

Abbreviations used in the table

1 = typing available at 1<sup>st</sup>-field level of resolution

2 = typing available at both 1<sup>st</sup>- and 2<sup>nd</sup>-field levels of resolution (except for HLA-DPB1, only 2<sup>nd</sup>-field)

Population samples listed in *italic* are not included in this study because of a significant HWE deviation (after correction for multiple tests)

Population sample	Geography			Typing					
	latitude	longitude	A	B	C	DPBI	DQAI	DQB1	DRBI
15WS-6_CW-EUR_Austrians-Oetztal	47.08	10.91	2	1	1	-	-	1	1
15WS-5_CW-EUR_Austrians-Vienna	48.21	16.36	1	1	1	-	-	1	1
12WS-158_CW-EUR_Belgians	50.28	4.52	-	-	-	2	2	2	-
<i>HLA-NET_CW-EUR_Belgians-BMD</i>	<i>50.83</i>	<i>4.00</i>	<i>1</i>	<i>1</i>	<i>1</i>	-	-	2	2
16WS-27_CW-EUR_British-Wales	52.50	-3.50	2	2	2	-	-	2	2
12WS-22_CW-EUR_Czechs	50.06	14.26	-	-	-	-	-	2	2
16WS-41_CW-EUR_Czechs	50.09	14.42	1	1	1	-	-	-	1
13WS-32_CW-EUR_Czechs	50.00	14.30	2	2	2	2	2	2	2
16WS-28-updated_CW-EUR_French	45.76	4.84	1	1	1	-	-	-	1
12WS-229_CW-EUR_French	48.00	0.00	-	-	-	-	2	2	-
12WS-61_CW-EUR_French	50.39	3.05	-	-	-	2	-	2	2
16WS-36_CW-EUR_French-Montpellier	43.61	3.87	1	1	2	-	-	2	2
13WS-35_CW-EUR_Irish	54.70	-6.70	2	2	2	-	-	-	2
12WS-156_CW-EUR_Polish	52.25	16.53	-	-	-	-	2	2	2
12WS-65_CW-EUR_Portuguese	39.00	-9.00	-	-	-	-	2	2	-
12WS-195_CW-EUR_Portuguese	40.12	-8.25	-	-	-	2	-	2	-
HLA-NET_CW-EUR_Portuguese-Acores	38.50	-28.00	1	1	-	-	-	-	1
HLA-NET_CW-EUR_Portuguese-Aveiro	40.63	-8.65	1	1	-	-	-	-	1
HLA-NET_CW-EUR_Portuguese-Beja	38.02	-7.87	1	1	-	-	-	-	1
HLA-NET_CW-EUR_Portuguese-Braga	41.55	-8.43	1	1	-	-	-	-	1
HLA-NET_CW-EUR_Portuguese-Braganca	41.82	-6.75	1	1	-	-	-	-	1
HLA-NET_CW-EUR_Portuguese-C-Branco	39.82	-7.50	1	1	-	-	-	-	1
HLA-NET_CW-EUR_Portuguese-Coimbra	40.20	-8.42	1	1	-	-	-	-	1

