

**Supplementary Table S4.** Analysis of molecular variance (AMOVA) and F-Statistic of Arabian horse lineages based on genotyping of 13 microsatellite markers.

Source	Degree of freedom	Sum of squares	Estimated variance	Percentage of variation	F-Statistics
Among sire lines	8	8.647	0.006	1%	$F_{ST}$ 0.008***
Among individuals within sire lines	528	245.693	0.007	1%	$F_{IS}$ 0.098**
Within individuals	537	242.500	0.452	97%	$F_{IT}$ 0.014***
Total	1073	496.840	0.464	100%	

\*\*p < 0.01; \*\*\*p < 0.001