

Identification of candidate genes and natural allelic variants for QTLs governing plant height in chickpea

Alice Kujur¹, Hari D. Upadhyaya², Deepak Bajaj¹, C.L.L. Gowda², Shivali Sharma², Akhilesh K. Tyagi¹, Swarup K. Parida^{1*}

¹National Institute of Plant Genome Research (NIPGR), Aruna Asaf Ali Marg, New Delhi 110067, India

²International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Patancheru 502324, Telangana, India

*Corresponding author

Table S1: A 3625 high-quality *desi* genome-derived GBS-SNPs mapped on an ultra-high density intra-specific genetic linkage map of chickpea

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP1	[T/C]	<i>Ca_Desi_LG01</i>	0.000
Ca_Desi_SNP2	[C/G]	<i>Ca_Desi_LG01</i>	0.146
Ca_Desi_SNP3	[C/T]	<i>Ca_Desi_LG01</i>	0.559
Ca_Desi_SNP4	[A/C]	<i>Ca_Desi_LG01</i>	0.856
Ca_Desi_SNP5	[A/G]	<i>Ca_Desi_LG01</i>	0.923
Ca_Desi_SNP6	[G/T]	<i>Ca_Desi_LG01</i>	1.215
Ca_Desi_SNP7	[A/C]	<i>Ca_Desi_LG01</i>	2.584
Ca_Desi_SNP8	[C/T]	<i>Ca_Desi_LG01</i>	2.603
Ca_Desi_SNP9	[G/C]	<i>Ca_Desi_LG01</i>	3.543
Ca_Desi_SNP10	[T/G]	<i>Ca_Desi_LG01</i>	4.062
Ca_Desi_SNP11	[A/C]	<i>Ca_Desi_LG01</i>	4.585
Ca_Desi_SNP12	[T/G]	<i>Ca_Desi_LG01</i>	5.086
Ca_Desi_SNP13	[A/G]	<i>Ca_Desi_LG01</i>	5.238
Ca_Desi_SNP14	[C/A]	<i>Ca_Desi_LG01</i>	5.410
Ca_Desi_SNP15	[A/T]	<i>Ca_Desi_LG01</i>	5.540
Ca_Desi_SNP16	[T/C]	<i>Ca_Desi_LG01</i>	5.562
Ca_Desi_SNP17	[T/C]	<i>Ca_Desi_LG01</i>	7.518
Ca_Desi_SNP18	[C/T]	<i>Ca_Desi_LG01</i>	7.553
Ca_Desi_SNP19	[C/A]	<i>Ca_Desi_LG01</i>	8.101
Ca_Desi_SNP20	[A/C]	<i>Ca_Desi_LG01</i>	8.356
Ca_Desi_SNP21	[T/C]	<i>Ca_Desi_LG01</i>	8.403
Ca_Desi_SNP22	[A/G]	<i>Ca_Desi_LG01</i>	8.844
Ca_Desi_SNP23	[C/A]	<i>Ca_Desi_LG01</i>	9.458
Ca_Desi_SNP24	[T/C]	<i>Ca_Desi_LG01</i>	9.870
Ca_Desi_SNP25	[T/G]	<i>Ca_Desi_LG01</i>	10.180
Ca_Desi_SNP26	[T/G]	<i>Ca_Desi_LG01</i>	10.209
Ca_Desi_SNP27	[T/C]	<i>Ca_Desi_LG01</i>	10.570
Ca_Desi_SNP28	[T/C]	<i>Ca_Desi_LG01</i>	10.835
Ca_Desi_SNP29	[T/G]	<i>Ca_Desi_LG01</i>	10.862
Ca_Desi_SNP30	[A/G]	<i>Ca_Desi_LG01</i>	12.036
Ca_Desi_SNP31	[A/C]	<i>Ca_Desi_LG01</i>	12.317
Ca_Desi_SNP32	[T/C]	<i>Ca_Desi_LG01</i>	12.508
Ca_Desi_SNP33	[T/C]	<i>Ca_Desi_LG01</i>	12.618
Ca_Desi_SNP34	[T/C]	<i>Ca_Desi_LG01</i>	12.694
Ca_Desi_SNP35	[T/G]	<i>Ca_Desi_LG01</i>	13.178
Ca_Desi_SNP36	[T/C]	<i>Ca_Desi_LG01</i>	13.207
Ca_Desi_SNP37	[T/G]	<i>Ca_Desi_LG01</i>	13.525
Ca_Desi_SNP38	[T/C]	<i>Ca_Desi_LG01</i>	13.649
Ca_Desi_SNP39	[A/G]	<i>Ca_Desi_LG01</i>	13.710
Ca_Desi_SNP40	[A/G]	<i>Ca_Desi_LG01</i>	13.733
Ca_Desi_SNP41	[T/C]	<i>Ca_Desi_LG01</i>	13.930
Ca_Desi_SNP42	[G/A]	<i>Ca_Desi_LG01</i>	14.480
Ca_Desi_SNP43	[A/G]	<i>Ca_Desi_LG01</i>	15.473
Ca_Desi_SNP44	[T/A]	<i>Ca_Desi_LG01</i>	15.641
Ca_Desi_SNP45	[C/T]	<i>Ca_Desi_LG01</i>	15.646

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP46	[A/T]	<i>Ca_Desi_LG01</i>	15.953
Ca_Desi_SNP47	[T/C]	<i>Ca_Desi_LG01</i>	16.168
Ca_Desi_SNP48	[C/A]	<i>Ca_Desi_LG01</i>	16.247
Ca_Desi_SNP49	[A/C]	<i>Ca_Desi_LG01</i>	16.247
Ca_Desi_SNP50	[A/G]	<i>Ca_Desi_LG01</i>	16.385
Ca_Desi_SNP51	[G/T]	<i>Ca_Desi_LG01</i>	16.460
Ca_Desi_SNP52	[C/T]	<i>Ca_Desi_LG01</i>	16.521
Ca_Desi_SNP53	[T/G]	<i>Ca_Desi_LG01</i>	16.666
Ca_Desi_SNP54	[A/C]	<i>Ca_Desi_LG01</i>	16.737
Ca_Desi_SNP55	[C/A]	<i>Ca_Desi_LG01</i>	16.820
Ca_Desi_SNP56	[A/G]	<i>Ca_Desi_LG01</i>	16.833
Ca_Desi_SNP57	[G/A]	<i>Ca_Desi_LG01</i>	17.345
Ca_Desi_SNP58	[A/T]	<i>Ca_Desi_LG01</i>	17.452
Ca_Desi_SNP59	[T/C]	<i>Ca_Desi_LG01</i>	17.519
Ca_Desi_SNP60	[A/C]	<i>Ca_Desi_LG01</i>	17.522
Ca_Desi_SNP61	[G/T]	<i>Ca_Desi_LG01</i>	18.048
Ca_Desi_SNP62	[A/G]	<i>Ca_Desi_LG01</i>	18.485
Ca_Desi_SNP63	[G/T]	<i>Ca_Desi_LG01</i>	18.616
Ca_Desi_SNP64	[T/C]	<i>Ca_Desi_LG01</i>	18.686
Ca_Desi_SNP65	[T/G]	<i>Ca_Desi_LG01</i>	18.796
Ca_Desi_SNP66	[A/G]	<i>Ca_Desi_LG01</i>	19.017
Ca_Desi_SNP67	[T/C]	<i>Ca_Desi_LG01</i>	19.215
Ca_Desi_SNP68	[T/G]	<i>Ca_Desi_LG01</i>	19.319
Ca_Desi_SNP69	[G/C]	<i>Ca_Desi_LG01</i>	19.335
Ca_Desi_SNP70	[T/C]	<i>Ca_Desi_LG01</i>	19.570
Ca_Desi_SNP71	[C/T]	<i>Ca_Desi_LG01</i>	19.738
Ca_Desi_SNP72	[G/A]	<i>Ca_Desi_LG01</i>	19.751
Ca_Desi_SNP73	[A/G]	<i>Ca_Desi_LG01</i>	20.095
Ca_Desi_SNP74	[A/G]	<i>Ca_Desi_LG01</i>	20.246
Ca_Desi_SNP75	[A/C]	<i>Ca_Desi_LG01</i>	20.251
Ca_Desi_SNP76	[A/G]	<i>Ca_Desi_LG01</i>	20.446
Ca_Desi_SNP77	[G/C]	<i>Ca_Desi_LG01</i>	20.499
Ca_Desi_SNP78	[A/G]	<i>Ca_Desi_LG01</i>	20.697
Ca_Desi_SNP79	[C/A]	<i>Ca_Desi_LG01</i>	20.789
Ca_Desi_SNP80	[A/G]	<i>Ca_Desi_LG01</i>	20.876
Ca_Desi_SNP81	[C/T]	<i>Ca_Desi_LG01</i>	20.950
Ca_Desi_SNP82	[T/C]	<i>Ca_Desi_LG01</i>	21.033
Ca_Desi_SNP83	[A/G]	<i>Ca_Desi_LG01</i>	21.062
Ca_Desi_SNP84	[T/C]	<i>Ca_Desi_LG01</i>	21.063
Ca_Desi_SNP85	[T/C]	<i>Ca_Desi_LG01</i>	21.137
Ca_Desi_SNP86	[T/G]	<i>Ca_Desi_LG01</i>	21.157
Ca_Desi_SNP87	[T/G]	<i>Ca_Desi_LG01</i>	21.184
Ca_Desi_SNP88	[C/A]	<i>Ca_Desi_LG01</i>	21.275
Ca_Desi_SNP89	[T/C]	<i>Ca_Desi_LG01</i>	21.376
Ca_Desi_SNP90	[A/C]	<i>Ca_Desi_LG01</i>	21.388
Ca_Desi_SNP91	[G/C]	<i>Ca_Desi_LG01</i>	21.590
Ca_Desi_SNP92	[A/G]	<i>Ca_Desi_LG01</i>	21.631
Ca_Desi_SNP93	[T/G]	<i>Ca_Desi_LG01</i>	21.779

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP94	[G/T]	Ca_Desig_LG01	22.083
Ca_Desig_SNP95	[T/C]	Ca_Desig_LG01	22.101
Ca_Desig_SNP96	[G/T]	Ca_Desig_LG01	22.270
Ca_Desig_SNP97	[A/C]	Ca_Desig_LG01	22.343
Ca_Desig_SNP98	[T/G]	Ca_Desig_LG01	22.501
Ca_Desig_SNP99	[C/T]	Ca_Desig_LG01	22.503
Ca_Desig_SNP100	[G/T]	Ca_Desig_LG01	22.516
Ca_Desig_SNP101	[G/T]	Ca_Desig_LG01	22.550
Ca_Desig_SNP102	[A/G]	Ca_Desig_LG01	22.554
Ca_Desig_SNP103	[A/C]	Ca_Desig_LG01	22.645
Ca_Desig_SNP104	[T/C]	Ca_Desig_LG01	22.695
Ca_Desig_SNP105	[G/C]	Ca_Desig_LG01	22.775
Ca_Desig_SNP106	[C/T]	Ca_Desig_LG01	22.854
Ca_Desig_SNP107	[A/G]	Ca_Desig_LG01	22.861
Ca_Desig_SNP108	[A/G]	Ca_Desig_LG01	22.911
Ca_Desig_SNP109	[C/G]	Ca_Desig_LG01	22.938
Ca_Desig_SNP110	[A/C]	Ca_Desig_LG01	23.190
Ca_Desig_SNP111	[A/C]	Ca_Desig_LG01	23.224
Ca_Desig_SNP112	[A/C]	Ca_Desig_LG01	23.297
Ca_Desig_SNP113	[T/C]	Ca_Desig_LG01	23.469
Ca_Desig_SNP114	[G/A]	Ca_Desig_LG01	23.498
Ca_Desig_SNP115	[G/A]	Ca_Desig_LG01	23.577
Ca_Desig_SNP116	[A/C]	Ca_Desig_LG01	23.580
Ca_Desig_SNP117	[C/T]	Ca_Desig_LG01	23.647
Ca_Desig_SNP118	[A/G]	Ca_Desig_LG01	23.756
Ca_Desig_SNP119	[G/A]	Ca_Desig_LG01	23.826
Ca_Desig_SNP120	[T/C]	Ca_Desig_LG01	23.840
Ca_Desig_SNP121	[G/T]	Ca_Desig_LG01	23.886
Ca_Desig_SNP122	[T/C]	Ca_Desig_LG01	24.023
Ca_Desig_SNP123	[C/T]	Ca_Desig_LG01	24.050
Ca_Desig_SNP124	[T/G]	Ca_Desig_LG01	24.127
Ca_Desig_SNP125	[T/C]	Ca_Desig_LG01	24.187
Ca_Desig_SNP126	[A/G]	Ca_Desig_LG01	24.256
Ca_Desig_SNP127	[A/C]	Ca_Desig_LG01	24.391
Ca_Desig_SNP128	[C/T]	Ca_Desig_LG01	24.501
Ca_Desig_SNP129	[C/A]	Ca_Desig_LG01	24.568
Ca_Desig_SNP130	[A/G]	Ca_Desig_LG01	24.774
Ca_Desig_SNP131	[C/T]	Ca_Desig_LG01	24.813
Ca_Desig_SNP132	[T/C]	Ca_Desig_LG01	24.909
Ca_Desig_SNP133	[A/G]	Ca_Desig_LG01	24.977
Ca_Desig_SNP134	[C/T]	Ca_Desig_LG01	25.031
Ca_Desig_SNP135	[T/C]	Ca_Desig_LG01	25.220
Ca_Desig_SNP136	[A/C]	Ca_Desig_LG01	25.243
Ca_Desig_SNP137	[G/T]	Ca_Desig_LG01	25.380
Ca_Desig_SNP138	[A/G]	Ca_Desig_LG01	25.394
Ca_Desig_SNP139	[G/A]	Ca_Desig_LG01	25.489
Ca_Desig_SNP140	[T/C]	Ca_Desig_LG01	25.750
Ca_Desig_SNP141	[T/C]	Ca_Desig_LG01	25.792

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP142	[T/C]	<i>Ca_Desi_LG01</i>	25.834
Ca_Desi_SNP143	[T/C]	<i>Ca_Desi_LG01</i>	25.904
Ca_Desi_SNP144	[T/A]	<i>Ca_Desi_LG01</i>	25.933
Ca_Desi_SNP145	[A/G]	<i>Ca_Desi_LG01</i>	25.970
Ca_Desi_SNP146	[C/T]	<i>Ca_Desi_LG01</i>	26.034
Ca_Desi_SNP147	[T/G]	<i>Ca_Desi_LG01</i>	26.129
Ca_Desi_SNP148	[C/A]	<i>Ca_Desi_LG01</i>	26.146
Ca_Desi_SNP149	[T/G]	<i>Ca_Desi_LG01</i>	26.198
Ca_Desi_SNP150	[T/G]	<i>Ca_Desi_LG01</i>	26.418
Ca_Desi_SNP151	[T/C]	<i>Ca_Desi_LG01</i>	26.510
Ca_Desi_SNP152	[A/G]	<i>Ca_Desi_LG01</i>	26.521
Ca_Desi_SNP153	[A/G]	<i>Ca_Desi_LG01</i>	26.553
Ca_Desi_SNP154	[C/G]	<i>Ca_Desi_LG01</i>	26.678
Ca_Desi_SNP155	[A/C]	<i>Ca_Desi_LG01</i>	26.686
Ca_Desi_SNP156	[G/T]	<i>Ca_Desi_LG01</i>	26.745
Ca_Desi_SNP157	[G/C]	<i>Ca_Desi_LG01</i>	26.903
Ca_Desi_SNP158	[G/A]	<i>Ca_Desi_LG01</i>	26.972
Ca_Desi_SNP159	[A/G]	<i>Ca_Desi_LG01</i>	27.048
Ca_Desi_SNP160	[C/T]	<i>Ca_Desi_LG01</i>	27.105
Ca_Desi_SNP161	[G/T]	<i>Ca_Desi_LG01</i>	27.239
Ca_Desi_SNP162	[T/C]	<i>Ca_Desi_LG01</i>	27.283
Ca_Desi_SNP163	[T/C]	<i>Ca_Desi_LG01</i>	27.329
Ca_Desi_SNP164	[A/C]	<i>Ca_Desi_LG01</i>	27.545
Ca_Desi_SNP165	[T/C]	<i>Ca_Desi_LG01</i>	27.580
Ca_Desi_SNP166	[T/G]	<i>Ca_Desi_LG01</i>	27.676
Ca_Desi_SNP167	[A/G]	<i>Ca_Desi_LG01</i>	27.789
Ca_Desi_SNP168	[A/C]	<i>Ca_Desi_LG01</i>	27.892
Ca_Desi_SNP169	[G/A]	<i>Ca_Desi_LG01</i>	28.100
Ca_Desi_SNP170	[C/A]	<i>Ca_Desi_LG01</i>	28.135
Ca_Desi_SNP171	[T/C]	<i>Ca_Desi_LG01</i>	28.158
Ca_Desi_SNP172	[A/G]	<i>Ca_Desi_LG01</i>	28.166
Ca_Desi_SNP173	[A/C]	<i>Ca_Desi_LG01</i>	28.195
Ca_Desi_SNP174	[A/G]	<i>Ca_Desi_LG01</i>	28.307
Ca_Desi_SNP175	[T/C]	<i>Ca_Desi_LG01</i>	28.428
Ca_Desi_SNP176	[G/C]	<i>Ca_Desi_LG01</i>	28.485
Ca_Desi_SNP177	[T/C]	<i>Ca_Desi_LG01</i>	28.644
Ca_Desi_SNP178	[A/T]	<i>Ca_Desi_LG01</i>	28.784
Ca_Desi_SNP179	[A/G]	<i>Ca_Desi_LG01</i>	28.870
Ca_Desi_SNP180	[G/T]	<i>Ca_Desi_LG01</i>	29.009
Ca_Desi_SNP181	[T/G]	<i>Ca_Desi_LG01</i>	29.069
Ca_Desi_SNP182	[C/T]	<i>Ca_Desi_LG01</i>	29.166
Ca_Desi_SNP183	[T/C]	<i>Ca_Desi_LG01</i>	29.285
Ca_Desi_SNP184	[A/G]	<i>Ca_Desi_LG01</i>	29.306
Ca_Desi_SNP185	[A/G]	<i>Ca_Desi_LG01</i>	29.321
Ca_Desi_SNP186	[T/C]	<i>Ca_Desi_LG01</i>	29.326
Ca_Desi_SNP187	[G/C]	<i>Ca_Desi_LG01</i>	29.349
Ca_Desi_SNP188	[G/A]	<i>Ca_Desi_LG01</i>	29.359
Ca_Desi_SNP189	[T/G]	<i>Ca_Desi_LG01</i>	29.372

