



Table S2: Genomes surveyed from the NCBI SRA from which one or more P variant genotypes were available. Genotypes matching the reference allele are denoted by a period. nc indicates the genotype was not called due to failure to meet quality criteria (e.g. minimum 5 reads). Samples are classified as modern, early domestic (400-500 years old), or ancient with breed, species, or sample origin noted when available.

	A	B	C	D	E	F	G
3		P2	P3b	P3a	P4		
4	RunID/Ref	A	G	G	G	Classification	Breed/Origin
5	ERR3628174	nc	nc	.	nc	Modern	Franches-Montagnes
6	ERR979788	AG	nc	nc	nc	Modern	Franches-Montagnes
7	ERR2731061	nc	nc	nc	.	Modern	Holsteiner
8	ERR863167	.	nc	nc	nc	Modern	Icelandic Horse
9	ERR793393	.	nc	nc	nc	Modern	Icelandic Horse
10	ERR3628173	nc	nc	nc	.	Modern	unknown
11	ERR1527960	AG	nc	nc	.	Modern	Franches-Montagnes
12	ERR1527953	CC	nc	nc	GA	Modern	Franches-Montagnes
13	ERR1527954	GG	nc	nc	.	Modern	Franches-Montagnes
14	ERR1527957	.	nc	nc	AA	Modern	Franches-Montagnes
15	ERR2179540	.	nc	nc	.	Modern	Franches-Montagnes
16	ERR979790	AG	nc	nc	.	Modern	Franches-Montagnes
17	ERR1545182	.	.	nc	nc	Modern	German WarmBlood
18	ERR1545185	.	nc	nc	.	Modern	German WarmBlood
19	ERR1545180	.	nc	nc	.	Modern	German WarmBlood
20	ERR1527966	.	nc	nc	.	Modern	Haflinger
21	ERR2179547	.	.	nc	nc	Modern	Holsteiner
22	ERR979800	.	nc	nc	.	Modern	Quart Horse
23	ERR3628171	AG	.	nc	nc	Modern	unknown
24	ERR1305962	.	nc	.	.	Modern	American Paint Horse
25	ERR1527967	.	.	nc	.	Modern	Dutch Warmblood
26	ERR979794	.	.	nc	.	Modern	Franches-Montagnes
27	ERR979793	GG	.	.	nc	Modern	Franches-Montagnes
28	ERR979785	AG	.	nc	.	Modern	Franches-Montagnes
29	ERR1527952	.	.	nc	.	Modern	Franches-Montagnes
30	ERR979795	AG	.	nc	.	Modern	Franches-Montagnes
31	ERR1527961	AG	.	nc	GA	Modern	Franches-Montagnes
32	ERR979784	AG	GA	nc	.	Modern	Franches-Montagnes
33	ERR1527959	.	.	nc	GA	Modern	Franches-Montagnes
34	ERR1527965	AG	AA	nc	AA	Modern	Franches-Montagnes
35	ERR1527964	.	AA	nc	GA	Modern	Franches-Montagnes
36	ERR466186	.	.	nc	.	Modern	Franches-Montagnes
37	ERR2179541	AC	.	nc	GA	Modern	Franches-Montagnes
38	ERR1545179	.	.	nc	.	Modern	German WarmBlood
39	ERR1545184	.	.	nc	GA	Modern	German WarmBlood
40	ERR1545187	.	.	nc	.	Modern	German WarmBlood
41	ERR979798	.	.	.	nc	Modern	Quarter Horse
42	ERR979797	GG	.	nc	AA	Modern	Quarter Horse
43	ERR979802	.	.	nc	.	Modern	Standardbred
44	ERR979801	AG	.	nc	.	Modern	Standardbred
45	ERR1735862	.	nc	.	.	Modern	Thoroughbred
46	ERR979796	.	nc	.	.	Modern	unknown
47	ERR1021816	.	.	nc	.	Modern	Yakutian Horse
48	ERR1021818	.	.	nc	.	Modern	Yakutian Horse
49	ERR1021823	.	.	nc	.	Modern	Yakutian Horse

