

**Appendix A:****Markers IDs, positions, and available trait associations of the Commercial Tomato Panel.****Chromosomal locations are referring to the tomato reference genome version SL2.4**

SNP #	Marker ID	Chromosome	Physical position (bp)	Genetic position (cM)	Allele 1	Allele 2
SNP0001	solcap_snp_sl_15058	1	61,025	0.000	G	A
SNP0002	solcap_snp_sl_15051	1	315,590	0.000	C	T
SNP0003	CL016197-0363_solcap	1	349,930	0.000	T	A
SNP0004	solcap_snp_sl_60557	1	352,086	0.000	C	G
SNP0005	solcap_snp_sl_15046	1	361,638	0.000	C	T
SNP0006	solcap_snp_sl_15039	1	493,896	0.000	G	A
SNP0007	solcap_snp_sl_33745	1	545,688	0.000	G	T
SNP0008	SL4.0ch01.594924	1	594,924	n/a	A	T
SNP0010	solcap_snp_sl_60417	1	994,295	0.000	G	C
SNP0011	solcap_snp_sl_60360	1	1,346,895	0.000	A	T
SNP0012	solcap_snp_sl_8697	1	1,557,547	0.000	T	A
SNP0013	solcap_snp_sl_33701	1	2,014,003	0.000	C	T
SNP0014	UFTLP1_1	1	2,117,159	0.000	C	A
SNP0016	solcap_snp_sl_8669	1	2,205,403	0.920	G	A
SNP0020	UFTLP1_9	1	2,385,117	2.450	G	C
SNP0021	CL009286-0792	1	2,389,820	3.045	T	A
SNP0023	solcap_snp_sl_15013	1	2,678,018	4.865	C	A
SNP0024	UFTLP1_14	1	2,715,832	6.090	A	G
SNP0028	solcap_snp_sl_60078	1	2,903,186	9.740	A	T
SNP0029	UFTLP1_22	1	2,959,732	10.360	C	T
SNP0030	solcap_snp_sl_15000	1	3,070,555	11.770	C	A
SNP0033	UFTLP1_26	1	3,237,773	13.180	A	G
SNP0034	solcap_snp_sl_20440	1	3,637,324	14.990	C	T
SNP0037	solcap_snp_sl_59771	1	6,260,902	18.100	G	A
SNP0038	UFTLP1_31	1	6,756,872	19.400	A	G
SNP0039	UFTLP2_4	1	6,848,485	10.467	G	A
SNP0043	UFTLP1_35	1	8,668,874	25.670	G	A
SNP0072	SL4.0ch01.10800215	1	10,800,215	n/a	T	A
SNP0081	SL4.0ch01.11002328	1	11,002,328	n/a	A	T
SNP0092	UFTLP1_44	1	12,940,172	29.800	C	T
SNP0104	SL4.0ch01.17858508	1	17,858,508	n/a	T	A
SNP0110	UFTLP1_59	1	20,371,864	36.140	G	A

SNP0112	UFTLP1_62	1	22,941,072	39.770	C	G
SNP0113	UFTLP1_64	1	22,995,526	40.440	G	T
SNP0118	UFTLP1_72	1	27,656,055	44.190	T	G
SNP0122	UFTLP1_79	1	33,048,062	45.260	C	T
SNP0127	UFTLP1_86	1	36,023,380	48.230	T	A
SNP0128	UFTLP1_88	1	36,922,751	49.450	G	C
SNP0129	solcap_snp_sl_14042	1	38,612,892	50.820	T	C
SNP0135	UFTLP1_95	1	40,370,084	52.190	G	A
SNP0138	UFTLP1_97	1	42,105,752	54.720	C	T
SNP0140	UFTLP1_101	1	45,641,697	58.440	C	T
SNP0141	UFTLP1_102	1	45,869,985	59.150	G	C
SNP0145	UFTLP1_109	1	48,866,832	63.940	G	A
SNP0151	UFTLP1_118	1	54,777,218	69.300	G	A
SNP0154	UFTLP1_121	1	55,651,194	70.650	T	A
SNP0157	UFTLP2_17	1	58,471,983	23.310	C	T
SNP0160	UFTLP2_18	1	61,154,002	24.392	G	A
SNP0170	solcap_snp_sl_18641	1	65,059,881	73.570	G	A
SNP0175	UFTLP1_154	1	67,630,995	76.160	A	T
SNP0178	UFTLP1_164	1	67,907,396	78.580	C	T
SNP0183	solcap_snp_sl_13762	1	68,237,408	81.090	G	T
SNP0185	UFTLP1_175	1	68,384,387	82.860	A	G
SNP0187	UFTLP1_182	1	68,536,307	85.570	A	G
SNP0189	solcap_snp_sl_18619	1	68,611,239	87.235	A	C
SNP0190	UFTLP1_187	1	68,654,954	88.900	G	A
SNP0194	UFTLP1_203	1	69,068,249	94.360	T	C
SNP0196	UFTLP1_206	1	69,226,534	95.390	T	A
SNP0201	UFTLP1_214	1	69,582,223	99.670	A	G
SNP0202	solcap_snp_sl_4963	1	70,083,552	100.765	G	A
SNP0204	UFTLP1_222	1	70,740,167	101.860	A	G
SNP0207	UFTLP1_225	1	71,255,893	106.190	T	C
SNP0212	solcap_snp_sl_531	1	73,097,311	133.325	G	A
SNP0217	UFTLP4-20	1	75,270,401	n/a	G	C
SNP0218	UFTLP4-22	1	75,298,938	n/a	A	T
SNP0221	solcap_snp_sl_12826	1	75,683,766	133.325	T	C
SNP0223	UFTLP2_27	1	78,362,931	87.958	T	A
SNP0225	solcap_snp_sl_43632	1	78,436,440	133.325	G	A
SNP0227	UFTLP1_236	1	79,015,079	159.730	T	C
SNP0228	solcap_snp_sl_2234	1	79,025,854	166.180	G	C
SNP0230	UFTLP1_238	1	81,708,849	172.630	G	A
SNP0231	solcap_snp_sl_44305	1	82,311,506	n/a	A	T
SNP0232	solcap_snp_sl_2438	1	82,375,618	n/a	A	T
SNP0233	solcap_snp_sl_2440	1	82,377,073	n/a	A	T
SNP0234	solcap_snp_sl_2452	1	82,491,448	n/a	C	G
SNP0235	solcap_snp_sl_2455	1	82,495,262	n/a	A	T
SNP0236	solcap_snp_sl_2457	1	82,503,969	n/a	A	T

SNP0237	UF_1.82771	1	82,771,015	n/a	A	T
SNP0238	UF_1.82779	1	82,779,566	n/a	T	A
SNP0239	UF_1.82780	1	82,780,280	n/a	A	T
SNP0241	UF_1.82782	1	82,782,013	n/a	A	T
SNP0242	UFTLP1_239	1	83,117,932	182.190	C	T
SNP0243	UFTLP1_241	1	83,301,293	183.020	A	G
SNP0245	UFTLP1_244	1	85,662,369	218.480	T	G
SNP0247	UFTLP1_247	1	86,381,798	219.420	A	T
SNP0254	solcap_snp_sl_14323	1	87,223,630	223.210	C	T
SNP0257	UFTLP1_271	1	88,377,647	224.580	T	C
SNP0260	solcap_snp_sl_13404	1	88,561,886	226.900	G	T
SNP0261	UFTLP1_274	1	88,565,222	227.290	A	G
SNP0263	solcap_snp_sl_13399	1	88,596,153	228.495	G	A
SNP0265	solcap_snp_sl_13398	1	88,622,924	229.705	A	T
SNP0266	UFTLP1_285	1	88,697,530	230.310	C	T
SNP0267	solcap_snp_sl_4283	1	88,836,137	231.010	A	T
SNP0273	UFTLP1_300	1	89,238,490	267.970	T	A
SNP0274	solcap_snp_sl_48121	1	89,251,637	270.360	A	C
SNP0275	solcap_snp_sl_44108	1	89,280,191	n/a	G	C
SNP0277	solcap_snp_sl_48097	1	89,456,671	270.360	C	T
SNP0278	UFTLP1_303	1	90,152,664	272.750	G	C
SNP0282	UFTLP1_310	1	90,629,015	277.110	G	C
SNP0289	UFTLP1_323	2	496,637	0.000	G	T
SNP0292	UFTLP1_337	2	827,467	0.600	T	A
SNP0309	UFTLP1_380	2	2,317,029	4.820	G	A
SNP0320	UFTLP1_423	2	3,905,686	9.650	T	C
SNP0324	UFTLP1_438	2	4,432,712	11.460	C	T
SNP0333	UFTLP1_492	2	6,028,806	13.870	C	A
SNP0341	UFTLP1_526	2	6,955,052	18.700	T	A
SNP0345	UFTLP1_547	2	7,556,828	20.510	G	A
SNP0347	solcap_snp_sl_7410	2	7,894,205	21.410	A	G
SNP0362	UFTLP1_579	2	9,037,958	25.330	G	A
SNP0371	UFTLP1_594	2	9,713,639	26.540	T	A
SNP0372	UFTLP1_599	2	9,923,802	27.140	G	T
SNP0384	UFTLP1_638	2	10,977,287	31.970	A	T
SNP0401	UFTLP1_680	2	12,350,248	36.190	C	A
SNP0406	UFTLP1_698	2	12,852,397	39.200	C	G
SNP0418	UFTLP1_728	2	13,646,831	42.220	G	A
SNP0425	UFTLP1_742	2	14,136,990	45.840	A	G
SNP0433	UFTLP1_767	2	15,133,226	52.480	A	G
SNP0437	UFTLP1_777	2	15,449,985	53.690	A	G
SNP0439	UFTLP1_791	2	15,926,399	54.290	A	G

SNP0440	UFTLP1_804	2	16,453,075	54.890	G	A
SNP0442	UFTLP1_807	2	16,530,275	56.100	G	A
SNP0443	UFTLP2_100	2	16,630,155	0.000	G	T
SNP0451	UFTLP1_832	2	17,577,491	58.210	T	A
SNP0457	UFTLP1_844	2	18,115,552	60.320	T	C
SNP0466	solcap_snp_sl_6255	2	18,733,652	62.735	C	T
SNP0468	UFTLP1_868	2	19,012,259	63.940	A	T
SNP0470	UFTLP1_876	2	19,260,796	65.140	G	A
SNP0482	UFTLP1_910	2	20,315,056	66.950	G	T
SNP0493	UFTLP1_939	2	21,271,165	70.570	G	T
SNP0496	solcap_snp_sl_6196	2	21,599,095	71.480	C	G
SNP0503	UFTLP1_956	2	22,089,312	72.990	A	G
SNP0504	UFTLP1_959	2	22,137,425	74.190	A	C
SNP0510	SL4.0ch02.23129975	2	23,129,975	n/a	G	C
SNP0515	UFTLP1_997	2	24,122,902	77.810	A	G
SNP0520	UFTLP1_1006	2	24,328,037	80.230	G	T
SNP0524	UFTLP1_1024	2	24,897,923	81.440	A	G
SNP0532	UFTLP1_1054	2	26,275,356	85.660	G	A
SNP0539	UFTLP1_1089	2	27,290,127	89.880	G	A
SNP0543	UFTLP1_1098	2	27,733,457	91.690	A	G
SNP0546	solcap_snp_sl_13842	2	27,960,341	106.360	A	G
SNP0551	UFTLP2_149	2	28,370,430	0.527	C	T
SNP0560	solcap_snp_sl_12647	2	29,258,954	106.360	G	A
SNP0561	UFTLP2_155	2	29,476,280	1.054	G	A
SNP0567	UFTLP1_1150	2	29,940,799	120.430	T	G
SNP0575	UFTLP1_1170	2	31,850,030	122.240	G	T
SNP0579	solcap_snp_sl_12372	2	33,200,913	123.965	G	T
SNP0580	UFTLP1_1172	2	33,387,672	125.690	A	G
SNP0582	UFTLP4-56	2	34,010,994	n/a	T	A
SNP0584	UFTLP1_1174	2	34,342,454	127.400	T	C
SNP0587	UFTLP1_1177	2	34,686,725	129.590	G	C
SNP0589	solcap_snp_sl_15693	2	34,822,615	130.870	C	T
SNP0591	solcap_snp_sl_15688	2	34,835,398	131.885	T	C
SNP0592	UFTLP1_1186	2	35,093,779	132.220	C	A
SNP0596	solcap_snp_sl_20344	2	35,583,874	136.290	T	C
SNP0600	UFTLP1_1191	2	35,925,697	138.040	A	C
SNP0605	UFTLP2_170	2	36,234,654	28.701	C	T
SNP0607	solcap_snp_sl_8464	2	36,559,288	141.945	A	C
SNP0615	UFTLP1_1196	2	36,930,172	145.850	A	G
SNP0620	solcap_snp_sl_8505	2	37,470,458	148.230	T	C
SNP0622	solcap_snp_sl_8510	2	37,528,697	148.230	G	A
SNP0627	UFTLP1_1198	2	37,685,704	150.610	A	G

