

Supplemental Table 1. Association between SNPs in *GC* and circulating 25(OH)D concentration

SNP	Additive					Dominant					Recessive				
	Mean Change	95% CI		P	pACT <sup>1</sup>	Mean Change	95% CI		P	pACT <sup>1</sup>	Mean Change	95% CI		p	pACT <sup>1</sup>
rs1155563	-3.37	-4.72	-2.02	<0.001	<0.001	-3.91	-5.66	-2.16	<0.001	1.000	-5.35	-8.49	-2.21	0.001	0.030
rs12512631	2.15	0.92	3.38	0.001	0.023	2.32	0.53	4.11	0.01	0.001	4.14	1.69	6.59	0.001	0.031
rs13117483	0.73	-0.73	2.19	0.328	0.997	1.20	-0.61	3.00	0.19	0.236	-0.33	-3.99	3.33	0.858	1.000
rs1352843	-0.01	-2.20	2.17	0.990	0.996	-0.05	-2.32	2.22	0.96	0.965	1.17	-11.60	13.94	0.857	1.000
rs1352844	0.50	-1.54	2.53	0.632	1.000	0.36	-1.82	2.54	0.75	1.000	3.63	-5.42	12.67	0.432	0.999
rs1491709	2.45	0.11	4.80	0.041	0.548	2.50	0.10	4.90	0.04	0.551	3.78	-14.25	21.81	0.682	1.000
rs16846876	-2.95	-4.27	-1.63	<0.001	0.001	-3.48	-5.25	-1.72	<0.001	0.005	-4.61	-7.48	-1.74	0.002	0.053
rs16846880	-0.19	-2.62	2.24	0.877	1.000	-0.36	-2.92	2.19	0.78	1.000	3.75	-9.03	16.53	0.565	1.000
rs16847015	2.09	-1.05	5.23	0.194	0.966	2.09	-1.05	5.23	0.19	0.966	NA	NA	NA	NA	NA
rs16847039	0.90	-0.79	2.59	0.296	0.994	0.65	-1.27	2.56	0.51	1.000	4.24	-1.25	9.73	0.131	0.950
rs16847047	0.87	-1.14	2.89	0.396	0.999	0.52	-1.68	2.72	0.64	1.000	7.11	-0.97	15.18	0.086	0.791
rs17383291	-2.86	-5.32	-0.39	0.024	0.394	-3.10	-5.78	-0.42	0.02	0.397	-4.31	-14.75	6.12	0.418	0.999
rs17467825	-3.44	-4.80	-2.08	<0.001	<0.001	-3.98	-5.73	-2.22	<0.001	<0.001	-5.46	-8.64	-2.28	0.001	0.028
rs222014	0	-2.18	2.19	0.997	0.997	-0.03	-2.31	2.24	0.98	1.000	1.19	-11.59	13.97	0.856	1.000
rs222016	0.48	-1.37	2.33	0.609	1.000	0.25	-1.76	2.26	0.81	1.000	4.34	-3.07	11.74	0.252	0.987
rs222017	-0.01	-2.20	2.17	0.990	0.996	-0.05	-2.32	2.22	0.96	1.000	1.17	-11.6	13.94	0.857	1.000
rs222029	0.37	-1.47	2.20	0.697	1.000	0.36	-1.61	2.32	0.72	1.000	1.00	-7.10	9.10	0.809	1.000
rs222035	-2.21	-3.46	-0.95	0.001	0.022	-2.76	-4.70	-0.82	0.01	0.137	-3.15	-5.35	-0.95	0.005	0.133
rs3733359	0.74	-1.87	3.34	0.578	1.000	0.43	-2.34	3.20	0.76	1.000	8.71	-4.03	21.45	0.181	0.962
rs6817912	0.04	-2.63	2.72	0.975	1.000	-0.03	-2.79	2.74	0.98	1.000	3.13	-14.86	21.12	0.733	1.000
rs7041	-2.22	-3.47	-0.98	0.001	0.019	-2.66	-4.60	-0.72	0.01	0.176	-3.36	-5.53	-1.18	0.003	0.073
rs705117	1.04	-0.72	2.79	0.247	0.986	1.01	-0.96	2.98	0.32	0.996	2.80	-3.27	8.87	0.366	0.998
rs705125	0.02	-1.86	1.91	0.980	1.000	-0.04	-2.13	2.05	0.97	1.000	0.73	-6.14	7.60	0.835	1.000
rs842999	-1.92	-3.10	-0.73	0.002	0.051	-2.58	-4.47	-0.69	0.01	0.177	-2.76	-4.85	-0.67	0.01	0.214
rs843007	0.73	-0.95	2.42	0.393	0.998	0.43	-1.48	2.35	0.66	1.000	4.24	-1.25	9.73	0.131	0.905

<sup>1</sup>The multiple comparisons adjustment was applied to the p-values as described by Conneely et al., 2007.

Supplemental Table 2. Association between SNPs in *GC* and circulating 1,25(OH)<sub>2</sub>D concentration

SNP	Additive					Dominant					Recessive				
	Mean Change	95% CI		P	pACT <sup>1</sup>	Mean Change	95% CI		P	pACT <sup>1</sup>	Mean Change	95% CI		p	pACT <sup>1</sup>
rs1155563	-1.57	-3.05	-0.10	0.038	0.640	-2.01	-3.91	-0.11	0.039	0.640	-1.90	-5.29	1.49	0.272	0.998
rs12512631	0.43	-0.90	1.76	0.529	1.000	0.18	-1.75	2.11	0.854	1.000	1.35	-1.30	4.00	0.318	0.999
rs13117483	0.59	-0.95	2.14	0.451	1.000	0.66	-1.25	2.57	0.499	1.000	1.02	-2.85	4.88	0.606	1.000
rs1352843	0.29	-2.03	2.61	0.807	1.000	0.35	-2.07	2.76	0.778	1.000	-1.09	-14.68	12.51	0.876	1.000
rs1352844	0.76	-1.40	2.93	0.490	1.000	1.15	-1.17	3.47	0.330	0.999	-4.78	-14.40	4.85	0.331	0.999
rs1491709	1.96	-0.55	4.46	0.128	0.954	2.00	-0.57	4.57	0.128	0.954	2.88	-16.38	22.13	0.770	1.000
rs16846876	-1.05	-2.49	0.38	0.151	0.972	-1.18	-3.09	0.74	0.229	0.955	-1.81	-4.90	1.28	0.251	0.997
rs16846880	0.05	-2.53	2.64	0.968	1.000	0.21	-2.51	2.93	0.879	1.000	-3.82	-17.41	9.77	0.582	1.000
rs16847015	0.08	-3.27	3.43	0.961	1.000	0.08	-3.27	3.43	0.961	1.000	NA	NA	NA	NA	NA
rs16847039	0.57	-1.22	2.37	0.531	1.000	0.99	-1.05	3.03	0.341	0.999	-2.05	-7.91	3.81	0.492	1.000
rs16847047	0.85	-1.30	2.99	0.439	1.000	1.40	-0.94	3.74	0.241	0.996	-5.33	-13.94	3.29	0.226	0.995
rs17383291	-2.51	-5.14	0.12	0.062	0.796	-2.58	-5.44	0.28	0.078	0.859	-5.92	-17.02	5.18	0.296	0.999
rs17467825	-1.60	-3.08	-0.12	0.035	0.622	-2.06	-3.97	-0.16	0.034	0.614	-1.84	-5.28	1.59	0.294	0.999
rs222014	0.32	-2.00	2.64	0.788	1.000	0.38	-2.04	2.80	0.759	1.000	-1.06	-14.65	12.53	0.879	1.000
rs222016	0	-1.97	1.97	0.999	0.999	0.12	-2.02	2.26	0.913	1.000	-1.66	-9.56	6.25	0.682	1.000
rs222017	0.29	-2.03	2.61	0.807	1.000	0.35	-2.07	2.76	0.778	1.000	-1.09	-14.68	12.51	0.876	1.000
rs222029	0.25	-1.71	2.21	0.801	1.000	0.32	-1.78	2.41	0.767	0.999	-0.49	-9.13	8.15	0.912	1.000
rs222035	-1.01	-2.37	0.35	0.147	0.969	-1.04	-3.13	1.05	0.331	1.000	-1.73	-4.1	0.64	0.153	0.973
rs3733359	-0.27	-3.04	2.51	0.851	1.000	-0.29	-3.24	2.66	0.846	1.000	-0.18	-13.78	13.41	0.979	1.000
rs6817912	-0.16	-3.02	2.71	0.914	1.000	-0.22	-3.18	2.74	0.885	1.000	2.12	-17.13	21.36	0.829	1.000
rs7041	-0.99	-2.33	0.35	0.149	0.971	-0.95	-3.03	1.13	0.370	1.000	-1.79	-4.13	0.54	0.133	0.958
rs705117	0.70	-1.17	2.57	0.461	1.000	0.87	-1.23	2.96	0.419	1.000	0.19	-6.27	6.66	0.954	1.000
rs705125	0.30	-1.70	2.30	0.770	1.000	0.60	-1.63	2.82	0.600	1.000	-2.45	-9.76	4.86	0.511	1.000
rs842999	-1.23	-2.50	0.04	0.058	0.776	-1.39	-3.41	0.63	0.177	0.984	-2.09	-4.32	0.14	0.067	0.817
rs843007	0.38	-1.42	2.17	0.682	1.000	0.73	-1.30	2.76	0.482	1.000	-2.05	-7.91	3.81	0.492	1.000

<sup>1</sup>The multiple comparisons adjustment was applied to the p-values as described by Conneely et al., 2007.

