

Table S3. Exclusion power (Q) estimated for each SNP in the following cases: two parents known, one parent known, missing parents, and matching samples. Match probability (MP) calculated for matching samples. Markers are listed in order of decreasing Q values.

SNP	two parents	one parent	Missing parents	Match	MP
ARS-USMARC-Parent-DQ786760-no-rs	0.1875	0.1250	0.2813	0.6250	0.3750
ARS-USMARC-Parent-AY857620-rs17871214	0.1875	0.1250	0.2813	0.6250	0.3750
ARS-USMARC-Parent-AY914316-rs17871403	0.1875	0.1250	0.2813	0.6250	0.3750
ARS-USMARC-Parent-DQ786757-rs29019900	0.1875	0.1250	0.2813	0.6250	0.3750
ARS-USMARC-Parent-AY842474-rs29003226	0.1874	0.1248	0.2811	0.6248	0.3752
ARS-USMARC-Parent-DQ786761-rs29012840	0.1874	0.1248	0.2811	0.6248	0.3752
ARS-USMARC-Parent-DQ846693-rs29017621	0.1874	0.1248	0.2811	0.6248	0.3752
ARS-USMARC-Parent-AY916666-no-rs	0.1874	0.1248	0.2811	0.6248	0.3752
ARS-USMARC-Parent-DQ404152-rs29022245	0.1874	0.1248	0.2811	0.6248	0.3752
ARS-USMARC-Parent-EF042091-rs29014974	0.1874	0.1248	0.2811	0.6248	0.3752
ARS-USMARC-Parent-DQ984827-rs29012019	0.1871	0.1242	0.2808	0.6242	0.3758
ARS-USMARC-Parent-DQ451555-rs29010795	0.1871	0.1242	0.2808	0.6242	0.3758
ARS-USMARC-Parent-DQ489377-rs29026932	0.1871	0.1242	0.2808	0.6242	0.3758
ARS-USMARC-Parent-EF034085-rs29025677	0.1871	0.1242	0.2808	0.6242	0.3758
ARS-USMARC-Parent-AY937242-rs17872223	0.1866	0.1233	0.2802	0.6232	0.3768
ARS-USMARC-Parent-DQ846695-no-rs	0.1866	0.1233	0.2802	0.6232	0.3768
ARS-USMARC-Parent-DQ888312-rs29015945	0.1866	0.1233	0.2802	0.6232	0.3768
ARS-USMARC-Parent-AY856094-rs17871190	0.1866	0.1232	0.2801	0.6231	0.3769
ARS-USMARC-Parent-AY853303-no-rs	0.1859	0.1219	0.2793	0.6219	0.3781
ARS-USMARC-Parent-DQ888310-rs29012422	0.1859	0.1219	0.2793	0.6219	0.3781
ARS-USMARC-Parent-EF042090-no-rs	0.1859	0.1219	0.2793	0.6219	0.3781
ARS-USMARC-Parent-AY844963-rs17871338	0.1859	0.1219	0.2793	0.6219	0.3781
ARS-USMARC-Parent-DQ846694-rs29015842	0.1859	0.1219	0.2793	0.6219	0.3781
ARS-USMARC-Parent-DQ990835-rs29012811	0.1859	0.1219	0.2793	0.6219	0.3781
ARS-USMARC-Parent-EF150946-rs29023666	0.1859	0.1219	0.2793	0.6219	0.3781
ARS-USMARC-Parent-AY851163-rs17871661	0.1851	0.1202	0.2782	0.6200	0.3800
ARS-USMARC-Parent-AY929334-no-rs	0.1851	0.1202	0.2782	0.6200	0.3800
ARS-USMARC-Parent-DQ990833-rs29010147	0.1851	0.1202	0.2782	0.6200	0.3800
ARS-USMARC-Parent-AY851162-no-rs	0.1851	0.1202	0.2782	0.6200	0.3800
ARS-USMARC-Parent-DQ381153-rs29012842	0.1849	0.1200	0.2780	0.6197	0.3803
ARS-USMARC-Parent-DQ674265-rs29011266	0.1849	0.1200	0.2780	0.6197	0.3803
ARS-USMARC-Parent-AY776154-no-rs	0.1840	0.1182	0.2769	0.6178	0.3822
ARS-USMARC-Parent-AY858890-rs29002256	0.1840	0.1182	0.2769	0.6178	0.3822
ARS-USMARC-Parent-DQ500958-no-rs	0.1840	0.1182	0.2769	0.6178	0.3822
ARS-USMARC-Parent-DQ647188-rs29011099	0.1840	0.1182	0.2769	0.6178	0.3822
ARS-USMARC-Parent-DQ837645-rs29015870	0.1840	0.1182	0.2769	0.6178	0.3822