SNP0628	solcap_snp_sl_8524	2	37,819,224	151.115	G	A
SNP0629	UFTLP1_1200	2	37,835,773	151.620	A	C
SNP0635	UF_2.38280	2	38,280,183	n/a	C	G
SNP0642	UFTLP1_1203	2	38,405,219	156.130	G	A
SNP0644	solcap_snp_sl_10516	2	38,421,061	n/a	A	T
SNP0651	solcap_snp_sl_21744	2	38,900,266	n/a	G	A
SNP0654	solcap_snp_sl_15574	2	39,445,316	187.635	A	G
SNP0656	solcap_snp_sl_23850	2	39,816,490	187.635	G	A
SNP0657	solcap_snp_sl_13554	2	39,955,151	n/a	G	C
SNP0658	solcap_snp_sl_29527	2	40,103,061	n/a	A	T
SNP0659	solcap_snp_sl_49318	2	40,263,858	n/a	A	T
SNP0660	solcap_snp_sl_13603	2	40,384,191	n/a	T	A
SNP0661	solcap_snp_sl_13625	2	40,480,114	187.635	C	T
SNP0663	solcap_snp_sl_29720	2	41,264,652	187.635	A	G
SNP0664	solcap_snp_sl_18397	2	42,228,558	187.635	G	A
SNP0666	solcap_snp_sl_18443	2	43,300,333	187.635	G	T
SNP0668	UF_2.43660	2	43,660,163	n/a	G	C
SNP0670	SL4.0ch02.43873927	2	43,873,927	n/a	C	G
SNP0674	CL017414-0128	2	44,636,700	n/a	A	T
SNP0675	solcap_snp_sl_29891	2	44,762,807	n/a	T	A
SNP0676	SGN-U576591_snp6793	2	44,781,949	n/a	T	A
SNP0677	SGN-U576591_snp6502	2	44,784,861	n/a	G	C
SNP0678	SGN-U586520_snp6126	2	44,788,623	n/a	G	C
SNP0681	solcap_snp_sl_18519	2	45,205,461	187.635	A	C
SNP0682	solcap_snp_sl_17161	2	45,626,702	187.635	T	A
SNP0685	solcap_snp_sl_12841	2	47,236,544	n/a	G	A
SNP0687	UF_2.47481	2	47,481,925	n/a	G	C
SNP0690	solcap_snp_sl_50024	2	48,521,354	n/a	G	C
SNP0691	solcap_snp_sl_36297	2	48,614,148	n/a	A	T
SNP0692	solcap_snp_sl_67361	2	48,958,062	n/a	C	G
SNP0694	solcap_snp_sl_10796	2	49,140,744	187.635	T	G
SNP0695	solcap_snp_sl_67311	2	49,178,165	n/a	A	T
SNP0696	solcap_snp_sl_36273	2	49,358,604	n/a	T	A
SNP0697	solcap_snp_sl_67234	2	49,410,579	n/a	A	T
SNP0699	solcap_snp_sl_67090	2	50,106,882	n/a	G	C
SNP0700	solcap_snp_sl_36224	2	50,456,508	187.635	A	G
SNP0701	UFTLP1_1219	2	50,848,360	213.510	A	G

SNP0702	solcap_snp_sl_21867	2	51,405,438	n/a	C	G
SNP0703	solcap_snp_sl_21866	2	51,406,607	n/a	C	G
SNP0704	solcap_snp_sl_36193	2	51,428,432	n/a	T	A
SNP0705	solcap_snp_sl_36192	2	51,428,433	217.025	C	G
SNP0706	solcap_snp_sl_21862	2	51,438,027	217.025	T	C
SNP0708	solcap_snp_sl_21966	2	51,843,396	n/a	C	G
SNP0709	UFTLP1_1220	2	52,060,297	220.540	T	C
SNP0710	solcap_snp_sl_100566	2	52,164,887	n/a	T	A
SNP0712	solcap_snp_sl_47942	2	52,967,108	n/a	C	G
SNP0713	solcap_snp_sl_47880	2	53,330,857	n/a	G	C
SNP0714	UFTLP1_1221	2	53,447,331	230.640	G	C
SNP0715	solcap_snp_sl_9663	3	843,541	0.640	G	A
SNP0716	solcap_snp_sl_21215	3	1,046,580	0.640	A	T
SNP0717	solcap_snp_sl_63240	3	1,182,536	n/a	A	T
SNP0718	solcap_snp_sl_9681	3	1,294,737	0.640	C	T
SNP0719	solcap_snp_sl_63290	3	1,427,420	n/a	A	T
SNP0720	solcap_snp_sl_100785	3	1,735,915	n/a	G	C
SNP0721	solcap_snp_sl_100548	3	1,921,406	n/a	T	A
SNP0722	solcap_snp_sl_9689	3	2,080,805	0.640	C	G
SNP0723	solcap_snp_sl_100499	3	2,175,897	n/a	C	G
SNP0724	solcap_snp_sl_9703	3	2,397,059	0.640	A	T
SNP0725	solcap_snp_sl_14355	3	2,681,265	0.640	G	A
SNP0726	solcap_snp_sl_14354	3	2,691,709	0.640	C	T
SNP0727	solcap_snp_sl_55107	3	2,711,331	n/a	C	G
SNP0728	solcap_snp_sl_55037	3	2,937,542	0.640	C	G
SNP0730	solcap_snp_sl_31828	3	3,321,130	n/a	A	T
SNP0731	solcap_snp_sl_19514	3	3,526,233	0.640	C	T
SNP0732	solcap_snp_sl_19508	3	3,592,814	n/a	G	C
SNP0737	UFTLP1_1226	3	3,745,910	1.280	A	T
SNP0739	solcap_snp_sl_23192	3	4,290,929	5.900	A	C
SNP0740	solcap_snp_sl_12718	3	4,523,858	5.900	T	C
SNP0741	solcap_snp_sl_27151	3	4,664,269	n/a	A	T
SNP0742	solcap_snp_sl_12414	3	4,800,927	5.900	A	G
SNP0743	solcap_snp_sl_26315	3	5,003,675	n/a	C	G
SNP0744	solcap_snp_sl_26323	3	5,146,096	n/a	A	T
SNP0747	UFTLP1_1239	3	5,227,154	11.230	T	G
SNP0757	solcap_snp_sl_26366	3	5,745,223	n/a	A	G
SNP0758	UFTLP1_1260	3	5,865,993	20.620	T	C
SNP0760	solcap_snp_sl_26387	3	6,103,959	n/a	T	C

SNP0763	solcap_snp_sl_30106	3	6,398,220	n/a	G	C
SNP0767	solcap_snp_sl_18588	3	7,495,549	n/a	G	C
SNP0772	UF_3.8265	3	8,265,279	n/a	C	G
SNP0773	UFTLP1_1279	3	8,470,771	23.350	A	G
SNP0774	solcap_snp_sl_30033	3	8,624,013	n/a	A	T
SNP0781	solcap_snp_sl_30015	3	10,188,628	n/a	T	A
SNP0784	solcap_snp_sl_30006	3	10,783,299	n/a	T	A
SNP0785	SL4.0ch03.10969193	3	10,969,193	n/a	G	C
SNP0790	UFTLP1_1301	3	13,104,251	26.980	G	A
SNP0802	UFTLP1_1318	3	14,636,919	32.190	G	C
SNP0812	UFTLP1_1330	3	16,222,440	37.280	C	T
SNP0819	UFTLP1_1341	3	17,074,625	41.520	T	A
SNP0834	UFTLP1_1361	3	20,184,641	45.150	C	T
SNP0841	UF_3.21018	3	21,018,770	n/a	G	C
SNP0844	UFTLP1_1372	3	21,371,680	46.960	T	C
SNP0853	solcap_snp_sl_18959	3	21,997,902	48.470	G	A
SNP0857	UFTLP1_1385	3	22,937,517	49.380	C	T
SNP0863	solcap_snp_sl_50305	3	23,575,554	n/a	G	C
SNP0864	solcap_snp_sl_4926	3	23,866,122	52.110	T	A
SNP0865	UFTLP4-600	3	24,115,984	n/a	C	G
SNP0870	UFTLP1_1402	3	25,373,154	54.840	C	A
SNP0876	UFTLP4-611	3	26,246,231	n/a	G	C
SNP0886	solcap_snp_sl_5547	3	28,348,215	58.775	G	C
SNP0887	UFTLP4-619	3	28,687,397	n/a	G	C
SNP0894	UFTLP4-626	3	30,838,696	n/a	G	C
SNP0900	UFTLP4-636	3	33,534,888	n/a	C	G
SNP0909	UFTLP1_1466	3	35,085,189	72.180	G	A
SNP0915	UFTLP1_1480	3	36,219,807	75.450	C	T
SNP0920	UFTLP1_1487	3	37,399,192	76.060	T	A
SNP0926	UFTLP4-665	3	38,170,474	n/a	C	G
SNP0927	solcap_snp_sl_31018	3	38,357,940	n/a	T	A
SNP0931	UFTLP1_1502	3	39,048,353	78.480	G	C
SNP0938	UFTLP1_1511	3	39,586,137	88.710	G	A
SNP0942	UFTLP4-681	3	40,907,840	n/a	C	G
SNP0949	UFTLP1_1529	3	42,115,208	94.290	G	A
SNP0954	UFTLP1_1536	3	43,052,354	97.320	C	T
SNP0960	UFTLP1_1545	3	43,935,597	98.530	G	T
SNP0962	solcap_snp_sl_1779	3	44,631,659	100.980	A	C
SNP0963	solcap_snp_sl_12799	3	44,878,740	100.980	G	C
SNP0964	solcap_snp_sl_1772	3	45,259,209	100.980	T	C
SNP0968	solcap_snp_sl_5761	3	46,590,529	100.980	C	T