Supplemental Table 3. Association between SNPs in *CASR* and circulating 25(OH)D concentration

SNP	Additive Inheritance					Dominant Inheritance					Recessive Inheritance				
	Mean Change	95% CI		P	pACT <sup>1</sup>	Mean Change	95% CI		P	pACT <sup>1</sup>	Mean Change	95% CI		p	pACT <sup>1</sup>
rs10222633	0.75	-0.52 - 2.02		0.247	1.000	1.47	-0.60 - 3.54		0.164	0.996	0.53	-1.54 - 2.60		0.618	1.000
rs1042636	-0.73	-3.02 - 1.57		0.536	1.000	-1.03	-3.50 - 1.43		0.412	1.000	3.51	-6.90 - 13.92		0.509	1.000
rs12485716	0.21	-1.23 - 1.64		0.778	1.000	0.54	-1.27 - 2.34		0.559	1.000	-0.78	-4.26 - 2.69		0.659	1.000
rs12635478	-0.45	-1.78 - 0.88		0.509	1.000	0.69	-1.11 - 2.50		0.451	1.000	-3.64	-6.42 - -0.87		0.010	0.369
rs13320637	0.55	-0.86 - 1.95		0.446	1.000	0.10	-1.71 - 1.92		0.912	1.000	2.71	-0.60 - 6.02		0.109	0.979
rs13324814	0.50	-1.36 - 2.36		0.600	1.000	0.99	-1.10 - 3.08		0.353	1.000	-3.40	-9.83 - 3.03		0.301	1.000
rs1354162	1.62	-0.39 - 3.62		0.115	0.983	1.86	-0.28 - 4.01		0.089	0.960	-0.21	-9.26 - 8.84		0.964	1.000
rs1501900	-1.11	-2.79 - 0.58		0.199	0.999	-1.25	-3.14 - 0.64		0.196	0.999	-1.30	-7.06 - 4.45		0.657	1.000
rs17197636	0.08	-1.90 - 2.07		0.933	1.000	0.10	-2.14 - 2.33		0.933	1.000	0.12	-6.77 - 7.00		0.973	0.999
rs17197671	-0.13	-2.08 - 1.81		0.893	1.000	-0.03	-2.10 - 2.04		0.977	0.977	-2.28	-11.26 - 6.69		0.618	1.000
rs17203502	-0.34	-1.58 - 0.90		0.594	1.000	-1.24	-3.27 - 0.78		0.228	0.999	0.35	-1.70 - 2.41		0.735	1.000
rs17282008	-0.21	-1.68 - 1.25		0.777	1.000	-0.60	-2.40 - 1.21		0.519	1.000	1.16	-2.56 - 4.88		0.542	1.000
rs17282022	0.31	-0.94 - 1.55		0.630	1.000	-0.05	-2.05 - 1.96		0.962	1.000	0.92	-1.18 - 3.01		0.391	1.000
rs1801726	-1.76	-5.09 - 1.57		0.301	1.000	-1.81	-5.53 - 1.90		0.339	1.000	-4.43	-17.19 - 8.32		0.496	1.000
rs1973490	0.06	-1.22 - 1.34		0.928	1.000	0.10	-1.78 - 1.98		0.918	1.000	0.04	-2.32 - 2.41		0.970	1.000
rs3749208	-0.47	-1.80 - 0.87		0.496	1.000	0.57	-1.24 - 2.37		0.540	1.000	-3.45	-6.25 - -0.64		0.016	0.498
rs3804595	-0.14	-2.09 - 1.81		0.888	1.000	-0.04	-2.11 - 2.04		0.971	1.000	-2.29	-11.33 - 6.75		0.620	1.000
rs3845918	0.45	-0.94 - 1.85		0.523	1.000	0.14	-1.67 - 1.95		0.883	1.000	2.06	-1.21 - 5.32		0.218	0.999
rs3863977	-0.80	-2.19 - 0.59		0.262	1.000	-0.85	-2.65 - 0.95		0.355	1.000	-1.52	-4.70 - 1.67		0.351	1.000
rs4678013	-1.23	-2.90 - 0.43		0.148	0.993	-1.26	-3.15 - 0.62		0.189	0.998	-2.63	-8.12 - 2.86		0.349	1.000
rs4678035	-0.26	-1.85 - 1.32		0.745	1.000	0.24	-1.69 - 2.17		0.806	1.000	-3.20	-7.54 - 1.13		0.148	0.993
rs4678174	-0.15	-1.53 - 1.23		0.833	1.000	0.32	-1.47 - 2.12		0.724	1.000	-1.77	-4.91 - 1.37		0.271	1.000
rs6438706	-0.25	-1.84 - 1.34		0.760	1.000	0.26	-1.67 - 2.20		0.789	1.000	-3.19	-7.53 - 1.15		0.150	0.994
rs6764205	0.55	-0.83 - 1.93		0.436	1.000	0.14	-1.66 - 1.95		0.876	1.000	2.36	-0.75 - 5.47		0.138	0.992
rs6764691	-0.14	-1.75 - 1.46		0.862	1.000	0.32	-1.61 - 2.26		0.745	1.000	-2.81	-7.26 - 1.65		0.218	0.999
rs6776158	-0.91	-2.20 - 0.38		0.167	0.996	-0.69	-2.51 - 1.13		0.456	1.000	-2.22	-4.79 - 0.34		0.090	0.961
rs7614486	-0.28	-1.75 - 1.19		0.710	1.000	-0.07	-1.89 - 1.74		0.936	1.000	-1.48	-5.20 - 2.25		0.437	1.000
rs7621124	0.14	-1.29 - 1.57		0.852	1.000	0.43	-1.37 - 2.23		0.638	1.000	-0.81	-4.28 - 2.67		0.649	1.000
rs7635112	-1.52	-3.48 - 0.43		0.128	0.988	-1.58	-3.70 - 0.55		0.146	0.993	-3.10	-11.22 - 5.02		0.455	1.000
rs7644390	0.72	-0.61 - 2.04		0.291	1.000	0.42	-1.42 - 2.25		0.657	1.000	1.99	-0.66 - 4.64		0.142	0.992

rs7646147	0.93	-0.41	-	2.26	0.175	0.997	0.63	-1.20	-	2.46	0.500	1.000	2.42	-0.29	-	5.13	0.081	0.947
rs7647405	0.39	-2.91	-	3.70	0.815	1.000	0.36	-3.12	-	3.83	0.841	1.000	2.12	-15.92	-	20.16	0.818	1.000
rs7648044	-0.30	-1.89		1.28	0.706	1.000	0.18	-1.75		2.11	0.855	1.000	-3.20	-7.54		1.13	0.148	0.993
rs9826770	0.29	-2.64		3.21	0.848	1.000	0.28	-2.75		3.32	0.855	1.000	0.92	-17.12		18.96	0.920	1.000
rs9866419	-0.43	-1.84		0.97	0.544	1.000	-0.41	-2.21		1.39	0.655	1.000	-1.00	-4.28		2.27	0.549	1.000

<sup>†</sup>The multiple comparisons adjustment was applied to the p-values as described by Conneely et al., 2007.