Population sample	latitude	longitude	A	B	C	DPBI	DQAI	DQBI	DRBI
HLA-NET_CW-EUR_Portuguese-Evora	38.57	-7.90	1	1	-	-	-	-	1
HLA-NET_CW-EUR_Portuguese-Faro	37.02	-7.93	1	1	-	-	-	-	1
HLA-NET_CW-EUR_Portuguese-Guarda	40.53	-7.27	1	1	-	-	-	-	1
HLA-NET_CW-EUR_Portuguese-Leiria	39.75	-8.80	1	1	-	-	-	-	1
HLA-NET_CW-EUR_Portuguese-Lisboa	38.73	-9.13	1	1	-	-	-	-	1
HLA-NET_CW-EUR_Portuguese-Madeira	32.75	-17.00	1	1	-	-	-	-	1
HLA-NET_CW-EUR_Portuguese-Portalegre	39.28	-7.42	1	1	-	-	-	-	1
HLA-NET_CW-EUR_Portuguese-Porto	41.17	-8.58	1	1	-	-	-	-	1
HLA-NET_CW-EUR_Portuguese-Santarem	39.23	-8.67	1	1	-	-	-	-	1
HLA-NET_CW-EUR_Portuguese-Setubal	38.35	-8.90	1	1	-	-	-	-	1
HLA-NET_CW-EUR_Portuguese-V-Castelo	41.68	-8.83	1	1	-	-	-	-	1
HLA-NET_CW-EUR_Portuguese-Vila-Real	41.33	-7.75	1	1	-	-	-	-	1
HLA-NET_CW-EUR_Portuguese-Viseu	40.67	-7.92	1	1	-	-	-	-	1
12WS-104_CW-EUR_Spanish	40.25	-3.43	-	-	-	-	2	2	2
12WS-82_CW-EUR_Spanish	40.25	-3.43	-	-	-	-	2	-	2
16WS-48_CW-EUR_Spanish	43.47	-3.80	-	-	-	-	-	-	1
12WS-120_CW-EUR_Spanish-Basques	43.00	-2.00	-	-	-	-	-	2	-
12WS-196_CW-EUR_Swiss	46.15	6.10	-	-	-	2	-	-	-
16WS_CW-EUR_Swiss-BMD-AA	47.40	8.07	1	1	1	-	-	1	1
16WS_CW-EUR_Swiss-BMD-BE	46.95	7.43	1	1	1	-	-	1	1
16WS_CW-EUR_Swiss-BMD-BS	47.55	7.60	1	1	1	-	-	1	1
16WS_CW-EUR_Swiss-BMD-GE	46.22	6.15	1	1	1	-	-	1	1
16WS_CW-EUR_Swiss-BMD-GR	46.87	9.53	1	1	1	-	-	1	1
16WS_CW-EUR_Swiss-BMD-LG	46.02	8.95	1	1	1	-	-	1	1
16WS_CW-EUR_Swiss-BMD-LS	46.53	6.65	1	1	1	-	-	1	1
16WS_CW-EUR_Swiss-BMD-LU	47.05	8.28	1	1	1	-	-	1	1
16WS_CW-EUR_Swiss-BMD-SG	47.42	9.38	1	1	1	-	-	1	1
16WS_CW-EUR_Swiss-BMD-SI	46.23	7.35	1	1	1	-	-	1	1
16WS_CW-EUR_Swiss-BMD-ZH	47.38	8.55	1	1	1	-	-	1	1
AGP-PhDSB_CW-EUR_Swiss-panel4000	46.22	6.15	-	-	1	-	-	-	1

Population sample	latitude	longitude	A	B	C	DPBI	DQAI	DQBI	DRBI
13WS-17_NAFR_Algerians	35.50	-0.40	-	-	-	-	-	2	2
12WS-55_NAFR_Algerians	36.50	3.00	-	-	-	-	-	2	-
15WS-1_NAFR_Algerians-Oran	35.40	0.40	-	-	-	-	-	-	2
12WS-171_NAFR_Bedouins	31.22	27.15	-	-	-	-	-	2	-
15WS-2_NAFR_Chaouya	33.04	-7.37	2	2	2	-	2	2	2
Other-sources_NAFR_Egyptian-Copts	30.00	31.00	-	-	-	-	2	2	2
16WS-3_NAFR_Egyptians	27.00	30.00	1	1	1	-	-	1	1
Other-sources_NAFR_Egyptians-Delta	31.00	31.30	-	-	-	-	-	2	-
Other-sources_NAFR_Egyptians-South	24.00	33.00	-	-	-	-	-	2	-
Other-sources_NAFR_Gabes	34.00	10.00	-	-	-	-	-	2	1
Other-sources_NAFR_Jerba	34.00	11.00	-	-	-	-	-	2	2
Other-sources_NAFR_Matmata	33.30	10.00	-	-	-	-	-	2	2
15WS-13_NAFR_Metalsa	35.15	-3.06	2	2	2	-	2	2	2
13WS-20_NAFR_Moroccans	30.30	-9.37	-	-	-	-	2	2	2
13WS-21_NAFR_Moroccans	33.20	-8.50	-	-	-	-	-	-	2
Other-sources_NAFR_Mzab	32.20	3.40	-	-	-	-	-	2	-
16WS-35_NAFR_Sudanese	15.55	32.53	2	2	2	-	-	2	2
Other-sources_NAFR_Tunisians	36.48	10.11	-	-	-	-	2	-	-
15WS-3_NAFR_Tunisians-Sened	34.46	9.26	-	-	-	-	-	2	2
15WS-4_NAFR_Tunisians-Tataouine	32.55	10.26	-	-	-	-	-	2	2
16WS-55_NE-EUR_Bashkirs	54.53	60.33	1	1	-	-	1	1	1
16WS-7_NE-EUR_Belorussians-Brest	52.10	23.70	-	-	-	-	-	-	1
16WS-5_NE-EUR_Belorussians-Gomel	52.40	31.00	-	-	-	-	-	-	1
16WS-6_NE-EUR_Belorussians-Vitebsk	55.20	30.20	-	-	-	-	-	-	1
16WS-42_NE-EUR_Finns	60.13	25.00	1	1	-	-	-	-	2
13WS-33_NE-EUR_Finns	60.20	25.10	2	2	2	-	-	-	-
16WS-39_NE-EUR_Finns-BMD	60.13	25.00	1	1	1	2	1	2	1
16WS-38_NE-EUR_Finns-CB	60.13	25.00	1	1	1	-	-	-	1
16WS-8_NE-EUR_Kalmyks-El-Mari	56.60	47.90	-	-	-	-	-	-	1
16WS-9_NE-EUR_Kalmyks-Kalmikia	46.30	44.25	-	-	-	-	-	-	1