SNP0969	UFTLP1_1558	3	47,038,567	103.430	C	T
SNP0971	solcap_snp_sl_5656	3	47,068,581	103.735	G	C
SNP0976	UFTLP1_1562	3	49,215,150	111.430	A	G
SNP0979	solcap_snp_sl_18985	3	49,458,031	112.760	A	T
SNP0982	UFTLP1_1568	3	51,777,476	115.580	G	T
SNP0983	SL4.0ch03.52262987	3	52,262,987	n/a	C	G
SNP0985	UFTLP1_1574	3	53,588,904	119.230	T	C
SNP0986	solcap_snp_sl_10372	3	53,984,426	127.440	A	C
SNP0988	solcap_snp_sl_19654	3	55,794,336	n/a	T	A
SNP0989	solcap_snp_sl_19643	3	55,944,234	127.440	G	C
SNP0990	solcap_snp_sl_7942	3	56,340,171	127.440	A	G
SNP0991	solcap_snp_sl_7939	3	56,363,131	127.440	C	G
SNP0993	solcap_snp_sl_7919	3	56,797,438	127.440	C	T
SNP0994	solcap_snp_sl_100572	3	57,024,038	n/a	C	G
SNP0995	UFTLP1_1575	3	57,142,972	135.650	A	G
SNP0996	solcap_snp_sl_9379	3	57,462,482	137.330	G	T
SNP0999	CL015346-0143_solcap_	3	57,590,779	140.420	C	G
SNP1002	solcap_snp_sl_62409	3	58,023,585	n/a	G	C
SNP1003	CL017416-0406	3	58,044,555	n/a	T	G
SNP1004	solcap_snp_sl_100539	3	58,194,466	n/a	G	C
SNP1005	solcap_snp_sl_100093	3	58,770,148	n/a	A	T
SNP1006	solcap_snp_sl_62245	3	58,796,788	n/a	G	C
SNP1007	solcap_snp_sl_62228	3	58,906,960	n/a	T	A
SNP1008	solcap_snp_sl_9298	3	58,934,636	n/a	G	A
SNP1009	solcap_snp_sl_62209	3	59,008,321	n/a	A	T
SNP1010	solcap_snp_sl_9292	3	59,010,502	n/a	T	A
SNP1013	solcap_snp_sl_20835	3	60,818,880	n/a	T	C
SNP1016	solcap_snp_sl_34105	3	61,747,633	n/a	A	G
SNP1018	UF_3.62807	3	62,807,843	n/a	T	A
SNP1020	solcap_snp_sl_33829	3	64,197,824	n/a	C	T
SNP1024	solcap_snp_sl_45224	4	48,737	n/a	T	C
SNP1026	solcap_snp_sl_21317	4	883,714	n/a	A	G
SNP1027	solcap_snp_sl_9856	4	883,830	n/a	G	A
SNP1028	UFTLP1_1586	4	912,952	0.000	T	C
SNP1030	solcap_snp_sl_63869	4	1,199,682	2.270	G	T
SNP1032	UFTLP1_1592	4	1,554,630	8.380	G	A
SNP1033	solcap_snp_sl_21335	4	2,082,069	13.005	T	C
SNP1035	UFTLP1_1593	4	2,389,559	17.630	A	G
SNP1036	solcap_snp_sl_21372	4	2,951,684	18.525	T	C



SNP1038	UFTLP1_1594	4	2,983,524	19.420	C	T
SNP1039	solcap_snp_sl_21385	4	3,247,896	21.405	C	T
SNP1044	UFTLP1_1603	4	4,241,029	25.300	C	T
SNP1046	UFTLP1_1606	4	4,594,472	29.480	C	T
SNP1048	solcap_snp_sl_27167	4	4,855,043	31.400	C	G
SNP1050	UFTLP1_1608	4	5,210,849	33.320	A	G
SNP1053	solcap_snp_sl_16978	4	5,560,270	35.240	G	A
SNP1055	solcap_snp_sl_16982	4	5,748,054	35.240	G	C
SNP1059	solcap_snp_sl_16985	4	5,953,943	35.240	G	A
SNP1061	solcap_snp_sl_1698	4	7,259,246	35.240	C	G
SNP1063	UFTLP1_1612	4	7,344,331	37.160	G	C
SNP1064	solcap_snp_sl_17756	4	7,622,726	37.460	C	T
SNP1065	solcap_snp_sl_17765	4	7,844,922	37.460	G	C
SNP1069	solcap_snp_sl_17771	4	9,646,574	38.670	C	T
SNP1070	UFTLP1_1621	4	9,799,406	38.970	T	C
SNP1071	UFTLP1_1626	4	10,729,780	39.760	A	C
SNP1074	solcap_snp_sl_56978	4	11,806,470	41.355	T	A
SNP1075	CL015243-0410	4	12,120,424	41.355	T	A
SNP1077	UFTLP1_1630	4	12,449,214	42.950	G	T
SNP1078	UFTLP1_1631	4	12,582,436	44.310	A	C
SNP1080	solcap_snp_sl_56956	4	13,096,924	44.985	A	T
SNP1082	solcap_snp_sl_18739	4	14,135,894	45.960	G	A
SNP1083	UFTLP1_1638	4	14,728,224	46.260	G	T
SNP1085	solcap_snp_sl_51325	4	15,724,716	46.560	T	A
SNP1086	UFTLP1_1642	4	16,489,727	46.860	C	A
SNP1089	solcap_snp_sl_51332	4	17,504,634	47.670	T	A
SNP1091	UFTLP1_1647	4	17,846,016	48.480	C	T
SNP1095	solcap_snp_sl_51338	4	19,330,471	49.490	T	C
SNP1096	UFTLP1_1654	4	19,483,979	50.500	C	T
SNP1097	UFTLP1_1656	4	19,842,087	51.410	G	T
SNP1104	UFTLP1_1663	4	20,953,480	54.130	G	A
SNP1110	UFTLP1_1675	4	22,613,671	58.380	C	T
SNP1112	solcap_snp_sl_51382	4	23,558,307	58.985	A	T
SNP1113	UFTLP1_1679	4	23,701,235	59.590	C	T
SNP1114	solcap_snp_sl_18755	4	24,615,920	61.710	T	C

SNP1115	UFTLP4-1262	4	24,631,209	n/a	C	G
SNP1119	UFTLP4-1263	4	26,308,926	n/a	G	C
SNP1121	solcap_snp_sl_5211	4	26,645,977	65.045	G	C
SNP1122	UFTLP4-1266	4	27,141,568	n/a	G	C
SNP1125	solcap_snp_sl_18759	4	28,677,233	65.045	T	A
SNP1126	SL4.0ch04.29110152	4	29,110,152	n/a	A	T
SNP1130	solcap_snp_sl_18763	4	29,638,751	66.865	A	T
SNP1131	UFTLP1_1707	4	30,202,239	67.470	A	T
SNP1132	UFTLP1_1709	4	30,292,549	68.070	G	A
SNP1138	UFTLP1_1715	4	32,555,698	70.500	C	A
SNP1142	UFTLP1_1720	4	33,699,530	71.110	G	T
SNP1143	UFTLP1_1725	4	34,909,930	72.320	G	A
SNP1144	CL009241-0724	4	35,154,496	72.620	C	T
SNP1147	SL4.0ch04.36902984	4	36,902,984	n/a	A	T
SNP1150	solcap_snp_sl_17655	4	37,946,615	75.600	G	A
SNP1152	SL10347_1497	4	38,939,879	78.695	C	G
SNP1154	UFTLP1_1742	4	40,097,774	80.530	C	A
SNP1157	solcap_snp_sl_17649	4	40,846,484	84.755	G	A
SNP1163	UFTLP1_1754	4	41,684,706	86.300	C	T
SNP1164	CL015494-0175	4	42,076,480	87.210	T	A
SNP1165	solcap_snp_sl_45495	4	42,278,347	87.210	C	T
SNP1167	solcap_snp_sl_17645	4	44,482,391	87.210	A	G
SNP1168	UFTLP1_1760	4	45,243,925	88.120	G	T
SNP1169	solcap_snp_sl_45469	4	45,742,151	88.420	C	T
SNP1171	solcap_snp_sl_17641	4	46,796,470	89.330	C	A
SNP1173	SGN-U585128_snp513_	4	47,276,222	89.330	C	G
SNP1174	UFTLP4-1277	4	47,310,513	n/a	G	C
SNP1176	UFTLP1_1771	4	47,978,776	90.540	G	T
SNP1177	CL015174-0292_solcap_	4	48,198,829	91.755	G	A
SNP1182	solcap_snp_sl_45412	4	49,279,932	91.755	T	C
SNP1183	UFTLP1_1775	4	49,700,941	92.970	T	A
SNP1185	UFTLP1_1777	4	49,837,990	94.810	A	G
SNP1189	solcap_snp_sl_53136	4	53,386,183	99.735	C	G

SNP1192	UFTLP1_1782	4	53,725,128	100.340	A	T
SNP1195	solcap_snp_sl_24148	4	53,907,179	101.545	T	A
SNP1199	solcap_snp_sl_58945	4	54,252,376	103.570	T	A
SNP1200	UFTLP1_1797	4	54,265,299	104.380	G	A
SNP1202	solcap_snp_sl_24606	4	54,364,193	105.585	C	A
SNP1203	solcap_snp_sl_24577	4	54,444,601	105.585	T	A
SNP1205	solcap_snp_sl_24575	4	54,510,017	106.800	T	A
SNP1207	solcap_snp_sl_58916	4	54,618,066	107.910	T	A
SNP1210	solcap_snp_sl_8223	4	54,815,611	109.725	A	G
SNP1211	UFTLP1_1815	4	54,845,074	110.030	C	A
SNP1216	solcap_snp_sl_3066	4	55,092,451	113.165	C	G
SNP1217	UFTLP1_1824	4	55,095,116	113.870	T	C
SNP1218	solcap_snp_sl_3067	4	55,116,675	121.260	A	C
SNP1219	solcap_snp_sl_23480	4	55,168,002	121.260	G	A
SNP1221	solcap_snp_sl_3096	4	55,286,384	121.260	G	A
SNP1222	solcap_snp_sl_28824	4	55,392,951	121.260	C	T
SNP1224	solcap_snp_sl_2191	4	55,582,431	121.260	G	A
SNP1234	UFTLP1_1826	4	57,670,959	128.650	G	C
SNP1236	UFTLP1_1827	4	57,885,497	133.950	T	A
SNP1240	solcap_snp_sl_11543	4	58,060,847	135.105	G	A
SNP1244	UFTLP1_1838	4	58,175,443	137.270	G	A
SNP1247	solcap_snp_sl_36809	4	58,305,308	139.540	C	G
SNP1253	UFTLP1_1862	4	58,595,652	146.390	G	A
SNP1257	UFTLP1_1878	4	58,815,377	153.030	A	C
SNP1261	UFTLP1_1890	4	59,076,567	156.650	C	T
SNP1263	solcap_snp_sl_3480	4	59,169,678	159.970	A	C
SNP1266	UFTLP1_1898	4	59,706,268	163.290	C	T
SNP1268	UFTLP1_1899	4	59,789,541	164.020	C	T
SNP1272	UFTLP4-1296	4	60,468,667	n/a	G	C
SNP1276	UFTLP1_1901	4	61,457,306	169.510	G	A
SNP1281	UFTLP1_1902	4	62,513,428	173.400	C	A
SNP1283	solcap_snp_sl_47694	4	63,232,977	n/a	T	G
SNP1284	solcap_snp_sl_47762	4	63,675,229	n/a	G	T
SNP1285	solcap_snp_sl_3977	4	63,698,081	n/a	T	A