Supplemental Table 4. Association between SNPs in *CASR* and circulating 1,25(OH)<sub>2</sub>D concentration

SNP	Additive Inheritance						Dominant Inheritance						Recessive Inheritance					
	Mean Change	95% CI		P	pACT <sup>1</sup>		Mean Change	95% CI		P	pACT <sup>1</sup>		Mean Change	95% CI		p	pACT <sup>1</sup>	
rs10222633	0.22	-1.13	-	1.58	0.747	1.000	-0.34	-2.55	-	1.87	0.762	1.000	0.93	-1.27	-	3.13	0.408	1.000
rs1042636	-1.35	-3.81	-	1.10	0.280	1.000	-1.61	-4.24	-	1.03	0.233	1.000	0.82	-10.31	-	11.96	0.885	1.000
rs12485716	-0.86	-2.38	-	0.66	0.267	1.000	-1.02	-2.94	-	0.90	0.297	1.000	-1.29	-4.99	-	2.40	0.493	1.000
rs12635478	-0.11	-1.53	-	1.31	0.880	1.000	0.35	-1.57	-	2.27	0.721	1.000	-1.32	-4.29	-	1.65	0.384	1.000
rs13320637	0.67	-0.82	-	2.17	0.377	1.000	0.52	-1.41	-	2.45	0.597	1.000	2.02	-1.51	-	5.55	0.263	1.000
rs13324814	-1.32	-3.28	-	0.64	0.187	0.998	-1.45	-3.65	-	0.76	0.199	0.999	-2.16	-8.95	-	4.64	0.534	1.000
rs1354162	0.50	-1.64	-	2.64	0.647	1.000	0.54	-1.75	-	2.84	0.643	1.000	0.53	-9.11	-	10.16	0.915	1.000
rs1501900	-0.97	-2.78	-	0.83	0.29	1.000	-0.42	-2.44	-	1.61	0.687	1.000	-7.46	-13.56	-	-1.35	0.017	0.511
rs17197636	-0.63	-2.73	-	1.47	0.555	1.000	-0.63	-3.00	-	1.74	0.605	1.000	-1.70	-9.00	-	5.59	0.648	1.000
rs17197671	-0.08	-2.14	-	1.97	0.937	1.000	-0.57	-2.75	-	1.62	0.613	1.000	8.85	-0.59	-	18.29	0.067	0.912
rs17203502	-0.74	-2.07	-	0.60	0.281	1.000	-1.31	-3.49	-	0.86	0.237	1.000	-0.66	-2.86	-	1.55	0.560	1.000
rs17282008	-0.07	-1.63	-	1.50	0.934	1.000	-0.12	-2.04	-	1.81	0.904	1.000	0.08	-3.88	-	4.04	0.968	1.000
rs17282022	0.58	-0.75	-	1.91	0.392	1.000	0.53	-1.61	-	2.67	0.628	1.000	1.06	-1.17	-	3.30	0.352	1.000
rs1801726	-1.12	-4.67	-	2.43	0.537	1.000	-0.48	-4.44	-	3.49	0.814	1.000	-10.84	-24.41	-	2.73	0.118	0.984
rs1973490	0	-1.36	-	1.36	0.999	0.999	-0.11	-2.12	-	1.89	0.914	1.000	0.17	-2.35	-	2.69	0.894	1.000
rs3749208	-0.06	-1.49	-	1.36	0.931	1.000	0.39	-1.53	-	2.32	0.688	1.000	-1.24	-4.25	-	1.76	0.417	1.000
rs3804595	0.02	-2.06	-	2.10	0.985	1.000	-0.45	-2.66	-	1.76	0.691	1.000	8.93	-0.67	-	18.53	0.069	0.919
rs3845918	0.78	-0.70	-	2.26	0.304	1.000	0.58	-1.35	-	2.50	0.557	1.000	2.40	-1.08	-	5.87	0.177	0.998
rs3863977	0.25	-1.23	-	1.74	0.739	1.000	0.51	-1.41	-	2.43	0.606	1.000	-0.26	-3.67	-	3.14	0.880	1.000
rs4678013	-1.05	-2.83	-	0.73	0.248	1.000	-0.49	-2.50	-	1.53	0.636	1.000	-7.25	-13.08	-	-1.42	0.015	0.474
rs4678035	0.01	-1.68	-	1.70	0.991	1.000	0.17	-1.88	-	2.23	0.868	1.000	-0.80	-5.43	-	3.82	0.733	1.000
rs4678174	-0.97	-2.44	-	0.50	0.195	0.999	-1.01	-2.91	-	0.90	0.302	1.000	-1.94	-5.28	-	1.41	0.256	1.000
rs6438706	0.04	-1.65	-	1.73	0.964	1.000	0.21	-1.85	-	2.27	0.841	1.000	-0.78	-5.40	-	3.85	0.742	1.000
rs6764205	0.70	-0.77	-	2.17	0.352	1.000	0.49	-1.43	-	2.41	0.615	1.000	2.08	-1.23	-	5.39	0.219	0.999
rs6764691	0.09	-1.62	-	1.80	0.917	1.000	0.22	-1.84	-	2.29	0.832	1.000	-0.49	-5.24	-	4.27	0.841	1.000
rs6776158	-0.63	-2.01	-	0.75	0.370	1.000	-0.17	-2.11	-	1.77	0.864	1.000	-2.15	-4.89	-	0.58	0.123	0.985
rs7614486	0.20	-1.37	-	1.76	0.804	1.000	0.33	-1.60	-	2.26	0.735	1.000	-0.13	-4.10	-	3.83	0.948	1.000
rs7621124	-0.94	-2.46	-	0.58	0.228	1.000	-1.13	-3.04	-	0.79	0.249	1.000	-1.32	-5.02	-	2.37	0.483	1.000
rs7635112	-0.01	-2.09	-	2.08	0.996	0.999	0.16	-2.11	-	2.42	0.892	1.000	-2.39	-11.04	-	6.25	0.588	1.000
rs7644390	1.03	-0.38	-	2.44	0.152	0.994	1.12	-0.83	-	3.07	0.261	1.000	1.78	-1.04	-	4.60	0.217	0.999
rs7646147	1.09	-0.33	-	2.52	0.133	0.989	1.22	-0.73	-	3.17	0.222	0.999	1.82	-1.07	-	4.71	0.218	0.999

rs7647405	0.23	-3.28	-	3.75	0.897	1.000	0.07	-3.63	-	3.77	0.970	1.000	5.03	-14.16	-	24.23	0.608	1.000
rs7648044	-0.01	-1.70		1.67	0.988	1.000	0.14	-1.91		2.19	0.894	1.000	-0.80	-5.43		3.82	0.733	1.000
rs9826770	1.55	-1.56		4.65	0.329	1.000	1.80	-1.42		5.03	0.274	1.000	-4.59	-23.79		14.61	0.640	1.000
rs9866419	0.31	-1.19		1.80	0.689	1.000	0.72	-1.19		2.63	0.461	1.000	-0.73	-4.22		2.76	0.682	1.000

<sup>†</sup>The multiple comparisons adjustment was applied to the p-values as described by Conneely et al., 2007.

Supplemental Table 5. Association between *GC* polymorphisms and colorectal neoplasia recurrence