Population sample	latitude	longitude	A	B	C	DPBI	DQAI	DQBI	DRBI
16WS-11_NE-EUR_Nenets	73.80	52.90	-	-	-	-	-	-	1
16WS-53_NE-EUR_Russians	54.53	60.33	1	1	-	-	1	1	1
16WS-12_NE-EUR_Russians-Arkhangelsk	64.50	40.50	-	-	-	-	-	-	1
16WS-14_NE-EUR_Russians-Kostroma	58.40	44.00	-	-	-	-	-	-	1
16WS-13_NE-EUR_Russians-Smolensk	54.70	33.10	-	-	-	-	-	-	1
16WS-15_NE-EUR_Russians-Vologda	60.05	40.94	2	2	-	-	-	-	2
16WS-16_NE-EUR_Saami	67.85	35.20	-	-	-	-	-	-	1
16WS-54_NE-EUR_Tatars	54.53	60.33	1	1	-	-	1	1	1
16WS-17_NE-EUR_Tatars	55.55	50.93	-	-	-	-	-	-	1
16WS-19_NE-EUR_Udmurts	57.20	52.80	-	-	-	-	-	-	1
16WS-20_NE-EUR_Ukrainians-Khmelnitsky	49.40	27.00	-	-	-	-	-	-	1
16WS-21_NE-EUR_Ukrainians-Lvov	49.83	24.00	-	-	-	-	-	-	1
12WS-23_OTH_Czech-Gypsies	50.06	14.26	-	-	-	2	2	2	2
15WS-20_SE-EUR_Albanians	41.00	20.00	1	1	2	-	-	2	2
12WS-119_SE-EUR_Bulgarians	42.40	23.18	-	-	-	2	-	2	-
12WS-20_SE-EUR_Croatians	43.11	16.28	-	-	-	-	2	2	-
12WS-19_SE-EUR_Croatians	45.01	14.45	-	-	-	-	2	2	2
12WS-21_SE-EUR_Croatians	45.20	15.50	-	-	-	-	-	2	2
13WS-31_SE-EUR_Croatians	45.48	15.58	2	2	-	-	-	-	-
16WS-37_SE-EUR_Croatians	45.81	15.97	2	2	-	-	-	2	2
16WS-46_SE-EUR_Cypriots	35.17	33.40	1	1	-	-	-	1	1
12WS-166_SE-EUR_Greek-Cypriots	35.00	33.30	2	2	-	-	-	-	-
15WS-12_SE-EUR_Greeks	37.97	23.72	2	2	2	-	-	2	2
12WS-165_SE-EUR_Greeks	38.02	25.33	-	-	-	2	2	2	2
12WS-34_SE-EUR_Greeks	38.00	23.44	2	2	-	-	-	-	-
16WS-44_SE-EUR_Greeks	39.00	22.00	2	2	2	2	2	2	2
12WS-42_SE-EUR_Italians	45.12	9.09	-	-	-	-	2	2	-
12WS-45_SE-EUR_Italians	45.42	9.40	-	-	-	2	2	2	2
16WS-52_SE-EUR_Kosovo-Albanians	42.58	21.00	2	2	2	-	-	2	2
15WS-19_SE-EUR_Macedonians	41.83	22.00	1	2	2	-	-	2	2