SNP1286	solcap_snp_sl_4000	4	63,744,921	n/a	G	T
SNP1287	solcap_snp_sl_4005	4	63,769,164	n/a	G	A
SNP1288	solcap_snp_sl_4021	4	63,826,762	n/a	G	T
SNP1289	solcap_snp_sl_23589	4	63,867,695	n/a	C	T
SNP1290	solcap_snp_sl_4038	4	63,890,892	n/a	C	G
SNP1291	solcap_snp_sl_4042	4	63,904,203	n/a	T	C
SNP1292	solcap_snp_sl_47843	4	64,137,334	n/a	G	C
SNP1293	solcap_snp_sl_4139	4	64,267,828	n/a	G	A
SNP1294	solcap_snp_sl_15889	5	764,076	0.000	C	T
SNP1295	solcap_snp_sl_15884	5	768,295	n/a	G	C
SNP1296	solcap_snp_sl_69070	5	781,079	n/a	A	G
SNP1302	solcap_snp_sl_19102	5	1,909,199	4.085	T	G
SNP1303	solcap_snp_sl_18306	5	2,190,720	4.085	C	T
SNP1304	UFTLP1_1905	5	2,349,396	8.170	C	T
SNP1305	UFTLP1_1906	5	3,014,277	11.190	C	G
SNP1309	solcap_snp_sl_18272	5	3,802,335	14.965	A	G
SNP1311	solcap_snp_sl_13481	5	3,948,021	20.125	T	C
SNP1312	solcap_snp_sl_23724	5	4,086,243	20.125	C	T
SNP1313	solcap_snp_sl_29477	5	4,291,021	20.125	T	G
SNP1314	UFTLP1_1913	5	4,441,924	24.810	G	C
SNP1315	solcap_snp_sl_29473	5	4,880,494	38.215	C	T
SNP1320	solcap_snp_sl_5050	5	6,045,210	38.215	C	T
SNP1323	UFTLP4-1643	5	6,100,062	n/a	A	T
SNP1324	C2_At1g14000_606_b	5	6,245,547	38.215	T	A
SNP1327	solcap_snp_sl_50902	5	6,466,450	38.215	A	T
SNP1329	solcap_snp_sl_50925	5	6,648,448	38.215	G	C
SNP1331	solcap_snp_sl_50932	5	6,784,514	38.215	C	G
SNP1334	UFTLP4-1657	5	7,615,154	n/a	C	G
SNP1338	solcap_snp_sl_5094	5	8,218,834	38.215	T	C
SNP1339	solcap_snp_sl_5095	5	8,305,881	38.215	T	C
SNP1340	SL4.0ch05.9448618	5	9,448,618	n/a	A	T
SNP1341	solcap_snp_sl_5110	5	9,793,449	38.215	G	A
SNP1348	SL4.0ch05.14610343	5	14,610,343	n/a	T	A

SNP1352	SL4.0ch05.20867836	5	20,867,836	n/a	A	T
SNP1353	UFTLP1_1927	5	21,510,157	55.320	G	A
SNP1357	UFTLP1_1934	5	27,015,925	60.060	T	C
SNP1365	UFTLP1_1938	5	38,476,773	70.240	T	C
SNP1366	UFTLP1_1939	5	40,036,367	73.390	G	T
SNP1370	UFTLP1_1942	5	45,400,825	79.070	C	T
SNP1371	UFTLP1_1944	5	46,225,922	80.700	C	G
SNP1381	UFTLP1_1951	5	54,066,768	93.960	G	T
SNP1385	UFTLP1_1952	5	58,079,757	96.710	G	A
SNP1387	solcap_snp_sl_22562	5	59,185,560	106.635	C	T
SNP1388	solcap_snp_sl_22565	5	59,267,591	106.635	C	T
SNP1389	UFTLP4-1665	5	59,267,673	n/a	C	G
SNP1390	solcap_snp_sl_22567	5	59,268,393	106.635	C	T
SNP1396	solcap_snp_sl_22572	5	59,470,745	106.635	T	C
SNP1398	UFTLP4-3799	5	59,480,244	n/a	C	G
SNP1410	solcap_snp_sl_75	5	60,895,765	106.635	C	T
SNP1414	solcap_snp_sl_22603	5	60,927,342	106.635	A	G
SNP1417	UFTLP4-5681	5	61,010,684	n/a	T	A
SNP1424	solcap_snp_sl_22620	5	61,265,329	106.635	A	G
SNP1425	solcap_snp_sl_37209	5	61,429,478	106.635	C	A
SNP1426	solcap_snp_sl_12200	5	61,731,105	106.635	C	A
SNP1427	solcap_snp_sl_12201	5	61,792,631	106.635	T	C
SNP1428	solcap_snp_sl_37265	5	61,856,549	106.635	G	A
SNP1429	solcap_snp_sl_12205	5	61,863,156	n/a	C	G
SNP1430	solcap_snp_sl_12206	5	61,863,546	n/a	C	G
SNP1431	solcap_snp_sl_12207	5	61,863,563	n/a	A	T
SNP1432	solcap_snp_sl_22629	5	61,864,869	n/a	T	A
SNP1433	solcap_snp_sl_12208	5	61,867,377	n/a	A	T
SNP1434	solcap_snp_sl_12210	5	61,882,560	n/a	A	T
SNP1435	solcap_snp_sl_12212	5	61,923,007	106.635	A	T
SNP1436	solcap_snp_sl_12213	5	61,929,776	106.635	C	T
SNP1437	solcap_snp_sl_104	5	62,031,040	n/a	C	T
SNP1438	UF_5.62034	5	62,034,236	n/a	A	C
SNP1439	solcap_snp_sl_16177	5	62,240,085	106.635	C	G
SNP1440	2719_1_118_b	5	62,377,602	106.635	A	G
SNP1441	UF_5.62445	5	62,445,581	n/a	A	T
SNP1442	UF_5.62541	5	62,541,880	n/a	A	T
SNP1443	solcap_snp_sl_22649	5	62,700,315	111.598	T	C
SNP1444	UFTLP1_1957	5	62,736,366	116.560	T	A

SNP1445	UF_5.62827	5	62,827,139	n/a	G	C
SNP1446	UF_5.62838	5	62,838,142	n/a	A	T
SNP1448	UF_5.62842	5	62,842,639	n/a	G	C
SNP1449	UF_5.62859	5	62,859,485	n/a	G	C
SNP1450	solcap_snp_sl_16204	5	62,869,322	n/a	T	A
SNP1452	UFTLP1_1961	5	63,099,684	119.070	C	T
SNP1455	UF_5.63363	5	63,362,910	n/a	C	G
SNP1461	UFTLP1_1966	5	63,423,742	137.010	T	G
SNP1462	solcap_snp_sl_231	5	63,496,051	142.585	C	G
SNP1479	UFTLP1_1975	5	65,122,683	156.880	T	A
SNP1480	SL4.0ch06.16392	6	16,392	n/a	C	G
SNP1482	UFTLP1_1976	6	1,548,017	0.000	A	T
SNP1483	solcap_snp_sl_15515	6	1,620,983	3.505	C	T
SNP1484	solcap_snp_sl_65677	6	1,690,049	3.505	A	G
SNP1485	solcap_snp_sl_25160	6	2,113,979	3.505	T	A
SNP1486	UFTLP4-6314	6	3,387,329	n/a	C	G
SNP1488	UFTLP1_1977	6	4,463,182	7.010	C	T
SNP1490	UFTLP4-6315	6	5,041,702	n/a	G	C
SNP1492	UFTLP1_1978	6	5,293,839	8.350	G	A
SNP1496	UFTLP4-6317	6	7,856,675	n/a	G	C
SNP1516	SL4.0ch06.21332392	6	21,332,392	n/a	C	G
SNP1521	UFTLP4-6329	6	26,807,120	n/a	C	G
SNP1522	UFTLP4-6330	6	27,384,467	n/a	G	C
SNP1528	solcap_snp_sl_11281	6	29,716,970	31.490	G	A
SNP1529	UFTLP4-6333	6	30,248,113	n/a	C	G
SNP1530	SL4.0ch06.30268790	6	30,268,790	n/a	T	A
SNP1532	solcap_snp_sl_2629	6	31,284,274	31.490	T	C
SNP1535	solcap_snp_sl_68830	6	33,675,421	n/a	G	A
SNP1539	solcap_snp_sl_55874	6	35,410,538	n/a	A	G
SNP1541	UF_6.36099	6	36,099,911	n/a	A	T
SNP1544	UF_6.36299	6	36,299,772	n/a	T	A
SNP1545	UF_6.36382	6	36,382,859	n/a	A	T
SNP1546	UF_6.36382	6	36,382,997	n/a	T	A
SNP1548	UF_6.36383	6	36,383,782	n/a	C	G
SNP1550	solcap_snp_sl_14458	6	36,520,865	31.490	G	A
SNP1554	UFTLP1_1987	6	37,257,528	54.630	T	A
SNP1555	UFTLP1_1989	6	37,286,453	55.250	C	A
SNP1556	solcap_snp_sl_1337	6	37,305,771	61.815	G	A
SNP1557	solcap_snp_sl_12638	6	37,440,929	61.815	C	A
SNP1558	UF_6.37700	6	37,700,135	n/a	A	T
SNP1561	UF_6.38000	6	38,000,050	n/a	C	G
SNP1563	solcap_snp_sl_12757	6	38,186,725	61.815	T	G

SNP1564	solcap_snp_sl_27197	6	38,211,058	61.815	C	T
SNP1565	UF_6.38249	6	38,249,795	n/a	T	A
SNP1566	UF_6.38500	6	38,500,348	n/a	G	C
SNP1567	solcap_snp_sl_17019	6	38,804,038	61.815	T	G
SNP1568	UFTLP4-6339	6	39,418,169	n/a	C	G
SNP1572	UFTLP1_2001	6	40,466,450	68.380	G	T
SNP1574	UFTLP1_2003	6	40,559,487	70.040	A	G
SNP1577	UFTLP1_2005	6	41,306,569	77.260	G	T
SNP1578	UFTLP2_224	6	41,436,971	18.632	G	C
SNP1581	solcap_snp_sl_57714	6	41,937,946	n/a	G	A
SNP1582	UFTLP1_2014	6	41,942,087	80.780	A	G
SNP1586	solcap_snp_sl_24454	6	42,345,260	84.235	C	G
SNP1587	UFTLP1_2025	6	42,359,046	85.430	T	G
SNP1589	SL10882_924	6	42,438,269	89.530	A	T
SNP1591	solcap_snp_sl_24440	6	42,514,535	89.530	C	T
SNP1592	UFTLP1_2034	6	42,516,049	90.480	T	A
SNP1601	solcap_snp_sl_24437	6	42,661,822	94.245	C	T
SNP1604	UFTLP1_2046	6	43,218,753	95.870	T	G
SNP1607	UFTLP1_2049	6	43,572,669	100.010	T	C
SNP1608	solcap_snp_sl_57352	6	43,617,828	n/a	A	T
SNP1609	solcap_snp_sl_57228	6	44,454,059	n/a	T	A
SNP1610	UFTLP1_2051	6	44,756,022	105.150	G	A
SNP1612	UFTLP2_235	6	44,855,583	30.727	G	A
SNP1616	solcap_snp_sl_54500	6	45,610,765	n/a	G	C
SNP1617	solcap_snp_sl_31712	6	46,067,474	n/a	T	A
SNP1620	solcap_snp_sl_31676	6	46,411,532	n/a	C	G
SNP1623	UFTLP4-6352	6	46,574,845	n/a	C	G
SNP1628	UFTLP1_2059	6	47,047,685	113.650	A	G
SNP1631	solcap_snp_sl_11219	7	902,872	n/a	T	C
SNP1632	solcap_snp_sl_11205	7	1,352,161	0.000	T	G
SNP1634	UFTLP1_2061	7	1,631,220	0.000	G	C
SNP1637	solcap_snp_sl_22109	7	1,791,958	5.310	T	A
SNP1640	solcap_snp_sl_15789	7	2,851,594	5.310	C	T
SNP1641	solcap_snp_sl_15785	7	2,859,668	5.310	T	C
SNP1642	UFTLP1_2065	7	3,003,012	10.620	C	T
SNP1644	solcap_snp_sl_15780	7	3,052,630	12.720	C	G