SNP	Additive						Dominant						Recessive					
	OR	95% CI		P	pACT <sup>1</sup>	OR	95% CI		P	pACT <sup>1</sup>	OR	95% CI		p	pACT <sup>1</sup>			
rs1155563	1.01	0.86	- 1.18	0.942	1.000	0.93	0.75	- 1.14	0.470	1.000	1.34	0.91	- 1.95	0.136	0.971			
rs12512631	1.01	0.87	- 1.17	0.904	1.000	1.00	0.81	- 1.23	0.979	1.000	1.04	0.78	- 1.41	0.780	1.000			
rs13117483	0.95	0.80	- 1.13	0.565	1.000	0.91	0.74	- 1.12	0.386	1.000	1.07	0.70	- 1.62	0.764	1.000			
rs1352843	1.00	0.79	- 1.27	0.993	0.999	0.98	0.76	- 1.27	0.884	1.000	1.38	0.46	- 4.13	0.565	1.000			
rs1352844	1.17	0.93	- 1.47	0.188	0.992	1.18	0.92	- 1.51	0.201	0.994	1.32	0.53	- 3.26	0.552	1.000			
rs1491709	0.96	0.73	- 1.27	0.797	1.000	0.96	0.72	- 1.28	0.761	1.000	1.18	0.24	- 5.86	0.840	1.000			
rs16846876	1.03	0.88	- 1.20	0.734	1.000	1.02	0.83	- 1.26	0.841	1.000	1.07	0.77	- 1.50	0.683	1.000			
rs16846880	0.91	0.69	- 1.21	0.525	1.000	0.89	0.66	- 1.20	0.430	1.000	1.58	0.35	- 7.07	0.552	1.000			
rs16847015	1.00	0.71	- 1.40	0.985	1.000	0.99	0.70	- 1.41	0.960	1.000	NA	NA	- NA	NA	NA			
rs16847039	1.06	0.87	- 1.28	0.568	1.000	1.06	0.85	- 1.32	0.625	1.000	1.14	0.65	- 2.02	0.649	1.000			
rs16847047	1.16	0.92	- 1.45	0.213	0.996	1.16	0.90	- 1.49	0.257	0.999	1.45	0.60	- 3.52	0.412	1.000			
rs17383291	0.97	0.73	- 1.30	0.853	1.000	0.92	0.67	- 1.26	0.607	1.000	2.07	0.60	- 7.11	0.247	0.998			
rs17467825	1.01	0.86	- 1.18	0.937	1.000	0.93	0.76	- 1.15	0.493	1.000	1.30	0.90	- 1.89	0.161	0.984			
rs222014	1.00	0.79	- 1.27	0.993	0.993	0.98	0.76	- 1.27	0.884	1.000	1.38	0.46	- 4.13	0.565	1.000			
rs222016	0.98	0.80	- 1.21	0.875	1.000	0.96	0.76	- 1.21	0.742	1.000	1.18	0.59	- 2.38	0.641	1.000			
rs222017	1.00	0.79	- 1.28	0.981	1.000	0.99	0.76	- 1.28	0.910	1.000	1.39	0.46	- 4.14	0.559	1.000			
rs222029	0.95	0.78	- 1.16	0.613	1.000	0.94	0.75	- 1.18	0.573	1.000	0.99	0.51	- 1.95	0.983	1.000			
rs222035	0.97	0.84	- 1.12	0.672	1.000	0.92	0.73	- 1.15	0.438	1.000	1.02	0.79	- 1.33	0.876	1.000			
rs3733359	0.90	0.67	- 1.21	0.475	1.000	0.88	0.64	- 1.20	0.415	1.000	1.18	0.29	- 4.73	0.816	1.000			
rs6817912	0.94	0.69	- 1.27	0.687	1.000	0.92	0.67	- 1.26	0.607	1.000	2.38	0.22	- 26.26	0.480	1.000			
rs7041	0.97	0.84	- 1.12	0.659	1.000	0.92	0.74	- 1.15	0.456	1.000	1.01	0.78	- 1.31	0.931	1.000			
rs705117	0.94	0.77	1.15	0.548	1.000	0.94	0.74	1.18	0.575	1.000	0.88	0.45	1.74	0.722	1.000			
rs705125	1.08	0.88	1.33	0.445	1.000	1.08	0.85	1.38	0.535	1.000	1.25	0.68	2.29	0.476	1.000			
rs842999	0.96	0.83	- 1.10	0.535	1.000	0.88	0.71	- 1.10	0.262	1.000	1.02	0.80	- 1.31	0.866	1.000			
rs843007	1.06	0.88	- 1.28	0.526	1.000	1.05	0.84	- 1.31	0.653	1.000	1.24	0.71	- 2.16	0.457	1.000			

<sup>1</sup>The multiple comparisons adjustment was applied to the p-values as described by Conneely et al., 2007.

Supplemental Table 6. Association between *GC* polymorphisms and distal colorectal neoplasia

SNP	Additive					Dominant					Recessive			
	OR	95% CI	P	pACT <sup>1</sup>	OR	95% CI	P	pACT <sup>1</sup>	OR	95% CI	p	pACT <sup>1</sup>		
rs1155563	1.01	0.83 - 1.22	0.933	1.000	0.92	0.72 - 1.18	0.521	1.000	1.34	0.88 - 2.04	0.173	0.989		
rs12512631	1.07	0.90 - 1.27	0.472	1.000	1.04	0.82 - 1.33	0.742	1.000	1.18	0.84 - 1.66	0.329	1.000		
rs13117483	1.02	0.83 - 1.24	0.879	1.000	1.01	0.79 - 1.29	0.914	1.000	1.04	0.64 - 1.70	0.871	1.000		
rs1352843	0.87	0.65 - 1.17	0.360	1.000	0.88	0.65 - 1.20	0.420	1.000	0.57	0.13 - 2.59	0.469	1.000		
rs1352844	1.16	0.90 - 1.51	0.259	0.999	1.19	0.89 - 1.58	0.242	0.998	1.13	0.40 - 3.16	0.814	1.000		
rs1491709	1.04	0.75 - 1.44	0.824	1.000	1.08	0.77 - 1.51	0.661	1.000	NA	NA - NA	NA	NA		
rs16846876	0.97	0.81 - 1.16	0.720	1.000	0.91	0.72 - 1.17	0.466	1.000	1.08	0.74 - 1.59	0.688	1.000		
rs16846880	0.82	0.58 - 1.16	0.261	0.999	0.79	0.55 - 1.14	0.214	0.996	1.27	0.25 - 6.57	0.776	1.000		
rs16847015	0.90	0.60 - 1.35	0.616	1.000	0.93	0.61 - 1.42	0.748	1.000	NA	NA - NA	NA	NA		
rs16847039	1.02	0.81 - 1.27	0.888	1.000	1.02	0.79 - 1.32	0.895	1.000	1.03	0.53 - 2.00	0.933	1.000		
rs16847047	1.12	0.86 - 1.45	0.414	1.000	1.14	0.85 - 1.52	0.385	1.000	1.06	0.38 - 2.92	0.918	1.000		
rs17383291	0.89	0.63 - 1.26	0.526	1.000	0.90	0.62 - 1.30	0.568	1.000	0.70	0.15 - 3.26	0.649	1.000		
rs17467825	1.01	0.83 - 1.21	0.954	1.000	0.93	0.73 - 1.18	0.554	1.000	1.28	0.85 - 1.94	0.237	0.998		
rs222014	0.87	0.65 - 1.17	0.360	1.000	0.88	0.65 - 1.20	0.420	1.000	0.57	0.13 - 2.59	0.469	1.000		
rs222016	0.85	0.66 - 1.09	0.203	0.995	0.86	0.65 - 1.13	0.275	0.999	0.60	0.23 - 1.58	0.301	1.000		
rs222017	0.89	0.66 - 1.19	0.418	1.000	0.90	0.66 - 1.22	0.487	1.000	0.57	0.13 - 2.61	0.473	1.000		
rs222029	0.86	0.67 - 1.10	0.222	0.997	0.86	0.66 - 1.13	0.278	0.999	0.67	0.28 - 1.64	0.383	1.000		
rs222035	0.95	0.80 - 1.13	0.578	1.000	0.90	0.69 - 1.17	0.430	1.000	0.99	0.73 - 1.35	0.949	1.000		
rs3733359	0.77	0.54 - 1.12	0.169	0.3988	0.77	0.53 - 1.14	0.195	0.994	0.45	0.05 - 3.65	0.453	1.000		
rs6817912	0.88	0.61 - 1.27	0.503	1.000	0.87	0.59 - 1.27	0.460	1.000	1.59	0.14 - 17.54	0.707	1.000		
rs7041	0.95	0.80 - 1.13	0.578	1.000	0.88	0.68 - 1.13	0.313	1.000	1.03	0.76 - 1.39	0.850	1.000		
rs705117	0.93	0.73 - 1.19	0.564	1.000	0.93	0.71 - 1.23	0.623	1.000	0.81	0.35 - 1.89	0.631	1.000		
rs705125	1.04	0.82 - 1.32	0.734	1.000	1.07	0.80 - 1.41	0.655	1.000	0.96	0.47 - 1.97	0.912	1.000		
rs842999	0.93	0.79 - 1.10	0.377	1.000	0.83	0.64 - 1.07	0.152	0.981	1.01	0.75 - 1.35	0.958	1.000		
rs843007	1.00	0.80 - 1.24	0.986	0.999	1.00	0.77 - 1.30	0.987	0.987	0.97	0.50 - 1.87	0.927	1.000		

<sup>1</sup>The multiple comparisons adjustment was applied to the p-values as described by Conneely et al., 2007.



Supplemental Table 7. Association between *GC* polymorphisms and proximal colorectal neoplasia

