-	0.018	-
J1	-	-	0.019	-	-	-	-	-	-	-	-	-	-	-	-
J1b	-	0.058	0.038	0.048	-	0.018	0.036	0.033	0.069	-	0.017	0.043	0.018	-	-
J1b1	-	-	-	-	-	-	-	0.033	-	0.039	-	0.022	0.018	0.018	-
J1b2	0.067	0.019	-	0.016	0.130	-	0.055	0.067	0.069	0.078	-	0.043	-	0.018	-
J2b	0.022	0.038	0.019	-	0.087	0.127	0.055	0.033	-	0.020	0.017	0.043	0.018	0.018	-
K	-	0.038	0.038	0.016	0.043	-	0.018	-	-	0.020	0.017	-	0.036	0.036	-
K1a9	-	0.038	-	-	-	-	0.018	-	0.103	-	0.017	0.022	-	-	-
L0a2	-	-	-	-	-	-	-	-	-	-	0.017	-	0.018	-	-
L1c	0.022	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L2a1	0.044	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L2a1a	0.022	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L2d1	-	-	-	-	-	-	-	-	-	-	-	-	0.091	-	-
L3	0.022	-	-	0.016	-	-	-	-	-	-	-	-	-	-	-
L3d1	-	-	-	-	-	-	-	-	-	-	-	-	-	0.018	-

Hg	*Ab*	*Ar*	*Az*	*B*	*G*	*J*	*K*	*L_1*	*L_2*	*M*	*P*	*Qa*	*Qe*	*T*	*Z*
L3e1	-	-	-	-	-	-	-	-	-	-	-	-	0.018	-	-
L3e1a	-	-	-	0.016	-	-	-	-	-	-	-	-	-	-	-
M	-	-	0.019	0.081	-	-	-	0.033	-	-	0.017	-	0.018	0.018	-
M/C	-	-	-	-	-	-	0.018	-	-	-	-	-	-	-	-
M/G2a1	-	-	0.019	-	-	-	-	-	-	-	-	-	-	-	-
M1	-	-	-	-	-	-	-	-	0.034	-	-	-	-	-	-
M12	-	-	-	-	-	-	-	-	-	-	-	-	0.018	-	-
M4a	-	-	-	0.032	-	-	-	-	-	-	-	-	-	0.036	-
N	0.089	0.096	0.075	0.065	0.043	0.018	0.091	0.133	0.103	0.020	0.034	-	0.018	0.109	0.102
N1a	-	-	-	-	-	-	-	0.033	-	-	-	-	-	-	0.082
N1b	-	0.019	0.019	-	0.043	0.055	0.018	0.033	-	-	0.017	-	-	0.018	-
N1b1	-	-	-	-	-	-	0.018	-	-	0.020	-	-	-	-	-
N2a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.041
pre-JT	-	-	-	-	-	-	-	-	-	0.020	-	-	-	-	-
R	0.044	-	0.019	0.065	-	-	0.018	-	0.034	0.020	0.052	0.022	0.055	-	-
R0	0.156	-	-	0.048	0.043	0.036	0.036	-	0.034	0.020	0.069	0.043	0.018	-	0.184
R2	-	-	0.019	0.016	-	-	-	0.033	-	-	0.017	-	-	0.018	-
T*	0.067	0.038	0.038	0.016	-	0.073	-	-	-	-	0.052	-	-	0.018	0.245
T1	0.022	0.038	0.038	0.016	0.087	0.036	0.073	-	-	0.098	0.034	0.022	0.036	0.091	0.122
T1b	-	0.019	0.038	-	-	-	-	-	-	-	-	0.022	-	-	-
T2	-	-	0.132	-	-	0.109	0.055	0.033	-	-	0.052	-	-	-	-
T2*	-	-	-	-	-	0.109	-	-	0.034	-	-	0.022	-	-	-
T2b	-	-	-	-	-	-	-	-	-	-	0.017	-	-	-	-
T5	-	-	0.019	-	-	-	-	-	-	-	-	-	-	-	-
U*	-	-	-	-	-	-	-	-	-	-	0.017	-	-	0.036	-
U1a	-	0.019	-	-	-	0.036	0.018	0.033	-	0.020	-	0.043	-	-	0.020
U2	-	-	-	-	-	-	-	-	-	-	-	-	0.036	-	0.041
U2d	-	0.038	-	-	-	-	-	-	-	-	-	-	-	-	-

Hg	*Ab*	*Ar*	*Az*	*B*	*G*	*J*	*K*	*L_1*	*L_2*	*M*	*P*	*Qa*	*Qe*	*T*	*Z*
U2e	-	-	-	-	0.043	-	-	-	-	-	0.017	-	-	0.018	0.102
U3	-	0.077	0.019	-	-	0.018	-	-	-	0.039	0.017	0.065	-	-	-
U3a	0.022	-	0.019	-	-	-	0.018	-	-	-	-	0.043	-	-	-
U4	-	0.038	0.019	0.016	-	-	-	-	-	-	0.017	-	-	0.036	-
U5	-	-	-	0.016	-	-	-	-	-	-	-	-	-	-	-
U5a1	-	-	0.019	-	-	-	-	-	-	0.020	0.034	-	-	-	-
U5a1a	-	-	-	-	-	-	0.018	-	-	0.039	-	-	-	0.036	-
U5b	-	0.019	-	-	-	-	-	-	-	-	-	-	-	-	-
U5b1a	-	-	0.019	-	-	-	-	-	-	-	-	-	-	-	-
U6a1	0.022	0.019	-	-	-	-	-	-	-	-	-	-	-	-	-
U7	0.044	-	0.094	0.081	-	0.145	0.073	0.100	0.345	0.020	0.103	0.065	-	0.073	0.020
V	-	-	0.019	-	-	-	-	-	-	-	-	-	-	-	-
W	0.022	-	0.019	0.242	0.130	-	0.018	0.033	-	0.078	0.034	0.022	-	0.073	0.020
X	0.044	0.019	-	-	0.043	-	-	-	-	0.020	0.034	0.022	-	-	0.020
Y1	-	-	-	-	-	-	-	-	-	-	-	-	-	0.036	-
Z	-	-	-	-	-	-	-	-	-	-	0.017	-	-	-	-

***Hg*, haplogroup.**