	A	B	C	D	E	F	G
50	ERR1021824	.	GA	nc	.	Modern	Yakutian Horse
51	ERR1021819	.	GA	nc	.	Modern	Yakutian Horse
52	ERR1527950	.	.	.	.	Modern	Akhal-Teke
53	ERR1527948	.	.	.	.	Modern	Akhal-Teke
54	ERR1527949	.	.	.	.	Modern	Akhal-Teke
55	ERR1527947	.	.	.	.	Modern	Akhal-Teke
56	ERR1305964	.	.	.	.	Modern	American Paint Horse
57	ERR1305963	.	.	.	.	Modern	American Paint Horse
58	ERR2179544	GG	.	.	.	Modern	Arabian
59	ERR2179551	AG	.	.	.	Modern	Arabian
60	ERR1527951	.	.	.	.	Modern	Arabian
61	ERR1527971	.	.	.	GA	Modern	Franches-Montagnes
62	ERR1527955	.	.	.	AA	Modern	Franches-Montagnes
63	ERR979792	.	.	.	.	Modern	Franches-Montagnes
64	ERR979789	AG	.	.	.	Modern	Franches-Montagnes
65	ERR1527962	AG	.	GA	.	Modern	Franches-Montagnes
66	ERR979787	.	.	.	GA	Modern	Franches-Montagnes
67	ERR979791	AC	.	.	.	Modern	Franches-Montagnes
68	ERR979786	AG	GA	GA	GA	Modern	Franches-Montagnes
69	ERR1527963	AG	GA	GA	.	Modern	Franches-Montagnes
70	ERR1527956	AG	.	.	.	Modern	Franches-Montagnes
71	ERR1527958	AG	.	.	GA	Modern	Franches-Montagnes
72	ERR2179545	.	.	.	.	Modern	German Riding Pony
73	ERR2179542	.	.	.	.	Modern	German Riding Pony
74	ERR1545183	AG	.	.	.	Modern	German Warmblood
75	ERR1545178	.	.	.	GA	Modern	German Warmblood
76	ERR1545189	.	.	.	.	Modern	German Warmblood
77	ERR1545190	.	.	.	.	Modern	German Warmblood
78	ERR1545186	.	.	.	.	Modern	German Warmblood
79	ERR1545181	.	.	.	.	Modern	German Warmblood
80	ERR1545188	.	.	.	.	Modern	German Warmblood
81	ERR2179553	.	.	.	.	Modern	Haflinger
82	ERR2179554	.	.	.	.	Modern	Haflinger
83	ERR2179555	AG	.	.	.	Modern	Haflinger
84	ERR2179549	AG	.	.	.	Modern	Hannoveraner
85	ERR2731057	.	.	.	.	Modern	Icelandic Horse
86	ERR982704	AG	.	.	.	Modern	Mongolian
87	ERR2179546	AG	.	.	AA	Modern	Morgan Horse
88	ERR2179552	.	.	.	.	Modern	Noriker
89	ERR2179548	.	.	.	.	Modern	Oldenburg Horse
90	ERR982707	AG	.	.	.	Modern	Polish Warmblood
91	ERR979799	AG	.	.	.	Modern	Quarter Horse
92	ERR1527969	.	.	.	.	Modern	Quarter Horse
93	ERR1527970	.	.	.	.	Modern	Quarter Horse
94	ERR1527968	.	.	.	.	Modern	Quarter Horse
95	ERR868004	.	.	.	.	Modern	Shetland Pony
96	ERR868003	.	.	.	.	Modern	Shetland Pony

	A	B	C	D	E	F	G
97	ERR979803	AG	.	.	.	Modern	Standardbred
98	ERR1512897	.	.	.	GA	Modern	Standardbred
99	ERR2179556	.	.	.	.	Modern	Swiss Warmblood
100	ERR1527972	.	.	.	.	Modern	Swiss Warmblood
101	ERR2203766	.	GA	GA	GA	Modern	Trakehner
102	ERR1306526	.	GA	GA	.	Modern	UK Warmblood (>50% Quarter Horse)
103	ERR1305961	.	AA	AA	GA	Modern	UK Warmblood (>50% Quarter Horse)
104	ERR2179543	.	.	.	AA	Modern	Welsh Pony
105	ERR2179550	.	.	.	.	Modern	Welsh Pony
106	ERR1021822	.	.	.	.	Modern	Yakutian Horse
107	ERR1021817	.	.	.	.	Modern	Yakutian Horse
108	ERR1021821	GG	.	.	.	Modern	Yakutian Horse
109	ERR1021820	.	GA	GA	.	Modern	Yakutian Horse
110	ERR3225567	nc	.	nc	nc	Modern	Thoroughbred
111	ERR3225630	nc	GA	.	nc	Modern	UK
112	ERR3225467	.	.	.	GA	Early Domestic (400-1500 years)	France
113	ERR3225602	.	nc	.	.	Early Domestic (400-1500 years)	Mongolia
114	ERR3225600	.	.	.	.	Early Domestic (400-1500 years)	Mongolia
115	ERR3225559	nc	.	nc	nc	Early Domestic (400-1500 years)	Lithuania
116	ERR3225580	AG	nc	nc	nc	Early Domestic (400-1500 years)	Estonia
117	ERR3225562	nc	.	nc	.	Early Domestic (400-1500 years)	Lithuania
118	ERR3225639	.	.	.	.	Early Domestic (400-1500 years)	Turkey
119	ERR3225570	nc	.	.	.	Early Domestic (400-1500 years)	Croatia
120	ERR3225558	nc	.	.	nc	Early Domestic (400-1500 years)	Lithuania
121	ERR2112789	.	.	nc	.	Early Domestic (400-1500 years)	Kazakhstan
122	ERR3225483	.	nc	.	nc	Early Domestic (400-1500 years)	Kyrgyzstan
123	ERR3225482	.	GA	GA	nc	Early Domestic (400-1500 years)	Kyrgyzstan
124	ERR3225635	nc	.	.	nc	Early Domestic (400-1500 years)	Turkey
125	ERR3225544	.	.	.	.	Early Domestic (400-1500 years)	Mongolia
126	ERR3225655	.	.	.	.	Early Domestic (400-1500 years)	Turkey
127	ERR3225553	nc	nc	.	nc	Early Domestic (400-1500 years)	Germany