SNP	Additive					Dominant					Recessive							
	OR	95% CI		P	pACT <sup>1</sup>	OR	95% CI		P	pACT <sup>1</sup>	OR	95% CI		p	pACT <sup>1</sup>			
rs1155563	0.98	0.82	-	1.17	0.815	1.000	0.89	0.71	-	1.11	0.302	1.000	1.31	0.88	-	1.93	0.181	0.999
rs12512631	0.95	0.81	-	1.11	0.521	1.000	0.89	0.71	-	1.11	0.310	1.000	1.03	0.75	-	1.41	0.878	1.000
rs13117483	0.96	0.80	-	1.15	0.661	1.000	0.90	0.72	-	1.13	0.367	1.000	1.17	0.76	-	1.82	0.473	1.000
rs1352843	1.02	0.79	-	1.32	0.872	1.000	0.99	0.75	-	1.30	0.948	1.000	1.74	0.58	-	5.20	0.323	1.000
rs1352844	1.16	0.92	-	1.48	0.213	0.995	1.16	0.90	-	1.51	0.258	0.998	1.48	0.59	-	3.70	0.405	1.000
rs1491709	0.93	0.69	-	1.26	0.647	1.000	0.92	0.67	-	1.26	0.597	1.000	1.34	0.22	-	8.07	0.747	1.000
rs16846876	1.08	0.92	-	1.28	0.349	1.000	1.12	0.90	-	1.40	0.302	1.000	1.07	0.75	-	1.52	0.723	1.000
rs16846880	0.92	0.68	-	1.25	0.589	1.000	0.89	0.65	-	1.23	0.496	1.000	1.52	0.34	-	6.82	0.585	1.000
rs16847015	1.11	0.78	-	1.58	0.578	1.000	1.09	0.75	-	1.58	0.652	1.000	2.03	NA	-	NA	NA	NA
rs16847039	1.10	0.90	-	1.34	0.344	1.000	1.13	0.89	-	1.43	0.312	1.000	1.08	0.59	-	1.96	0.809	1.000
rs16847047	1.16	0.92	-	1.48	0.214	0.996	1.15	0.88	-	1.50	0.297	0.999	1.67	0.69	-	4.05	0.261	1.000
rs17383291	1.15	0.86	-	1.55	0.353	1.000	1.08	0.78	-	1.50	0.656	1.000	3.56	1.04	-	12.24	0.043	0.694
rs17467825	1.03	0.87	-	1.22	0.751	1.000	0.97	0.78	-	1.21	0.778	1.000	1.27	0.87	-	1.86	0.219	0.996
rs222014	1.02	0.79	-	1.32	0.872	1.000	0.99	0.75	-	1.30	0.948	1.000	1.74	0.58	-	5.20	0.323	1.000
rs222016	1.05	0.84	-	1.30	0.679	1.000	1.03	0.81	-	1.32	0.803	1.000	1.28	0.62	-	2.66	0.509	1.000
rs222017	1.02	0.79	-	1.32	0.885	1.000	0.99	0.75	-	1.30	0.933	1.000	1.74	0.58	-	5.22	0.320	0.999
rs222029	1.00	0.81	-	1.24	0.997	0.997	1.00	0.79	-	1.28	0.978	1.000	0.97	0.47	-	2.00	0.923	1.000
rs222035	1.00	0.86	-	1.18	0.969	1.000	0.96	0.76	-	1.22	0.727	1.000	1.07	0.81	-	1.41	0.635	1.000
rs3733359	1.01	0.74	-	1.38	0.950	1.000	0.97	0.70	-	1.36	0.870	1.000	2.03	0.51	-	8.14	0.319	1.000
rs6817912	1.03	0.74	-	1.42	0.883	1.000	1.00	0.71	-	1.39	0.984	1.000	4.07	0.37	-	44.99	0.252	0.998
rs7041	1.00	0.86	-	1.17	0.956	1.000	0.99	0.78	-	1.25	0.919	1.000	1.03	0.78	-	1.36	0.829	1.000
rs705117	0.96	0.77		1.19	0.702	1.000	0.97	0.75		1.24	0.780	1.000	0.84	0.40		1.77	0.648	1.000
rs705125	1.11	0.89		1.37	0.362	1.000	1.12	0.87		1.44	0.395	1.000	1.21	0.64		2.26	0.561	1.000
rs842999	1.03	0.88	-	1.19	0.747	1.000	0.97	0.77	-	1.23	0.800	1.000	1.12	0.86	-	1.46	0.392	1.000
rs843007	1.13	0.93	-	1.38	0.234	0.997	1.15	0.91	-	1.45	0.253	0.998	1.21	0.68	-	2.15	0.526	1.000

<sup>1</sup>The multiple comparisons adjustment was applied to the p-values as described by Conneely et al., 2007.

Supplemental Table 8. Association between *GC* polymorphisms and villous colorectal neoplasia

SNP	Additive						Dominant						Recessive					
	OR	95% CI		P	pACT <sup>1</sup>	OR	95% CI		P	pACT <sup>1</sup>	OR	95% CI		p	pACT <sup>1</sup>			
rs1155563	0.85	0.62	-	1.17	0.311	0.999	0.82	0.55	-	1.22	0.332	1.000	0.79	0.36	-	1.74	0.557	1.000
rs12512631	1.07	0.81	-	1.42	0.614	1.000	1.12	0.75	-	1.67	0.593	1.000	1.07	0.62	-	1.87	0.800	1.000
rs13117483	0.96	0.70	-	1.33	0.809	1.000	1.02	0.69	-	1.52	0.911	1.000	0.68	0.27	-	1.71	0.413	1.000
rs1352843	1.14	0.73	-	1.77	0.571	1.000	1.16	0.72	-	1.86	0.550	1.000	1.04	0.13	-	8.04	0.973	1.000
rs1352844	1.27	0.85	-	1.90	0.249	0.997	1.29	0.83	-	2.03	0.262	0.998	1.47	0.34	-	6.45	0.609	1.000
rs1491709	0.69	0.38	-	1.26	0.226	0.995	0.70	0.38	-	1.30	0.255	0.998	NA	NA	-	NA	NA	NA
rs16846876	1.02	0.76	-	1.38	0.881	1.000	0.86	0.58	-	1.28	0.463	1.000	1.53	0.88	-	2.68	0.136	0.961
rs16846880	0.75	0.41	-	1.37	0.355	1.000	0.69	0.37	-	1.32	0.266	0.998	2.10	0.25	-	17.61	0.494	1.000
rs16847015	0.73	0.35	-	1.51	0.398	1.000	0.74	0.35	-	1.56	0.434	1.000	NA	NA	-	NA	NA	NA
rs16847039	1.15	0.81	-	1.62	0.438	1.000	1.19	0.79	-	1.79	0.407	1.000	1.11	0.39	-	3.14	0.848	1.000
rs16847047	1.28	0.86	-	1.92	0.229	0.995	1.32	0.84	-	2.07	0.231	0.996	1.39	0.32	-	6.07	0.663	1.000
rs17383291	0.55	0.27	-	1.11	0.094	0.911	0.47	0.22	-	1.04	0.061	0.802	1.24	0.16	-	9.81	0.836	1.000
rs17467825	0.90	0.66	-	1.23	0.520	1.000	0.78	0.53	-	1.17	0.228	0.995	1.25	0.65	-	2.41	0.497	1.000
rs222014	1.14	0.73	-	1.77	0.571	1.000	1.16	0.72	-	1.86	0.550	1.000	1.04	0.13	-	8.04	0.973	1.000
rs222016	1.00	0.68	-	1.48	0.989	0.989	1.07	0.70	-	1.65	0.747	1.000	0.40	0.05	-	2.92	0.364	1.000
rs222017	1.14	0.74	-	1.77	0.555	1.000	1.16	0.72	-	1.87	0.532	1.000	1.03	0.13	-	8.02	0.975	1.000
rs222029	0.95	0.65	-	1.40	0.800	1.000	1.01	0.66	-	1.56	0.949	1.000	0.36	0.05	-	2.67	0.320	0.999
rs222035	0.82	0.62	-	1.09	0.172	0.983	0.77	0.51	-	1.17	0.221	0.995	0.76	0.45	-	1.31	0.324	1.000
rs3733359	0.83	0.46	-	1.51	0.546	1.000	0.78	0.41	-	1.48	0.445	1.000	1.78	0.22	-	14.56	0.593	1.000
rs6817912	0.85	0.46	-	1.57	0.606	1.000	0.78	0.41	-	1.48	0.445	1.000	6.28	0.56	-	69.79	0.135	0.964
rs7041	0.81	0.61	-	1.07	0.139	0.962	0.75	0.50	-	1.13	0.173	0.983	0.76	0.44	-	1.29	0.303	0.999
rs705117	0.79	0.52		1.20	0.277	0.999	0.73	0.46		1.17	0.186	0.988	1.17	0.35		3.88	0.800	1.000
rs705125	1.15	0.80		1.67	0.446	1.000	1.24	0.80		1.92	0.340	1.000	0.93	0.28		3.05	0.900	1.000
rs842999	0.69	0.52	-	0.91	0.008	0.223	0.58	0.39	-	0.86	0.007	0.196	0.64	0.38	-	1.09	0.103	0.923
rs843007	1.11	0.78	-	1.57	0.563	1.000	1.14	0.76	-	1.73	0.529	1.000	1.07	0.38	-	3.02	0.905	1.000

<sup>1</sup>The multiple comparisons adjustment was applied to the p-values as described by Conneely et al., 2007.