SNP1646	solcap_snp_sl_11092	7	3,252,226	15.295	T	C
SNP1648	solcap_snp_sl_22065	7	3,718,174	17.275	G	T
SNP1652	UFTLP4-6424	7	4,726,935	n/a	T	A
SNP1653	UFTLP1_2074	7	5,695,485	24.580	G	A
SNP1657	SL4.0ch07.8297347	7	8,297,347	n/a	A	T
SNP1659	UFTLP1_2082	7	8,643,971	27.470	C	T
SNP1664	UFTLP1_2089	7	11,741,092	31.370	C	T
SNP1665	UFTLP1_2091	7	13,987,030	32.670	T	A
SNP1666	SL4.0ch07.15895685	7	15,895,685	n/a	G	C
SNP1667	SL4.0ch07.15948354	7	15,948,354	n/a	A	T
SNP1670	UFTLP1_2102	7	17,257,705	40.150	G	A
SNP1671	UFTLP1_2104	7	17,874,561	42.130	T	A
SNP1673	SL4.0ch07.20745026	7	20,745,026	n/a	G	C
SNP1677	UFTLP1_2127	7	24,667,148	45.810	C	A
SNP1685	UFTLP1_2143	7	31,417,954	49.450	T	C
SNP1686	UFTLP1_2148	7	32,192,436	50.660	G	A
SNP1689	UFTLP1_2157	7	34,634,351	52.480	G	A
SNP1693	UFTLP1_2158	7	35,986,646	53.090	G	A
SNP1695	UFTLP1_2161	7	37,017,559	54.910	T	C
SNP1696	UFTLP1_2162	7	37,051,550	55.520	G	C
SNP1697	UFTLP1_2164	7	37,765,815	56.120	T	A
SNP1700	UFTLP1_2174	7	40,203,142	58.540	C	A
SNP1701	UFTLP2_238	7	40,501,030	0.000	T	C
SNP1704	UFTLP1_2182	7	41,646,872	60.350	G	T
SNP1708	UFTLP1_2193	7	44,049,412	63.380	G	A
SNP1711	UFTLP1_2210	7	46,478,337	67.620	C	T
SNP1712	UFTLP1_2211	7	46,923,504	68.220	C	T
SNP1715	UFTLP1_2220	7	49,101,189	70.950	C	A
SNP1717	UFTLP1_2224	7	50,564,954	72.470	G	T
SNP1718	UFTLP1_2225	7	51,819,250	73.370	A	T
SNP1719	UFTLP1_2227	7	52,397,495	74.280	T	A
SNP1721	UFTLP1_2232	7	53,526,619	76.290	G	C
SNP1723	solcap_snp_sl_22770	7	55,611,240	n/a	A	G
SNP1729	solcap_snp_sl_13868	7	58,499,184	89.535	C	G
SNP1730	solcap_snp_sl_10686	7	59,118,881	89.535	C	T
SNP1731	solcap_snp_sl_52568	7	59,628,451	n/a	T	A
SNP1732	solcap_snp_sl_5863	7	59,631,515	89.535	A	G
SNP1733	solcap_snp_sl_5861	7	59,688,324	89.535	A	G
SNP1734	solcap_snp_sl_14036	7	59,869,612	n/a	C	G
SNP1735	SL4.0ch07.60175847	7	60,175,847	n/a	A	T
SNP1738	solcap_snp_sl_14157	7	60,849,454	n/a	C	G
SNP1741	UFTLP1_2237	7	61,672,765	102.780	A	T
SNP1743	UFTLP1_2239	7	61,818,495	105.730	C	T



SNP1750	UFTLP1_2244	7	63,097,271	114.950	T	A
SNP1752	solcap_snp_sl_6291	7	63,202,925	115.610	A	G
SNP1753	UFTLP1_2253	7	63,216,076	115.610	T	C
SNP1754	UFTLP2_240	7	63,252,547	53.481	G	A
SNP1761	UFTLP1_2260	7	63,317,365	118.040	G	A
SNP1766	solcap_snp_sl_7025	7	63,561,776	123.250	G	A
SNP1768	solcap_snp_sl_37097	7	65,087,061	123.250	T	C
SNP1769	UFTLP4-6430	7	65,332,980	n/a	G	C
SNP1770	SL20074_501	7	65,335,405	123.250	A	T
SNP1774	solcap_snp_sl_100209	7	65,395,943	n/a	T	A
SNP1778	solcap_snp_sl_70992	7	65,472,980	n/a	C	G
SNP1779	solcap_snp_sl_70925	7	65,649,086	n/a	T	A
SNP1780	UFTLP1_2261	7	66,211,430	128.460	C	A
SNP1781	UFTLP1_2262	7	67,134,298	134.170	T	C
SNP1782	UFTLP1_2263	7	67,309,371	136.290	C	T
SNP1783	solcap_snp_sl_7232	8	49,736	0.000	C	T
SNP1784	solcap_snp_sl_19759	8	407,463	0.000	C	G
SNP1787	UFTLP1_2266	8	815,815	2.040	T	C
SNP1788	UFTLP2_248	8	1,308,052	0.000	C	T
SNP1813	UFTLP1_2269	8	1,705,068	11.960	C	T
SNP1814	solcap_snp_sl_14530	8	2,588,559	15.145	A	G
SNP1815	solcap_snp_sl_7386	8	2,853,737	15.145	T	C
SNP1816	solcap_snp_sl_7388	8	2,931,551	15.145	G	C
SNP1817	UFTLP1_2270	8	3,150,777	18.330	C	T
SNP1822	UFTLP1_2271	8	3,726,483	20.200	G	A
SNP1828	UFTLP1_2273	8	4,895,827	22.320	A	G
SNP1834	UFTLP1_2278	8	5,371,461	25.420	T	C
SNP1838	UFTLP1_2280	8	5,606,976	27.860	T	C
SNP1842	UFTLP1_2284	8	6,201,658	30.300	G	A
SNP1849	UFTLP1_2288	8	7,896,141	32.430	C	T
SNP1857	UFTLP1_2295	8	8,995,183	35.780	T	G
SNP1869	UFTLP1_2299	8	9,879,706	38.210	C	T
SNP1871	UFTLP1_2302	8	10,139,553	38.970	G	A
SNP1876	UFTLP1_2309	8	11,517,236	42.460	G	A
SNP1881	UFTLP1_2315	8	12,208,384	43.670	A	G
SNP1886	UFTLP1_2318	8	12,446,127	46.970	A	G
SNP1889	UFTLP1_2320	8	12,577,898	48.840	C	T

SNP1895	UFTLP1_2327	8	13,182,865	50.370	C	A
SNP1900	UFTLP1_2335	8	14,315,142	51.580	T	G
SNP1902	UFTLP1_2337	8	14,528,584	52.180	G	T
SNP1906	UFTLP1_2341	8	14,820,688	54.450	G	A
SNP1912	UFTLP1_2344	8	15,536,605	58.150	G	A
SNP1918	UFTLP1_2348	8	16,081,167	61.750	A	T
SNP1921	UFTLP1_2350	8	16,326,608	63.170	C	A
SNP1922	UFTLP1_2351	8	16,388,051	64.000	T	G
SNP1935	UFTLP1_2364	8	18,260,686	71.460	G	A
SNP1947	UFTLP1_2375	8	19,352,571	76.570	G	T
SNP1949	UFTLP1_2377	8	19,516,878	77.170	C	T
SNP1956	UFTLP1_2391	8	21,927,690	82.030	C	T
SNP1959	UFTLP1_2394	8	22,470,450	82.630	C	T
SNP1968	UFTLP1_2406	8	24,026,025	85.660	C	T
SNP1973	UFTLP4-7300	8	24,678,465	n/a	G	C
SNP1982	UFTLP1_2423	8	26,378,836	90.820	T	A
SNP1988	UFTLP1_2428	8	27,585,060	92.940	A	C
SNP1990	UFTLP1_2431	8	28,040,733	93.550	A	C
SNP1994	UFTLP1_2437	8	28,557,061	95.970	G	A
SNP2001	UFTLP1_2451	8	30,669,574	99.010	G	C
SNP2012	UFTLP1_2461	8	31,352,531	102.180	A	C
SNP2015	UFTLP1_2465	8	31,556,135	102.940	G	A
SNP2025	UFTLP1_2482	8	33,244,298	109.310	G	C
SNP2028	UFTLP1_2487	8	33,858,304	111.130	T	A
SNP2030	UFTLP1_2491	8	34,635,367	112.340	T	C
SNP2035	UFTLP1_2496	8	35,283,272	114.770	G	T
SNP2043	UFTLP4-7674	8	37,289,190	n/a	G	C
SNP2046	UFTLP1_2519	8	37,919,095	119.010	G	A
SNP2056	UFTLP1_2543	8	39,878,788	122.030	C	A
SNP2068	UFTLP1_2554	8	40,474,416	128.860	C	A
SNP2073	UFTLP1_2558	8	40,719,920	131.140	G	A
SNP2076	UFTLP1_2564	8	41,478,175	132.950	A	T
SNP2094	UFTLP1_2579	8	42,740,638	141.890	T	A
SNP2095	UFTLP1_2580	8	42,784,463	142.680	C	T
SNP2104	UFTLP1_2588	8	44,307,932	147.050	A	G
SNP2106	UFTLP1_2590	8	44,418,882	148.180	T	C
SNP2112	UFTLP1_2598	8	45,057,895	150.910	A	C
SNP2115	UFTLP1_2600	8	45,226,399	151.820	C	T
SNP2121	UFTLP1_2614	8	46,806,229	154.240	G	A
SNP2126	solcap_snp_sl_13725	8	47,729,647	155.550	C	T
SNP2130	UFTLP1_2629	8	48,473,753	156.860	C	T
SNP2148	UFTLP1_2643	8	53,594,080	173.250	G	A
SNP2149	solcap_snp_sl_4374	8	54,037,817	174.050	C	A
SNP2150	solcap_snp_sl_4373	8	54,057,448	n/a	A	T
SNP2151	solcap_snp_sl_4372	8	54,065,120	n/a	A	T
SNP2152	UFTLP1_2644	8	54,233,473	174.850	C	T

SNP2154	solcap_snp_sl_48426	8	55,620,779	185.165	A	T
SNP2156	solcap_snp_sl_48414	8	55,821,606	185.165	G	C
SNP2157	UFTLP4-8132	8	55,844,249	n/a	T	A
SNP2168	solcap_snp_sl_64768	8	58,955,009	n/a	G	C
SNP2169	solcap_snp_sl_21461	8	59,434,334	200.770	T	A
SNP2172	solcap_snp_sl_21473	8	59,906,304	200.770	C	G
SNP2174	UFTLP1_2647	8	59,938,693	206.060	T	C
SNP2175	solcap_snp_sl_25111	8	59,951,624	206.740	G	C
SNP2177	UFTLP1_2649	8	60,273,441	207.420	G	A
SNP2178	solcap_snp_sl_100203	8	60,326,243	n/a	T	A
SNP2181	UFTLP1_2651	8	60,643,384	210.560	A	G
SNP2186	solcap_snp_sl_15432	8	60,957,462	215.975	T	A
SNP2190	solcap_snp_sl_65287	8	61,492,071	n/a	C	G
SNP2193	UFTLP1_2658	8	62,545,025	228.130	C	T
SNP2194	solcap_snp_sl_10246	8	62,551,995	228.820	T	C
SNP2196	solcap_snp_sl_13464	8	62,939,589	228.820	C	T
SNP2201	UFTLP1_2664	8	63,898,368	232.020	G	A
SNP2202	solcap_snp_sl_17547	9	52,061	0.000	C	A
SNP2203	solcap_snp_sl_17544	9	52,533	n/a	G	C
SNP2204	solcap_snp_sl_17543	9	67,564	n/a	T	A
SNP2205	solcap_snp_sl_17540	9	75,451	n/a	C	G
SNP2209	solcap_snp_sl_17525	9	262,764	0.000	C	T
SNP2210	UFTLP1_2667	9	285,166	0.000	G	C
SNP2213	solcap_snp_sl_17507	9	428,272	n/a	C	G
SNP2214	solcap_snp_sl_17506	9	430,542	n/a	C	G
SNP2215	solcap_snp_sl_17505	9	439,448	n/a	T	A
SNP2216	solcap_snp_sl_17502	9	449,459	2.155	T	A
SNP2219	solcap_snp_sl_17501	9	489,627	n/a	C	G
SNP2220	solcap_snp_sl_17500	9	489,727	n/a	G	C
SNP2224	solcap_snp_sl_17481	9	628,889	9.925	C	T
SNP2225	solcap_snp_sl_7775	9	1,241,276	9.925	C	G
SNP2226	solcap_snp_sl_14653	9	1,423,948	9.925	G	T
SNP2227	solcap_snp_sl_19983	9	1,531,131	9.925	A	G
SNP2228	solcap_snp_sl_19982	9	1,532,596	9.925	G	A
SNP2232	solcap_snp_sl_32342	9	1,771,088	9.925	T	A
SNP2233	UFTLP1_2679	9	1,970,651	15.540	T	C
SNP2234	solcap_snp_sl_16654	9	2,176,649	17.370	T	C
SNP2235	solcap_snp_sl_16648	9	2,202,551	17.370	T	A
SNP2237	CL016154-0457	9	2,354,005	19.510	C	G

