

Additional file 1 - Correlation coefficients between haplogroups and PCs

	M130	YAP	M15	M89	M9	M122	M7	M134	M119	M110	M95	M88	M120	M45	M17	M5
PC1	-0.141	-0.214	-0.238	-0.057	0.475	0.079	-0.121	-0.205	0.080	-0.373	0.336	-0.385	-0.277	-0.198	0.072	0.084
<i>P</i>	0.112	0.015	0.007	0.524	0.000	0.375	0.172	0.020	0.365	0.000	0.000	0.000	0.001	0.025	0.419	0.342
PC2	0.029	0.182	0.075	0.154	0.411	0.071	0.014	0.321	-0.875	-0.288	0.302	0.040	-0.109	-0.015	0.064	0.021
<i>P</i>	0.747	0.039	0.399	0.082	0.000	0.423	0.871	0.000	0.000	0.001	0.001	0.653	0.221	0.865	0.472	0.814

Although *P* values of the correlation coefficients between PC1 and M9, M110, M95, M88 etc. are all very significant, all of these correlation coefficients are less than 0.5. Thus, PC1 has little information about the ethnic clustering.

In contrast, PC2 is significantly correlated with O1a-M119 seen in a large correlation coefficient. This haplogroup distinguishes the Daic-MP-TW cluster. Thus, PC2 provides information on ethnic clustering.