ARS-USMARC-Parent-DQ916058-rs29016146	0.1840	0.1182	0.2769	0.6178	0.3822
ARS-USMARC-Parent-EF028073-rs29014953	0.1838	0.1178	0.2766	0.6173	0.3827

ARS-USMARC-Parent-DQ647190-rs29013632	0.1827	0.1157	0.2753	0.6150	0.3850
ARS-USMARC-Parent-AY850194-no-rs	0.1827	0.1157	0.2753	0.6150	0.3850
ARS-USMARC-Parent-EF034080-rs29024749	0.1827	0.1157	0.2753	0.6150	0.3850
ARS-USMARC-Parent-DQ846692-rs29010281	0.1824	0.1152	0.2749	0.6144	0.3856
ARS-USMARC-Parent-DQ888313-no-rs	0.1812	0.1130	0.2734	0.6117	0.3883
ARS-USMARC-Parent-EF034082-rs29013532	0.1812	0.1130	0.2734	0.6117	0.3883
ARS-USMARC-Parent-DQ786762-rs29010772	0.1808	0.1123	0.2730	0.6109	0.3891
ARS-USMARC-Parent-EF093509-rs29015170	0.1808	0.1123	0.2730	0.6109	0.3891
ARS-USMARC-Parent-AY853302-no-rs	0.1794	0.1099	0.2713	0.6079	0.3921
ARS-USMARC-Parent-DQ786763-rs29020472	0.1794	0.1099	0.2713	0.6079	0.3921
ARS-USMARC-Parent-EF034083-rs29018286	0.1794	0.1099	0.2713	0.6079	0.3921
ARS-USMARC-Parent-DQ650636-rs29024525	0.1790	0.1090	0.2708	0.6068	0.3932
ARS-USMARC-Parent-DQ839235-rs29012691	0.1790	0.1090	0.2708	0.6068	0.3932
ARS-USMARC-Parent-DQ846688-rs29023691	0.1790	0.1090	0.2708	0.6068	0.3932
ARS-USMARC-Parent-DQ837644-rs29010468	0.1790	0.1090	0.2708	0.6068	0.3932
ARS-USMARC-Parent-DQ404153-no-rs	0.1775	0.1065	0.2690	0.6035	0.3965
ARS-USMARC-Parent-EF026085-rs29021607	0.1775	0.1065	0.2690	0.6035	0.3965
ARS-USMARC-Parent-AY841151-rs29003466	0.1775	0.1065	0.2690	0.6035	0.3965
ARS-USMARC-Parent-EF034081-rs29009668	0.1775	0.1065	0.2690	0.6035	0.3965
ARS-USMARC-Parent-DQ789028-rs29017713	0.1769	0.1054	0.2682	0.6021	0.3979
ARS-USMARC-Parent-EF089234-rs29020870	0.1769	0.1054	0.2682	0.6021	0.3979
ARS-USMARC-Parent-DQ422949-rs29011466	0.1753	0.1027	0.2663	0.5984	0.4016
ARS-USMARC-Parent-DQ485413-no-rs	0.1753	0.1027	0.2663	0.5984	0.4016
ARS-USMARC-Parent-DQ435443-rs29010802	0.1753	0.1027	0.2663	0.5984	0.4016
ARS-USMARC-Parent-DQ846690-no-rs	0.1753	0.1027	0.2663	0.5984	0.4016
ARS-USMARC-Parent-DQ888309-rs29013741	0.1753	0.1027	0.2663	0.5984	0.4016
ARS-USMARC-Parent-AY941204-rs17872131	0.1728	0.0988	0.2634	0.5926	0.4074
ARS-USMARC-Parent-DQ422950-rs29012306	0.1728	0.0988	0.2634	0.5926	0.4074
ARS-USMARC-Parent-DQ786765-rs29009858	0.1728	0.0988	0.2634	0.5926	0.4074
ARS-USMARC-Parent-EF093511-rs29012316	0.1710	0.0958	0.2611	0.5880	0.4120
ARS-USMARC-Parent-DQ866817-no-rs	0.1701	0.0945	0.2601	0.5860	0.4140
ARS-USMARC-Parent-DQ990832-rs29015065	0.1701	0.0945	0.2601	0.5860	0.4140
ARS-USMARC-Parent-AY943841-rs17871566	0.1691	0.0929	0.2589	0.5834	0.4166
ARS-USMARC-Parent-DQ837646-rs29012894	0.1691	0.0929	0.2589	0.5834	0.4166
ARS-USMARC-Parent-AY939849-rs17870274	0.1672	0.0901	0.2566	0.5786	0.4214
ARS-USMARC-Parent-DQ995976-no-rs	0.1672	0.0901	0.2566	0.5786	0.4214
ARS-USMARC-Parent-DQ984825-rs29012457	0.1659	0.0882	0.2551	0.5754	0.4246
ARS-USMARC-Parent-DQ786759-rs29026696	0.1639	0.0854	0.2527	0.5703	0.4297