SNP2241	solcap_snp_sl_26683	9	2,429,338	20.285	G	A
SNP2242	solcap_snp_sl_22830	9	2,486,857	20.285	A	C
SNP2243	solcap_snp_sl_12536	9	2,538,103	20.285	G	A
SNP2244	solcap_snp_sl_12535	9	2,538,481	20.285	C	T
SNP2247	UFTLP1_2687	9	2,645,647	24.710	G	C
SNP2250	solcap_snp_sl_39804	9	2,878,842	26.145	A	T
SNP2252	UFTLP1_2690	9	3,215,776	31.130	T	A
SNP2254	SGN-U318140_snp404	9	3,510,682	n/a	A	T
SNP2255	CL017788-0130_solcap	9	3,549,808	n/a	T	A
SNP2257	solcap_snp_sl_39658	9	3,777,663	n/a	A	T
SNP2259	solcap_snp_sl_12501	9	4,449,468	41.605	C	G
SNP2260	CL016894-0326_solcap	9	4,738,076	41.605	T	G
SNP2261	solcap_snp_sl_39457	9	4,949,091	41.605	G	T
SNP2262	solcap_snp_sl_39452	9	4,955,382	41.605	G	A
SNP2263	solcap_snp_sl_45076	9	5,833,528	41.605	A	C
SNP2271	UFTLP1_2696	9	6,664,769	44.710	C	A
SNP2277	UFTLP1_2702	9	7,235,282	n/a	C	G
SNP2281	UFTLP1_2705	9	7,433,742	n/a	G	C
SNP2283	UFTLP1_2706	9	7,577,970	n/a	C	G
SNP2285	UFTLP1_2707	9	7,755,241	n/a	A	T
SNP2290	UFTLP1_2715	9	9,204,845	52.600	G	A
SNP2295	UFTLP1_2731	9	10,204,693	54.410	G	A
SNP2304	UFTLP1_2744	9	11,366,655	61.380	A	C
SNP2308	UFTLP1_2753	9	12,126,295	64.110	A	C
SNP2312	UFTLP1_2765	9	13,059,898	66.530	A	C
SNP2316	UFTLP1_2773	9	14,117,219	67.130	C	T
SNP2317	UFTLP1_2781	9	14,964,829	68.640	A	T
SNP2323	UFTLP1_2793	9	15,826,466	73.820	C	T
SNP2325	solcap_snp_sl_41458	9	16,094,257	74.120	G	C
SNP2333	UFTLP4-8240	9	18,561,260	n/a	C	G
SNP2339	UFTLP1_2852	9	22,360,487	79.860	A	C
SNP2348	UFTLP1_2887	9	25,826,398	83.490	A	C
SNP2351	UFTLP1_2897	9	26,980,117	85.920	T	A
SNP2357	UFTLP1_2908	9	28,146,867	89.550	A	T
SNP2359	UFTLP1_2919	9	28,793,222	93.780	G	C
SNP2364	UF_9.29347	9	29,347,374	n/a	C	G
SNP2381	UFTLP1_2965	9	32,933,529	103.460	T	C
SNP2391	UFTLP1_2992	9	34,633,944	111.950	C	T
SNP2392	UFTLP1_2994	9	34,863,999	112.550	C	A
SNP2401	UFTLP1_3016	9	36,266,587	114.970	A	G
SNP2423	UFTLP1_3067	9	39,969,780	129.530	A	T

SNP2425	UFTLP1_3073	9	40,513,049	130.140	C	A
SNP2433	UFTLP1_3094	9	42,001,572	134.980	C	A
SNP2440	UFTLP1_3106	9	43,633,023	139.220	A	C
SNP2443	UFTLP1_3109	9	44,034,587	140.130	G	A
SNP2450	solcap_snp_sl_30379	9	45,331,158	143.465	A	T
SNP2456	UFTLP1_3136	9	46,377,874	145.280	A	G
SNP2462	UFTLP4-8304	9	47,457,537	n/a	G	C
SNP2463	UF_9.47527	9	47,527,536	n/a	C	G
SNP2465	UFTLP1_3163	9	48,114,884	154.990	T	A
SNP2480	UFTLP1_3187	9	50,274,804	162.860	C	T
SNP2489	UFTLP1_3220	9	54,014,230	171.050	C	T
SNP2497	UFTLP4-8340	9	56,921,765	n/a	T	A
SNP2504	UFTLP1_3260	9	59,257,248	175.590	T	G
SNP2518	UFTLP1_3269	9	61,363,559	186.060	A	G
SNP2523	solcap_snp_sl_29188	9	62,747,210	206.075	A	T
SNP2524	UFTLP1_3274	9	62,825,525	n/a	C	G
SNP2526	solcap_snp_sl_29222	9	63,679,811	206.075	T	A
SNP2527	solcap_snp_sl_3430	9	63,903,916	206.075	C	T
SNP2529	solcap_snp_sl_58143	9	64,064,126	206.075	A	T
SNP2531	solcap_snp_sl_7829	9	64,158,410	206.075	G	A
SNP2532	solcap_snp_sl_58180	9	64,270,835	206.075	A	T
SNP2536	UFTLP4-8418	9	64,931,650	n/a	A	T
SNP2541	solcap_snp_sl_69787	9	67,036,946	206.075	G	C
SNP2542	UFTLP1_3276	9	67,197,313	226.090	G	A
SNP2544	UFTLP1_3277	9	67,340,546	227.780	G	T
SNP2545	CL016855-0847_solcap_	9	67,389,020	230.385	A	T
SNP2546	solcap_snp_sl_69978	9	67,744,847	230.385	G	A
SNP2549	solcap_snp_sl_63704	9	67,999,633	230.385	G	C
SNP2550	SGN-U574631_snp5190	9	68,056,706	230.385	G	A
SNP2551	SGN-U567086_snp225_	9	68,145,043	230.385	C	T
SNP2552	UFTLP1_3279	9	68,409,839	232.990	G	A
SNP2553	solcap_snp_sl_63588	9	68,452,362	n/a	C	T
SNP2554	solcap_snp_sl_100269	10	356,112	n/a	C	G
SNP2555	CL015614-0412	10	356,212	0.000	G	C
SNP2556	UFTLP1_3280	10	487,751	0.000	G	A
SNP2558	solcap_snp_sl_46154	10	681,091	n/a	T	A
SNP2560	UFTLP1_3281	10	1,025,025	1.920	T	C
SNP2561	solcap_snp_sl_13202	10	1,050,234	3.135	T	C

SNP2562	UF_10.1385	10	1,385,890	n/a	T	A
SNP2567	solcap_snp_sl_46386	10	1,610,405	7.160	T	C
SNP2568	UFTLP1_3291	10	1,646,888	7.530	G	A
SNP2569	solcap_snp_sl_100416	10	1,797,373	n/a	C	G
SNP2570	solcap_snp_sl_17851	10	1,978,120	12.945	T	C
SNP2571	UF_10.2169	10	2,169,989	n/a	A	T
SNP2577	solcap_snp_sl_30515	10	2,901,849	25.125	G	A
SNP2581	UF_10.3267	10	3,267,272	n/a	T	A
SNP2582	UFTLP1_3308	10	3,428,334	28.780	T	A
SNP2585	solcap_snp_sl_34373	10	3,783,084	31.270	C	T
SNP2589	solcap_snp_sl_9598	10	4,054,660	31.270	T	C
SNP2590	UF_10.4197	10	4,197,413	n/a	A	T
SNP2591	solcap_snp_sl_34365	10	4,515,346	31.270	T	C
SNP2592	UF_10.5241	10	5,241,019	n/a	C	G
SNP2599	UFTLP1_3315	10	9,901,791	35.140	T	G
SNP2601	UFTLP1_3319	10	12,241,668	36.160	C	G
SNP2608	UFTLP1_3323	10	18,891,291	41.790	A	G
SNP2611	SL4.0ch10.20737692	10	20,737,692	n/a	G	C
SNP2623	UFTLP1_3348	10	38,924,856	57.560	C	T
SNP2626	UFTLP1_3356	10	42,036,730	59.290	G	A
SNP2627	UFTLP1_3360	10	44,143,858	61.120	C	T
SNP2628	SL4.0ch10.44255022	10	44,255,022	n/a	C	G
SNP2630	UFTLP1_3364	10	45,575,952	63.720	C	T
SNP2631	UFTLP1_3366	10	46,558,871	65.810	C	T
SNP2635	SL4.0ch10.48519186	10	48,519,186	n/a	T	A
SNP2641	UFTLP1_3369	10	53,911,516	72.580	A	T
SNP2642	solcap_snp_sl_5191	10	54,728,653	74.135	G	C
SNP2643	SL4.0ch10.55041595	10	55,041,595	n/a	A	T
SNP2647	solcap_snp_sl_18726	10	56,453,649	n/a	T	A
SNP2648	UFTLP1_3374	10	56,745,271	75.690	A	G
SNP2651	solcap_snp_sl_26551	10	57,014,747	n/a	T	A
SNP2652	SL4.0ch10.57338815	10	57,338,815	n/a	C	G
SNP2663	UFTLP1_3383	10	60,069,152	94.510	T	C
SNP2666	SGN-U317657_C2_At3g	10	60,135,527	95.265	T	C
SNP2668	UFTLP1_3386	10	60,165,053	96.020	G	C
SNP2675	solcap_snp_sl_59159	10	60,420,719	98.465	T	A
SNP2677	CL015438-0065	10	60,442,679	98.465	A	T
SNP2678	UFTLP1_3392	10	60,461,716	100.910	A	T
SNP2681	solcap_snp_sl_14868	10	60,529,601	102.030	G	C
SNP2685	UFTLP1_3395	10	60,611,719	103.150	T	C

SNP2692	solcap_snp_sl_14890	10	60,703,343	104.300	T	A
SNP2693	UFTLP1_3398	10	60,725,818	105.450	C	T
SNP2696	UFTLP1_3400	10	60,782,378	106.650	G	C
SNP2711	CL017218-0395	10	61,775,530	n/a	G	A
SNP2714	solcap_snp_sl_61192	10	62,325,614	113.105	A	G
SNP2716	UFTLP1_3404	10	62,451,215	120.880	T	G
SNP2720	solcap_snp_sl_61131	10	62,590,440	125.750	C	T
SNP2721	UFTLP1_3416	10	62,625,187	126.930	T	A
SNP2722	solcap_snp_sl_61108	10	62,645,624	128.490	G	A
SNP2723	UFTLP1_3422	10	62,775,115	130.050	G	A
SNP2724	CL017176-0241	10	62,836,557	130.560	A	G
SNP2727	UFTLP1_3432	10	62,915,064	134.630	T	G
SNP2729	solcap_snp_sl_8859	10	62,988,777	137.450	G	T
SNP2730	solcap_snp_sl_8858	10	62,988,930	137.450	G	C
SNP2731	solcap_snp_sl_8855	10	62,991,748	137.450	C	A
SNP2734	UFTLP1_3441	10	63,075,261	139.780	G	C
SNP2738	solcap_snp_sl_8835	10	63,495,747	144.660	T	C
SNP2740	UFTLP1_3447	10	63,590,482	147.630	C	T
SNP2741	UFTLP1_3449	10	63,741,468	148.910	T	A
SNP2742	solcap_snp_sl_15094	10	63,756,667	149.680	C	T
SNP2744	solcap_snp_sl_8807	10	64,138,722	152.035	G	A
SNP2745	UFTLP1_3455	10	64,206,623	153.620	C	G
SNP2746	Le013158s_161	10	64,276,977	154.335	A	G
SNP2747	solcap_snp_sl_8787	10	64,367,031	154.335	G	A
SNP2748	solcap_snp_sl_8774	10	64,578,579	154.335	T	G
SNP2749	UFTLP1_3457	10	64,661,715	155.050	T	G
SNP2754	solcap_snp_sl_21829	11	510,472	2.480	T	C
SNP2755	solcap_snp_sl_66467	11	1,220,373	n/a	A	C
SNP2756	solcap_snp_sl_9411	11	3,528,082	n/a	C	G
SNP2758	solcap_snp_sl_21035	11	4,206,317	2.480	A	G
SNP2760	solcap_snp_sl_9444	11	4,830,935	2.480	C	T
SNP2761	solcap_snp_sl_62702	11	4,983,812	2.480	C	T
SNP2762	solcap_snp_sl_9510	11	5,496,026	2.480	A	G
SNP2764	UFTLP1_3459	11	6,917,507	4.960	A	T
SNP2765	SL4.0ch11.6969421	11	6,969,421	n/a	G	C
SNP2780	UFTLP1_3474	11	7,505,136	7.990	G	A

