

Supplementary Table 2a: Principal Phenotype, cohort 1

SNP	cases	% fail	success	freq	HWE	Controls	% fail	success	freq	HWE	χ^2_{dF}	df^2_{HWE}	OR	OR 2 > 1	χ^2_{dF}	df^2_{HWE}	OR	OR 11 v rest	χ^2_{dF}	df^2_{HWE}	OR	OR 22 v rest	χ^2_{dF}	df^2_{HWE}	
rs12056759	a15	3.61	400	0.44	0.79	576	4.51	550	0.46	0.09	2.03	0.2313	0.91 (0.76-1.09)	0.99	0.3194	1.02 (0.77-1.35)	0.00	0.9484	0.76 (0.55-1.05)	2.45	0.1175				
n181781	a15	5.54	392	0.10	0.47	576	7.12	535	0.09	0.81	1.63	0.4419	1.11 (0.81-1.53)	0.35	0.0562	0.86 (0.61-1.21)	0.64	0.4246	0.54 (0.1-0.82)	0.12	0.7238				
n140401	a15	1.45	400	0.22	0.10	576	3.13	551	0.22	0.19	0.28	0.8782	1.02 (0.82-1.27)	0.02	0.8034	0.95 (0.74-1.24)	0.6	0.2782	0.91 (0.4-1.8)	0.01	0.9158				
n134881	a15	0.72	412	0.18	0.13	576	1.91	561	0.17	0.93	1.37	0.4062	1.04 (0.82-1.32)	0.07	0.0705	0.91 (0.1-1.2)	0.3	0.5596	0.68 (0.29-1.6)	0.46	0.4976				
n208983	a15	9.64	370	0.47	0.45	576	9.55	521	0.43	0.43	4.47	0.8077	1.17 (0.97-1.41)	2.50	0.1138	0.73 (0.55-0.97)	4.2	0.2084	1.05 (0.77-1.45)	0.06	0.8034				
n273121	a15	1.20	410	0.48	0.95	576	6.08	541	0.43	0.43	5.38	0.2023	1.2 (1.1-1.44)	3.57	0.0290	0.71 (0.54-0.95)	5.1	0.2227	1.11 (0.81-1.52)	0.34	0.5577				
n273124	a15	3.37	401	0.21	0.16	576	2.95	551	0.21	0.35	0.41	0.8143	0.96 (0.77-1.2)	0.08	0.7832	1.02 (0.76-1.31)	0.01	0.9230	0.79 (0.38-1.63)	0.21	0.6446				
n149149	a15	2.89	403	0.44	0.57	576	2.26	547	0.42	0.36	2.04	0.3597	2.0 (0.91-1.3)	0.02	0.3977	0.83 (0.63-1.00)	1.62	0.2023	1.01 (0.73-1.39)	0.00	0.9466				
n147354	a15	5.33	391	0.42	0.44	576	5.03	547	0.48	0.98	0.40	0.8208	0.98 (0.81-1.18)	0.03	0.0816	0.95 (0.51-1.3)	0.00	0.9791	0.91 (0.64-1.26)	0.22	0.6399				
n258292	a15	4.82	395	0.21	0.70	576	8.51	527	0.22	0.72	0.36	0.5475	0.98 (0.86-1.36)	0.36	0.0475	0.91 (0.1-1.2)	0.3	0.5542	1.10 (0.58-2.07)	0.01	0.9055				
n125584	a15	6.78	385	0.22	0.83	576	11.46	510	0.22	0.82	0.05	0.9565	0.97 (0.77-1.21)	0.05	0.8190	1.04 (0.79-1.36)	0.6	0.2853	0.94 (0.5-1.77)	0.00	0.9647				
n274285	a15	2.89	403	0.22	0.94	576	3.65	551	0.24	0.94	0.05	0.6279	1.11 (0.81-1.38)	0.02	0.4203	0.92 (0.1-1.16)	0.3	0.5596	1.32 (0.73-2.51)	0.48	0.4980				
n320159	a15	7.33	381	0.48	0.98	576	6.25	540	0.43	0.28	0.17	0.6737	0.99 (0.82-1.19)	0.01	0.0320	0.95 (0.11-1.27)	0.00	0.7862	0.91 (0.66-1.23)	0.30	0.5818				