	A	B	C	D	E	F	G
128	ERR3225637	.	.	.	.	Early Domestic (400-1500 years)	Turkey
129	ERR3225636	.	.	nc	nc	Early Domestic (400-1500 years)	Turkey
130	ERR3225643	.	nc	nc	nc	Early Domestic (400-1500 years)	Turkey
131	ERR3225658	nc	nc	nc	.	Early Domestic (400-1500 years)	Turkey
132	ERR3225646	nc	nc	.	nc	Early Domestic (400-1500 years)	Turkey
133	ERR3225648	nc	nc	nc	.	Early Domestic (400-1500 years)	Turkey
134	ERR3225654	.	.	.	.	Early Domestic (400-1500 years)	Turkey
135	ERR3225657	AG	GA	AA	.	Early Domestic (400-1500 years)	Turkey
136	ERR3225593	.	.	.	.	Early Domestic (1501-2500 years)	Iran
137	ERR3225647	.	GA	nc	.	Early Domestic (1501-2500 years)	Turkey
138	ERR3225549	AG	nc	nc	nc	Early Domestic (1501-2500 years)	Iran
139	ERR2112797	.	.	nc	.	Early Domestic (1501-2500 years)	Turkey
140	ERR3225481	nc	nc	nc	.	Early Domestic (1501-2500 years)	France
141	ERR3225640	.	GA	nc	nc	Early Domestic (1501-2500 years)	Turkey
142	ERR3225552	nc	.	nc	nc	Early Domestic (1501-2500 years)	France
143	ERR3225527	.	nc	nc	nc	Early Domestic (1501-2500 years)	France
144	ERR3225530	nc	.	nc	nc	Early Domestic (1501-2500 years)	Germany
145	ERR3225515	nc	nc	nc	.	Early Domestic (1501-2500 years)	France
146	ERR3225504	nc	nc	GA	.	Early Domestic (1501-2500 years)	France
147	ERR3225499	.	.	.	.	Early Domestic (1501-2500 years)	France

	A	B	C	D	E	F	G
148	ERR2112790	nc	.	nc	nc	Early Domestic (1501-2500 years)	Germany
149	ERR2112788	AG	.	.	nc	Early Domestic (1501-2500 years)	Mongolia
150	ERR3225532	nc	.	.	.	Early Domestic (1501-2500 years)	Mongolia
151	ERR3225534	AG	.	nc	.	Early Domestic (1501-2500 years)	Mongolia
152	ERR3225531	.	nc	.	.	Early Domestic (1501-2500 years)	Mongolia
153	ERR3225533	.	nc	nc	nc	Early Domestic (1501-2500 years)	Mongolia
154	ERR3225535	nc	.	.	nc	Early Domestic (1501-2500 years)	Mongolia
155	ERR3225586	nc	.	nc	nc	Early Domestic (1501-2500 years)	France
156	ERR3225453	nc	nc	nc	.	Early Domestic (1501-2500 years)	France
157	ERR3225451	.	nc	nc	nc	Early Domestic (1501-2500 years)	France
158	ERR2112715	.	.	nc	nc	Early Domestic (1501-2500 years)	France
159	ERR3225459	nc	.	.	nc	Early Domestic (1501-2500 years)	Russia
160	ERR3225523	nc	nc	.	nc	Early Domestic (2501-3500 years)	Spain
161	ERR3225579	AG	GA	nc	.	Early Domestic (2501-3500 years)	Estonia
162	ERR2112796	.	nc	.	.	Early Domestic (2501-3500 years)	Mongolia
163	ERR3225621	AG	.	.	.	Early Domestic (2501-3500 years)	Mongolia
164	ERR3225614	nc	.	nc	nc	Early Domestic (2501-3500 years)	Mongolia