Supplemental Table 9. Association between *CASR* polymorphisms and colorectal neoplasia recurrence

SNP	Additive Inheritance						Dominant Inheritance						Recessive Inheritance					
	OR	95% CI		P	pACT <sup>1</sup>	OR	95% CI		P	pACT <sup>1</sup>	OR	95% CI		p	pACT <sup>1</sup>			
rs10222633	1.03	0.89	-	1.20	0.688	1.000	1.01	0.79	-	1.29	0.919	1.000	1.07	0.84	-	1.38	0.576	1.000
rs1042636	0.63	0.47	-	0.85	0.002	0.104	0.61	0.45	-	0.83	0.002	0.091	0.58	0.15	-	2.33	0.442	1.000
rs12485716	1.01	0.85	-	1.19	0.923	1.000	0.99	0.80	-	1.23	0.954	1.000	1.07	0.72	-	1.59	0.739	1.000
rs12635478	0.88	0.75	-	1.04	0.125	0.989	0.87	0.70	-	1.08	0.199	0.999	0.81	0.58	-	1.13	0.221	1.000
rs13320637	1.09	0.92	-	1.30	0.315	1.000	1.08	0.87	-	1.34	0.484	1.000	1.26	0.83	-	1.92	0.274	1.000
rs13324814	0.92	0.74	-	1.15	0.477	1.000	0.89	0.70	-	1.15	0.376	1.000	1.09	0.52	-	2.28	0.815	1.000
rs1354162	1.00	0.78	-	1.29	0.989	0.989	0.98	0.75	-	1.29	0.901	1.000	1.36	0.46	-	4.08	0.578	1.000
rs1501900	1.09	0.89	-	1.32	0.419	1.000	1.12	0.89	-	1.40	0.332	1.000	0.96	0.51	-	1.80	0.893	1.000
rs17197636	0.86	0.67	-	1.10	0.23	1.000	0.87	0.67	-	1.13	0.298	1.000	0.58	0.20	-	1.70	0.321	1.000
rs17197671	1.11	0.89	-	1.38	0.371	1.000	1.16	0.90	-	1.49	0.258	1.000	0.86	0.39	-	1.88	0.698	1.000
rs17203502	1.02	0.88	-	1.19	0.775	1.000	1.09	0.85	-	1.39	0.514	1.000	0.98	0.76	-	1.25	0.848	1.000
rs17282008	1.01	0.84	-	1.20	0.942	1.000	0.98	0.79	-	1.22	0.879	1.000	1.12	0.72	-	1.75	0.614	1.000
rs17282022	0.95	0.82	-	1.10	0.492	1.000	0.98	0.77	-	1.24	0.854	1.000	0.88	0.68	-	1.14	0.327	1.000
rs1801726	1.37	0.91	-	2.06	0.134	0.992	1.39	0.91	-	2.12	0.125	0.989	1.17	0.07	-	18.74	0.912	1.000
rs1973490	1.01	0.86	-	1.17	0.932	1.000	1.02	0.82	-	1.28	0.835	1.000	0.99	0.74	-	1.31	0.919	1.000
rs3749208	0.88	0.75	-	1.03	0.118	0.987	0.87	0.70	-	1.08	0.194	0.999	0.81	0.58	-	1.13	0.207	0.999
rs3804595	1.11	0.89	-	1.39	0.352	1.000	1.16	0.90	-	1.49	0.243	1.000	0.86	0.39	-	1.89	0.705	1.000
rs3845918	1.10	0.93	-	1.31	0.26	1.000	1.08	0.87	-	1.34	0.467	1.000	1.31	0.88	-	1.97	0.183	0.998
rs3863977	0.92	0.78	-	1.09	0.345	1.000	0.93	0.75	-	1.15	0.476	1.000	0.85	0.58	-	1.23	0.376	1.000
rs4678013	1.07	0.88	-	1.30	0.487	1.000	1.09	0.87	-	1.37	0.449	1.000	1.04	0.59	-	1.84	0.89	1.000
rs4678035	0.85	0.70	-	1.04	0.11	0.983	0.83	0.66	-	1.05	0.114	0.985	0.80	0.45	-	1.43	0.451	1.000
rs4678174	1.05	0.89	-	1.24	0.546	1.000	1.06	0.85	-	1.31	0.607	1.000	1.09	0.76	-	1.57	0.634	1.000
rs6438706	0.84	0.69	-	1.03	0.087	0.961	0.82	0.65	-	1.03	0.086	0.960	0.80	0.45	-	1.43	0.452	1.000
rs6764205	1.05	0.89	-	1.23	0.603	1.000	1.03	0.83	-	1.28	0.787	1.000	1.15	0.79	-	1.68	0.475	1.000
rs6764691	0.86	0.70	-	1.05	0.127	0.989	0.83	0.66	-	1.04	0.111	0.984	0.86	0.48	-	1.55	0.614	1.000
rs6776158	0.96	0.82	-	1.12	0.571	1.000	0.96	0.77	-	1.19	0.7	1.000	0.91	0.67	-	1.25	0.566	1.000
rs7614486	0.91	0.76	-	1.08	0.283	1.000	0.94	0.76	-	1.17	0.567	1.000	0.69	0.44	-	1.10	0.122	0.989
rs7621124	1.03	0.87	-	1.21	0.768	1.000	1.02	0.82	-	1.27	0.852	1.000	1.07	0.73	-	1.59	0.726	1.000
rs7635112	1.05	0.84	-	1.33	0.664	1.000	1.04	0.81	-	1.34	0.74	1.000	1.33	0.48	-	3.69	0.582	1.000
rs7644390	1.10	0.94	-	1.29	0.255	1.000	1.13	0.91	-	1.40	0.285	1.000	1.13	0.82	-	1.56	0.464	1.000
rs7646147	1.10	0.93	-	1.29	0.265	1.000	1.14	0.92	-	1.42	0.239	1.000	1.09	0.79	-	1.52	0.607	1.000

rs7647405	1.20	0.79	-	1.83	0.384	1.000	1.18	0.77	-	1.80	0.442	1.000	NA	NA	-	NA	NA	NA
rs7648044	0.86	0.70	-	1.04	0.121	0.988	0.85	0.67	-	1.07	0.162	0.997	0.72	0.40	-	1.31	0.286	1.000
rs9826770	0.76	0.53	-	1.08	0.124	0.989	0.70	0.48	-	1.03	0.069	0.927	1.57	0.35	-	7.03	0.557	1.000
rs9866419	0.94	0.80	-	1.12	0.502	1.000	0.96	0.78	-	1.19	0.732	1.000	0.83	0.56	-	1.23	0.352	1.000

<sup>†</sup>The multiple comparisons adjustment was applied to the p-values as described by Conneely et al., 2007.

Supplemental Table 10. Association between *CASR* polymorphisms and distal colorectal neoplasia

