

**Table S3.** Equine MHC microsatellite haplotype frequencies<sup>a</sup> across breeds

Microsatellite Haplotype	Breed <sup>b</sup>			
	TB (n=63)	SB-P (n=90)	SB-T (n=33)	AR (n=26)
A1	0.008	0.178	0.303	0
A2	0.168	0.006	0	0
A3a	0.032	0	0	0
A3b	0.168	0	0	0
A3c	0.016	0	0	0
A3d	0.040	0	0	0
A3e	0	0.017	0.076	0
A4a	0	0.022	0	0
A4b	0	0.033	0.030	0
A4c	0	0.028	0.015	0
A5a	0.104	0.150	0.030	0
A5b	0	0	0	0
A6	0	0.028	0.152	0
A7	0.008	0.044	0.015	0
A8	0	0.089	0	0
A9a	0.136	0	0	0
A9b	0.008	0	0	0
A10a	0	0.256	0.091	0
A10b	0.016	0.056	0.045	0
A10c	0	0.011	0.076	0
A10d	0	0.006	0.121	0
A15	0.032	0.006	0	0
A19	0.032	0	0	0.038
COR1	0.040	0	0	0
COR2	0.024	0	0	0
COR3	0.008	0	0	0
COR4	0.024	0	0	0
COR5	0.024	0	0	0
COR6	0	0.006	0	0.115
COR7	0	0	0	0.135
COR8	0	0	0	0.096
COR9	0	0	0	0.058
COR10	0	0	0	0.058
COR11	0	0	0	0.019
COR12	0	0	0	0
COR13	0	0	0	0
COR14	0	0	0	0
COR15	0	0	0	0
COR16	0	0	0	0
COR17	0	0	0	0
COR18	0	0	0	0
COR19	0	0	0	0
COR20	0	0	0	0
COR21	0	0	0	0
Microsatellite Haplotype	Breed <sup>b</sup>			
	TB (n=63)	SB-P (n=90)	SB-T (n=33)	AR (n=26)
COR22	0.016	0	0	0
COR23	0	0.011	0	0
COR24	0	0.006	0.03015	0
COR25	0	0.017	0	0

COR26	0	0	0	0.058
COR27	0	0	0	0.058
Subtotal <sup>c</sup>	0.904	0.967	0.970	0.635
Blank <sup>d</sup>	0.096	0.033	0.030	0.365
Total	1.000	1.000	1.000	1.000

<sup>a</sup> Haplotype frequency determined by direct haplotype counting.

<sup>b</sup> Breed: TB= Thoroughbred; SB-P= Standardbred Pacer; SB-T= Standardbred Trotter; AR= Arabian.

<sup>c</sup> Sum of frequencies of microsatellite allele combinations that met the haplotype definition.

<sup>d</sup> Microsatellite allele combinations that did not meet the haplotype definition.