

**Supplementary Table S5.** The Arabian horse individuals' assignment into 3 clusters depending on Q value at K = 3.

Lineage	Clusters		
	1	2	3
SAK I	0.008	<b>0.982</b>	0.010
LAT	0.012	0.010	<b>0.977</b>
SEA	0.011	<b>0.979</b>	0.010
IBR	<b>0.980</b>	0.010	0.010
SHA	0.012	0.008	<b>0.980</b>
DJE	0.010	0.019	<b>0.972</b>
KUH	<b>0.982</b>	0.008	0.009
BAI	0.016	<b>0.968</b>	0.016
SAR	<b>0.943</b>	0.016	0.041

The highest value in each Arabian horse lineages is in bold. Population abbreviations are pointed out in Table 1.