SNP	Additive Inheritance						Dominant Inheritance						Recessive Inheritance					
	OR	95% CI		P	pACT <sup>1</sup>	OR	95% CI		P	pACT <sup>1</sup>	OR	95% CI		p	pACT <sup>1</sup>			
rs10222633	0.99	0.83	-	1.18	0.919	1.000	0.91	0.69	-	1.20	0.499	1.000	1.08	0.81	-	1.44	0.602	1.000
rs1042636	0.63	0.44	-	0.91	0.015	0.478	0.62	0.42	-	0.92	0.017	0.511	0.39	0.05	-	3.10	0.371	1.000
rs12485716	1.01	0.83	-	1.23	0.938	1.000	1.05	0.82	-	1.35	0.718	1.000	0.89	0.56	-	1.43	0.634	1.000
rs12635478	0.98	0.81	-	1.18	0.807	1.000	0.99	0.77	-	1.27	0.932	1.000	0.93	0.63	-	1.37	0.706	1.000
rs13320637	0.97	0.80	-	1.19	0.779	1.000	0.90	0.70	-	1.15	0.394	1.000	1.26	0.79	-	2.00	0.338	1.000
rs13324814	1.08	0.84	-	1.39	0.533	1.000	1.06	0.80	-	1.42	0.672	1.000	1.41	0.64	-	3.13	0.400	1.000
rs1354162	1.11	0.83	-	1.48	0.499	1.000	1.04	0.76	-	1.44	0.790	1.000	2.70	0.90	-	8.08	0.077	0.940
rs1501900	1.20	0.96	-	1.50	0.114	0.980	1.26	0.98	-	1.64	0.077	0.936	1.04	0.50	-	2.14	0.924	1.000
rs17197636	0.95	0.72	-	1.27	0.751	1.000	0.96	0.71	-	1.31	0.806	1.000	0.78	0.22	-	2.80	0.708	1.000
rs17197671	0.91	0.70	-	1.19	0.495	1.000	0.96	0.72	-	1.29	0.794	1.000	0.39	0.12	-	1.32	0.131	0.989
rs17203502	1.12	0.94	-	1.33	0.214	0.999	1.10	0.83	-	1.47	0.516	1.000	1.22	0.92	-	1.62	0.164	0.996
rs17282008	0.97	0.79	-	1.19	0.734	1.000	0.90	0.70	-	1.16	0.417	1.000	1.23	0.75	-	2.03	0.415	0.993
rs17282022	0.87	0.73	-	1.03	0.114	0.980	0.85	0.65	-	1.12	0.244	1.000	0.80	0.58	-	1.08	0.147	1.000
rs1801726	1.58	1.02	-	2.45	0.042	0.802	1.59	1.01	-	2.50	0.048	0.841	3.12	0.20	-	50.04	0.421	1.000
rs1973490	1.04	0.87	-	1.24	0.698	1.000	1.10	0.84	-	1.43	0.483	1.000	0.97	0.70	-	1.35	0.876	1.000
rs3749208	0.98	0.81	-	1.18	0.798	1.000	1.00	0.78	-	1.28	0.979	0.979	0.91	0.61	-	1.34	0.623	1.000
rs3804595	0.94	0.72	-	1.22	0.645	1.000	1.00	0.74	-	1.33	0.976	1.000	0.40	0.12	-	1.36	0.142	0.992
rs3845918	0.97	0.79	-	1.18	0.739	1.000	0.90	0.70	-	1.16	0.418	1.000	1.18	0.75	-	1.86	0.476	1.000
rs3863977	0.95	0.78	-	1.15	0.575	1.000	0.90	0.70	-	1.16	0.411	1.000	1.04	0.68	-	1.59	0.874	1.000
rs4678013	1.17	0.94	-	1.46	0.161	0.992	1.24	0.96	-	1.60	0.104	0.972	1.01	0.52	-	1.96	0.978	1.000
rs4678035	0.84	0.66	-	1.06	0.144	1.000	0.78	0.59	-	1.03	0.078	0.938	1.04	0.53	-	2.02	0.914	1.000
rs4678174	1.09	0.90	-	1.32	0.366	1.000	1.18	0.92	-	1.52	0.190	0.998	0.96	0.63	-	1.47	0.845	1.000
rs6438706	0.85	0.68	-	1.08	0.190	0.998	0.80	0.61	-	1.05	0.112	0.979	1.04	0.54	-	2.03	0.904	1.000
rs6764205	0.92	0.76	-	1.12	0.410	1.000	0.86	0.67	-	1.11	0.247	1.000	1.04	0.67	-	1.61	0.876	1.000
rs6764691	0.86	0.68	-	1.09	0.208	1.000	0.80	0.61	-	1.06	0.115	0.980	1.10	0.56	-	2.14	0.789	1.000
rs6776158	1.02	0.85	-	1.23	0.824	1.000	1.05	0.81	-	1.36	0.713	1.000	0.99	0.68	-	1.42	0.934	1.000
rs7614486	0.89	0.72	-	1.10	0.293	1.000	0.91	0.70	-	1.17	0.451	1.000	0.72	0.41	-	1.28	0.266	1.000
rs7621124	1.02	0.84	-	1.24	0.861	1.000	1.07	0.84	-	1.38	0.586	1.000	0.87	0.54	-	1.39	0.561	1.000
rs7635112	1.10	0.84	-	1.43	0.485	1.000	1.06	0.80	-	1.41	0.684	1.000	2.08	0.73	-	5.88	0.169	0.996
rs7644390	0.96	0.80	-	1.15	0.651	1.000	0.95	0.74	-	1.22	0.685	1.000	0.94	0.64	-	1.38	0.750	1.000
rs7646147	0.96	0.79	-	1.15	0.632	1.000	0.97	0.75	-	1.25	0.815	1.000	0.88	0.59	-	1.31	0.529	1.000

rs7647405	0.80	0.48	-	1.34	0.401	1.000	0.81	0.48	-	1.36	0.428	1.000	NA	NA	-	NA	NA	NA
rs7648044	0.86	0.68	-	1.08	0.195	0.998	0.83	0.63	-	1.09	0.174	0.996	0.86	0.42	-	1.76	0.688	1.000
rs9826770	0.69	0.44	-	1.08	0.101	0.972	0.67	0.42	-	1.08	0.103	0.974	0.52	0.06	-	4.32	0.544	1.000
rs9866419	0.96	0.79	-	1.17	0.705	1.000	0.95	0.74	-	1.22	0.670	1.000	0.98	0.62	-	1.55	0.919	1.000

<sup>†</sup>The multiple comparisons adjustment was applied to the p-values as described by Conneely et al., 2007.

Supplemental Table 11. Association between *CASR* polymorphisms and proximal colorectal neoplasia

SNP	Additive Inheritance					Dominant Inheritance					Recessive Inheritance							
	OR	95% CI		P	pACT <sup>1</sup>	OR	95% CI		P	pACT <sup>1</sup>	OR	95% CI		p	pACT <sup>1</sup>			
rs10222633	1.06	0.91	-	1.24	0.475	1.000	1.02	0.79	-	1.31	0.908	1.000	1.15	0.89	-	1.48	0.290	1.000
rs1042636	0.55	0.40	-	0.77	<0.001	0.022	0.51	0.36	-	0.73	<0.001	0.011	0.75	0.20	-	2.85	0.677	1.000
rs12485716	1.05	0.88	-	1.24	0.600	1.000	1.04	0.83	-	1.30	0.733	1.000	1.13	0.76	-	1.68	0.544	1.000
rs12635478	0.82	0.69	-	0.97	0.017	0.523	0.74	0.59	-	0.92	0.008	0.299	0.86	0.60	-	1.21	0.383	1.000
rs13320637	1.07	0.90	-	1.28	0.426	1.000	1.05	0.84	-	1.31	0.675	1.000	1.27	0.84	-	1.92	0.260	1.000
rs13324814	0.91	0.73	-	1.14	0.417	1.000	0.87	0.67	-	1.12	0.288	0.980	1.16	0.56	-	2.37	0.689	1.000
rs1354162	1.00	0.77	-	1.31	0.995	0.995	0.99	0.74	-	1.31	0.926	1.000	1.26	0.41	-	3.87	0.686	1.000
rs1501900	1.02	0.83	-	1.25	0.830	1.000	1.01	0.80	-	1.28	0.910	1.000	1.13	0.59	-	2.14	0.712	1.000
rs17197636	0.82	0.64	-	1.07	0.144	0.994	0.81	0.62	-	1.08	0.149	0.995	0.73	0.23	-	2.31	0.594	1.000
rs17197671	1.21	0.96	-	1.51	0.103	0.977	1.25	0.97	-	1.61	0.082	0.952	1.12	0.51	-	2.45	0.772	1.000
rs17203502	1.08	0.92	-	1.26	0.332	1.000	1.21	0.93	-	1.56	0.155	0.995	1.02	0.79	-	1.32	0.870	1.000
rs17282008	1.10	0.92	-	1.32	0.281	1.000	1.09	0.88	-	1.36	0.437	1.000	1.29	0.83	-	2.01	0.260	1.000
rs17282022	0.90	0.77	-	1.05	0.186	0.998	0.90	0.71	-	1.14	0.391	1.000	0.83	0.63	-	1.09	0.179	0.997
rs1801726	1.35	0.89	-	2.03	0.155	0.995	1.35	0.88	-	2.07	0.163	0.996	2.02	0.13	-	32.42	0.619	1.000
rs1973490	1.07	0.92	-	1.25	0.389	1.000	1.08	0.85	-	1.36	0.539	1.000	1.13	0.85	-	1.50	0.411	1.000
rs3749208	0.82	0.69	-	0.97	0.020	0.563	0.74	0.59	-	0.92	0.008	0.300	0.87	0.62	-	1.24	0.446	1.000
rs3804595	1.08	0.91	-	1.28	0.382	1.000	1.04	0.84	-	1.30	0.700	1.000	1.32	0.88	-	1.97	0.174	1.000
rs3845918	0.87	0.73	-	1.04	0.119	1.000	0.88	0.70	-	1.09	0.246	1.000	0.74	0.49	-	1.10	0.134	0.997
rs3863977	1.01	0.83	-	1.24	0.889	0.986	0.99	0.79	-	1.25	0.927	0.999	1.21	0.68	-	2.16	0.514	0.992
rs4678013	0.82	0.67	-	1.01	0.067	1.000	0.81	0.64	-	1.03	0.084	1.000	0.70	0.37	-	1.33	0.280	1.000
rs4678035	1.09	0.93	-	1.29	0.294	0.918	1.08	0.87	-	1.35	0.497	0.955	1.24	0.87	-	1.77	0.237	1.000
rs4678174	0.81	0.66	-	1.00	0.051	1.000	0.79	0.62	-	1.01	0.063	1.000	0.70	0.37	-	1.33	0.274	0.999
rs6438706	1.02	0.86	-	1.21	0.795	0.856	0.99	0.80	-	1.24	0.951	0.905	1.15	0.78	-	1.68	0.482	1.000
rs6764205	0.82	0.66	-	1.01	0.062	1.000	0.80	0.63	-	1.02	0.067	1.000	0.74	0.39	-	1.42	0.367	1.000
rs6764691	0.90	0.76	-	1.06	0.204	0.905	0.88	0.70	-	1.10	0.251	0.919	0.86	0.62	-	1.20	0.380	1.000
rs6776158	0.84	0.70	-	1.02	0.075	0.999	0.83	0.66	-	1.04	0.112	1.000	0.73	0.44	-	1.21	0.219	1.000
rs7614486	1.07	0.90	-	1.27	0.451	0.939	1.07	0.86	-	1.34	0.543	0.983	1.14	0.77	-	1.69	0.510	0.999
rs7621124	0.99	0.78	-	1.26	0.963	1.000	0.97	0.75	-	1.25	0.787	1.000	1.58	0.58	-	4.26	0.370	1.000
rs7635112	1.13	0.96	-	1.33	0.137	1.000	1.14	0.91	-	1.42	0.262	1.000	1.26	0.90	-	1.75	0.173	1.000
rs7644390	1.13	0.96	-	1.33	0.142	0.992	1.15	0.92	-	1.44	0.227	0.999	1.23	0.88	-	1.72	0.235	0.997
rs7646147	1.34	0.88	-	2.04	0.171	0.993	1.31	0.85	-	2.01	0.215	1.000	NA	NA	-	NA	NA	NA