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP190	[A/T]	Ca_Desig_LG01	29.427
Ca_Desig_SNP191	[G/A]	Ca_Desig_LG01	29.612
Ca_Desig_SNP192	[A/C]	Ca_Desig_LG01	29.709
Ca_Desig_SNP193	[A/G]	Ca_Desig_LG01	29.772
Ca_Desig_SNP194	[A/C]	Ca_Desig_LG01	29.881
Ca_Desig_SNP195	[T/A]	Ca_Desig_LG01	29.923
Ca_Desig_SNP196	[A/C]	Ca_Desig_LG01	29.977
Ca_Desig_SNP197	[T/G]	Ca_Desig_LG01	29.978
Ca_Desig_SNP198	[A/C]	Ca_Desig_LG01	30.017
Ca_Desig_SNP199	[T/G]	Ca_Desig_LG01	30.020
Ca_Desig_SNP200	[T/C]	Ca_Desig_LG01	30.034
Ca_Desig_SNP201	[A/C]	Ca_Desig_LG01	30.164
Ca_Desig_SNP202	[C/G]	Ca_Desig_LG01	30.186
Ca_Desig_SNP203	[A/G]	Ca_Desig_LG01	30.456
Ca_Desig_SNP204	[T/G]	Ca_Desig_LG01	30.463
Ca_Desig_SNP205	[T/G]	Ca_Desig_LG01	30.466
Ca_Desig_SNP206	[A/G]	Ca_Desig_LG01	30.555
Ca_Desig_SNP207	[C/T]	Ca_Desig_LG01	30.735
Ca_Desig_SNP208	[T/G]	Ca_Desig_LG01	30.777
Ca_Desig_SNP209	[T/G]	Ca_Desig_LG01	30.918
Ca_Desig_SNP210	[C/T]	Ca_Desig_LG01	30.946
Ca_Desig_SNP211	[C/T]	Ca_Desig_LG01	31.129
Ca_Desig_SNP212	[C/A]	Ca_Desig_LG01	31.156
Ca_Desig_SNP213	[A/T]	Ca_Desig_LG01	31.237
Ca_Desig_SNP214	[T/G]	Ca_Desig_LG01	31.367
Ca_Desig_SNP215	[G/C]	Ca_Desig_LG01	31.532
Ca_Desig_SNP216	[T/G]	Ca_Desig_LG01	31.546
Ca_Desig_SNP217	[A/G]	Ca_Desig_LG01	31.566
Ca_Desig_SNP218	[C/T]	Ca_Desig_LG01	31.666
Ca_Desig_SNP219	[A/T]	Ca_Desig_LG01	31.702
Ca_Desig_SNP220	[C/G]	Ca_Desig_LG01	31.825
Ca_Desig_SNP221	[T/C]	Ca_Desig_LG01	31.851
Ca_Desig_SNP222	[T/C]	Ca_Desig_LG01	31.870
Ca_Desig_SNP223	[A/G]	Ca_Desig_LG01	31.957
Ca_Desig_SNP224	[T/C]	Ca_Desig_LG01	32.027
Ca_Desig_SNP225	[T/A]	Ca_Desig_LG01	32.033
Ca_Desig_SNP226	[C/T]	Ca_Desig_LG01	32.056
Ca_Desig_SNP227	[A/G]	Ca_Desig_LG01	32.080
Ca_Desig_SNP228	[A/C]	Ca_Desig_LG01	32.190
Ca_Desig_SNP229	[T/C]	Ca_Desig_LG01	32.328
Ca_Desig_SNP230	[C/T]	Ca_Desig_LG01	32.362
Ca_Desig_SNP231	[G/T]	Ca_Desig_LG01	32.398
Ca_Desig_SNP232	[A/C]	Ca_Desig_LG01	32.448
Ca_Desig_SNP233	[A/G]	Ca_Desig_LG01	32.460
Ca_Desig_SNP234	[T/A]	Ca_Desig_LG01	32.495
Ca_Desig_SNP235	[G/A]	Ca_Desig_LG01	32.501
Ca_Desig_SNP236	[A/C]	Ca_Desig_LG01	32.707
Ca_Desig_SNP237	[G/T]	Ca_Desig_LG01	32.956

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP238	[A/G]	Ca_Desig_LG01	32.989
Ca_Desig_SNP239	[T/A]	Ca_Desig_LG01	33.102
Ca_Desig_SNP240	[T/C]	Ca_Desig_LG01	33.139
Ca_Desig_SNP241	[C/G]	Ca_Desig_LG01	33.241
Ca_Desig_SNP242	[G/A]	Ca_Desig_LG01	33.301
Ca_Desig_SNP243	[A/T]	Ca_Desig_LG01	33.324
Ca_Desig_SNP244	[G/A]	Ca_Desig_LG01	33.376
Ca_Desig_SNP245	[G/A]	Ca_Desig_LG01	33.427
Ca_Desig_SNP246	[G/A]	Ca_Desig_LG01	33.642
Ca_Desig_SNP247	[T/C]	Ca_Desig_LG01	33.751
Ca_Desig_SNP248	[A/C]	Ca_Desig_LG01	34.019
Ca_Desig_SNP249	[A/G]	Ca_Desig_LG01	34.247
Ca_Desig_SNP250	[C/G]	Ca_Desig_LG01	34.293
Ca_Desig_SNP251	[C/A]	Ca_Desig_LG01	34.372
Ca_Desig_SNP252	[C/T]	Ca_Desig_LG01	34.453
Ca_Desig_SNP253	[A/G]	Ca_Desig_LG01	34.466
Ca_Desig_SNP254	[C/A]	Ca_Desig_LG01	34.520
Ca_Desig_SNP255	[A/C]	Ca_Desig_LG01	34.683
Ca_Desig_SNP256	[T/C]	Ca_Desig_LG01	34.918
Ca_Desig_SNP257	[C/T]	Ca_Desig_LG01	35.214
Ca_Desig_SNP258	[C/T]	Ca_Desig_LG01	35.417
Ca_Desig_SNP259	[A/C]	Ca_Desig_LG01	35.478
Ca_Desig_SNP260	[T/G]	Ca_Desig_LG01	35.536
Ca_Desig_SNP261	[G/A]	Ca_Desig_LG01	35.554
Ca_Desig_SNP262	[T/G]	Ca_Desig_LG01	35.782
Ca_Desig_SNP263	[A/G]	Ca_Desig_LG01	36.163
Ca_Desig_SNP264	[A/G]	Ca_Desig_LG01	36.358
Ca_Desig_SNP265	[T/C]	Ca_Desig_LG01	36.514
Ca_Desig_SNP266	[C/T]	Ca_Desig_LG01	36.525
Ca_Desig_SNP267	[C/T]	Ca_Desig_LG01	36.560
Ca_Desig_SNP268	[A/C]	Ca_Desig_LG01	36.582
Ca_Desig_SNP269	[G/A]	Ca_Desig_LG01	36.653
Ca_Desig_SNP270	[G/A]	Ca_Desig_LG01	36.698
Ca_Desig_SNP271	[T/G]	Ca_Desig_LG01	36.743
Ca_Desig_SNP272	[C/G]	Ca_Desig_LG01	36.750
Ca_Desig_SNP273	[A/G]	Ca_Desig_LG01	36.796
Ca_Desig_SNP274	[A/C]	Ca_Desig_LG01	36.836
Ca_Desig_SNP275	[G/A]	Ca_Desig_LG01	36.879
Ca_Desig_SNP276	[A/C]	Ca_Desig_LG01	36.964
Ca_Desig_SNP277	[T/C]	Ca_Desig_LG01	37.126
Ca_Desig_SNP278	[T/C]	Ca_Desig_LG01	37.132
Ca_Desig_SNP279	[T/C]	Ca_Desig_LG01	37.136
Ca_Desig_SNP280	[A/G]	Ca_Desig_LG01	37.646
Ca_Desig_SNP281	[C/A]	Ca_Desig_LG01	37.674
Ca_Desig_SNP282	[G/C]	Ca_Desig_LG01	37.748
Ca_Desig_SNP283	[A/G]	Ca_Desig_LG01	37.762
Ca_Desig_SNP284	[C/T]	Ca_Desig_LG01	37.964
Ca_Desig_SNP285	[T/A]	Ca_Desig_LG01	38.033

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP286	[T/A]	<i>Ca_Desi_LG01</i>	38.049
Ca_Desi_SNP287	[T/C]	<i>Ca_Desi_LG01</i>	38.051
Ca_Desi_SNP288	[C/T]	<i>Ca_Desi_LG01</i>	38.142
Ca_Desi_SNP289	[C/T]	<i>Ca_Desi_LG01</i>	38.376
Ca_Desi_SNP290	[A/T]	<i>Ca_Desi_LG01</i>	38.702
Ca_Desi_SNP291	[G/C]	<i>Ca_Desi_LG01</i>	38.731
Ca_Desi_SNP292	[A/C]	<i>Ca_Desi_LG01</i>	38.810
Ca_Desi_SNP293	[C/T]	<i>Ca_Desi_LG01</i>	38.827
Ca_Desi_SNP294	[C/G]	<i>Ca_Desi_LG01</i>	39.080
Ca_Desi_SNP295	[C/T]	<i>Ca_Desi_LG01</i>	39.127
Ca_Desi_SNP296	[A/G]	<i>Ca_Desi_LG01</i>	39.166
Ca_Desi_SNP297	[A/G]	<i>Ca_Desi_LG01</i>	39.397
Ca_Desi_SNP298	[G/T]	<i>Ca_Desi_LG01</i>	39.425
Ca_Desi_SNP299	[A/C]	<i>Ca_Desi_LG01</i>	39.439
Ca_Desi_SNP300	[G/A]	<i>Ca_Desi_LG01</i>	39.484
Ca_Desi_SNP301	[A/C]	<i>Ca_Desi_LG01</i>	39.506
Ca_Desi_SNP302	[A/G]	<i>Ca_Desi_LG01</i>	39.508
Ca_Desi_SNP303	[A/C]	<i>Ca_Desi_LG01</i>	39.538
Ca_Desi_SNP304	[T/G]	<i>Ca_Desi_LG01</i>	39.610
Ca_Desi_SNP305	[C/T]	<i>Ca_Desi_LG01</i>	39.719
Ca_Desi_SNP306	[G/A]	<i>Ca_Desi_LG01</i>	39.793
Ca_Desi_SNP307	[A/G]	<i>Ca_Desi_LG01</i>	39.842
Ca_Desi_SNP308	[G/C]	<i>Ca_Desi_LG01</i>	39.893
Ca_Desi_SNP309	[G/T]	<i>Ca_Desi_LG01</i>	39.980
Ca_Desi_SNP310	[T/C]	<i>Ca_Desi_LG01</i>	40.186
Ca_Desi_SNP311	[A/G]	<i>Ca_Desi_LG01</i>	40.216
Ca_Desi_SNP312	[T/C]	<i>Ca_Desi_LG01</i>	40.347
Ca_Desi_SNP313	[C/T]	<i>Ca_Desi_LG01</i>	40.403
Ca_Desi_SNP314	[A/G]	<i>Ca_Desi_LG01</i>	40.431
Ca_Desi_SNP315	[T/C]	<i>Ca_Desi_LG01</i>	40.558
Ca_Desi_SNP316	[A/G]	<i>Ca_Desi_LG01</i>	40.604
Ca_Desi_SNP317	[T/C]	<i>Ca_Desi_LG01</i>	41.006
Ca_Desi_SNP318	[T/C]	<i>Ca_Desi_LG01</i>	41.013
Ca_Desi_SNP319	[C/A]	<i>Ca_Desi_LG01</i>	41.032
Ca_Desi_SNP320	[T/C]	<i>Ca_Desi_LG01</i>	41.144
Ca_Desi_SNP321	[T/C]	<i>Ca_Desi_LG01</i>	41.149
Ca_Desi_SNP322	[T/G]	<i>Ca_Desi_LG01</i>	41.224
Ca_Desi_SNP323	[T/G]	<i>Ca_Desi_LG01</i>	41.255
Ca_Desi_SNP324	[G/A]	<i>Ca_Desi_LG01</i>	41.310
Ca_Desi_SNP325	[A/G]	<i>Ca_Desi_LG01</i>	41.414
Ca_Desi_SNP326	[T/C]	<i>Ca_Desi_LG01</i>	41.489
Ca_Desi_SNP327	[G/A]	<i>Ca_Desi_LG01</i>	41.490
Ca_Desi_SNP328	[A/G]	<i>Ca_Desi_LG01</i>	41.561
Ca_Desi_SNP329	[G/A]	<i>Ca_Desi_LG01</i>	41.598
Ca_Desi_SNP330	[C/T]	<i>Ca_Desi_LG01</i>	41.721
Ca_Desi_SNP331	[T/C]	<i>Ca_Desi_LG01</i>	41.819
Ca_Desi_SNP332	[T/C]	<i>Ca_Desi_LG01</i>	41.909
Ca_Desi_SNP333	[T/C]	<i>Ca_Desi_LG01</i>	42.172

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP334	[A/T]	<i>Ca_Desi_LG01</i>	42.374
Ca_Desi_SNP335	[G/A]	<i>Ca_Desi_LG01</i>	42.400
Ca_Desi_SNP336	[T/C]	<i>Ca_Desi_LG01</i>	42.430
Ca_Desi_SNP337	[C/T]	<i>Ca_Desi_LG01</i>	42.664
Ca_Desi_SNP338	[A/C]	<i>Ca_Desi_LG01</i>	42.667
Ca_Desi_SNP339	[C/T]	<i>Ca_Desi_LG01</i>	42.830
Ca_Desi_SNP340	[C/T]	<i>Ca_Desi_LG01</i>	42.927
Ca_Desi_SNP341	[G/T]	<i>Ca_Desi_LG01</i>	42.947
Ca_Desi_SNP342	[A/G]	<i>Ca_Desi_LG01</i>	42.989
Ca_Desi_SNP343	[T/G]	<i>Ca_Desi_LG01</i>	43.057
Ca_Desi_SNP344	[T/C]	<i>Ca_Desi_LG01</i>	43.146
Ca_Desi_SNP345	[A/G]	<i>Ca_Desi_LG01</i>	43.261
Ca_Desi_SNP346	[A/G]	<i>Ca_Desi_LG01</i>	43.282
Ca_Desi_SNP347	[C/A]	<i>Ca_Desi_LG01</i>	43.445
Ca_Desi_SNP348	[A/G]	<i>Ca_Desi_LG01</i>	43.467
Ca_Desi_SNP349	[A/T]	<i>Ca_Desi_LG01</i>	43.745
Ca_Desi_SNP350	[G/T]	<i>Ca_Desi_LG01</i>	43.968
Ca_Desi_SNP351	[T/G]	<i>Ca_Desi_LG01</i>	44.063
Ca_Desi_SNP352	[A/G]	<i>Ca_Desi_LG01</i>	44.121
Ca_Desi_SNP353	[T/C]	<i>Ca_Desi_LG01</i>	44.159
Ca_Desi_SNP354	[C/T]	<i>Ca_Desi_LG01</i>	44.308
Ca_Desi_SNP355	[T/C]	<i>Ca_Desi_LG01</i>	44.325
Ca_Desi_SNP356	[A/C]	<i>Ca_Desi_LG01</i>	44.327
Ca_Desi_SNP357	[A/G]	<i>Ca_Desi_LG01</i>	44.362
Ca_Desi_SNP358	[A/C]	<i>Ca_Desi_LG01</i>	44.480
Ca_Desi_SNP359	[A/G]	<i>Ca_Desi_LG01</i>	44.588
Ca_Desi_SNP360	[C/T]	<i>Ca_Desi_LG01</i>	44.844
Ca_Desi_SNP361	[A/G]	<i>Ca_Desi_LG01</i>	44.856
Ca_Desi_SNP362	[G/A]	<i>Ca_Desi_LG01</i>	44.873
Ca_Desi_SNP363	[T/C]	<i>Ca_Desi_LG01</i>	45.043
Ca_Desi_SNP364	[C/A]	<i>Ca_Desi_LG01</i>	45.048
Ca_Desi_SNP365	[T/A]	<i>Ca_Desi_LG01</i>	45.079
Ca_Desi_SNP366	[C/T]	<i>Ca_Desi_LG01</i>	45.210
Ca_Desi_SNP367	[A/G]	<i>Ca_Desi_LG01</i>	45.225
Ca_Desi_SNP368	[G/A]	<i>Ca_Desi_LG01</i>	45.447
Ca_Desi_SNP369	[G/C]	<i>Ca_Desi_LG01</i>	45.488
Ca_Desi_SNP370	[A/G]	<i>Ca_Desi_LG01</i>	45.539
Ca_Desi_SNP371	[A/C]	<i>Ca_Desi_LG01</i>	45.656
Ca_Desi_SNP372	[C/T]	<i>Ca_Desi_LG01</i>	45.723
Ca_Desi_SNP373	[C/T]	<i>Ca_Desi_LG01</i>	45.726
Ca_Desi_SNP374	[A/C]	<i>Ca_Desi_LG01</i>	45.748
Ca_Desi_SNP375	[T/G]	<i>Ca_Desi_LG01</i>	45.765
Ca_Desi_SNP376	[T/C]	<i>Ca_Desi_LG01</i>	45.800
Ca_Desi_SNP377	[C/T]	<i>Ca_Desi_LG01</i>	45.974
Ca_Desi_SNP378	[G/A]	<i>Ca_Desi_LG01</i>	46.133
Ca_Desi_SNP379	[T/G]	<i>Ca_Desi_LG01</i>	46.235
Ca_Desi_SNP380	[G/A]	<i>Ca_Desi_LG01</i>	46.295
Ca_Desi_SNP381	[A/G]	<i>Ca_Desi_LG01</i>	46.497