Population sample	latitude	longitude	A	B	C	DPBI	DQAI	DQBI	DRBI
16WS-45_SE-EUR_Northern-Italians	45.47	9.17	1	1	1	-	-	1	1
12WS-164_SE-EUR_Pomaki	41.07	24.56	-	-	-	2	2	2	2
12WS-67_SE-EUR_Romanians	44.25	26.07	-	-	-	-	-	-	2
12WS-46_SE-EUR_Sardinians	40.00	9.00	-	-	-	-	2	2	2
16WS-58_SE-EUR_Slovenian-Donors	46.05	14.50	1	1	-	-	-	-	1
16WS-57-updated_SE-EUR_Slovenians	46.05	14.50	1	1	1	-	-	2	1
13WS-36_SE-EUR_Slovenians	46.00	14.00	-	-	-	2	2	2	2
16WS-59_SE-EUR_Slovenians-CB	46.05	14.50	1	1	-	-	-	-	1
12WS-116_WASI_Ashkenazi-Jews	31.47	35.13	-	2	-	-	-	-	2
13WS-58_WASI_Druzes	32.00	34.50	2	2	2	-	-	-	-
13WS-34_WASI_Georgians	41.70	44.90	2	2	2	-	-	-	-
16WS-22-updated_WASI_Hazara	35.80	67.35	-	-	-	-	-	-	1
12WS-214_WASI_Hunza-Burushaski	36.23	74.43	-	2	2	-	-	-	-
13WS-63_WASI_Indians-Golla	17.50	78.50	2	2	-	-	-	-	2
13WS-61_WASI_Indians-New-Dehli	28.60	77.20	2	2	2	-	-	-	-
AGP-masterSB_WASI_Iranians	35.67	51.43	-	-	1	-	-	-	1
16WS-2_WASI_Iraqi-Kurdistan	35.00	44.00	1	1	1	-	-	1	1
13WS-59_WASI_Israeli-Jews	32.00	34.50	2	2	2	-	-	-	-
13WS-60_WASI_Kurdish	41.70	44.90	2	2	2	-	-	-	-
AGP-PhDSB_WASI_Lebanese	33.83	35.83	-	-	1	-	-	-	-
12WS-145_WASI_Libanes	33.52	35.30	-	-	-	2	-	-	2
12WS-153_WASI_Libyan-Jews	31.47	35.13	-	2	-	-	-	-	2
12WS-117_WASI_Morrocans-Jews	31.47	35.13	-	2	-	-	-	-	2
15WS-14_WASI_Munda	23.37	85.33	2	2	-	-	-	-	2
16WS-43_WASI_Northern-Indians	24.80	77.10	1	1	-	-	-	-	1
13WS-62_WASI_Omani	21.00	57.00	2	2	-	-	-	-	-
16WS-23-updated_WASI_Ouzbeck	36.44	66.29	-	-	-	-	-	-	1
16WS-24-updated_WASI_Pachtoun	36.45	68.74	-	-	-	-	-	-	1
12WS-219_WASI_Pathans	33.40	73.08	2	2	2	-	-	-	-
12WS-38_WASI_Punjabi	28.40	77.14	-	-	-	2	2	2	-

Population sample	latitude	longitude	A	B	C	DPBI	DQAI	DQBI	DRBI
12WS-213_WASI_Sindhi	24.51	67.02	2	2	2	-	-	-	-
16WS-1_WASI_Syrians	32.00	35.00	1	1	1	-	-	1	1
16WS-25-updated_WASI_Tadjik	36.71	69.58	-	-	-	-	-	-	1
13WS-64_WASI_Tamil	11.00	79.00	2	2	2	-	-	-	-
16WS-26-updated_WASI_Turkmen	36.33	66.05	-	-	-	-	-	-	1
13WS-65_WASI_Turks	41.00	28.60	-	-	-	-	-	2	2