SNP2787	UFTLP2_314	11	7,655,298	5.440	G	A
SNP2790	UFTLP1_3487	11	7,685,026	9.800	A	G
SNP2795	UFTLP1_3491	11	7,755,083	11.370	C	G
SNP2797	UFTLP1_3493	11	7,775,575	12.340	A	G
SNP2802	solcap_snp_sl_6905	11	7,941,932	15.885	A	G
SNP2806	solcap_snp_sl_16424	11	10,113,369	15.885	T	A
SNP2807	solcap_snp_sl_719	11	10,171,734	15.885	C	T
SNP2811	solcap_snp_sl_706	11	10,830,122	15.885	T	C
SNP2819	SL4.0ch11.13615866	11	13,615,866	n/a	G	C
SNP2820	UFTLP1_3496	11	13,925,791	19.430	A	C
SNP2823	SL4.0ch11.15064860	11	15,064,860	n/a	A	T
SNP2828	SL4.0ch11.16684294	11	16,684,294	n/a	C	G
SNP2833	UFTLP4-8865	11	18,419,247	n/a	A	T
SNP2834	UFTLP4-8866	11	20,515,202	n/a	A	T
SNP2837	UFTLP1_3498	11	21,593,130	25.440	A	T
SNP2838	UFTLP1_3501	11	21,840,388	26.860	C	G
SNP2840	UFTLP1_3502	11	22,038,177	27.460	T	A
SNP2845	UFTLP1_3516	11	27,717,264	30.980	A	T
SNP2846	UFTLP1_3517	11	28,458,892	34.160	G	A
SNP2848	solcap_snp_sl_3017	11	30,776,428	37.175	T	C
SNP2852	solcap_snp_sl_2983	11	34,873,553	37.175	C	T
SNP2855	UFTLP1_3519	11	36,228,495	40.190	G	T
SNP2863	SL4.0ch11.43958882	11	43,958,882	n/a	C	G
SNP2865	UFTLP1_3526	11	44,357,614	42.010	A	T
SNP2868	solcap_snp_sl_36504	11	46,737,719	50.200	A	G
SNP2869	UFTLP4-8883	11	46,951,219	n/a	G	C
SNP2871	solcap_snp_sl_10958	11	47,135,567	50.200	G	A
SNP2874	UFTLP4-8886	11	47,997,160	n/a	T	A
SNP2875	solcap_snp_sl_10958	11	49,182,700	n/a	T	A
SNP2876	solcap_snp_sl_53055	11	49,433,165	50.200	C	G
SNP2877	UFTLP4-8887	11	49,859,039	n/a	C	G
SNP2882	solcap_snp_sl_5987	11	50,153,879	n/a	T	A
SNP2883	solcap_snp_sl_5986	11	50,166,308	n/a	C	G
SNP2884	solcap_snp_sl_5984	11	50,183,170	n/a	C	G
SNP2885	SGN-U321085_C2_At3g	11	50,220,865	n/a	G	C
SNP2886	solcap_snp_sl_5973	11	50,473,869	n/a	A	T
SNP2887	solcap_snp_sl_5972	11	50,562,250	n/a	T	A
SNP2888	solcap_snp_sl_5971	11	50,566,293	n/a	G	C
SNP2889	solcap_snp_sl_5970	11	50,571,471	n/a	C	G
SNP2892	SL1_00sc6004_295547_	11	51,437,148	n/a	C	G
SNP2894	SL1_00sc6004_456492	11	51,597,768	50.200	A	G
SNP2897	SL1_00sc6004_1204916	11	52,352,310	n/a	G	A



SNP2898	SL10890_654	11	52,584,307	n/a	C	T
SNP2899	solcap_snp_sl_2671	11	52,922,093	n/a	C	T
SNP2900	SL4.0ch11.52968510	11	52,968,510	n/a	T	A
SNP2901	SL4.0ch11.52972178	11	52,972,178	n/a	C	G
SNP2903	SL1_00sc6004_2273308	11	53,441,768	n/a	C	G
SNP2904	SL1_00sc6004_2569431	11	53,736,159	n/a	A	T
SNP2905	SL1_00sc6004_2971331	11	54,136,800	n/a	A	T
SNP2906	SL10027_565	11	54,166,969	n/a	A	T
SNP2908	UFTLP1_3536	12	386,906	3.610	T	C
SNP2911	solcap_snp_sl_3159	12	611,723	4.975	C	G
SNP2912	solcap_snp_sl_3163	12	630,709	4.975	C	T
SNP2913	UFTLP1_3540	12	645,012	5.370	A	G
SNP2915	solcap_snp_sl_3165	12	764,413	n/a	T	A
SNP2926	solcap_snp_sl_12656	12	2,022,533	12.465	G	A
SNP2930	solcap_snp_sl_12664	12	2,349,489	12.465	A	T
SNP2932	UFTLP1_3542	12	2,965,193	19.560	T	G
SNP2933	UFTLP1_3543	12	3,165,252	n/a	T	A
SNP2934	solcap_snp_sl_1490	12	3,276,659	23.665	T	C
SNP2935	solcap_snp_sl_41220	12	3,279,635	23.665	C	T
SNP2936	solcap_snp_sl_1498	12	3,306,878	23.665	A	G
SNP2937	UFTLP1_3545	12	3,315,358	n/a	G	C
SNP2938	solcap_snp_sl_1501	12	3,336,161	n/a	T	A
SNP2939	solcap_snp_sl_1504	12	3,380,170	23.665	T	C
SNP2940	solcap_snp_sl_1506	12	3,381,042	n/a	A	T
SNP2941	solcap_snp_sl_1509	12	3,407,753	n/a	A	T
SNP2942	CL015195-0336	12	3,414,438	23.665	C	A
SNP2943	UFTLP1_3546	12	3,437,871	27.770	G	A
SNP2944	solcap_snp_sl_1525	12	3,495,987	30.055	C	T
SNP2948	UF_12.3732	12	3,732,102	n/a	G	C
SNP2952	solcap_snp_sl_1566	12	4,019,350	n/a	C	G
SNP2953	solcap_snp_sl_1567	12	4,020,215	n/a	T	A
SNP2954	solcap_snp_sl_1568	12	4,020,224	34.525	C	T
SNP2956	solcap_snp_sl_1572	12	4,080,993	34.525	T	C
SNP2959	solcap_snp_sl_14758	12	4,499,189	34.525	T	C
SNP2960	UFTLP1_3555	12	4,599,148	36.710	A	G

SNP2961	solcap_snp_sl_58807	12	4,682,958	41.065	A	G
SNP2962	solcap_snp_sl_58869	12	5,069,723	41.065	T	A
SNP2963	solcap_snp_sl_8064	12	5,198,217	41.065	T	A
SNP2964	solcap_snp_sl_65964	12	5,308,440	41.065	A	G
SNP2966	solcap_snp_sl_9707	12	5,746,472	41.065	C	A
SNP2968	solcap_snp_sl_8549	12	6,491,372	41.065	A	C
SNP2969	solcap_snp_sl_8547	12	6,758,520	41.065	G	A
SNP2970	UF_12.6768	12	6,768,266	n/a	C	G
SNP2971	UF_12.7399	12	7,399,915	n/a	G	C
SNP2972	solcap_snp_sl_20409	12	7,544,351	41.065	C	G
SNP2974	UFTLP1_3556	12	8,638,382	45.420	C	T
SNP2975	solcap_snp_sl_26884	12	9,244,462	48.100	C	T
SNP2976	solcap_snp_sl_16794	12	10,062,638	48.100	G	A
SNP2978	solcap_snp_sl_16795	12	10,669,495	48.100	C	T
SNP2979	solcap_snp_sl_16796	12	11,284,062	48.100	A	C
SNP2982	UFTLP1_3558	12	13,584,688	50.780	G	T
SNP2983	solcap_snp_sl_16803	12	14,183,670	51.395	G	T
SNP2985	solcap_snp_sl_19574	12	14,530,738	51.395	A	G
SNP2988	solcap_snp_sl_19570	12	15,246,041	51.395	C	T
SNP2989	solcap_snp_sl_19569	12	15,801,446	51.395	T	A
SNP2993	SL4.0ch12.17085975	12	17,085,975	n/a	G	C
SNP3000	UFTLP1_3566	12	18,230,636	52.010	G	C
SNP3002	UFTLP4-12345	12	20,591,834	n/a	G	C
SNP3006	UFTLP4-13075	12	23,240,834	n/a	T	A
SNP3012	UFTLP1_3576	12	26,693,607	55.410	C	T
SNP3016	solcap_snp_sl_23507	12	29,000,602	56.830	A	G
SNP3018	solcap_snp_sl_41500	12	29,574,188	n/a	A	G
SNP3024	UFTLP1_3586	12	32,278,674	59.600	C	A
SNP3032	UFTLP1_3589	12	36,162,385	60.110	G	A
SNP3039	UFTLP1_3591	12	38,257,210	61.350	G	A
SNP3040	SL4.0ch12.38616980	12	38,616,980	n/a	G	C
SNP3044	UFTLP1_3594	12	39,800,542	64.120	C	A

SNP3046	UFTLP1_3596	12	40,890,756	65.440	C	A
SNP3048	UFTLP1_3598	12	41,184,619	66.890	G	A
SNP3050	UFTLP4-17771	12	42,460,609	n/a	A	T
SNP3054	UF_12.43499	12	43,499,901	n/a	C	G
SNP3055	SL4.0ch12.43537573	12	43,537,573	n/a	T	A
SNP3056	UFTLP4-18153	12	44,435,756	n/a	A	T
SNP3061	UFTLP4-18679	12	47,042,233	n/a	C	G
SNP3067	UFTLP1_3604	12	49,390,591	75.040	A	G
SNP3069	solcap_snp_sl_18996	12	49,686,085	75.640	A	T
SNP3070	solcap_snp_sl_18995	12	49,977,435	75.640	A	T
SNP3074	UFTLP1_3606	12	50,870,312	76.240	G	T
SNP3080	UF_12.52998	12	52,998,651	n/a	C	G
SNP3081	UFTLP4-20734	12	54,093,988	n/a	G	C
SNP3084	UFTLP4-20922	12	55,013,306	n/a	T	A
SNP3085	solcap_snp_sl_20216	12	55,032,814	87.030	T	C
SNP3088	SL4.0ch12.56934218	12	56,934,218	n/a	T	A
SNP3089	3132_3_136	12	57,831,008	87.030	G	A
SNP3092	UFTLP4-24749	12	58,460,349	n/a	T	A
SNP3095	solcap_snp_sl_22748	12	59,842,698	87.030	T	A
SNP3100	SL4.0ch12.60791078	12	60,791,078	n/a	A	T
SNP3103	solcap_snp_sl_19345	12	61,458,618	87.030	A	G
SNP3105	solcap_snp_sl_53955	12	61,715,314	n/a	C	G
SNP3106	UF_12.61827	12	61,827,511	n/a	A	T
SNP3107	solcap_snp_sl_53918	12	61,939,079	n/a	T	A
SNP3108	UFTLP1_3609	12	62,010,556	97.820	C	G
SNP3109	UF_12.62074	12	62,074,497	n/a	G	C
SNP3110	solcap_snp_sl_12856	12	62,630,529	105.620	T	G
SNP3111	solcap_snp_sl_14415	12	62,959,506	105.620	A	T
SNP3113	solcap_snp_sl_14419	12	63,241,229	n/a	C	G
SNP3114	solcap_snp_sl_7042	12	63,305,109	105.620	T	C
SNP3116	solcap_snp_sl_31961	12	63,338,498	n/a	C	G
SNP3117	solcap_snp_sl_7045	12	63,349,562	105.620	A	T
SNP3119	UFTLP4-25380	12	63,709,113	n/a	T	A
SNP3120	solcap_snp_sl_19630	12	63,722,135	105.620	C	T
SNP3121	solcap_snp_sl_19632	12	63,739,378	n/a	T	A
SNP3122	solcap_snp_sl_19636	12	63,765,120	n/a	G	C
SNP3124	UF12.63839	12	63,839,044	n/a	T	A
SNP3127	solcap_snp_sl_31973	12	63,926,801	105.620	A	G