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP382	[A/G]	<i>Ca_Desi_LG01</i>	46.768
Ca_Desi_SNP383	[T/G]	<i>Ca_Desi_LG01</i>	46.770
Ca_Desi_SNP384	[A/C]	<i>Ca_Desi_LG01</i>	46.791
Ca_Desi_SNP385	[C/T]	<i>Ca_Desi_LG01</i>	46.870
Ca_Desi_SNP386	[T/C]	<i>Ca_Desi_LG01</i>	46.942
Ca_Desi_SNP387	[T/C]	<i>Ca_Desi_LG01</i>	47.032
Ca_Desi_SNP388	[T/C]	<i>Ca_Desi_LG01</i>	47.299
Ca_Desi_SNP389	[A/C]	<i>Ca_Desi_LG01</i>	47.453
Ca_Desi_SNP390	[T/C]	<i>Ca_Desi_LG01</i>	47.458
Ca_Desi_SNP391	[A/G]	<i>Ca_Desi_LG01</i>	47.484
Ca_Desi_SNP392	[C/A]	<i>Ca_Desi_LG01</i>	47.566
Ca_Desi_SNP393	[A/C]	<i>Ca_Desi_LG01</i>	47.658
Ca_Desi_SNP394	[T/G]	<i>Ca_Desi_LG01</i>	47.793
Ca_Desi_SNP395	[A/G]	<i>Ca_Desi_LG01</i>	48.130
Ca_Desi_SNP396	[C/T]	<i>Ca_Desi_LG01</i>	48.136
Ca_Desi_SNP397	[A/T]	<i>Ca_Desi_LG01</i>	48.623
Ca_Desi_SNP398	[C/T]	<i>Ca_Desi_LG01</i>	48.663
Ca_Desi_SNP399	[G/A]	<i>Ca_Desi_LG01</i>	48.690
Ca_Desi_SNP400	[T/C]	<i>Ca_Desi_LG01</i>	48.765
Ca_Desi_SNP401	[C/A]	<i>Ca_Desi_LG01</i>	48.793
Ca_Desi_SNP402	[C/A]	<i>Ca_Desi_LG01</i>	48.807
Ca_Desi_SNP403	[A/G]	<i>Ca_Desi_LG01</i>	48.911
Ca_Desi_SNP404	[A/G]	<i>Ca_Desi_LG01</i>	49.194
Ca_Desi_SNP405	[T/C]	<i>Ca_Desi_LG01</i>	49.198
Ca_Desi_SNP406	[T/C]	<i>Ca_Desi_LG01</i>	49.398
Ca_Desi_SNP407	[C/G]	<i>Ca_Desi_LG01</i>	49.411
Ca_Desi_SNP408	[T/G]	<i>Ca_Desi_LG01</i>	49.586
Ca_Desi_SNP409	[T/G]	<i>Ca_Desi_LG01</i>	49.635
Ca_Desi_SNP410	[T/G]	<i>Ca_Desi_LG01</i>	49.730
Ca_Desi_SNP411	[T/A]	<i>Ca_Desi_LG01</i>	49.755
Ca_Desi_SNP412	[G/C]	<i>Ca_Desi_LG01</i>	50.066
Ca_Desi_SNP413	[A/G]	<i>Ca_Desi_LG01</i>	50.267
Ca_Desi_SNP414	[C/A]	<i>Ca_Desi_LG01</i>	50.537
Ca_Desi_SNP415	[T/C]	<i>Ca_Desi_LG01</i>	50.556
Ca_Desi_SNP416	[T/C]	<i>Ca_Desi_LG01</i>	50.565
Ca_Desi_SNP417	[T/C]	<i>Ca_Desi_LG01</i>	50.617
Ca_Desi_SNP418	[A/G]	<i>Ca_Desi_LG01</i>	50.671
Ca_Desi_SNP419	[A/C]	<i>Ca_Desi_LG01</i>	50.686
Ca_Desi_SNP420	[T/C]	<i>Ca_Desi_LG01</i>	50.698
Ca_Desi_SNP421	[C/A]	<i>Ca_Desi_LG01</i>	50.717
Ca_Desi_SNP422	[T/C]	<i>Ca_Desi_LG01</i>	50.746
Ca_Desi_SNP423	[A/T]	<i>Ca_Desi_LG01</i>	50.789
Ca_Desi_SNP424	[A/G]	<i>Ca_Desi_LG01</i>	50.850
Ca_Desi_SNP425	[T/G]	<i>Ca_Desi_LG01</i>	50.949
Ca_Desi_SNP426	[C/T]	<i>Ca_Desi_LG01</i>	50.983
Ca_Desi_SNP427	[C/T]	<i>Ca_Desi_LG01</i>	51.121
Ca_Desi_SNP428	[C/G]	<i>Ca_Desi_LG01</i>	51.170
Ca_Desi_SNP429	[T/A]	<i>Ca_Desi_LG01</i>	51.199

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP430	[G/C]	Ca_Desig_LG01	51.211
Ca_Desig_SNP431	[C/A]	Ca_Desig_LG01	51.251
Ca_Desig_SNP432	[A/G]	Ca_Desig_LG01	51.305
Ca_Desig_SNP433	[T/C]	Ca_Desig_LG01	51.332
Ca_Desig_SNP434	[A/G]	Ca_Desig_LG01	51.343
Ca_Desig_SNP435	[T/G]	Ca_Desig_LG01	51.387
Ca_Desig_SNP436	[T/C]	Ca_Desig_LG01	51.398
Ca_Desig_SNP437	[A/G]	Ca_Desig_LG01	51.512
Ca_Desig_SNP438	[G/T]	Ca_Desig_LG01	51.531
Ca_Desig_SNP439	[A/G]	Ca_Desig_LG01	51.552
Ca_Desig_SNP440	[A/C]	Ca_Desig_LG01	51.653
Ca_Desig_SNP441	[T/A]	Ca_Desig_LG01	51.899
Ca_Desig_SNP442	[T/G]	Ca_Desig_LG01	51.928
Ca_Desig_SNP443	[A/G]	Ca_Desig_LG01	51.995
Ca_Desig_SNP444	[T/A]	Ca_Desig_LG01	52.008
Ca_Desig_SNP445	[A/G]	Ca_Desig_LG01	52.196
Ca_Desig_SNP446	[A/T]	Ca_Desig_LG01	52.210
Ca_Desig_SNP447	[T/C]	Ca_Desig_LG01	52.279
Ca_Desig_SNP448	[A/G]	Ca_Desig_LG01	52.282
Ca_Desig_SNP449	[T/C]	Ca_Desig_LG01	52.290
Ca_Desig_SNP450	[A/G]	Ca_Desig_LG01	52.318
Ca_Desig_SNP451	[G/T]	Ca_Desig_LG01	52.321
Ca_Desig_SNP452	[T/C]	Ca_Desig_LG01	52.377
Ca_Desig_SNP453	[A/G]	Ca_Desig_LG01	52.439
Ca_Desig_SNP454	[G/T]	Ca_Desig_LG01	52.446
Ca_Desig_SNP455	[A/T]	Ca_Desig_LG01	52.460
Ca_Desig_SNP456	[A/G]	Ca_Desig_LG01	52.521
Ca_Desig_SNP457	[C/T]	Ca_Desig_LG01	52.670
Ca_Desig_SNP458	[A/G]	Ca_Desig_LG01	52.730
Ca_Desig_SNP459	[A/C]	Ca_Desig_LG01	52.751
Ca_Desig_SNP460	[A/C]	Ca_Desig_LG01	52.758
Ca_Desig_SNP461	[T/C]	Ca_Desig_LG01	52.803
Ca_Desig_SNP462	[G/A]	Ca_Desig_LG01	52.830
Ca_Desig_SNP463	[A/T]	Ca_Desig_LG01	52.834
Ca_Desig_SNP464	[C/T]	Ca_Desig_LG01	52.959
Ca_Desig_SNP465	[T/G]	Ca_Desig_LG01	53.054
Ca_Desig_SNP466	[G/T]	Ca_Desig_LG01	53.292
Ca_Desig_SNP467	[A/C]	Ca_Desig_LG01	53.407
Ca_Desig_SNP468	[G/T]	Ca_Desig_LG01	53.519
Ca_Desig_SNP469	[T/C]	Ca_Desig_LG01	53.535
Ca_Desig_SNP470	[C/T]	Ca_Desig_LG01	53.579
Ca_Desig_SNP471	[T/G]	Ca_Desig_LG01	53.581
Ca_Desig_SNP472	[G/T]	Ca_Desig_LG01	53.621
Ca_Desig_SNP473	[A/C]	Ca_Desig_LG01	53.728
Ca_Desig_SNP474	[A/G]	Ca_Desig_LG01	53.729
Ca_Desig_SNP475	[G/A]	Ca_Desig_LG01	53.738
Ca_Desig_SNP476	[A/C]	Ca_Desig_LG01	53.739
Ca_Desig_SNP477	[T/G]	Ca_Desig_LG01	54.094

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP478	[T/C]	<i>Ca_Desig_LG01</i>	54.128
Ca_Desig_SNP479	[T/C]	<i>Ca_Desig_LG01</i>	54.141
Ca_Desig_SNP480	[C/G]	<i>Ca_Desig_LG01</i>	54.145
Ca_Desig_SNP481	[T/C]	<i>Ca_Desig_LG01</i>	54.172
Ca_Desig_SNP482	[G/T]	<i>Ca_Desig_LG01</i>	54.344
Ca_Desig_SNP483	[T/C]	<i>Ca_Desig_LG01</i>	54.383
Ca_Desig_SNP484	[C/T]	<i>Ca_Desig_LG01</i>	54.441
Ca_Desig_SNP485	[A/G]	<i>Ca_Desig_LG01</i>	54.508
Ca_Desig_SNP486	[A/C]	<i>Ca_Desig_LG01</i>	54.514
Ca_Desig_SNP487	[T/C]	<i>Ca_Desig_LG01</i>	54.536
Ca_Desig_SNP488	[T/C]	<i>Ca_Desig_LG01</i>	54.597
Ca_Desig_SNP489	[G/A]	<i>Ca_Desig_LG01</i>	54.713
Ca_Desig_SNP490	[A/G]	<i>Ca_Desig_LG01</i>	54.869
Ca_Desig_SNP491	[T/C]	<i>Ca_Desig_LG01</i>	54.883
Ca_Desig_SNP492	[G/C]	<i>Ca_Desig_LG01</i>	55.000
Ca_Desig_SNP493	[T/A]	<i>Ca_Desig_LG01</i>	55.012
Ca_Desig_SNP494	[A/G]	<i>Ca_Desig_LG01</i>	55.109
Ca_Desig_SNP495	[A/C]	<i>Ca_Desig_LG01</i>	55.115
Ca_Desig_SNP496	[A/G]	<i>Ca_Desig_LG01</i>	55.118
Ca_Desig_SNP497	[G/A]	<i>Ca_Desig_LG01</i>	55.160
Ca_Desig_SNP498	[T/C]	<i>Ca_Desig_LG01</i>	55.161
Ca_Desig_SNP499	[A/T]	<i>Ca_Desig_LG01</i>	55.224
Ca_Desig_SNP500	[A/G]	<i>Ca_Desig_LG01</i>	55.245
Ca_Desig_SNP501	[A/C]	<i>Ca_Desig_LG01</i>	55.295
Ca_Desig_SNP502	[C/T]	<i>Ca_Desig_LG01</i>	55.318
Ca_Desig_SNP503	[T/C]	<i>Ca_Desig_LG01</i>	55.349
Ca_Desig_SNP504	[A/G]	<i>Ca_Desig_LG01</i>	55.433
Ca_Desig_SNP505	[A/G]	<i>Ca_Desig_LG01</i>	55.442
Ca_Desig_SNP506	[A/G]	<i>Ca_Desig_LG01</i>	55.456
Ca_Desig_SNP507	[T/C]	<i>Ca_Desig_LG01</i>	55.475
Ca_Desig_SNP508	[T/C]	<i>Ca_Desig_LG01</i>	55.538
Ca_Desig_SNP509	[T/A]	<i>Ca_Desig_LG01</i>	55.724
Ca_Desig_SNP510	[C/A]	<i>Ca_Desig_LG01</i>	55.732
Ca_Desig_SNP511	[T/C]	<i>Ca_Desig_LG01</i>	55.757
Ca_Desig_SNP512	[T/C]	<i>Ca_Desig_LG01</i>	56.022
Ca_Desig_SNP513	[C/T]	<i>Ca_Desig_LG01</i>	56.043
Ca_Desig_SNP514	[A/G]	<i>Ca_Desig_LG01</i>	56.130
Ca_Desig_SNP515	[A/G]	<i>Ca_Desig_LG01</i>	56.158
Ca_Desig_SNP516	[A/C]	<i>Ca_Desig_LG01</i>	56.301
Ca_Desig_SNP517	[A/C]	<i>Ca_Desig_LG01</i>	56.350
Ca_Desig_SNP518	[A/T]	<i>Ca_Desig_LG01</i>	56.514
Ca_Desig_SNP519	[T/C]	<i>Ca_Desig_LG01</i>	56.572
Ca_Desig_SNP520	[T/G]	<i>Ca_Desig_LG01</i>	56.606
Ca_Desig_SNP521	[A/G]	<i>Ca_Desig_LG01</i>	56.661
Ca_Desig_SNP522	[A/T]	<i>Ca_Desig_LG01</i>	56.690
Ca_Desig_SNP523	[T/C]	<i>Ca_Desig_LG01</i>	56.760
Ca_Desig_SNP524	[A/T]	<i>Ca_Desig_LG01</i>	56.786
Ca_Desig_SNP525	[A/G]	<i>Ca_Desig_LG01</i>	56.984

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP526	[A/G]	<i>Ca_Desi_LG01</i>	57.121
Ca_Desi_SNP527	[T/C]	<i>Ca_Desi_LG01</i>	57.172
Ca_Desi_SNP528	[T/C]	<i>Ca_Desi_LG01</i>	57.223
Ca_Desi_SNP529	[T/C]	<i>Ca_Desi_LG01</i>	57.294
Ca_Desi_SNP530	[G/C]	<i>Ca_Desi_LG01</i>	57.334
Ca_Desi_SNP531	[A/G]	<i>Ca_Desi_LG01</i>	57.540
Ca_Desi_SNP532	[T/C]	<i>Ca_Desi_LG01</i>	57.632
Ca_Desi_SNP533	[A/G]	<i>Ca_Desi_LG01</i>	57.688
Ca_Desi_SNP534	[A/C]	<i>Ca_Desi_LG01</i>	57.692
Ca_Desi_SNP535	[T/G]	<i>Ca_Desi_LG01</i>	57.700
Ca_Desi_SNP536	[G/A]	<i>Ca_Desi_LG01</i>	57.720
Ca_Desi_SNP537	[A/C]	<i>Ca_Desi_LG01</i>	57.906
Ca_Desi_SNP538	[A/G]	<i>Ca_Desi_LG01</i>	57.927
Ca_Desi_SNP539	[T/G]	<i>Ca_Desi_LG01</i>	58.070
Ca_Desi_SNP540	[G/T]	<i>Ca_Desi_LG01</i>	58.093
Ca_Desi_SNP541	[T/G]	<i>Ca_Desi_LG01</i>	58.304
Ca_Desi_SNP542	[A/C]	<i>Ca_Desi_LG01</i>	58.358
Ca_Desi_SNP543	[T/A]	<i>Ca_Desi_LG01</i>	58.390
Ca_Desi_SNP544	[A/C]	<i>Ca_Desi_LG01</i>	58.530
Ca_Desi_SNP545	[T/C]	<i>Ca_Desi_LG01</i>	58.758
Ca_Desi_SNP546	[T/G]	<i>Ca_Desi_LG01</i>	58.790
Ca_Desi_SNP547	[T/C]	<i>Ca_Desi_LG01</i>	58.843
Ca_Desi_SNP548	[T/C]	<i>Ca_Desi_LG01</i>	58.876
Ca_Desi_SNP549	[T/C]	<i>Ca_Desi_LG01</i>	58.928
Ca_Desi_SNP550	[G/A]	<i>Ca_Desi_LG01</i>	58.934
Ca_Desi_SNP551	[T/G]	<i>Ca_Desi_LG01</i>	58.947
Ca_Desi_SNP552	[C/A]	<i>Ca_Desi_LG01</i>	58.974
Ca_Desi_SNP553	[T/G]	<i>Ca_Desi_LG01</i>	58.981
Ca_Desi_SNP554	[A/T]	<i>Ca_Desi_LG01</i>	59.042
Ca_Desi_SNP555	[G/A]	<i>Ca_Desi_LG01</i>	59.057
Ca_Desi_SNP556	[T/C]	<i>Ca_Desi_LG01</i>	59.075
Ca_Desi_SNP557	[G/A]	<i>Ca_Desi_LG01</i>	59.131
Ca_Desi_SNP558	[A/G]	<i>Ca_Desi_LG01</i>	59.154
Ca_Desi_SNP559	[A/G]	<i>Ca_Desi_LG01</i>	59.239
Ca_Desi_SNP560	[A/T]	<i>Ca_Desi_LG01</i>	59.271
Ca_Desi_SNP561	[A/C]	<i>Ca_Desi_LG01</i>	59.306
Ca_Desi_SNP562	[T/G]	<i>Ca_Desi_LG01</i>	59.429
Ca_Desi_SNP563	[A/C]	<i>Ca_Desi_LG01</i>	59.578
Ca_Desi_SNP564	[T/C]	<i>Ca_Desi_LG01</i>	59.584
Ca_Desi_SNP565	[T/C]	<i>Ca_Desi_LG01</i>	59.590
Ca_Desi_SNP566	[C/A]	<i>Ca_Desi_LG01</i>	59.671
Ca_Desi_SNP567	[C/T]	<i>Ca_Desi_LG01</i>	59.822
Ca_Desi_SNP568	[G/C]	<i>Ca_Desi_LG01</i>	59.845
Ca_Desi_SNP569	[G/A]	<i>Ca_Desi_LG01</i>	59.869
Ca_Desi_SNP570	[C/G]	<i>Ca_Desi_LG01</i>	60.108
Ca_Desi_SNP571	[A/G]	<i>Ca_Desi_LG01</i>	60.189
Ca_Desi_SNP572	[A/G]	<i>Ca_Desi_LG01</i>	60.401
Ca_Desi_SNP573	[A/G]	<i>Ca_Desi_LG01</i>	60.446