n1727544	a15	5.71	391	0.45	0.75	576	13.02	501	0.44	0.27	6.30	0.0377	0.85 (0.61-1)	3.61	0.0275	1.12 (0.84-1.46)	0.51	0.4767	0.85 (0.45-0.6)	6.12	0.0154				
n49895	a15	1.39	407	0.11	0.93	576	7.81	531	0.15	0.25	1.50	0.4663	1.09 (0.81-1.47)	0.34	0.2828	0.87 (0.65-1.21)	0.54	0.4819	0.85 (0.18-1.17)	0.17	0.8686				
n157572	a15	0.90	411	0.27	0.45	576	2.39	568	0.22	0.68	0.04	0.7423	1.03 (0.76-1.13)	0.46	0.0482	1.08 (0.84-1.30)	0.27	0.6023	0.86 (0.32-1.36)	0.28	0.5867				
n3207338	a15	1.47	393	0.13	0.21	576	1.74	567	0.07	0.24	0.23	0.6667	1.02 (0.76-1.2)	0.00	0.0689	0.98 (0.1-1.2)	0.00	0.9222	0.98 (0.1-1.2)	0.00	0.9222				
n80404	a15	2.17	398	0.27	0.78	576	3.65	555	0.21	0.28	3.42	0.7062	0.81 (0.78-1.01)	0.16	0.0753	1.23 (0.84-1.49)	2.34	0.2081	0.72 (0.44-1.16)	1.57	0.2104				
n202950	a15	14.70	354	0.58	0.85	576	15.90	485	0.57	0.89	4.79	0.8593	0.82 (0.61-1)	0.58	0.0586	1.10 (0.84-1.49)	0.6	0.2852	0.85 (0.48-1.28)	0.28	0.5816				
n242049	a15	1.45	400	0.18	0.29	576	5.71	561	0.13	0.81	0.05	0.8191	1.04 (0.81-1.79)	0.43	0.0172	0.88 (0.51-0.86)	0.75	0.2867	0.85 (0.14-1.28)	0.00	0.9536				
n141091	a15	1.45	409	0.44	0.48	576	2.43	562	0.43	0.49	0.07	0.8162	0.88 (0.61-1)	0.00	0.0403	0.84 (0.47-0.82)	0.64	0.2412	0.87 (0.03-1.21)	0.52	0.4951				
n2101950	a15	1.45	409	0.48	0.49	576	5.73	543	0.47	0.47	0.05	0.7902	1.04 (0.91-1.58)	0.05	0.0296	0.86 (0.3-0.86)	0.00	0.9355	0.98 (0.3-1.57)	0.30	0.5855				
n1020244	a15	5.33	391	0.16	0.19	576	5.73	543	0.21	0.47	0.05	0.7942	1.04 (0.91-1.58)	0.22	0.0397	1.08 (0.64-1.37)	0.00	0.9355	0.98 (0.3-1.57)	0.30	0.5855				
n278590	a15	19.33	330	0.04	0.00	576	22.46	426	0.05	0.00	2.22	0.3198	0.86 (0.71-1.09)	0.20	0.1544	1.26 (0.85-1.7)	2.04	0.1253	0.88 (0.61-1.23)	0.37	0.5442				
n2322937	a11	1.22	400	0.43	0.45	576	1.72	563	0.43	0.45	0.05	0.8004	0.82 (0.71-1)	0.7	0.0303	1.23 (0.71-1.58)	1.44	0.2146	0.90 (0.3-1.37)	0.00	0.9054				
n2020237	a15	3.65	404	0.31	0.94	576	7.20	534	0.31	0.94	3.73	0.2861	1.04 (0.71-1)	0.37	0.0446	0.90 (0.31-1.28)	0.00	0.9882	0.93 (0.41-1.1)	0.10	0.5857				
n1202018_1	a12	6.78	385	0.41	0.55	576	8.48	541	0.41	0.44	0.05	0.8073	0.87 (0.71-1.2)	0.02	0.0169	0.87 (0.1-1.26)	0.7	0.2815	0.90 (0.3-1.24)	0.00	0.9494				