SNP3137	UFTLP1_3611	12	65,004,791	113.420	A	G
SNP3140	solcap_snp_sl_6568	12	65,835,022	n/a	C	G
SNP3141	solcap_snp_sl_6526	12	66,315,423	n/a	C	T

UniRef_Annotation	Synonyms
Gene of unknown function	0
Nucleic acid binding protein	0
OJ000315_02.21 protein	CL016197-0363
Iaa-amino acid hydrolase 4	0
Ntp805	0
Conserved gene of unknown function	0
Gene of unknown function	0
Callose synthase 3	0
Sucrose-phosphatase	0
Helicase domain-containing protein	0
Nucleic acid binding protein	0
Transcription cofactor	0
Shoot gravitropism 2	0
Cytochrome P450	0
Phytochromobilin synthase	0
Histone deacetylase	0
Poly [ADP-ribose] polymerase	0
Cullin 3	0





Myosin VIII-1	0
Gene of unknown function	0
Conserved gene of unknown function	0
Cytoskeletal protein	0
RAD23	0
Conserved gene of unknown function	0
Zinc finger protein	0
Gene of unknown function	0
Potassium transporter 10	0
Gene of unknown function	0
Alpha-glucosidase	0



LRR receptor-like serine/threonine-protein kinase	0
Trehalose-6-phosphate synthase	0
Conserved gene of unknown function	0
Interferon-induced guanylate-binding protein	0
Microtubule bundling polypeptide TMBP200	0
Pentatricopeptide repeat-containing protein	0
Dead box ATP-dependent RNA helicase	0
Oxidoreductase	0
Nuclear receptor binding set domain containing protein 1, nsd	0
Protein pim1	0
Rapid alkalization factor 3	0

Cytochrome P450	0
N-acetyl-glutamate synthase	0
Gene of unknown function	0
Conserved gene of unknown function	0
Conserved gene of unknown function	0
Gene of unknown function	0
Pyruvate kinase	0
Fibrillarin 2	0
RNA binding protein	0
Cis-prenyltransferase	0
(S)-N-methylcoclaurine 3'-hydroxylase isozyme	0
Oligopeptide transporter	0
ATP binding protein	0
Protein preY, mitochondrial	0

BRASSINOSTEROID INSENSITIVE 1- associated receptor kinase 1	0
0	0
Conserved gene of unknown function	Le017804_73
Mut/nudix hydrolase	0
Nam 2	0
Disease resistance protein I2	0
Serine-threonine protein kinase, plant-type	0
Conserved gene of unknown function	0

Aldo/keto reductase	0
AP2/ERF domain-containing transcription factor	0
Catalytic	0
Nodulin	0
Gene of unknown function	0
Deoxycytidylate deaminase	0
Protein tipD	0
Conserved gene of unknown function	0
Phosphate/phosphoenolpyruvate translocator	CL015346-0143
HIPL1 protein	0
Conserved gene of unknown function	0
Conserved gene of unknown function	0
Late blight resistance protein homolog R1B-16	0
Serine/threonine-protein kinase bri1	0
Transcription cofactor	0

PEPC kinase 1b	0
Conserved gene of unknown function	Le019218_58
Serine carboxypeptidase-like 27	0
Conserved gene of unknown function	0
Conserved gene of unknown function	0
Conserved gene of unknown function	0
Gene of unknown function	0
Gene of unknown function	0
Gene of unknown function	0
Kinesin heavy chain	0
Acetyl-CoA synthetase	0
Ribose-phosphate pyrophosphokinase	0
Jumonji domain protein	0
Clathrin coat assembly protein ap-1	0
Gene of unknown function	0
Potassium transporter	0
Protein SUPPRESSOR OF GENE SILENCING 3	0
White-brown-complex ABC transporter family	0

Non-S-locus F-box 2411	0
Cysteine-type peptidase	0
Conserved gene of unknown function	0
Conserved gene of unknown function	0
Membrane attack complex component/perforin/complement C9	0
DNA binding / transcription factor	0
Aminodeoxychorismate synthase/glutamine amidotransferase	0
Pseudo-response regulator 7	0
Gene of unknown function	0
Mitochondrial carrier protein	0
Conserved gene of unknown function	0
Pentatricopeptide repeat-containing protein	0
Zinc finger protein	SGN-U585128_snp513
Conserved gene of unknown function	CL015174-0292
Cytochrome P450-type monooxygenase 97A29	0
Gene of unknown function	0

Conserved gene of unknown function	0
Cytochrome P450	0
ATP binding protein	0
Gene of unknown function	0
UDP-n-acteylglucosamine pyrophosphorylase	0
Conserved gene of unknown function	0
AAA-type ATPase family protein	0
Shwachman-Bodian-Diamond syndrome protein	0
Gene of unknown function	0
Thylakoid lumenal 29.8 kDa protein, chloroplast	0
Glycogenin	0
Cellulase	0
White-brown-complex ABC transporter family	0
Conserved gene of unknown function	0
UDP-glucose:glucosyltransferase	0
Clathrin coat assembly	0
Subtilisin-like serine protease	0
Conserved gene of unknown function	0

Calcium-dependent protein kinase	SGN-U567626_snp662
Conserved gene of unknown function	0
Gene of unknown function	0
Rop guanine nucleotide exchange factor	0
Pectinesterase	0
Scythe/bat3	0
Receptor serine-threonine protein kinase	0
Cysteine protease 14	0
Nitrate transporter	0
Kelch repeat-containing F-box family protein	0
JJH-R	0
Prp4	0
Lysine/histidine transporter	0
Gene of unknown function	0
Catalytic	0
WPP domain-interacting tail-anchored protein 2	0
Zinc finger protein	0
Protein kinase	0
Serine/threonine protein kinase Fen	0
Multidrug resistance pump	0
Hydrolase, acting on ester bonds	0
CXE carboxylesterase	0
Multidrug resistance-associated protein 2, 6 (Mrp2, 6), abc-transporter	0
ATP-dependent RNA helicase	0



DNA binding protein	0
1-aminocyclopropane-1-carboxylate synthase	0
1-aminocyclopropane-1-carboxylate synthase	0
Delta-8 sphingolipid desaturase	0
PR-protein	0
Glutamine synthetase	0
Conserved gene of unknown function	0
Gene of unknown function	0
Zinc finger protein	0
Pti4	0
Acetyltransferase, GNAT family protein	0
Gene of unknown function	0
CBL-interacting protein kinase 13	0
Gene of unknown function	0
Gene of unknown function	0
Gene of unknown function	0

GRAS1	0
Gene of unknown function	0
Ribosomal protein L5	0
Calmodulin binding protein	0
ATP binding protein	0
Gene of unknown function	0
Homeobox-leucine zipper protein	0
DNA binding protein	0
Transcription factor R18	0
Endomembrane protein emp70	0

Seed maturation protein PM27	0
Dopamine beta-monooxygenase	0
Tartrate-resistant acid phosphatase type 5	SGN- U580182_snp101 9
Translocase of inner mitochondrial membrane	0
Nucleic acid binding protein	0
Serine-type endopeptidase inhibitor	0
Hypersensitive response assisting protein	0
Zinc finger protein	0
NUP155; nucleocytoplasmic transporter	0
Nucleosome-binding protein	0
Choline monooxygenase	0







Catalytic	0
Fibrillin 8	0
Gene of unknown function	0
0	0
Verticillium wilt disease resistance protein	0
Symplekin	0
Protein dimerization	0
Lipin, N-terminal conserved region family protein	0
WD	0
Ethylene signaling protein	0
RNA polymerase sigma factor rpoD	0
RNA polymerase sigma factor rpoD	0
Thioredoxin	0
Ubiquitin-protein ligase	0
GTP-binding protein engB	0
Conserved gene of unknown function	0





Spotted leaf protein	0
Homeobox protein LUMINIDEPENDENS	0
ATP binding protein	0
With no lysine kinase	0
CDPK adapter protein 1	0
Non-specific lipid-transfer protein	0
Pentatricopeptide repeat- containing protein	0
F-Box protein	0
S-adenosylmethionine- dependent methyltransferase	CL016855-0847
Conserved gene of unknown function	0
Cytochrome P450	0
Tospovirus resistance protein A	0
Ku70 homolog	SGN- U567086_snp225
Sucrose synthase	0
Conserved gene of unknown function	0
S-locus-specific glycoprotein S6	0



Nucleic acid binding protein	0
Conserved gene of unknown function	0
Gene of unknown function	0
Pyruvate kinase	0
Farnesylated protein	0
Bcl-2-associated athanogene	0
Bcl-2-associated athanogene	0
Nucleic acid binding protein	0
Conserved gene of unknown function	0
D-alanine-D-alanine ligase	0
Sensory transduction histidine kinase	0
Glucosyltransferase	0
Gene of unknown function	0
Glyoxal oxidase	0
Ubiquitin	0
Resistance gene/Close to l gene ortholog	0
Nonsense-mediated mRNA decay protein	0
Ubiquitin ligase protein COP1	0
67kD chloroplastic RNA-binding protein, P67.1	0

Gene of unknown function	0
Heat shock protein 70	0
Gene of unknown function	0
Plastid Tic40	0
Beta-D-xylosidase 1	0
Gene of unknown function	0
Gene of unknown function	0
0	0
NB-ARC domain containing protein	0
Helix-loop-helix DNA-binding	0
Disease resistance protein R3a	0

DNA-directed RNA polymerase II 13.6 kD polypeptide	0
Conserved gene of unknown function	SL1_00sc6004_17 50754
2-oxoglutarate-dependent dioxygenase	0
Senescence-associated protein	0
Conserved gene of unknown function	0
Conserved gene of unknown function	0
Gene of unknown function	0
Glucan endo-1,3-beta-glucosidase	0
Salt responsive protein 2	0
DNA binding protein	0
Formin 2B	0
CBL-interacting protein kinase	0
ABC transporter	0
Gene of unknown function	0
Homeobox protein knotted-1-like LET12	0
Subtilisin-like protease	0
Conserved gene of unknown function	0
Gene of unknown function	0



Gene of unknown function	0
Conserved gene of unknown function	0
Glucan endo-1,3-beta-glucosidase	0
Chloroplast post-illumination chlorophyll fluorescence increase protein	0
Conserved gene of unknown function	0
NC domain-containing protein	0
Acetyl CoA carboxylase	0
Gene of unknown function	0
Conserved gene of unknown function	0
Conserved gene of unknown function	0
Exocyst complex component sec3	0
Galactose oxidase	0

Receptor kinase 3	0
Conserved gene of unknown function	0