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP574	[A/G]	<i>Ca_Desi_LG01</i>	60.495
Ca_Desi_SNP575	[A/G]	<i>Ca_Desi_LG01</i>	60.548
Ca_Desi_SNP576	[C/T]	<i>Ca_Desi_LG01</i>	60.616
Ca_Desi_SNP577	[T/C]	<i>Ca_Desi_LG01</i>	60.619
Ca_Desi_SNP578	[G/T]	<i>Ca_Desi_LG01</i>	60.673
Ca_Desi_SNP579	[G/A]	<i>Ca_Desi_LG01</i>	60.722
Ca_Desi_SNP580	[T/C]	<i>Ca_Desi_LG01</i>	60.775
Ca_Desi_SNP581	[A/C]	<i>Ca_Desi_LG01</i>	60.915
Ca_Desi_SNP582	[T/C]	<i>Ca_Desi_LG01</i>	60.938
Ca_Desi_SNP583	[A/G]	<i>Ca_Desi_LG01</i>	61.090
Ca_Desi_SNP584	[A/C]	<i>Ca_Desi_LG01</i>	61.091
Ca_Desi_SNP585	[A/G]	<i>Ca_Desi_LG01</i>	61.093
Ca_Desi_SNP586	[G/A]	<i>Ca_Desi_LG01</i>	61.159
Ca_Desi_SNP587	[T/A]	<i>Ca_Desi_LG01</i>	61.182
Ca_Desi_SNP588	[A/G]	<i>Ca_Desi_LG01</i>	61.355
Ca_Desi_SNP589	[T/C]	<i>Ca_Desi_LG01</i>	61.361
Ca_Desi_SNP590	[T/C]	<i>Ca_Desi_LG01</i>	61.417
Ca_Desi_SNP591	[T/C]	<i>Ca_Desi_LG01</i>	61.419
Ca_Desi_SNP592	[T/G]	<i>Ca_Desi_LG01</i>	61.466
Ca_Desi_SNP593	[A/C]	<i>Ca_Desi_LG01</i>	61.615
Ca_Desi_SNP594	[C/T]	<i>Ca_Desi_LG01</i>	61.623
Ca_Desi_SNP595	[T/G]	<i>Ca_Desi_LG01</i>	61.738
Ca_Desi_SNP596	[T/C]	<i>Ca_Desi_LG01</i>	61.997
Ca_Desi_SNP597	[T/C]	<i>Ca_Desi_LG01</i>	62.083
Ca_Desi_SNP598	[A/G]	<i>Ca_Desi_LG01</i>	62.174
Ca_Desi_SNP599	[A/G]	<i>Ca_Desi_LG01</i>	62.397
Ca_Desi_SNP600	[A/G]	<i>Ca_Desi_LG01</i>	62.456
Ca_Desi_SNP601	[G/A]	<i>Ca_Desi_LG01</i>	62.570
Ca_Desi_SNP602	[T/C]	<i>Ca_Desi_LG01</i>	62.707
Ca_Desi_SNP603	[T/C]	<i>Ca_Desi_LG01</i>	62.708
Ca_Desi_SNP604	[T/G]	<i>Ca_Desi_LG01</i>	62.819
Ca_Desi_SNP605	[A/T]	<i>Ca_Desi_LG01</i>	62.823
Ca_Desi_SNP606	[A/G]	<i>Ca_Desi_LG01</i>	62.887
Ca_Desi_SNP607	[T/A]	<i>Ca_Desi_LG01</i>	63.022
Ca_Desi_SNP608	[C/T]	<i>Ca_Desi_LG01</i>	63.083
Ca_Desi_SNP609	[A/G]	<i>Ca_Desi_LG01</i>	63.198
Ca_Desi_SNP610	[A/G]	<i>Ca_Desi_LG01</i>	63.255
Ca_Desi_SNP611	[T/C]	<i>Ca_Desi_LG01</i>	63.312
Ca_Desi_SNP612	[T/G]	<i>Ca_Desi_LG01</i>	63.341
Ca_Desi_SNP613	[A/G]	<i>Ca_Desi_LG01</i>	63.381
Ca_Desi_SNP614	[T/C]	<i>Ca_Desi_LG01</i>	63.469
Ca_Desi_SNP615	[A/G]	<i>Ca_Desi_LG01</i>	63.538
Ca_Desi_SNP616	[T/G]	<i>Ca_Desi_LG01</i>	63.546
Ca_Desi_SNP617	[T/G]	<i>Ca_Desi_LG01</i>	63.583
Ca_Desi_SNP618	[A/G]	<i>Ca_Desi_LG01</i>	63.722
Ca_Desi_SNP619	[G/A]	<i>Ca_Desi_LG01</i>	63.920
Ca_Desi_SNP620	[A/G]	<i>Ca_Desi_LG01</i>	63.980
Ca_Desi_SNP621	[G/T]	<i>Ca_Desi_LG01</i>	64.000

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP622	[C/T]	<i>Ca_Desi_LG01</i>	64.053
Ca_Desi_SNP623	[A/C]	<i>Ca_Desi_LG01</i>	64.064
Ca_Desi_SNP624	[A/C]	<i>Ca_Desi_LG01</i>	64.169
Ca_Desi_SNP625	[T/C]	<i>Ca_Desi_LG01</i>	64.180
Ca_Desi_SNP626	[A/G]	<i>Ca_Desi_LG01</i>	64.183
Ca_Desi_SNP627	[T/G]	<i>Ca_Desi_LG01</i>	64.237
Ca_Desi_SNP628	[A/G]	<i>Ca_Desi_LG01</i>	64.307
Ca_Desi_SNP629	[A/G]	<i>Ca_Desi_LG01</i>	64.359
Ca_Desi_SNP630	[A/C]	<i>Ca_Desi_LG01</i>	64.397
Ca_Desi_SNP631	[G/A]	<i>Ca_Desi_LG01</i>	64.423
Ca_Desi_SNP632	[T/G]	<i>Ca_Desi_LG01</i>	64.462
Ca_Desi_SNP633	[A/G]	<i>Ca_Desi_LG01</i>	64.494
Ca_Desi_SNP634	[C/T]	<i>Ca_Desi_LG01</i>	64.545
Ca_Desi_SNP635	[C/A]	<i>Ca_Desi_LG01</i>	64.572
Ca_Desi_SNP636	[G/A]	<i>Ca_Desi_LG01</i>	64.655
Ca_Desi_SNP637	[T/G]	<i>Ca_Desi_LG01</i>	64.707
Ca_Desi_SNP638	[G/A]	<i>Ca_Desi_LG01</i>	64.817
Ca_Desi_SNP639	[A/C]	<i>Ca_Desi_LG01</i>	64.977
Ca_Desi_SNP640	[A/G]	<i>Ca_Desi_LG01</i>	65.111
Ca_Desi_SNP641	[A/G]	<i>Ca_Desi_LG01</i>	65.404
Ca_Desi_SNP642	[A/C]	<i>Ca_Desi_LG01</i>	65.547
Ca_Desi_SNP643	[C/G]	<i>Ca_Desi_LG01</i>	65.622
Ca_Desi_SNP644	[A/G]	<i>Ca_Desi_LG01</i>	65.630
Ca_Desi_SNP645	[T/C]	<i>Ca_Desi_LG01</i>	65.674
Ca_Desi_SNP646	[T/C]	<i>Ca_Desi_LG01</i>	65.773
Ca_Desi_SNP647	[C/A]	<i>Ca_Desi_LG01</i>	65.941
Ca_Desi_SNP648	[T/C]	<i>Ca_Desi_LG01</i>	66.014
Ca_Desi_SNP649	[A/C]	<i>Ca_Desi_LG01</i>	66.061
Ca_Desi_SNP650	[T/G]	<i>Ca_Desi_LG01</i>	66.206
Ca_Desi_SNP651	[A/G]	<i>Ca_Desi_LG01</i>	66.299
Ca_Desi_SNP652	[G/A]	<i>Ca_Desi_LG01</i>	66.744
Ca_Desi_SNP653	[A/G]	<i>Ca_Desi_LG01</i>	66.813
Ca_Desi_SNP654	[A/C]	<i>Ca_Desi_LG01</i>	66.876
Ca_Desi_SNP655	[T/A]	<i>Ca_Desi_LG01</i>	67.106
Ca_Desi_SNP656	[A/C]	<i>Ca_Desi_LG01</i>	67.134
Ca_Desi_SNP657	[T/C]	<i>Ca_Desi_LG01</i>	67.220
Ca_Desi_SNP658	[T/C]	<i>Ca_Desi_LG01</i>	67.262
Ca_Desi_SNP659	[T/G]	<i>Ca_Desi_LG01</i>	67.383
Ca_Desi_SNP660	[T/A]	<i>Ca_Desi_LG01</i>	67.535
Ca_Desi_SNP661	[T/C]	<i>Ca_Desi_LG01</i>	67.922
Ca_Desi_SNP662	[G/C]	<i>Ca_Desi_LG01</i>	68.187
Ca_Desi_SNP663	[A/C]	<i>Ca_Desi_LG01</i>	68.264
Ca_Desi_SNP664	[A/G]	<i>Ca_Desi_LG01</i>	68.342
Ca_Desi_SNP665	[T/G]	<i>Ca_Desi_LG01</i>	68.556
Ca_Desi_SNP666	[G/A]	<i>Ca_Desi_LG01</i>	68.593
Ca_Desi_SNP667	[T/C]	<i>Ca_Desi_LG01</i>	68.602
Ca_Desi_SNP668	[C/T]	<i>Ca_Desi_LG01</i>	68.874
Ca_Desi_SNP669	[T/C]	<i>Ca_Desi_LG01</i>	68.933

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP670	[C/T]	Ca_Desig_LG01	69.055
Ca_Desig_SNP671	[A/G]	Ca_Desig_LG01	69.095
Ca_Desig_SNP672	[A/G]	Ca_Desig_LG01	69.194
Ca_Desig_SNP673	[T/C]	Ca_Desig_LG01	69.204
Ca_Desig_SNP674	[T/C]	Ca_Desig_LG01	69.303
Ca_Desig_SNP675	[T/C]	Ca_Desig_LG01	69.389
Ca_Desig_SNP676	[A/G]	Ca_Desig_LG01	69.453
Ca_Desig_SNP677	[A/G]	Ca_Desig_LG01	69.737
Ca_Desig_SNP678	[A/G]	Ca_Desig_LG01	69.757
Ca_Desig_SNP679	[A/T]	Ca_Desig_LG01	69.876
Ca_Desig_SNP680	[C/A]	Ca_Desig_LG01	70.529
Ca_Desig_SNP681	[A/T]	Ca_Desig_LG01	70.639
Ca_Desig_SNP682	[A/G]	Ca_Desig_LG01	71.370
Ca_Desig_SNP683	[G/A]	Ca_Desig_LG01	71.452
Ca_Desig_SNP684	[T/C]	Ca_Desig_LG01	71.548
Ca_Desig_SNP685	[G/A]	Ca_Desig_LG01	71.700
Ca_Desig_SNP686	[A/T]	Ca_Desig_LG01	71.827
Ca_Desig_SNP687	[C/A]	Ca_Desig_LG01	71.914
Ca_Desig_SNP688	[A/G]	Ca_Desig_LG01	71.993
Ca_Desig_SNP689	[T/C]	Ca_Desig_LG01	72.305
Ca_Desig_SNP690	[T/G]	Ca_Desig_LG01	72.454
Ca_Desig_SNP691	[T/G]	Ca_Desig_LG01	72.506
Ca_Desig_SNP692	[A/C]	Ca_Desig_LG01	72.543
Ca_Desig_SNP693	[A/C]	Ca_Desig_LG01	72.636
Ca_Desig_SNP694	[T/G]	Ca_Desig_LG01	72.752
Ca_Desig_SNP695	[A/C]	Ca_Desig_LG01	72.769
Ca_Desig_SNP696	[T/C]	Ca_Desig_LG01	72.878
Ca_Desig_SNP697	[C/A]	Ca_Desig_LG01	73.001
Ca_Desig_SNP698	[T/G]	Ca_Desig_LG01	73.166
Ca_Desig_SNP699	[A/G]	Ca_Desig_LG01	73.737
Ca_Desig_SNP700	[A/G]	Ca_Desig_LG01	73.820
Ca_Desig_SNP701	[C/T]	Ca_Desig_LG01	73.822
Ca_Desig_SNP702	[T/C]	Ca_Desig_LG01	73.978
Ca_Desig_SNP703	[C/T]	Ca_Desig_LG01	73.997
Ca_Desig_SNP704	[A/C]	Ca_Desig_LG01	74.092
Ca_Desig_SNP705	[A/C]	Ca_Desig_LG01	74.200
Ca_Desig_SNP706	[T/C]	Ca_Desig_LG01	75.068
Ca_Desig_SNP707	[A/G]	Ca_Desig_LG01	75.258
Ca_Desig_SNP708	[A/G]	Ca_Desig_LG01	75.381
Ca_Desig_SNP709	[T/A]	Ca_Desig_LG01	75.405
Ca_Desig_SNP710	[G/C]	Ca_Desig_LG01	75.652
Ca_Desig_SNP711	[C/T]	Ca_Desig_LG01	75.838
Ca_Desig_SNP712	[A/T]	Ca_Desig_LG01	75.972
Ca_Desig_SNP713	[T/C]	Ca_Desig_LG01	76.187
Ca_Desig_SNP714	[C/A]	Ca_Desig_LG01	76.275
Ca_Desig_SNP715	[T/G]	Ca_Desig_LG01	76.317
Ca_Desig_SNP716	[T/G]	Ca_Desig_LG01	76.792
Ca_Desig_SNP717	[T/C]	Ca_Desig_LG01	77.331

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP718	[A/C]	Ca_Desig_LG01	77.653
Ca_Desig_SNP719	[A/G]	Ca_Desig_LG01	78.635
Ca_Desig_SNP720	[A/G]	Ca_Desig_LG01	78.771
Ca_Desig_SNP721	[T/G]	Ca_Desig_LG01	78.995
Ca_Desig_SNP722	[T/G]	Ca_Desig_LG01	79.324
Ca_Desig_SNP723	[A/G]	Ca_Desig_LG01	79.431
Ca_Desig_SNP724	[G/A]	Ca_Desig_LG01	80.720
Ca_Desig_SNP725	[T/G]	Ca_Desig_LG01	80.791
Ca_Desig_SNP726	[T/G]	Ca_Desig_LG01	80.988
Ca_Desig_SNP727	[A/C]	Ca_Desig_LG01	81.116
Ca_Desig_SNP728	[C/T]	Ca_Desig_LG01	81.151
Ca_Desig_SNP729	[T/C]	Ca_Desig_LG01	81.184
Ca_Desig_SNP730	[C/T]	Ca_Desig_LG01	81.557
Ca_Desig_SNP731	[T/C]	Ca_Desig_LG01	82.277
Ca_Desig_SNP732	[A/G]	Ca_Desig_LG01	83.102
Ca_Desig_SNP733	[G/A]	Ca_Desig_LG01	83.657
Ca_Desig_SNP734	[A/T]	Ca_Desig_LG01	84.062
Ca_Desig_SNP735	[T/C]	Ca_Desig_LG01	85.443
Ca_Desig_SNP736	[A/G]	Ca_Desig_LG01	86.076
Ca_Desig_SNP737	[A/G]	Ca_Desig_LG02	0.000
Ca_Desig_SNP738	[A/C]	Ca_Desig_LG02	1.214
Ca_Desig_SNP739	[T/C]	Ca_Desig_LG02	2.230
Ca_Desig_SNP740	[C/A]	Ca_Desig_LG02	2.321
Ca_Desig_SNP741	[T/A]	Ca_Desig_LG02	2.705
Ca_Desig_SNP742	[A/C]	Ca_Desig_LG02	2.849
Ca_Desig_SNP743	[G/C]	Ca_Desig_LG02	3.178
Ca_Desig_SNP744	[T/C]	Ca_Desig_LG02	3.418
Ca_Desig_SNP745	[G/A]	Ca_Desig_LG02	3.585
Ca_Desig_SNP746	[G/C]	Ca_Desig_LG02	4.524
Ca_Desig_SNP747	[T/G]	Ca_Desig_LG02	4.552
Ca_Desig_SNP748	[A/G]	Ca_Desig_LG02	5.233
Ca_Desig_SNP749	[G/A]	Ca_Desig_LG02	5.373
Ca_Desig_SNP750	[T/C]	Ca_Desig_LG02	5.473
Ca_Desig_SNP751	[T/C]	Ca_Desig_LG02	7.891
Ca_Desig_SNP752	[G/A]	Ca_Desig_LG02	9.224
Ca_Desig_SNP753	[T/C]	Ca_Desig_LG02	9.275
Ca_Desig_SNP754	[G/A]	Ca_Desig_LG02	10.101
Ca_Desig_SNP755	[T/C]	Ca_Desig_LG02	11.016
Ca_Desig_SNP756	[T/G]	Ca_Desig_LG02	11.641
Ca_Desig_SNP757	[T/C]	Ca_Desig_LG02	11.958
Ca_Desig_SNP758	[T/C]	Ca_Desig_LG02	12.025
Ca_Desig_SNP759	[A/C]	Ca_Desig_LG02	12.451
Ca_Desig_SNP760	[C/A]	Ca_Desig_LG02	12.634
Ca_Desig_SNP761	[T/G]	Ca_Desig_LG02	12.680
Ca_Desig_SNP762	[C/G]	Ca_Desig_LG02	13.743
Ca_Desig_SNP763	[A/G]	Ca_Desig_LG02	14.012
Ca_Desig_SNP764	[T/C]	Ca_Desig_LG02	14.531
Ca_Desig_SNP765	[T/C]	Ca_Desig_LG02	14.980

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP766	[G/A]	Ca_Desig_LG02	15.083
Ca_Desig_SNP767	[A/T]	Ca_Desig_LG02	15.150
Ca_Desig_SNP768	[G/T]	Ca_Desig_LG02	15.258
Ca_Desig_SNP769	[A/T]	Ca_Desig_LG02	15.314
Ca_Desig_SNP770	[T/G]	Ca_Desig_LG02	15.882
Ca_Desig_SNP771	[T/C]	Ca_Desig_LG02	16.304
Ca_Desig_SNP772	[A/T]	Ca_Desig_LG02	16.619
Ca_Desig_SNP773	[A/T]	Ca_Desig_LG02	16.870
Ca_Desig_SNP774	[A/C]	Ca_Desig_LG02	17.433
Ca_Desig_SNP775	[T/C]	Ca_Desig_LG02	17.461
Ca_Desig_SNP776	[C/A]	Ca_Desig_LG02	17.586
Ca_Desig_SNP777	[T/G]	Ca_Desig_LG02	17.692
Ca_Desig_SNP778	[A/G]	Ca_Desig_LG02	18.172
Ca_Desig_SNP779	[T/C]	Ca_Desig_LG02	18.309
Ca_Desig_SNP780	[T/G]	Ca_Desig_LG02	18.389
Ca_Desig_SNP781	[T/C]	Ca_Desig_LG02	18.513
Ca_Desig_SNP782	[C/A]	Ca_Desig_LG02	18.518
Ca_Desig_SNP783	[A/C]	Ca_Desig_LG02	19.265
Ca_Desig_SNP784	[T/C]	Ca_Desig_LG02	19.321
Ca_Desig_SNP785	[T/C]	Ca_Desig_LG02	19.553
Ca_Desig_SNP786	[T/G]	Ca_Desig_LG02	19.609
Ca_Desig_SNP787	[A/C]	Ca_Desig_LG02	19.941
Ca_Desig_SNP788	[T/C]	Ca_Desig_LG02	20.521
Ca_Desig_SNP789	[T/G]	Ca_Desig_LG02	20.549
Ca_Desig_SNP790	[T/C]	Ca_Desig_LG02	20.817
Ca_Desig_SNP791	[C/T]	Ca_Desig_LG02	20.818
Ca_Desig_SNP792	[G/A]	Ca_Desig_LG02	20.867
Ca_Desig_SNP793	[T/C]	Ca_Desig_LG02	20.974
Ca_Desig_SNP794	[G/A]	Ca_Desig_LG02	21.063
Ca_Desig_SNP795	[A/G]	Ca_Desig_LG02	21.077
Ca_Desig_SNP796	[A/G]	Ca_Desig_LG02	21.137
Ca_Desig_SNP797	[T/G]	Ca_Desig_LG02	21.428
Ca_Desig_SNP798	[T/G]	Ca_Desig_LG02	21.477
Ca_Desig_SNP799	[G/A]	Ca_Desig_LG02	21.635
Ca_Desig_SNP800	[T/C]	Ca_Desig_LG02	21.691
Ca_Desig_SNP801	[A/C]	Ca_Desig_LG02	21.729
Ca_Desig_SNP802	[G/A]	Ca_Desig_LG02	21.745
Ca_Desig_SNP803	[C/A]	Ca_Desig_LG02	21.885
Ca_Desig_SNP804	[T/C]	Ca_Desig_LG02	21.920
Ca_Desig_SNP805	[T/C]	Ca_Desig_LG02	22.093
Ca_Desig_SNP806	[A/C]	Ca_Desig_LG02	22.119
Ca_Desig_SNP807	[T/A]	Ca_Desig_LG02	22.167
Ca_Desig_SNP808	[A/G]	Ca_Desig_LG02	22.278
Ca_Desig_SNP809	[A/C]	Ca_Desig_LG02	22.364
Ca_Desig_SNP810	[A/G]	Ca_Desig_LG02	22.608
Ca_Desig_SNP811	[A/C]	Ca_Desig_LG02	22.887
Ca_Desig_SNP812	[T/C]	Ca_Desig_LG02	22.891
Ca_Desig_SNP813	[A/G]	Ca_Desig_LG02	23.051