	A	B	C	D	E	F	G
165	ERR3225617	nc	.	nc	nc	Early Domestic (2501-3500 years)	Mongolia
166	ERR3225622	nc	nc	.	nc	Early Domestic (2501-3500 years)	Mongolia
167	ERR3225620	.	nc	nc	.	Early Domestic (2501-3500 years)	Mongolia
168	ERR3225615	nc	.	nc	.	Early Domestic (2501-3500 years)	Mongolia
169	ERR3225623	.	.	.	.	Early Domestic (2501-3500 years)	Mongolia
170	ERR3225619	nc	.	.	.	Early Domestic (2501-3500 years)	Mongolia
171	ERR2112795	.	.	.	.	Early Domestic (2501-3500 years)	Mongolia
172	ERR3225618	.	.	.	.	Early Domestic (2501-3500 years)	Mongolia
173	ERR2112763	nc	nc	nc	.	Early Domestic (2501-3500 years)	Russia
174	ERR3225465	.	nc	.	nc	Early Domestic (2501-3500 years)	Russia
175	ERR3225541	.	nc	nc	nc	Early Domestic (3501-5500 years)	Kazakhstan
176	ERR3225489	.	nc	nc	nc	Early Domestic (3501-5500 years)	Spain
177	ERR3225490	.	nc	nc	.	Early Domestic (3501-5500 years)	Spain
178	ERR2112765	AG	.	.	.	Early Domestic (3501-5500 years)	Kazakhstan
179	ERR2112768	.	nc	.	nc	Early Domestic (3501-5500 years)	Kazakhstan
180	ERR2112767	AG	.	.	.	Early Domestic (3501-5500 years)	Kazakhstan
181	ERR2112766	GG	nc	nc	.	Early Domestic (3501-5500 years)	Kazakhstan

	A	B	C	D	E	F	G
182	ERR2112764	nc	.	.	.	Early Domestic (3501-5500 years)	Kazakhstan
183	ERR3225666	nc	nc	nc	.	Early Domestic (3501-5500 years)	Kazakhstan
184	ERR2112780	.	nc	nc	nc	Early Domestic (3501-5500 years)	Kazakhstan
185	ERR2112716	nc	nc	nc	.	Early Domestic (3501-5500 years)	Kazakhstan
186	ERR2112719	AG	nc	nc	.	Early Domestic (3501-5500 years)	Kazakhstan
187	ERR3225669	AG	nc	nc	.	Early Domestic (3501-5500 years)	Kazakhstan
188	ERR2112774	.	.	.	nc	Early Domestic (3501-5500 years)	Kazakhstan
189	ERR2112772	AG	.	.	.	Early Domestic (3501-5500 years)	Kazakhstan
190	ERR2112776	.	nc	nc	nc	Early Domestic (3501-5500 years)	Kazakhstan
191	ERR2112778	nc	GA	nc	nc	Early Domestic (3501-5500 years)	Kazakhstan
192	ERR2112777	.	nc	nc	nc	Early Domestic (3501-5500 years)	Kazakhstan
193	ERR2112771	.	nc	.	nc	Early Domestic (3501-5500 years)	Kazakhstan
194	ERR2112773	AG	.	.	.	Early Domestic (3501-5500 years)	Kazakhstan
195	ERR2112769	GG	.	.	.	Early Domestic (3501-5500 years)	Kazakhstan
196	ERR2112770	GG	.	.	.	Early Domestic (3501-5500 years)	Kazakhstan
197	ERR3225563	.	.	.	.	Ancient (~24000 years)	Russia
198	ERR982705	.	.	nc	.	Przewalski	
199	ERR982714	AG	.	nc	.	Przewalski	
200	ERR982717	AG	.	.	.	Przewalski	
201	ERR982706	AG	.	.	.	Przewalski	
202	ERR982708	GG	.	.	.	Przewalski	
203	ERR982716	.	.	.	.	Przewalski	

	A	B	C	D	E	F	G
204	ERR982718	.	.	.	.	Przewalski	
205	ERR982709	.	.	.	.	Przewalski	
206	ERR982712	.	.	.	.	Przewalski	
207	ERR982715	GG	.	.	.	Przewalski	
208	ERR982721	nc	nc	.	nc	Przewalski	
209	ERR982713	.	.	.	.	Przewalski x Domesticated F1 hybrid	