n278301	a12	4.44	393	0.28	0.78	576	3.13	558	0.41	0.28	0.04	0.8012	0.93 (0.78-1.18)	0.46	0.0233	1.13 (0.81-1.49)	0.62	0.2426	0.96 (0.31-1.37)	0.02	0.8780				
n272090	a12	0.37	402	0.17	0.94	576	1.22	569	0.16	0.94	0.05	0.8023	0.93 (0.73-1.2)	0.00	0.0403	0.96 (0.31-1.27)	0.00	0.9374	1.02 (0.46-1.25)	0.02	0.8805				
n174592	a12	4.45	413	0.44	0.28	576	2.95	562	0.41	0.67	0.05	0.8023	1.05 (0.86-1.26)	0.29	0.0385	0.87 (0.71-1.14)	0.62	0.2472	1.03 (0.38-1.78)	2.05	0.1120				
n2024204	a12	3.15	400	0.11	0.81	576	3.82	534	0.10	0.87	0.05	0.8012	0.91 (0.77-1.21)	0.19	0.0311	1.04 (0.77-1.41)	0.02	0.8893	1.03 (0.32-1.71)	0.00	0.9896				
n4224219	a12	10.09	196	0.47	0.11	576	9.55	551	0.17	0.35	0.05	0.8071	1.04 (0.84-1.45)	0.17	0.0311	0.93 (0.55-1.12)	1.53	0.1650	1.20 (0.81-1.7)	0.07	0.4939				
n273124	a12	1.83	214	0.48	0.68	576	6.08	541	0.43	0.35	2.75	0.2528	1.2 (0.96-1.5)	2.39	0.0211	0.75 (0.53-1.06)	0.00	0.9374	2.38 (1.22-1.73)	0.12	0.4917				
n149149	a12	1.45	393	0.22	0.78	576	6.26	563	0.21	0.35	0.05	0.8023	1.05 (0.82-1.28)	0.00	0.0271	0.87 (0.64-1.21)	0.00	0.9374	1.05 (0.64-1.21)	0.00	0.9374				
n140401	a12	1.45	400	0.22	0.22	576	1.71	561	0.21	0.35	0.05	0.8012	1.05 (0.82-1.33)	0.01	0.0241	0.87 (0.61-1.31)	0.00	0.9374	1.05 (0.64-1.21)	0.00	0.9374				
n202950	a12	1.45	400	0.21	0.70	576	8.51	527	0.22	0.72	0.05	0.8072	1.01 (0.82-1.2)	0.32	0.0285	0.87 (0.61-1.2)	0.00	0.9374	1.05 (0.64-1.21)	0.00	0.9374				
n273124	a12	2.29	213	0.21	0.18	576	3.65	551	0.22	0.62	0.05	0.8072	1.04 (0.81-1.2)	0.21	0.0369	0.87 (0.61-1.2)	0.00	0.9374	1.05 (0.64-1.21)	0.00	0.9374				
n140401	a12	2.29	213	0.21	0.18	576	3.65	551	0.22	0.62	0.05	0.8072	1.04 (0.81-1.2)	0.21	0.0369	0.87 (0.61-1.2)	0.00	0.9374	1.05 (0.64-1.21)	0.00	0.9374				
n273124	a12	2.29	213	0.21	0.18	576	3.65	551	0.22	0.62	0.05	0.8072	1.04 (0.81-1.2)	0.21	0.0369	0.87 (0.61-1.2)	0.00	0.9374	1.05 (0.64-1.21)	0.00	0.9374				
n140401	a12	2.29	213	0.21	0.18	576	3.65	551	0.22	0.62	0.05	0.8072	1.04 (0.81-1.2)	0.21	0.0369	0.87 (0.61-1.2)	0.00	0.9374	1.05 (0.64-1.21)	0.00	0.9374				
n273124	a12	2.29	213	0.21	0.18	576	3.65	551	0.22	0.62	0.05	0.8072	1.04 (0.81-1.2)	0.21	0.0369	0.87 (0.61-1.2)	0.00	0.9374	1.05 (0.64-1.21)	0.00	0.9374				
n140401	a12	2.29	213	0.21	0.18	576	3.65	551	0.22	0.62	0.05	0.8072	1.04 (0.81-1.2)	0.21	0.0369	0.87 (