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP814	[T/C]	Ca_Desig_LG02	23.058
Ca_Desig_SNP815	[C/T]	Ca_Desig_LG02	23.124
Ca_Desig_SNP816	[A/G]	Ca_Desig_LG02	23.432
Ca_Desig_SNP817	[G/A]	Ca_Desig_LG02	23.490
Ca_Desig_SNP818	[A/G]	Ca_Desig_LG02	23.629
Ca_Desig_SNP819	[T/C]	Ca_Desig_LG02	23.857
Ca_Desig_SNP820	[T/C]	Ca_Desig_LG02	24.070
Ca_Desig_SNP821	[T/G]	Ca_Desig_LG02	24.119
Ca_Desig_SNP822	[A/G]	Ca_Desig_LG02	24.210
Ca_Desig_SNP823	[G/A]	Ca_Desig_LG02	24.800
Ca_Desig_SNP824	[A/G]	Ca_Desig_LG02	24.898
Ca_Desig_SNP825	[T/C]	Ca_Desig_LG02	25.050
Ca_Desig_SNP826	[T/A]	Ca_Desig_LG02	25.066
Ca_Desig_SNP827	[T/A]	Ca_Desig_LG02	25.120
Ca_Desig_SNP828	[A/G]	Ca_Desig_LG02	25.309
Ca_Desig_SNP829	[T/C]	Ca_Desig_LG02	25.333
Ca_Desig_SNP830	[A/G]	Ca_Desig_LG02	25.439
Ca_Desig_SNP831	[C/T]	Ca_Desig_LG02	25.855
Ca_Desig_SNP832	[A/C]	Ca_Desig_LG02	25.904
Ca_Desig_SNP833	[A/C]	Ca_Desig_LG02	25.933
Ca_Desig_SNP834	[A/T]	Ca_Desig_LG02	26.100
Ca_Desig_SNP835	[C/G]	Ca_Desig_LG02	26.656
Ca_Desig_SNP836	[T/A]	Ca_Desig_LG02	27.158
Ca_Desig_SNP837	[A/G]	Ca_Desig_LG02	27.533
Ca_Desig_SNP838	[C/T]	Ca_Desig_LG02	27.628
Ca_Desig_SNP839	[G/A]	Ca_Desig_LG02	27.721
Ca_Desig_SNP840	[A/G]	Ca_Desig_LG02	27.733
Ca_Desig_SNP841	[A/C]	Ca_Desig_LG02	27.796
Ca_Desig_SNP842	[G/A]	Ca_Desig_LG02	28.259
Ca_Desig_SNP843	[T/C]	Ca_Desig_LG02	28.908
Ca_Desig_SNP844	[G/A]	Ca_Desig_LG02	29.047
Ca_Desig_SNP845	[T/A]	Ca_Desig_LG02	29.183
Ca_Desig_SNP846	[T/G]	Ca_Desig_LG02	29.245
Ca_Desig_SNP847	[A/G]	Ca_Desig_LG02	29.256
Ca_Desig_SNP848	[A/G]	Ca_Desig_LG02	29.496
Ca_Desig_SNP849	[A/C]	Ca_Desig_LG02	29.763
Ca_Desig_SNP850	[G/A]	Ca_Desig_LG02	29.795
Ca_Desig_SNP851	[T/A]	Ca_Desig_LG02	29.852
Ca_Desig_SNP852	[A/T]	Ca_Desig_LG02	29.921
Ca_Desig_SNP853	[T/G]	Ca_Desig_LG02	30.107
Ca_Desig_SNP854	[T/C]	Ca_Desig_LG02	30.425
Ca_Desig_SNP855	[T/C]	Ca_Desig_LG02	30.539
Ca_Desig_SNP856	[A/G]	Ca_Desig_LG02	30.705
Ca_Desig_SNP857	[C/A]	Ca_Desig_LG02	31.030
Ca_Desig_SNP858	[A/C]	Ca_Desig_LG02	31.546
Ca_Desig_SNP859	[A/C]	Ca_Desig_LG02	31.685
Ca_Desig_SNP860	[C/A]	Ca_Desig_LG02	31.885
Ca_Desig_SNP861	[T/C]	Ca_Desig_LG02	32.043

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP862	[A/G]	<i>Ca_Desi_LG02</i>	32.138
Ca_Desi_SNP863	[T/C]	<i>Ca_Desi_LG02</i>	32.173
Ca_Desi_SNP864	[A/G]	<i>Ca_Desi_LG02</i>	32.299
Ca_Desi_SNP865	[C/G]	<i>Ca_Desi_LG02</i>	32.838
Ca_Desi_SNP866	[A/G]	<i>Ca_Desi_LG02</i>	33.033
Ca_Desi_SNP867	[T/G]	<i>Ca_Desi_LG02</i>	33.064
Ca_Desi_SNP868	[C/A]	<i>Ca_Desi_LG02</i>	33.317
Ca_Desi_SNP869	[A/G]	<i>Ca_Desi_LG02</i>	33.349
Ca_Desi_SNP870	[T/C]	<i>Ca_Desi_LG02</i>	33.681
Ca_Desi_SNP871	[A/C]	<i>Ca_Desi_LG02</i>	33.849
Ca_Desi_SNP872	[T/C]	<i>Ca_Desi_LG02</i>	33.916
Ca_Desi_SNP873	[C/T]	<i>Ca_Desi_LG02</i>	34.145
Ca_Desi_SNP874	[T/C]	<i>Ca_Desi_LG02</i>	34.232
Ca_Desi_SNP875	[T/G]	<i>Ca_Desi_LG02</i>	34.764
Ca_Desi_SNP876	[T/G]	<i>Ca_Desi_LG02</i>	34.918
Ca_Desi_SNP877	[T/G]	<i>Ca_Desi_LG02</i>	34.948
Ca_Desi_SNP878	[A/C]	<i>Ca_Desi_LG02</i>	35.093
Ca_Desi_SNP879	[T/G]	<i>Ca_Desi_LG02</i>	35.137
Ca_Desi_SNP880	[G/T]	<i>Ca_Desi_LG02</i>	35.342
Ca_Desi_SNP881	[T/G]	<i>Ca_Desi_LG02</i>	35.542
Ca_Desi_SNP882	[A/C]	<i>Ca_Desi_LG02</i>	35.612
Ca_Desi_SNP883	[C/T]	<i>Ca_Desi_LG02</i>	36.356
Ca_Desi_SNP884	[A/G]	<i>Ca_Desi_LG02</i>	36.425
Ca_Desi_SNP885	[T/G]	<i>Ca_Desi_LG02</i>	36.447
Ca_Desi_SNP886	[C/T]	<i>Ca_Desi_LG02</i>	36.827
Ca_Desi_SNP887	[T/C]	<i>Ca_Desi_LG02</i>	36.944
Ca_Desi_SNP888	[A/G]	<i>Ca_Desi_LG02</i>	37.013
Ca_Desi_SNP889	[T/C]	<i>Ca_Desi_LG02</i>	37.014
Ca_Desi_SNP890	[C/T]	<i>Ca_Desi_LG02</i>	37.154
Ca_Desi_SNP891	[T/G]	<i>Ca_Desi_LG02</i>	37.288
Ca_Desi_SNP892	[T/G]	<i>Ca_Desi_LG02</i>	37.346
Ca_Desi_SNP893	[T/C]	<i>Ca_Desi_LG02</i>	37.627
Ca_Desi_SNP894	[A/T]	<i>Ca_Desi_LG02</i>	37.650
Ca_Desi_SNP895	[A/G]	<i>Ca_Desi_LG02</i>	37.724
Ca_Desi_SNP896	[A/G]	<i>Ca_Desi_LG02</i>	37.791
Ca_Desi_SNP897	[C/A]	<i>Ca_Desi_LG02</i>	38.127
Ca_Desi_SNP898	[A/T]	<i>Ca_Desi_LG02</i>	38.647
Ca_Desi_SNP899	[A/C]	<i>Ca_Desi_LG02</i>	38.934
Ca_Desi_SNP900	[A/C]	<i>Ca_Desi_LG02</i>	38.993
Ca_Desi_SNP901	[G/A]	<i>Ca_Desi_LG02</i>	39.121
Ca_Desi_SNP902	[A/G]	<i>Ca_Desi_LG02</i>	39.180
Ca_Desi_SNP903	[G/T]	<i>Ca_Desi_LG02</i>	39.185
Ca_Desi_SNP904	[T/G]	<i>Ca_Desi_LG02</i>	39.252
Ca_Desi_SNP905	[T/G]	<i>Ca_Desi_LG02</i>	39.293
Ca_Desi_SNP906	[A/G]	<i>Ca_Desi_LG02</i>	39.444
Ca_Desi_SNP907	[C/T]	<i>Ca_Desi_LG02</i>	39.562
Ca_Desi_SNP908	[A/C]	<i>Ca_Desi_LG02</i>	39.624
Ca_Desi_SNP909	[A/C]	<i>Ca_Desi_LG02</i>	39.980

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP910	[A/G]	Ca_Desig_LG02	40.124
Ca_Desig_SNP911	[C/T]	Ca_Desig_LG02	40.142
Ca_Desig_SNP912	[T/G]	Ca_Desig_LG02	40.301
Ca_Desig_SNP913	[A/G]	Ca_Desig_LG02	40.539
Ca_Desig_SNP914	[T/C]	Ca_Desig_LG02	40.704
Ca_Desig_SNP915	[G/A]	Ca_Desig_LG02	40.720
Ca_Desig_SNP916	[T/C]	Ca_Desig_LG02	41.617
Ca_Desig_SNP917	[G/A]	Ca_Desig_LG02	41.658
Ca_Desig_SNP918	[A/C]	Ca_Desig_LG02	41.692
Ca_Desig_SNP919	[A/G]	Ca_Desig_LG02	42.477
Ca_Desig_SNP920	[G/T]	Ca_Desig_LG02	42.882
Ca_Desig_SNP921	[T/C]	Ca_Desig_LG02	42.945
Ca_Desig_SNP922	[A/T]	Ca_Desig_LG02	43.413
Ca_Desig_SNP923	[T/C]	Ca_Desig_LG02	43.734
Ca_Desig_SNP924	[C/T]	Ca_Desig_LG02	43.831
Ca_Desig_SNP925	[G/C]	Ca_Desig_LG02	44.265
Ca_Desig_SNP926	[A/G]	Ca_Desig_LG02	44.290
Ca_Desig_SNP927	[T/G]	Ca_Desig_LG02	44.375
Ca_Desig_SNP928	[A/G]	Ca_Desig_LG02	44.910
Ca_Desig_SNP929	[A/G]	Ca_Desig_LG02	44.960
Ca_Desig_SNP930	[A/G]	Ca_Desig_LG02	45.077
Ca_Desig_SNP931	[T/C]	Ca_Desig_LG02	45.150
Ca_Desig_SNP932	[T/C]	Ca_Desig_LG02	45.243
Ca_Desig_SNP933	[A/G]	Ca_Desig_LG02	45.244
Ca_Desig_SNP934	[G/C]	Ca_Desig_LG02	45.348
Ca_Desig_SNP935	[C/T]	Ca_Desig_LG02	45.682
Ca_Desig_SNP936	[T/A]	Ca_Desig_LG02	46.011
Ca_Desig_SNP937	[T/C]	Ca_Desig_LG02	46.237
Ca_Desig_SNP938	[A/G]	Ca_Desig_LG02	46.457
Ca_Desig_SNP939	[T/G]	Ca_Desig_LG02	47.310
Ca_Desig_SNP940	[G/A]	Ca_Desig_LG02	47.410
Ca_Desig_SNP941	[T/C]	Ca_Desig_LG02	47.550
Ca_Desig_SNP942	[C/T]	Ca_Desig_LG02	47.879
Ca_Desig_SNP943	[C/T]	Ca_Desig_LG02	47.915
Ca_Desig_SNP944	[C/A]	Ca_Desig_LG02	47.932
Ca_Desig_SNP945	[G/A]	Ca_Desig_LG02	48.243
Ca_Desig_SNP946	[T/C]	Ca_Desig_LG02	48.400
Ca_Desig_SNP947	[C/T]	Ca_Desig_LG02	48.937
Ca_Desig_SNP948	[G/A]	Ca_Desig_LG02	48.982
Ca_Desig_SNP949	[T/C]	Ca_Desig_LG02	49.010
Ca_Desig_SNP950	[T/A]	Ca_Desig_LG02	49.068
Ca_Desig_SNP951	[G/A]	Ca_Desig_LG02	49.205
Ca_Desig_SNP952	[T/C]	Ca_Desig_LG02	49.209
Ca_Desig_SNP953	[T/A]	Ca_Desig_LG02	49.216
Ca_Desig_SNP954	[G/A]	Ca_Desig_LG02	49.449
Ca_Desig_SNP955	[G/A]	Ca_Desig_LG02	49.517
Ca_Desig_SNP956	[C/T]	Ca_Desig_LG02	49.985
Ca_Desig_SNP957	[T/G]	Ca_Desig_LG02	50.016

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP958	[C/A]	Ca_Desig_LG02	50.036
Ca_Desig_SNP959	[C/G]	Ca_Desig_LG02	50.308
Ca_Desig_SNP960	[T/C]	Ca_Desig_LG02	50.363
Ca_Desig_SNP961	[T/C]	Ca_Desig_LG02	50.639
Ca_Desig_SNP962	[T/C]	Ca_Desig_LG02	50.648
Ca_Desig_SNP963	[G/T]	Ca_Desig_LG02	50.652
Ca_Desig_SNP964	[T/G]	Ca_Desig_LG02	50.946
Ca_Desig_SNP965	[C/A]	Ca_Desig_LG02	51.231
Ca_Desig_SNP966	[G/A]	Ca_Desig_LG02	51.885
Ca_Desig_SNP967	[A/C]	Ca_Desig_LG02	51.989
Ca_Desig_SNP968	[G/C]	Ca_Desig_LG02	52.048
Ca_Desig_SNP969	[T/A]	Ca_Desig_LG02	52.068
Ca_Desig_SNP970	[T/C]	Ca_Desig_LG02	52.123
Ca_Desig_SNP971	[A/G]	Ca_Desig_LG02	52.349
Ca_Desig_SNP972	[A/T]	Ca_Desig_LG02	52.638
Ca_Desig_SNP973	[C/A]	Ca_Desig_LG02	52.651
Ca_Desig_SNP974	[T/G]	Ca_Desig_LG02	52.735
Ca_Desig_SNP975	[G/T]	Ca_Desig_LG02	53.175
Ca_Desig_SNP976	[C/T]	Ca_Desig_LG02	53.193
Ca_Desig_SNP977	[T/G]	Ca_Desig_LG02	53.228
Ca_Desig_SNP978	[T/C]	Ca_Desig_LG02	53.302
Ca_Desig_SNP979	[T/G]	Ca_Desig_LG02	53.826
Ca_Desig_SNP980	[G/T]	Ca_Desig_LG02	53.899
Ca_Desig_SNP981	[A/G]	Ca_Desig_LG02	54.043
Ca_Desig_SNP982	[A/G]	Ca_Desig_LG02	54.108
Ca_Desig_SNP983	[C/T]	Ca_Desig_LG02	54.195
Ca_Desig_SNP984	[G/T]	Ca_Desig_LG02	54.289
Ca_Desig_SNP985	[C/A]	Ca_Desig_LG02	54.437
Ca_Desig_SNP986	[G/A]	Ca_Desig_LG02	54.503
Ca_Desig_SNP987	[C/G]	Ca_Desig_LG02	54.567
Ca_Desig_SNP988	[G/A]	Ca_Desig_LG02	54.772
Ca_Desig_SNP989	[A/T]	Ca_Desig_LG02	54.802
Ca_Desig_SNP990	[A/C]	Ca_Desig_LG02	54.924
Ca_Desig_SNP991	[A/G]	Ca_Desig_LG02	55.085
Ca_Desig_SNP992	[T/C]	Ca_Desig_LG02	55.249
Ca_Desig_SNP993	[G/A]	Ca_Desig_LG02	55.257
Ca_Desig_SNP994	[C/A]	Ca_Desig_LG02	55.312
Ca_Desig_SNP995	[T/A]	Ca_Desig_LG02	55.927
Ca_Desig_SNP996	[A/G]	Ca_Desig_LG02	55.981
Ca_Desig_SNP997	[A/T]	Ca_Desig_LG02	55.986
Ca_Desig_SNP998	[A/G]	Ca_Desig_LG02	56.016
Ca_Desig_SNP999	[G/T]	Ca_Desig_LG02	56.089
Ca_Desig_SNP1000	[G/A]	Ca_Desig_LG02	56.102
Ca_Desig_SNP1001	[T/G]	Ca_Desig_LG02	56.228
Ca_Desig_SNP1002	[A/C]	Ca_Desig_LG02	56.264
Ca_Desig_SNP1003	[A/G]	Ca_Desig_LG02	56.473
Ca_Desig_SNP1004	[T/C]	Ca_Desig_LG02	56.846
Ca_Desig_SNP1005	[T/G]	Ca_Desig_LG02	57.359