ARS-USMARC-Parent-EF026087-rs29011643	0.1639	0.0854	0.2527	0.5703	0.4297
ARS-USMARC-Parent-EF093512-rs29013546	0.1624	0.0833	0.2509	0.5664	0.4336
ARS-USMARC-Parent-DQ837643-rs29018818	0.1604	0.0805	0.2484	0.5610	0.4390
ARS-USMARC-Parent-AY842475-rs29002127	0.1565	0.0755	0.2438	0.5506	0.4494
ARS-USMARC-Parent-DQ468384-rs29003967	0.1523	0.0703	0.2388	0.5391	0.4609
ARS-USMARC-Parent-DQ984826-rs29027559	0.1523	0.0703	0.2388	0.5391	0.4609
ARS-USMARC-Parent-DQ404149-no-rs	0.1523	0.0703	0.2388	0.5391	0.4609
ARS-USMARC-Parent-DQ786758-rs29024430	0.1478	0.0651	0.2333	0.5263	0.4737

ARS-USMARC-Parent-DQ786766-rs29012070	0.1478	0.0651	0.2333	0.5263	0.4737
ARS-USMARC-Parent-DQ984828-rs29010004	0.1478	0.0651	0.2333	0.5263	0.4737
ARS-USMARC-Parent-EF034086-no-rs	0.1478	0.0651	0.2333	0.5263	0.4737
ARS-USMARC-Parent-DQ470475-no-rs	0.1452	0.0622	0.2301	0.5188	0.4812
ARS-USMARC-Parent-DQ647186-rs29014143	0.1430	0.0597	0.2273	0.5121	0.4879
ARS-USMARC-Parent-AY942198-rs29003010	0.1430	0.0597	0.2273	0.5121	0.4879
ARS-USMARC-Parent-DQ846689-rs29011985	0.1430	0.0597	0.2273	0.5121	0.4879
ARS-USMARC-Parent-EF026084-rs29025380	0.1430	0.0597	0.2273	0.5121	0.4879
ARS-USMARC-Parent-DQ832700-rs29012872	0.1377	0.0544	0.2208	0.4965	0.5035
ARS-USMARC-Parent-AY919868-rs29002211	0.1377	0.0544	0.2208	0.4965	0.5035
ARS-USMARC-Parent-DQ404150-rs29012530	0.1377	0.0544	0.2208	0.4965	0.5035
ARS-USMARC-Parent-DQ990834-rs29013727	0.1344	0.0512	0.2166	0.4864	0.5136
ARS-USMARC-Parent-EF026086-rs29013660	0.1344	0.0512	0.2166	0.4864	0.5136
ARS-USMARC-Parent-EF141102-rs29015783	0.1321	0.0491	0.2137	0.4793	0.5207
ARS-USMARC-Parent-EF093510-rs29010035	0.1284	0.0457	0.2089	0.4677	0.5323
ARS-USMARC-Parent-DQ650635-rs29012174	0.1219	0.0404	0.2004	0.4471	0.5529
ARS-USMARC-Parent-DQ866818-rs29011701	0.1219	0.0404	0.2004	0.4471	0.5529
ARS-USMARC-Parent-AY842473-rs29001956	0.1196	0.0386	0.1974	0.4398	0.5602
ARS-USMARC-Parent-DQ995977-rs29020834	0.1196	0.0386	0.1974	0.4398	0.5602
ARS-USMARC-Parent-DQ916059-rs29009907	0.1127	0.0335	0.1881	0.4172	0.5828
ARS-USMARC-Parent-DQ647187-rs29010510	0.1053	0.0286	0.1779	0.3926	0.6074
ARS-USMARC-Parent-DQ846691-rs29019814	0.1053	0.0286	0.1779	0.3926	0.6074
ARS-USMARC-Parent-AY761135-rs29003723	0.1039	0.0277	0.1760	0.3879	0.6121
ARS-USMARC-Parent-AY849380-no-rs	0.0974	0.0239	0.1668	0.3657	0.6343
ARS-USMARC-Parent-DQ916057-rs29009979	0.0890	0.0195	0.1545	0.3365	0.6635
ARS-USMARC-Parent-EF164803-rs29011141	0.0890	0.0195	0.1545	0.3365	0.6635
ARS-USMARC-Parent-DQ404151-rs29019282	0.0819	0.0162	0.1439	0.3114	0.6886
ARS-USMARC-Parent-DQ647189-rs29012226	0.0801	0.0154	0.1411	0.3049	0.6951
ARS-USMARC-Parent-DQ888311-rs29017313	0.0706	0.0117	0.1263	0.2705	0.7295
ARS-USMARC-Parent-EF034084-rs29016185	0.0604	0.0084	0.1100	0.2334	0.7666
ARS-USMARC-Parent-AY842472-rs29001941	0.0383	0.0032	0.0723	0.1502	0.8498
ARS-USMARC-Parent-EF034087-no-rs	0.0135	0.0004	0.0265	0.0537	0.9463