rs7647405	0.84	0.68	-	1.03	0.096	0.997	0.83	0.66	-	1.06	0.139	1.000	0.67	0.34	-	1.30	0.233	0.999
rs7648044	0.80	0.55	-	1.17	0.247	0.971	0.72	0.48	-	1.08	0.114	0.993	2.71	0.60	-	12.16	0.193	0.999
rs9826770	0.88	0.74	-	1.05	0.147	0.999	0.89	0.72	-	1.11	0.313	0.984	0.72	0.47	-	1.10	0.127	0.998
rs9866419	0.90	0.72	-	1.13	0.377	0.994	0.85	0.66	-	1.10	0.217	1.000	1.26	0.62	-	2.53	0.522	0.989

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<sup>†</sup>The multiple comparisons adjustment was applied to the p-values as described by Conneely et al., 2007.



Supplemental Table 12. Association between *CASR* polymorphisms and villous colorectal neoplasia

SNP	Additive Inheritance					Dominant Inheritance					Recessive Inheritance							
	OR	95% CI		P	pACT <sup>1</sup>	OR	95% CI		P	pACT <sup>1</sup>	OR	95% CI		p	pACT <sup>1</sup>			
rs10222633	1.12	0.85	-	1.49	0.418	1.000	1.39	0.85	-	2.29	0.189	0.999	1.00	0.63	-	1.60	0.995	1.000
rs1042636	1.08	0.65	-	1.81	0.763	1.000	0.98	0.56	-	1.74	0.954	1.000	3.52	0.72	-	17.18	0.119	0.987
rs12485716	0.94	0.68	-	1.30	0.719	1.000	0.95	0.63	-	1.43	0.798	1.000	0.86	0.39	-	1.90	0.706	1.000
rs12635478	0.98	0.73	-	1.32	0.891	1.000	1.06	0.70	-	1.59	0.784	1.000	0.79	0.40	-	1.54	0.483	1.000
rs13320637	1.16	0.85	-	1.58	0.364	1.000	1.33	0.89	-	2.00	0.164	0.997	0.81	0.35	-	1.90	0.626	1.000
rs13324814	1.10	0.74	-	1.64	0.636	1.000	1.09	0.69	-	1.72	0.728	1.000	1.42	0.42	-	4.76	0.575	1.000
rs1354162	1.19	0.75	-	1.87	0.459	1.000	1.22	0.75	-	2.00	0.426	1.000	1.01	0.13	-	7.88	0.989	1.000
rs1501900	0.95	0.65	-	1.38	0.776	1.000	0.98	0.64	-	1.50	0.923	1.000	0.63	0.15	-	2.65	0.529	1.000
rs17197636	0.62	0.36	-	1.07	0.088	0.964	0.58	0.33	-	1.05	0.07	0.932	0.88	0.12	-	6.78	0.904	1.000
rs17197671	0.86	0.55	-	1.34	0.498	1.000	0.82	0.50	-	1.35	0.437	1.000	1.04	0.24	-	4.47	0.958	1.000
rs17203502	0.95	0.72	-	1.26	0.721	1.000	0.93	0.59	-	1.47	0.768	1.000	0.93	0.58	-	1.50	0.772	1.000
rs17282008	1.00	0.72	-	1.39	0.986	1.000	1.01	0.67	-	1.51	0.978	1.000	0.96	0.41	-	2.25	0.919	1.000
rs17282022	0.94	0.71	-	1.24	0.651	1.000	0.87	0.56	-	1.34	0.521	1.000	0.98	0.61	-	1.59	0.938	1.000
rs1801726	1.00	0.46	-	2.18	0.997	0.997	1.02	0.46	-	2.28	0.954	1.000	NA	NA	-	NA	NA	NA
rs1973490	1.10	0.82	-	1.46	0.528	1.000	1.07	0.70	-	1.64	0.763	1.000	1.22	0.74	-	2.02	0.431	1.000
rs3749208	0.96	0.71	-	1.30	0.804	1.000	1.02	0.68	-	1.53	0.923	1.000	0.80	0.41	-	1.56	0.507	1.000
rs3804595	0.84	0.54	-	1.31	0.444	1.000	0.80	0.49	-	1.32	0.385	1.000	1.02	0.24	-	4.38	0.978	1.000
rs3845918	1.16	0.85	-	1.58	0.341	1.000	1.33	0.89	-	1.99	0.166	0.997	0.88	0.40	-	1.95	0.749	1.000
rs3863977	1.04	0.76	-	1.42	0.806	1.000	1.09	0.73	-	1.64	0.683	1.000	0.95	0.47	-	1.93	0.879	1.000
rs4678013	0.89	0.61	-	1.29	0.526	1.000	0.92	0.60	-	1.42	0.709	1.000	0.51	0.12	-	2.14	0.359	1.000
rs4678035	0.91	0.62	-	1.32	0.606	1.000	0.78	0.49	-	1.22	0.269	1.000	1.74	0.72	-	4.19	0.216	1.000
rs4678174	0.96	0.70	-	1.31	0.782	1.000	1.05	0.70	-	1.57	0.816	1.000	0.67	0.30	-	1.47	0.318	1.000
rs6438706	0.91	0.63	-	1.33	0.631	1.000	0.78	0.50	-	1.23	0.288	1.000	1.74	0.72	-	4.18	0.219	1.000
rs6764205	0.95	0.69	-	1.31	0.761	1.000	1.04	0.70	-	1.56	0.841	1.000	0.64	0.27	-	1.49	0.297	1.000
rs6764691	0.92	0.63	-	1.35	0.681	1.000	0.79	0.50	-	1.24	0.31	1.000	1.82	0.76	-	4.40	0.182	0.998
rs6776158	0.86	0.64	-	1.16	0.328	1.000	0.75	0.50	-	1.13	0.172	0.998	1.00	0.56	-	1.80	0.996	1.000
rs7614486	0.95	0.67	-	1.34	0.759	1.000	0.87	0.57	-	1.33	0.53	1.000	1.24	0.56	-	2.78	0.599	1.000
rs7621124	0.97	0.70	-	1.33	0.827	1.000	0.95	0.64	-	1.43	0.821	1.000	0.96	0.46	-	2.04	0.92	1.000
rs7635112	1.10	0.72	-	1.68	0.65	1.000	1.19	0.76	-	1.86	0.449	1.000	NA	NA	-	NA	NA	NA
rs7644390	1.09	0.81	-	1.47	0.573	1.000	1.53	1.00	-	2.36	0.051	0.867	0.50	0.23	-	1.09	0.082	0.955
rs7646147	1.08	0.80	-	1.46	0.599	1.000	1.49	0.97	-	2.28	0.069	0.931	0.52	0.24	-	1.13	0.099	0.974

rs7647405	0.68	0.27	-	1.70	0.412	1.000	0.68	0.27	-	1.73	0.421	1.000	NA	NA	-	NA	NA	NA
rs7648044	0.89	0.61	-	1.31	0.552	1.000	0.79	0.50	-	1.24	0.308	1.000	1.49	0.57	-	3.84	0.414	1.000
rs9826770	0.70	0.33	-	1.50	0.361	1.000	0.72	0.33	-	1.60	0.421	1.000	NA	NA	-	NA	NA	NA
rs9866419	1.08	0.79	-	1.48	0.638	1.000	1.10	0.73	-	1.65	0.642	1.000	1.09	0.54	-	2.23	0.807	1.000

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<sup>†</sup>The multiple comparisons adjustment was applied to the p-values as described by Conneely et al., 2007.