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP1006	[C/T]	<i>Ca_Desi_LG02</i>	57.412
Ca_Desi_SNP1007	[C/A]	<i>Ca_Desi_LG02</i>	57.551
Ca_Desi_SNP1008	[A/T]	<i>Ca_Desi_LG02</i>	57.713
Ca_Desi_SNP1009	[G/A]	<i>Ca_Desi_LG02</i>	57.750
Ca_Desi_SNP1010	[T/G]	<i>Ca_Desi_LG02</i>	57.777
Ca_Desi_SNP1011	[A/C]	<i>Ca_Desi_LG02</i>	58.051
Ca_Desi_SNP1012	[G/A]	<i>Ca_Desi_LG02</i>	58.324
Ca_Desi_SNP1013	[A/T]	<i>Ca_Desi_LG02</i>	58.332
Ca_Desi_SNP1014	[G/C]	<i>Ca_Desi_LG02</i>	58.377
Ca_Desi_SNP1015	[A/C]	<i>Ca_Desi_LG02</i>	58.567
Ca_Desi_SNP1016	[T/G]	<i>Ca_Desi_LG02</i>	58.677
Ca_Desi_SNP1017	[C/A]	<i>Ca_Desi_LG02</i>	58.762
Ca_Desi_SNP1018	[T/G]	<i>Ca_Desi_LG02</i>	58.762
Ca_Desi_SNP1019	[C/T]	<i>Ca_Desi_LG02</i>	58.922
Ca_Desi_SNP1020	[T/C]	<i>Ca_Desi_LG02</i>	58.949
Ca_Desi_SNP1021	[C/T]	<i>Ca_Desi_LG02</i>	59.223
Ca_Desi_SNP1022	[T/A]	<i>Ca_Desi_LG02</i>	59.346
Ca_Desi_SNP1023	[T/A]	<i>Ca_Desi_LG02</i>	59.390
Ca_Desi_SNP1024	[T/A]	<i>Ca_Desi_LG02</i>	59.450
Ca_Desi_SNP1025	[T/G]	<i>Ca_Desi_LG02</i>	59.468
Ca_Desi_SNP1026	[A/C]	<i>Ca_Desi_LG02</i>	59.628
Ca_Desi_SNP1027	[C/G]	<i>Ca_Desi_LG02</i>	59.686
Ca_Desi_SNP1028	[T/C]	<i>Ca_Desi_LG02</i>	59.829
Ca_Desi_SNP1029	[A/G]	<i>Ca_Desi_LG02</i>	59.951
Ca_Desi_SNP1030	[C/A]	<i>Ca_Desi_LG02</i>	59.959
Ca_Desi_SNP1031	[T/C]	<i>Ca_Desi_LG02</i>	60.029
Ca_Desi_SNP1032	[C/T]	<i>Ca_Desi_LG02</i>	60.051
Ca_Desi_SNP1033	[G/A]	<i>Ca_Desi_LG02</i>	60.245
Ca_Desi_SNP1034	[T/A]	<i>Ca_Desi_LG02</i>	60.455
Ca_Desi_SNP1035	[A/G]	<i>Ca_Desi_LG02</i>	60.602
Ca_Desi_SNP1036	[T/A]	<i>Ca_Desi_LG02</i>	60.686
Ca_Desi_SNP1037	[G/T]	<i>Ca_Desi_LG02</i>	60.867
Ca_Desi_SNP1038	[T/C]	<i>Ca_Desi_LG02</i>	60.894
Ca_Desi_SNP1039	[T/G]	<i>Ca_Desi_LG02</i>	60.983
Ca_Desi_SNP1040	[A/G]	<i>Ca_Desi_LG02</i>	61.095
Ca_Desi_SNP1041	[G/A]	<i>Ca_Desi_LG02</i>	61.202
Ca_Desi_SNP1042	[G/T]	<i>Ca_Desi_LG02</i>	61.380
Ca_Desi_SNP1043	[G/A]	<i>Ca_Desi_LG02</i>	61.623
Ca_Desi_SNP1044	[G/T]	<i>Ca_Desi_LG02</i>	61.640
Ca_Desi_SNP1045	[C/T]	<i>Ca_Desi_LG02</i>	61.801
Ca_Desi_SNP1046	[A/G]	<i>Ca_Desi_LG02</i>	62.123
Ca_Desi_SNP1047	[C/T]	<i>Ca_Desi_LG02</i>	62.540
Ca_Desi_SNP1048	[A/G]	<i>Ca_Desi_LG02</i>	62.579
Ca_Desi_SNP1049	[T/C]	<i>Ca_Desi_LG02</i>	62.887
Ca_Desi_SNP1050	[C/A]	<i>Ca_Desi_LG02</i>	63.252
Ca_Desi_SNP1051	[G/C]	<i>Ca_Desi_LG02</i>	63.283
Ca_Desi_SNP1052	[T/C]	<i>Ca_Desi_LG02</i>	63.294
Ca_Desi_SNP1053	[A/C]	<i>Ca_Desi_LG02</i>	63.480

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP1054	[G/C]	Ca_Desig_LG02	63.596
Ca_Desig_SNP1055	[G/A]	Ca_Desig_LG02	63.960
Ca_Desig_SNP1056	[A/C]	Ca_Desig_LG02	63.979
Ca_Desig_SNP1057	[T/G]	Ca_Desig_LG02	64.504
Ca_Desig_SNP1058	[A/G]	Ca_Desig_LG02	64.966
Ca_Desig_SNP1059	[G/A]	Ca_Desig_LG02	65.037
Ca_Desig_SNP1060	[C/T]	Ca_Desig_LG02	65.170
Ca_Desig_SNP1061	[T/C]	Ca_Desig_LG02	65.331
Ca_Desig_SNP1062	[G/A]	Ca_Desig_LG02	65.342
Ca_Desig_SNP1063	[A/T]	Ca_Desig_LG02	65.470
Ca_Desig_SNP1064	[G/C]	Ca_Desig_LG02	65.752
Ca_Desig_SNP1065	[C/A]	Ca_Desig_LG02	65.898
Ca_Desig_SNP1066	[C/T]	Ca_Desig_LG02	65.927
Ca_Desig_SNP1067	[C/A]	Ca_Desig_LG02	66.023
Ca_Desig_SNP1068	[C/T]	Ca_Desig_LG02	66.216
Ca_Desig_SNP1069	[T/C]	Ca_Desig_LG02	66.261
Ca_Desig_SNP1070	[C/G]	Ca_Desig_LG02	66.323
Ca_Desig_SNP1071	[G/T]	Ca_Desig_LG02	66.454
Ca_Desig_SNP1072	[A/G]	Ca_Desig_LG02	66.487
Ca_Desig_SNP1073	[T/G]	Ca_Desig_LG02	66.489
Ca_Desig_SNP1074	[G/A]	Ca_Desig_LG02	66.676
Ca_Desig_SNP1075	[T/G]	Ca_Desig_LG02	66.885
Ca_Desig_SNP1076	[C/T]	Ca_Desig_LG02	66.944
Ca_Desig_SNP1077	[A/G]	Ca_Desig_LG02	67.180
Ca_Desig_SNP1078	[T/C]	Ca_Desig_LG02	67.189
Ca_Desig_SNP1079	[C/A]	Ca_Desig_LG02	67.473
Ca_Desig_SNP1080	[T/C]	Ca_Desig_LG02	68.055
Ca_Desig_SNP1081	[T/G]	Ca_Desig_LG02	68.116
Ca_Desig_SNP1082	[C/G]	Ca_Desig_LG02	68.176
Ca_Desig_SNP1083	[A/C]	Ca_Desig_LG02	68.702
Ca_Desig_SNP1084	[G/A]	Ca_Desig_LG02	69.229
Ca_Desig_SNP1085	[T/C]	Ca_Desig_LG02	69.305
Ca_Desig_SNP1086	[A/T]	Ca_Desig_LG02	69.517
Ca_Desig_SNP1087	[C/A]	Ca_Desig_LG02	70.652
Ca_Desig_SNP1088	[T/C]	Ca_Desig_LG02	71.220
Ca_Desig_SNP1089	[G/A]	Ca_Desig_LG02	71.426
Ca_Desig_SNP1090	[T/C]	Ca_Desig_LG02	71.617
Ca_Desig_SNP1091	[T/C]	Ca_Desig_LG02	72.225
Ca_Desig_SNP1092	[G/T]	Ca_Desig_LG02	72.553
Ca_Desig_SNP1093	[T/G]	Ca_Desig_LG02	72.650
Ca_Desig_SNP1094	[G/A]	Ca_Desig_LG02	72.651
Ca_Desig_SNP1095	[T/C]	Ca_Desig_LG02	72.654
Ca_Desig_SNP1096	[A/G]	Ca_Desig_LG02	72.858
Ca_Desig_SNP1097	[T/C]	Ca_Desig_LG02	73.001
Ca_Desig_SNP1098	[T/G]	Ca_Desig_LG02	73.106
Ca_Desig_SNP1099	[T/C]	Ca_Desig_LG02	73.744
Ca_Desig_SNP1100	[T/G]	Ca_Desig_LG02	73.919
Ca_Desig_SNP1101	[A/T]	Ca_Desig_LG02	74.938

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP1102	[T/G]	Ca_Desig_LG02	75.118
Ca_Desig_SNP1103	[T/G]	Ca_Desig_LG02	75.188
Ca_Desig_SNP1104	[A/C]	Ca_Desig_LG02	75.481
Ca_Desig_SNP1105	[A/G]	Ca_Desig_LG02	75.564
Ca_Desig_SNP1106	[G/A]	Ca_Desig_LG02	75.604
Ca_Desig_SNP1107	[A/G]	Ca_Desig_LG02	76.236
Ca_Desig_SNP1108	[T/C]	Ca_Desig_LG02	76.299
Ca_Desig_SNP1109	[T/C]	Ca_Desig_LG02	76.413
Ca_Desig_SNP1110	[T/G]	Ca_Desig_LG02	77.015
Ca_Desig_SNP1111	[A/C]	Ca_Desig_LG02	77.413
Ca_Desig_SNP1112	[G/A]	Ca_Desig_LG02	78.259
Ca_Desig_SNP1113	[A/G]	Ca_Desig_LG02	80.057
Ca_Desig_SNP1114	[T/C]	Ca_Desig_LG02	80.649
Ca_Desig_SNP1115	[T/C]	Ca_Desig_LG02	81.060
Ca_Desig_SNP1116	[A/G]	Ca_Desig_LG02	81.772
Ca_Desig_SNP1117	[G/A]	Ca_Desig_LG02	81.851
Ca_Desig_SNP1118	[G/A]	Ca_Desig_LG02	82.194
Ca_Desig_SNP1119	[T/A]	Ca_Desig_LG02	82.517
Ca_Desig_SNP1120	[T/G]	Ca_Desig_LG02	82.886
Ca_Desig_SNP1121	[A/G]	Ca_Desig_LG02	83.282
Ca_Desig_SNP1122	[T/G]	Ca_Desig_LG02	85.662
Ca_Desig_SNP1123	[A/C]	Ca_Desig_LG03	0.000
Ca_Desig_SNP1124	[A/G]	Ca_Desig_LG03	0.042
Ca_Desig_SNP1125	[A/G]	Ca_Desig_LG03	0.388
Ca_Desig_SNP1126	[G/A]	Ca_Desig_LG03	0.565
Ca_Desig_SNP1127	[C/T]	Ca_Desig_LG03	0.622
Ca_Desig_SNP1128	[A/C]	Ca_Desig_LG03	1.412
Ca_Desig_SNP1129	[T/C]	Ca_Desig_LG03	2.133
Ca_Desig_SNP1130	[T/C]	Ca_Desig_LG03	2.815
Ca_Desig_SNP1131	[T/G]	Ca_Desig_LG03	3.631
Ca_Desig_SNP1132	[G/A]	Ca_Desig_LG03	3.906
Ca_Desig_SNP1133	[C/A]	Ca_Desig_LG03	3.909
Ca_Desig_SNP1134	[A/G]	Ca_Desig_LG03	4.790
Ca_Desig_SNP1135	[C/T]	Ca_Desig_LG03	5.127
Ca_Desig_SNP1136	[C/T]	Ca_Desig_LG03	5.285
Ca_Desig_SNP1137	[T/G]	Ca_Desig_LG03	6.550
Ca_Desig_SNP1138	[A/G]	Ca_Desig_LG03	6.609
Ca_Desig_SNP1139	[A/T]	Ca_Desig_LG03	6.847
Ca_Desig_SNP1140	[T/G]	Ca_Desig_LG03	7.583
Ca_Desig_SNP1141	[T/C]	Ca_Desig_LG03	7.885
Ca_Desig_SNP1142	[T/C]	Ca_Desig_LG03	7.896
Ca_Desig_SNP1143	[A/T]	Ca_Desig_LG03	8.022
Ca_Desig_SNP1144	[A/C]	Ca_Desig_LG03	8.417
Ca_Desig_SNP1145	[T/C]	Ca_Desig_LG03	8.777
Ca_Desig_SNP1146	[T/A]	Ca_Desig_LG03	8.906
Ca_Desig_SNP1147	[T/G]	Ca_Desig_LG03	9.661
Ca_Desig_SNP1148	[A/G]	Ca_Desig_LG03	10.182
Ca_Desig_SNP1149	[T/C]	Ca_Desig_LG03	10.278

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP1150	[A/C]	Ca_Desig_LG03	10.368
Ca_Desig_SNP1151	[T/C]	Ca_Desig_LG03	11.047
Ca_Desig_SNP1152	[A/G]	Ca_Desig_LG03	11.064
Ca_Desig_SNP1153	[G/A]	Ca_Desig_LG03	11.104
Ca_Desig_SNP1154	[T/C]	Ca_Desig_LG03	11.186
Ca_Desig_SNP1155	[A/G]	Ca_Desig_LG03	11.221
Ca_Desig_SNP1156	[T/C]	Ca_Desig_LG03	11.927
Ca_Desig_SNP1157	[C/T]	Ca_Desig_LG03	11.982
Ca_Desig_SNP1158	[C/A]	Ca_Desig_LG03	12.864
Ca_Desig_SNP1159	[C/T]	Ca_Desig_LG03	13.115
Ca_Desig_SNP1160	[G/A]	Ca_Desig_LG03	13.338
Ca_Desig_SNP1161	[A/G]	Ca_Desig_LG03	13.354
Ca_Desig_SNP1162	[A/G]	Ca_Desig_LG03	13.436
Ca_Desig_SNP1163	[T/G]	Ca_Desig_LG03	13.885
Ca_Desig_SNP1164	[C/T]	Ca_Desig_LG03	13.962
Ca_Desig_SNP1165	[A/C]	Ca_Desig_LG03	14.156
Ca_Desig_SNP1166	[T/C]	Ca_Desig_LG03	14.667
Ca_Desig_SNP1167	[T/C]	Ca_Desig_LG03	14.913
Ca_Desig_SNP1168	[C/T]	Ca_Desig_LG03	14.989
Ca_Desig_SNP1169	[T/G]	Ca_Desig_LG03	15.361
Ca_Desig_SNP1170	[T/C]	Ca_Desig_LG03	15.369
Ca_Desig_SNP1171	[A/G]	Ca_Desig_LG03	15.397
Ca_Desig_SNP1172	[T/C]	Ca_Desig_LG03	15.475
Ca_Desig_SNP1173	[A/C]	Ca_Desig_LG03	15.809
Ca_Desig_SNP1174	[T/G]	Ca_Desig_LG03	15.870
Ca_Desig_SNP1175	[A/G]	Ca_Desig_LG03	15.898
Ca_Desig_SNP1176	[C/T]	Ca_Desig_LG03	15.980
Ca_Desig_SNP1177	[A/G]	Ca_Desig_LG03	15.981
Ca_Desig_SNP1178	[A/G]	Ca_Desig_LG03	16.225
Ca_Desig_SNP1179	[T/G]	Ca_Desig_LG03	16.230
Ca_Desig_SNP1180	[T/C]	Ca_Desig_LG03	16.428
Ca_Desig_SNP1181	[C/T]	Ca_Desig_LG03	16.583
Ca_Desig_SNP1182	[T/A]	Ca_Desig_LG03	16.856
Ca_Desig_SNP1183	[C/A]	Ca_Desig_LG03	17.280
Ca_Desig_SNP1184	[A/G]	Ca_Desig_LG03	17.344
Ca_Desig_SNP1185	[A/G]	Ca_Desig_LG03	17.349
Ca_Desig_SNP1186	[A/G]	Ca_Desig_LG03	17.402
Ca_Desig_SNP1187	[A/G]	Ca_Desig_LG03	17.404
Ca_Desig_SNP1188	[T/G]	Ca_Desig_LG03	17.447
Ca_Desig_SNP1189	[C/G]	Ca_Desig_LG03	17.620
Ca_Desig_SNP1190	[T/A]	Ca_Desig_LG03	18.070
Ca_Desig_SNP1191	[A/G]	Ca_Desig_LG03	18.071
Ca_Desig_SNP1192	[C/T]	Ca_Desig_LG03	18.164
Ca_Desig_SNP1193	[C/G]	Ca_Desig_LG03	18.172
Ca_Desig_SNP1194	[T/C]	Ca_Desig_LG03	18.362
Ca_Desig_SNP1195	[T/G]	Ca_Desig_LG03	18.554
Ca_Desig_SNP1196	[A/G]	Ca_Desig_LG03	18.574
Ca_Desig_SNP1197	[A/T]	Ca_Desig_LG03	18.641

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP1198	[A/G]	Ca_Desig_LG03	18.685
Ca_Desig_SNP1199	[C/A]	Ca_Desig_LG03	19.083
Ca_Desig_SNP1200	[A/G]	Ca_Desig_LG03	19.088
Ca_Desig_SNP1201	[T/G]	Ca_Desig_LG03	19.092
Ca_Desig_SNP1202	[G/A]	Ca_Desig_LG03	19.132
Ca_Desig_SNP1203	[T/C]	Ca_Desig_LG03	19.244
Ca_Desig_SNP1204	[G/A]	Ca_Desig_LG03	19.666
Ca_Desig_SNP1205	[T/C]	Ca_Desig_LG03	19.757
Ca_Desig_SNP1206	[T/G]	Ca_Desig_LG03	19.906
Ca_Desig_SNP1207	[G/T]	Ca_Desig_LG03	20.059
Ca_Desig_SNP1208	[C/T]	Ca_Desig_LG03	20.158
Ca_Desig_SNP1209	[C/A]	Ca_Desig_LG03	20.223
Ca_Desig_SNP1210	[C/A]	Ca_Desig_LG03	20.732
Ca_Desig_SNP1211	[C/T]	Ca_Desig_LG03	20.977
Ca_Desig_SNP1212	[G/A]	Ca_Desig_LG03	21.043
Ca_Desig_SNP1213	[A/C]	Ca_Desig_LG03	21.209
Ca_Desig_SNP1214	[G/A]	Ca_Desig_LG03	21.351
Ca_Desig_SNP1215	[T/A]	Ca_Desig_LG03	21.447
Ca_Desig_SNP1216	[G/T]	Ca_Desig_LG03	21.495
Ca_Desig_SNP1217	[G/T]	Ca_Desig_LG03	21.615
Ca_Desig_SNP1218	[A/G]	Ca_Desig_LG03	21.832
Ca_Desig_SNP1219	[T/C]	Ca_Desig_LG03	21.875
Ca_Desig_SNP1220	[T/G]	Ca_Desig_LG03	21.901
Ca_Desig_SNP1221	[C/T]	Ca_Desig_LG03	22.008
Ca_Desig_SNP1222	[C/A]	Ca_Desig_LG03	22.022
Ca_Desig_SNP1223	[T/G]	Ca_Desig_LG03	22.161
Ca_Desig_SNP1224	[G/A]	Ca_Desig_LG03	22.180
Ca_Desig_SNP1225	[T/A]	Ca_Desig_LG03	22.423
Ca_Desig_SNP1226	[T/G]	Ca_Desig_LG03	22.536
Ca_Desig_SNP1227	[A/G]	Ca_Desig_LG03	22.595
Ca_Desig_SNP1228	[A/C]	Ca_Desig_LG03	22.679
Ca_Desig_SNP1229	[T/C]	Ca_Desig_LG03	22.693
Ca_Desig_SNP1230	[T/C]	Ca_Desig_LG03	22.728
Ca_Desig_SNP1231	[A/C]	Ca_Desig_LG03	22.846
Ca_Desig_SNP1232	[A/C]	Ca_Desig_LG03	22.995
Ca_Desig_SNP1233	[T/C]	Ca_Desig_LG03	23.095
Ca_Desig_SNP1234	[A/G]	Ca_Desig_LG03	23.231
Ca_Desig_SNP1235	[A/G]	Ca_Desig_LG03	23.383
Ca_Desig_SNP1236	[C/T]	Ca_Desig_LG03	23.412
Ca_Desig_SNP1237	[A/C]	Ca_Desig_LG03	23.508
Ca_Desig_SNP1238	[C/T]	Ca_Desig_LG03	23.565
Ca_Desig_SNP1239	[T/C]	Ca_Desig_LG03	23.747
Ca_Desig_SNP1240	[T/C]	Ca_Desig_LG03	23.787
Ca_Desig_SNP1241	[C/A]	Ca_Desig_LG03	23.974
Ca_Desig_SNP1242	[T/C]	Ca_Desig_LG03	24.024
Ca_Desig_SNP1243	[C/T]	Ca_Desig_LG03	24.185
Ca_Desig_SNP1244	[T/G]	Ca_Desig_LG03	24.399
Ca_Desig_SNP1245	[A/G]	Ca_Desig_LG03	25.059

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP1246	[A/C]	Ca_Desig_LG03	25.076
Ca_Desig_SNP1247	[T/C]	Ca_Desig_LG03	25.216
Ca_Desig_SNP1248	[T/C]	Ca_Desig_LG03	25.237
Ca_Desig_SNP1249	[T/G]	Ca_Desig_LG03	25.599
Ca_Desig_SNP1250	[G/T]	Ca_Desig_LG03	25.777
Ca_Desig_SNP1251	[T/C]	Ca_Desig_LG03	26.358
Ca_Desig_SNP1252	[T/C]	Ca_Desig_LG03	26.535
Ca_Desig_SNP1253	[T/A]	Ca_Desig_LG03	26.536
Ca_Desig_SNP1254	[A/C]	Ca_Desig_LG03	26.582
Ca_Desig_SNP1255	[T/G]	Ca_Desig_LG03	26.736
Ca_Desig_SNP1256	[C/A]	Ca_Desig_LG03	26.968
Ca_Desig_SNP1257	[G/T]	Ca_Desig_LG03	27.014
Ca_Desig_SNP1258	[A/G]	Ca_Desig_LG03	27.071
Ca_Desig_SNP1259	[A/T]	Ca_Desig_LG03	27.143
Ca_Desig_SNP1260	[T/C]	Ca_Desig_LG03	27.197
Ca_Desig_SNP1261	[A/C]	Ca_Desig_LG03	27.359
Ca_Desig_SNP1262	[A/G]	Ca_Desig_LG03	27.454
Ca_Desig_SNP1263	[C/A]	Ca_Desig_LG03	27.480
Ca_Desig_SNP1264	[A/G]	Ca_Desig_LG03	27.506
Ca_Desig_SNP1265	[A/G]	Ca_Desig_LG03	27.526
Ca_Desig_SNP1266	[T/A]	Ca_Desig_LG03	27.560
Ca_Desig_SNP1267	[A/G]	Ca_Desig_LG03	27.583
Ca_Desig_SNP1268	[T/C]	Ca_Desig_LG03	27.704
Ca_Desig_SNP1269	[C/T]	Ca_Desig_LG03	27.891
Ca_Desig_SNP1270	[T/G]	Ca_Desig_LG03	27.953
Ca_Desig_SNP1271	[G/A]	Ca_Desig_LG03	28.006
Ca_Desig_SNP1272	[G/T]	Ca_Desig_LG03	28.017
Ca_Desig_SNP1273	[A/G]	Ca_Desig_LG03	28.035
Ca_Desig_SNP1274	[C/T]	Ca_Desig_LG03	28.451
Ca_Desig_SNP1275	[G/T]	Ca_Desig_LG03	28.511
Ca_Desig_SNP1276	[A/T]	Ca_Desig_LG03	28.563
Ca_Desig_SNP1277	[A/G]	Ca_Desig_LG03	28.631
Ca_Desig_SNP1278	[T/A]	Ca_Desig_LG03	28.706
Ca_Desig_SNP1279	[G/A]	Ca_Desig_LG03	29.153
Ca_Desig_SNP1280	[A/C]	Ca_Desig_LG03	29.357
Ca_Desig_SNP1281	[A/G]	Ca_Desig_LG03	29.407
Ca_Desig_SNP1282	[A/C]	Ca_Desig_LG03	29.820
Ca_Desig_SNP1283	[A/G]	Ca_Desig_LG03	29.869
Ca_Desig_SNP1284	[T/C]	Ca_Desig_LG03	30.261
Ca_Desig_SNP1285	[T/C]	Ca_Desig_LG03	30.305
Ca_Desig_SNP1286	[T/G]	Ca_Desig_LG03	30.512
Ca_Desig_SNP1287	[T/G]	Ca_Desig_LG03	30.670
Ca_Desig_SNP1288	[A/C]	Ca_Desig_LG03	31.041
Ca_Desig_SNP1289	[T/G]	Ca_Desig_LG03	31.055
Ca_Desig_SNP1290	[T/C]	Ca_Desig_LG03	31.179
Ca_Desig_SNP1291	[A/G]	Ca_Desig_LG03	31.261
Ca_Desig_SNP1292	[C/A]	Ca_Desig_LG03	31.388
Ca_Desig_SNP1293	[A/G]	Ca_Desig_LG03	31.431

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP1294	[G/T]	<i>Ca_Desi_LG03</i>	31.493
Ca_Desi_SNP1295	[G/T]	<i>Ca_Desi_LG03</i>	31.509
Ca_Desi_SNP1296	[G/T]	<i>Ca_Desi_LG03</i>	31.555
Ca_Desi_SNP1297	[A/C]	<i>Ca_Desi_LG03</i>	31.767
Ca_Desi_SNP1298	[G/C]	<i>Ca_Desi_LG03</i>	31.841
Ca_Desi_SNP1299	[G/A]	<i>Ca_Desi_LG03</i>	31.878
Ca_Desi_SNP1300	[A/T]	<i>Ca_Desi_LG03</i>	31.907
Ca_Desi_SNP1301	[A/G]	<i>Ca_Desi_LG03</i>	31.913
Ca_Desi_SNP1302	[G/T]	<i>Ca_Desi_LG03</i>	32.195
Ca_Desi_SNP1303	[T/G]	<i>Ca_Desi_LG03</i>	32.207
Ca_Desi_SNP1304	[C/T]	<i>Ca_Desi_LG03</i>	32.480
Ca_Desi_SNP1305	[T/C]	<i>Ca_Desi_LG03</i>	32.627
Ca_Desi_SNP1306	[G/A]	<i>Ca_Desi_LG03</i>	32.689
Ca_Desi_SNP1307	[A/T]	<i>Ca_Desi_LG03</i>	32.857
Ca_Desi_SNP1308	[T/C]	<i>Ca_Desi_LG03</i>	33.217
Ca_Desi_SNP1309	[A/G]	<i>Ca_Desi_LG03</i>	33.321
Ca_Desi_SNP1310	[C/A]	<i>Ca_Desi_LG03</i>	33.602
Ca_Desi_SNP1311	[T/C]	<i>Ca_Desi_LG03</i>	33.626
Ca_Desi_SNP1312	[G/A]	<i>Ca_Desi_LG03</i>	33.652
Ca_Desi_SNP1313	[A/G]	<i>Ca_Desi_LG03</i>	33.822
Ca_Desi_SNP1314	[T/C]	<i>Ca_Desi_LG03</i>	33.922
Ca_Desi_SNP1315	[C/A]	<i>Ca_Desi_LG03</i>	34.070
Ca_Desi_SNP1316	[C/T]	<i>Ca_Desi_LG03</i>	34.268
Ca_Desi_SNP1317	[A/C]	<i>Ca_Desi_LG03</i>	34.440
Ca_Desi_SNP1318	[A/C]	<i>Ca_Desi_LG03</i>	34.449
Ca_Desi_SNP1319	[C/A]	<i>Ca_Desi_LG03</i>	34.458
Ca_Desi_SNP1320	[T/C]	<i>Ca_Desi_LG03</i>	34.475
Ca_Desi_SNP1321	[A/G]	<i>Ca_Desi_LG03</i>	34.675
Ca_Desi_SNP1322	[T/G]	<i>Ca_Desi_LG03</i>	34.753
Ca_Desi_SNP1323	[T/C]	<i>Ca_Desi_LG03</i>	34.897
Ca_Desi_SNP1324	[G/A]	<i>Ca_Desi_LG03</i>	35.072
Ca_Desi_SNP1325	[A/G]	<i>Ca_Desi_LG03</i>	35.729
Ca_Desi_SNP1326	[A/C]	<i>Ca_Desi_LG03</i>	35.994
Ca_Desi_SNP1327	[C/T]	<i>Ca_Desi_LG03</i>	36.007
Ca_Desi_SNP1328	[G/A]	<i>Ca_Desi_LG03</i>	36.130
Ca_Desi_SNP1329	[A/C]	<i>Ca_Desi_LG03</i>	36.155
Ca_Desi_SNP1330	[C/T]	<i>Ca_Desi_LG03</i>	36.189
Ca_Desi_SNP1331	[T/C]	<i>Ca_Desi_LG03</i>	36.211
Ca_Desi_SNP1332	[G/A]	<i>Ca_Desi_LG03</i>	36.309
Ca_Desi_SNP1333	[A/G]	<i>Ca_Desi_LG03</i>	36.368
Ca_Desi_SNP1334	[T/G]	<i>Ca_Desi_LG03</i>	36.372
Ca_Desi_SNP1335	[T/A]	<i>Ca_Desi_LG03</i>	36.510
Ca_Desi_SNP1336	[A/G]	<i>Ca_Desi_LG03</i>	36.649
Ca_Desi_SNP1337	[T/C]	<i>Ca_Desi_LG03</i>	36.652
Ca_Desi_SNP1338	[T/C]	<i>Ca_Desi_LG03</i>	36.704
Ca_Desi_SNP1339	[T/C]	<i>Ca_Desi_LG03</i>	36.959
Ca_Desi_SNP1340	[G/C]	<i>Ca_Desi_LG03</i>	37.072
Ca_Desi_SNP1341	[G/T]	<i>Ca_Desi_LG03</i>	37.227

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP1342	[C/T]	<i>Ca_Desi_LG03</i>	37.253
Ca_Desi_SNP1343	[A/G]	<i>Ca_Desi_LG03</i>	37.311
Ca_Desi_SNP1344	[G/T]	<i>Ca_Desi_LG03</i>	37.372
Ca_Desi_SNP1345	[G/A]	<i>Ca_Desi_LG03</i>	37.438
Ca_Desi_SNP1346	[A/C]	<i>Ca_Desi_LG03</i>	37.539
Ca_Desi_SNP1347	[T/C]	<i>Ca_Desi_LG03</i>	37.574
Ca_Desi_SNP1348	[T/A]	<i>Ca_Desi_LG03</i>	37.589
Ca_Desi_SNP1349	[C/T]	<i>Ca_Desi_LG03</i>	37.635
Ca_Desi_SNP1350	[G/A]	<i>Ca_Desi_LG03</i>	38.025
Ca_Desi_SNP1351	[A/G]	<i>Ca_Desi_LG03</i>	38.235
Ca_Desi_SNP1352	[T/G]	<i>Ca_Desi_LG03</i>	38.362
Ca_Desi_SNP1353	[T/C]	<i>Ca_Desi_LG03</i>	38.464
Ca_Desi_SNP1354	[A/C]	<i>Ca_Desi_LG03</i>	38.510
Ca_Desi_SNP1355	[T/C]	<i>Ca_Desi_LG03</i>	38.673
Ca_Desi_SNP1356	[C/T]	<i>Ca_Desi_LG03</i>	38.753
Ca_Desi_SNP1357	[C/A]	<i>Ca_Desi_LG03</i>	38.855
Ca_Desi_SNP1358	[T/C]	<i>Ca_Desi_LG03</i>	38.879
Ca_Desi_SNP1359	[A/C]	<i>Ca_Desi_LG03</i>	39.084
Ca_Desi_SNP1360	[C/G]	<i>Ca_Desi_LG03</i>	39.456
Ca_Desi_SNP1361	[C/T]	<i>Ca_Desi_LG03</i>	39.533
Ca_Desi_SNP1362	[A/C]	<i>Ca_Desi_LG03</i>	39.543
Ca_Desi_SNP1363	[A/G]	<i>Ca_Desi_LG03</i>	39.849
Ca_Desi_SNP1364	[G/A]	<i>Ca_Desi_LG03</i>	39.858
Ca_Desi_SNP1365	[T/G]	<i>Ca_Desi_LG03</i>	40.054
Ca_Desi_SNP1366	[A/G]	<i>Ca_Desi_LG03</i>	40.095
Ca_Desi_SNP1367	[T/G]	<i>Ca_Desi_LG03</i>	40.204
Ca_Desi_SNP1368	[G/T]	<i>Ca_Desi_LG03</i>	40.220
Ca_Desi_SNP1369	[A/C]	<i>Ca_Desi_LG03</i>	40.405
Ca_Desi_SNP1370	[C/A]	<i>Ca_Desi_LG03</i>	40.439
Ca_Desi_SNP1371	[A/T]	<i>Ca_Desi_LG03</i>	40.454
Ca_Desi_SNP1372	[T/C]	<i>Ca_Desi_LG03</i>	40.483
Ca_Desi_SNP1373	[G/T]	<i>Ca_Desi_LG03</i>	40.586
Ca_Desi_SNP1374	[T/A]	<i>Ca_Desi_LG03</i>	40.700
Ca_Desi_SNP1375	[G/C]	<i>Ca_Desi_LG03</i>	40.765
Ca_Desi_SNP1376	[C/T]	<i>Ca_Desi_LG03</i>	40.768
Ca_Desi_SNP1377	[A/C]	<i>Ca_Desi_LG03</i>	40.972
Ca_Desi_SNP1378	[G/A]	<i>Ca_Desi_LG03</i>	41.143
Ca_Desi_SNP1379	[C/T]	<i>Ca_Desi_LG03</i>	41.169
Ca_Desi_SNP1380	[G/A]	<i>Ca_Desi_LG03</i>	41.228
Ca_Desi_SNP1381	[T/G]	<i>Ca_Desi_LG03</i>	41.229
Ca_Desi_SNP1382	[A/G]	<i>Ca_Desi_LG03</i>	41.513
Ca_Desi_SNP1383	[G/A]	<i>Ca_Desi_LG03</i>	41.589
Ca_Desi_SNP1384	[T/C]	<i>Ca_Desi_LG03</i>	41.630
Ca_Desi_SNP1385	[G/A]	<i>Ca_Desi_LG03</i>	41.631
Ca_Desi_SNP1386	[A/T]	<i>Ca_Desi_LG03</i>	41.668
Ca_Desi_SNP1387	[C/A]	<i>Ca_Desi_LG03</i>	41.698
Ca_Desi_SNP1388	[G/A]	<i>Ca_Desi_LG03</i>	41.812
Ca_Desi_SNP1389	[T/C]	<i>Ca_Desi_LG03</i>	41.890

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP1390	[T/C]	<i>Ca_Desi_LG03</i>	41.996
Ca_Desi_SNP1391	[G/T]	<i>Ca_Desi_LG03</i>	42.003
Ca_Desi_SNP1392	[T/G]	<i>Ca_Desi_LG03</i>	42.050
Ca_Desi_SNP1393	[T/C]	<i>Ca_Desi_LG03</i>	42.098
Ca_Desi_SNP1394	[T/G]	<i>Ca_Desi_LG03</i>	42.263
Ca_Desi_SNP1395	[A/G]	<i>Ca_Desi_LG03</i>	42.332
Ca_Desi_SNP1396	[A/C]	<i>Ca_Desi_LG03</i>	42.344
Ca_Desi_SNP1397	[T/G]	<i>Ca_Desi_LG03</i>	42.481
Ca_Desi_SNP1398	[T/G]	<i>Ca_Desi_LG03</i>	42.482
Ca_Desi_SNP1399	[T/C]	<i>Ca_Desi_LG03</i>	42.568
Ca_Desi_SNP1400	[C/T]	<i>Ca_Desi_LG03</i>	42.627
Ca_Desi_SNP1401	[A/G]	<i>Ca_Desi_LG03</i>	42.649
Ca_Desi_SNP1402	[C/A]	<i>Ca_Desi_LG03</i>	42.732
Ca_Desi_SNP1403	[A/C]	<i>Ca_Desi_LG03</i>	42.863
Ca_Desi_SNP1404	[A/G]	<i>Ca_Desi_LG03</i>	42.866
Ca_Desi_SNP1405	[T/G]	<i>Ca_Desi_LG03</i>	42.895
Ca_Desi_SNP1406	[A/C]	<i>Ca_Desi_LG03</i>	42.916
Ca_Desi_SNP1407	[A/C]	<i>Ca_Desi_LG03</i>	42.959
Ca_Desi_SNP1408	[A/T]	<i>Ca_Desi_LG03</i>	43.049
Ca_Desi_SNP1409	[C/T]	<i>Ca_Desi_LG03</i>	43.085
Ca_Desi_SNP1410	[T/C]	<i>Ca_Desi_LG03</i>	43.209
Ca_Desi_SNP1411	[C/T]	<i>Ca_Desi_LG03</i>	43.213
Ca_Desi_SNP1412	[T/C]	<i>Ca_Desi_LG03</i>	43.269
Ca_Desi_SNP1413	[T/G]	<i>Ca_Desi_LG03</i>	43.271
Ca_Desi_SNP1414	[T/G]	<i>Ca_Desi_LG03</i>	43.446
Ca_Desi_SNP1415	[C/T]	<i>Ca_Desi_LG03</i>	43.506
Ca_Desi_SNP1416	[T/G]	<i>Ca_Desi_LG03</i>	43.746
Ca_Desi_SNP1417	[T/C]	<i>Ca_Desi_LG03</i>	43.808
Ca_Desi_SNP1418	[T/G]	<i>Ca_Desi_LG03</i>	43.914
Ca_Desi_SNP1419	[A/G]	<i>Ca_Desi_LG03</i>	44.024
Ca_Desi_SNP1420	[A/C]	<i>Ca_Desi_LG03</i>	44.078
Ca_Desi_SNP1421	[A/G]	<i>Ca_Desi_LG03</i>	44.113
Ca_Desi_SNP1422	[T/C]	<i>Ca_Desi_LG03</i>	44.121
Ca_Desi_SNP1423	[T/C]	<i>Ca_Desi_LG03</i>	44.246
Ca_Desi_SNP1424	[G/A]	<i>Ca_Desi_LG03</i>	44.399
Ca_Desi_SNP1425	[C/A]	<i>Ca_Desi_LG03</i>	44.496
Ca_Desi_SNP1426	[A/G]	<i>Ca_Desi_LG03</i>	44.721
Ca_Desi_SNP1427	[A/G]	<i>Ca_Desi_LG03</i>	44.896
Ca_Desi_SNP1428	[C/A]	<i>Ca_Desi_LG03</i>	45.030
Ca_Desi_SNP1429	[A/C]	<i>Ca_Desi_LG03</i>	45.057
Ca_Desi_SNP1430	[T/C]	<i>Ca_Desi_LG03</i>	45.090
Ca_Desi_SNP1431	[G/C]	<i>Ca_Desi_LG03</i>	45.485
Ca_Desi_SNP1432	[T/C]	<i>Ca_Desi_LG03</i>	45.553
Ca_Desi_SNP1433	[G/A]	<i>Ca_Desi_LG03</i>	45.647
Ca_Desi_SNP1434	[T/C]	<i>Ca_Desi_LG03</i>	45.678
Ca_Desi_SNP1435	[A/C]	<i>Ca_Desi_LG03</i>	45.745
Ca_Desi_SNP1436	[T/C]	<i>Ca_Desi_LG03</i>	45.829
Ca_Desi_SNP1437	[T/C]	<i>Ca_Desi_LG03</i>	45.839

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP1438	[A/G]	Ca_Desig_LG03	45.973
Ca_Desig_SNP1439	[T/G]	Ca_Desig_LG03	46.132
Ca_Desig_SNP1440	[T/C]	Ca_Desig_LG03	46.159
Ca_Desig_SNP1441	[C/A]	Ca_Desig_LG03	46.171
Ca_Desig_SNP1442	[T/C]	Ca_Desig_LG03	46.173
Ca_Desig_SNP1443	[A/C]	Ca_Desig_LG03	46.466
Ca_Desig_SNP1444	[T/C]	Ca_Desig_LG03	46.508
Ca_Desig_SNP1445	[A/C]	Ca_Desig_LG03	46.529
Ca_Desig_SNP1446	[A/G]	Ca_Desig_LG03	47.027
Ca_Desig_SNP1447	[T/C]	Ca_Desig_LG03	47.074
Ca_Desig_SNP1448	[A/G]	Ca_Desig_LG03	47.227
Ca_Desig_SNP1449	[T/G]	Ca_Desig_LG03	47.350
Ca_Desig_SNP1450	[A/G]	Ca_Desig_LG03	47.394
Ca_Desig_SNP1451	[T/C]	Ca_Desig_LG03	47.687
Ca_Desig_SNP1452	[G/A]	Ca_Desig_LG03	47.992
Ca_Desig_SNP1453	[A/G]	Ca_Desig_LG03	48.006
Ca_Desig_SNP1454	[A/G]	Ca_Desig_LG03	48.027
Ca_Desig_SNP1455	[A/C]	Ca_Desig_LG03	48.038
Ca_Desig_SNP1456	[T/C]	Ca_Desig_LG03	48.114
Ca_Desig_SNP1457	[A/G]	Ca_Desig_LG03	48.302
Ca_Desig_SNP1458	[T/G]	Ca_Desig_LG03	48.313
Ca_Desig_SNP1459	[C/T]	Ca_Desig_LG03	48.353
Ca_Desig_SNP1460	[A/T]	Ca_Desig_LG03	48.583
Ca_Desig_SNP1461	[C/T]	Ca_Desig_LG03	48.923
Ca_Desig_SNP1462	[A/C]	Ca_Desig_LG03	49.068
Ca_Desig_SNP1463	[A/G]	Ca_Desig_LG03	49.174
Ca_Desig_SNP1464	[C/T]	Ca_Desig_LG03	49.373
Ca_Desig_SNP1465	[T/C]	Ca_Desig_LG03	49.404
Ca_Desig_SNP1466	[G/T]	Ca_Desig_LG03	49.717
Ca_Desig_SNP1467	[T/C]	Ca_Desig_LG03	49.973
Ca_Desig_SNP1468	[T/C]	Ca_Desig_LG03	50.032
Ca_Desig_SNP1469	[G/C]	Ca_Desig_LG03	50.155
Ca_Desig_SNP1470	[G/T]	Ca_Desig_LG03	50.176
Ca_Desig_SNP1471	[T/C]	Ca_Desig_LG03	50.212
Ca_Desig_SNP1472	[G/A]	Ca_Desig_LG03	50.290
Ca_Desig_SNP1473	[G/A]	Ca_Desig_LG03	50.387
Ca_Desig_SNP1474	[A/C]	Ca_Desig_LG03	50.445
Ca_Desig_SNP1475	[A/G]	Ca_Desig_LG03	50.489
Ca_Desig_SNP1476	[T/G]	Ca_Desig_LG03	50.548
Ca_Desig_SNP1477	[A/T]	Ca_Desig_LG03	50.660
Ca_Desig_SNP1478	[C/T]	Ca_Desig_LG03	50.771
Ca_Desig_SNP1479	[G/A]	Ca_Desig_LG03	50.792
Ca_Desig_SNP1480	[A/C]	Ca_Desig_LG03	50.832
Ca_Desig_SNP1481	[T/C]	Ca_Desig_LG03	50.983
Ca_Desig_SNP1482	[G/T]	Ca_Desig_LG03	51.327
Ca_Desig_SNP1483	[C/T]	Ca_Desig_LG03	51.953
Ca_Desig_SNP1484	[T/C]	Ca_Desig_LG03	52.068
Ca_Desig_SNP1485	[T/C]	Ca_Desig_LG03	52.177

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP1486	[A/G]	Ca_Desig_LG03	52.290
Ca_Desig_SNP1487	[A/T]	Ca_Desig_LG03	52.354
Ca_Desig_SNP1488	[T/C]	Ca_Desig_LG03	52.423
Ca_Desig_SNP1489	[A/C]	Ca_Desig_LG03	52.566
Ca_Desig_SNP1490	[G/T]	Ca_Desig_LG03	52.585
Ca_Desig_SNP1491	[T/A]	Ca_Desig_LG03	52.596
Ca_Desig_SNP1492	[G/A]	Ca_Desig_LG03	53.010
Ca_Desig_SNP1493	[A/T]	Ca_Desig_LG03	53.360
Ca_Desig_SNP1494	[T/A]	Ca_Desig_LG03	53.525
Ca_Desig_SNP1495	[T/C]	Ca_Desig_LG03	53.594
Ca_Desig_SNP1496	[A/C]	Ca_Desig_LG03	53.732
Ca_Desig_SNP1497	[A/G]	Ca_Desig_LG03	53.935
Ca_Desig_SNP1498	[C/A]	Ca_Desig_LG03	54.051
Ca_Desig_SNP1499	[G/T]	Ca_Desig_LG03	54.102
Ca_Desig_SNP1500	[A/C]	Ca_Desig_LG03	54.103
Ca_Desig_SNP1501	[T/G]	Ca_Desig_LG03	54.537
Ca_Desig_SNP1502	[G/A]	Ca_Desig_LG03	54.788
Ca_Desig_SNP1503	[C/A]	Ca_Desig_LG03	54.881
Ca_Desig_SNP1504	[A/C]	Ca_Desig_LG03	54.888
Ca_Desig_SNP1505	[T/C]	Ca_Desig_LG03	54.947
Ca_Desig_SNP1506	[G/T]	Ca_Desig_LG03	54.973
Ca_Desig_SNP1507	[C/A]	Ca_Desig_LG03	55.052
Ca_Desig_SNP1508	[A/C]	Ca_Desig_LG03	55.098
Ca_Desig_SNP1509	[G/T]	Ca_Desig_LG03	55.323
Ca_Desig_SNP1510	[T/G]	Ca_Desig_LG03	55.363
Ca_Desig_SNP1511	[G/A]	Ca_Desig_LG03	55.413
Ca_Desig_SNP1512	[A/C]	Ca_Desig_LG03	55.471
Ca_Desig_SNP1513	[T/G]	Ca_Desig_LG03	55.477
Ca_Desig_SNP1514	[A/C]	Ca_Desig_LG03	55.480
Ca_Desig_SNP1515	[C/T]	Ca_Desig_LG03	55.542
Ca_Desig_SNP1516	[T/G]	Ca_Desig_LG03	55.619
Ca_Desig_SNP1517	[T/G]	Ca_Desig_LG03	55.793
Ca_Desig_SNP1518	[G/T]	Ca_Desig_LG03	56.118
Ca_Desig_SNP1519	[A/G]	Ca_Desig_LG03	56.131
Ca_Desig_SNP1520	[A/G]	Ca_Desig_LG03	56.159
Ca_Desig_SNP1521	[C/A]	Ca_Desig_LG03	56.212
Ca_Desig_SNP1522	[G/A]	Ca_Desig_LG03	56.306
Ca_Desig_SNP1523	[G/A]	Ca_Desig_LG03	56.331
Ca_Desig_SNP1524	[C/A]	Ca_Desig_LG03	56.445
Ca_Desig_SNP1525	[T/G]	Ca_Desig_LG03	56.488
Ca_Desig_SNP1526	[A/C]	Ca_Desig_LG03	56.674
Ca_Desig_SNP1527	[A/G]	Ca_Desig_LG03	56.919
Ca_Desig_SNP1528	[G/A]	Ca_Desig_LG03	57.030
Ca_Desig_SNP1529	[A/G]	Ca_Desig_LG03	57.287
Ca_Desig_SNP1530	[C/G]	Ca_Desig_LG03	57.291
Ca_Desig_SNP1531	[G/T]	Ca_Desig_LG03	57.452
Ca_Desig_SNP1532	[A/T]	Ca_Desig_LG03	57.528
Ca_Desig_SNP1533	[A/G]	Ca_Desig_LG03	57.560

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP1534	[A/C]	Ca_Desig_LG03	57.583
Ca_Desig_SNP1535	[G/T]	Ca_Desig_LG03	57.654
Ca_Desig_SNP1536	[T/C]	Ca_Desig_LG03	57.692
Ca_Desig_SNP1537	[G/T]	Ca_Desig_LG03	57.702
Ca_Desig_SNP1538	[T/A]	Ca_Desig_LG03	57.753
Ca_Desig_SNP1539	[G/A]	Ca_Desig_LG03	57.766
Ca_Desig_SNP1540	[A/C]	Ca_Desig_LG03	57.846
Ca_Desig_SNP1541	[A/C]	Ca_Desig_LG03	57.924
Ca_Desig_SNP1542	[G/T]	Ca_Desig_LG03	57.954
Ca_Desig_SNP1543	[T/C]	Ca_Desig_LG03	57.975
Ca_Desig_SNP1544	[A/T]	Ca_Desig_LG03	58.198
Ca_Desig_SNP1545	[C/T]	Ca_Desig_LG03	58.212
Ca_Desig_SNP1546	[A/C]	Ca_Desig_LG03	58.235
Ca_Desig_SNP1547	[A/G]	Ca_Desig_LG03	58.450
Ca_Desig_SNP1548	[C/A]	Ca_Desig_LG03	58.561
Ca_Desig_SNP1549	[C/A]	Ca_Desig_LG03	58.674
Ca_Desig_SNP1550	[T/C]	Ca_Desig_LG03	58.683
Ca_Desig_SNP1551	[T/C]	Ca_Desig_LG03	58.690
Ca_Desig_SNP1552	[T/C]	Ca_Desig_LG03	58.788
Ca_Desig_SNP1553	[A/C]	Ca_Desig_LG03	58.856
Ca_Desig_SNP1554	[C/G]	Ca_Desig_LG03	58.871
Ca_Desig_SNP1555	[T/A]	Ca_Desig_LG03	59.015
Ca_Desig_SNP1556	[G/C]	Ca_Desig_LG03	59.069
Ca_Desig_SNP1557	[T/G]	Ca_Desig_LG03	59.354
Ca_Desig_SNP1558	[T/C]	Ca_Desig_LG03	59.365
Ca_Desig_SNP1559	[G/A]	Ca_Desig_LG03	59.415
Ca_Desig_SNP1560	[G/T]	Ca_Desig_LG03	59.451
Ca_Desig_SNP1561	[T/C]	Ca_Desig_LG03	59.489
Ca_Desig_SNP1562	[A/G]	Ca_Desig_LG03	59.590
Ca_Desig_SNP1563	[A/G]	Ca_Desig_LG03	59.714
Ca_Desig_SNP1564	[A/G]	Ca_Desig_LG03	60.360
Ca_Desig_SNP1565	[T/C]	Ca_Desig_LG03	60.412
Ca_Desig_SNP1566	[T/C]	Ca_Desig_LG03	60.818
Ca_Desig_SNP1567	[A/G]	Ca_Desig_LG03	61.023
Ca_Desig_SNP1568	[A/C]	Ca_Desig_LG03	61.121
Ca_Desig_SNP1569	[A/C]	Ca_Desig_LG03	61.147
Ca_Desig_SNP1570	[T/G]	Ca_Desig_LG03	61.500
Ca_Desig_SNP1571	[T/C]	Ca_Desig_LG03	61.561
Ca_Desig_SNP1572	[T/C]	Ca_Desig_LG03	61.599
Ca_Desig_SNP1573	[A/G]	Ca_Desig_LG03	61.777
Ca_Desig_SNP1574	[G/C]	Ca_Desig_LG03	61.824
Ca_Desig_SNP1575	[C/T]	Ca_Desig_LG03	61.835
Ca_Desig_SNP1576	[G/A]	Ca_Desig_LG03	62.021
Ca_Desig_SNP1577	[T/A]	Ca_Desig_LG03	62.031
Ca_Desig_SNP1578	[C/T]	Ca_Desig_LG03	62.305
Ca_Desig_SNP1579	[G/C]	Ca_Desig_LG03	62.368
Ca_Desig_SNP1580	[T/C]	Ca_Desig_LG03	62.465
Ca_Desig_SNP1581	[T/G]	Ca_Desig_LG03	62.509

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP1582	[A/G]	<i>Ca_Desi_LG03</i>	62.612
Ca_Desi_SNP1583	[C/T]	<i>Ca_Desi_LG03</i>	62.744
Ca_Desi_SNP1584	[T/G]	<i>Ca_Desi_LG03</i>	62.995
Ca_Desi_SNP1585	[A/G]	<i>Ca_Desi_LG03</i>	63.033
Ca_Desi_SNP1586	[T/G]	<i>Ca_Desi_LG03</i>	63.297
Ca_Desi_SNP1587	[T/A]	<i>Ca_Desi_LG03</i>	63.334
Ca_Desi_SNP1588	[T/C]	<i>Ca_Desi_LG03</i>	63.485
Ca_Desi_SNP1589	[C/T]	<i>Ca_Desi_LG03</i>	63.568
Ca_Desi_SNP1590	[A/C]	<i>Ca_Desi_LG03</i>	63.742
Ca_Desi_SNP1591	[G/T]	<i>Ca_Desi_LG03</i>	63.918
Ca_Desi_SNP1592	[A/G]	<i>Ca_Desi_LG03</i>	63.973
Ca_Desi_SNP1593	[C/A]	<i>Ca_Desi_LG03</i>	64.281
Ca_Desi_SNP1594	[A/G]	<i>Ca_Desi_LG03</i>	64.373
Ca_Desi_SNP1595	[A/C]	<i>Ca_Desi_LG03</i>	64.420
Ca_Desi_SNP1596	[A/C]	<i>Ca_Desi_LG03</i>	64.660
Ca_Desi_SNP1597	[A/G]	<i>Ca_Desi_LG03</i>	64.661
Ca_Desi_SNP1598	[A/G]	<i>Ca_Desi_LG03</i>	64.699
Ca_Desi_SNP1599	[T/C]	<i>Ca_Desi_LG03</i>	64.775
Ca_Desi_SNP1600	[A/G]	<i>Ca_Desi_LG03</i>	64.911
Ca_Desi_SNP1601	[A/C]	<i>Ca_Desi_LG03</i>	65.284
Ca_Desi_SNP1602	[A/C]	<i>Ca_Desi_LG03</i>	65.354
Ca_Desi_SNP1603	[A/T]	<i>Ca_Desi_LG03</i>	65.588
Ca_Desi_SNP1604	[C/T]	<i>Ca_Desi_LG03</i>	65.605
Ca_Desi_SNP1605	[A/T]	<i>Ca_Desi_LG03</i>	65.686
Ca_Desi_SNP1606	[A/G]	<i>Ca_Desi_LG03</i>	65.904
Ca_Desi_SNP1607	[G/T]	<i>Ca_Desi_LG03</i>	66.208
Ca_Desi_SNP1608	[A/G]	<i>Ca_Desi_LG03</i>	66.345
Ca_Desi_SNP1609	[T/A]	<i>Ca_Desi_LG03</i>	66.447
Ca_Desi_SNP1610	[G/C]	<i>Ca_Desi_LG03</i>	66.557
Ca_Desi_SNP1611	[A/G]	<i>Ca_Desi_LG03</i>	67.020
Ca_Desi_SNP1612	[T/C]	<i>Ca_Desi_LG03</i>	67.204
Ca_Desi_SNP1613	[T/C]	<i>Ca_Desi_LG03</i>	67.232
Ca_Desi_SNP1614	[A/C]	<i>Ca_Desi_LG03</i>	67.278
Ca_Desi_SNP1615	[A/G]	<i>Ca_Desi_LG03</i>	67.423
Ca_Desi_SNP1616	[C/G]	<i>Ca_Desi_LG03</i>	67.755
Ca_Desi_SNP1617	[A/C]	<i>Ca_Desi_LG03</i>	67.801
Ca_Desi_SNP1618	[A/G]	<i>Ca_Desi_LG03</i>	67.861
Ca_Desi_SNP1619	[G/A]	<i>Ca_Desi_LG03</i>	67.867
Ca_Desi_SNP1620	[A/C]	<i>Ca_Desi_LG03</i>	67.958
Ca_Desi_SNP1621	[T/C]	<i>Ca_Desi_LG03</i>	68.079
Ca_Desi_SNP1622	[C/T]	<i>Ca_Desi_LG03</i>	68.142
Ca_Desi_SNP1623	[G/T]	<i>Ca_Desi_LG03</i>	68.192
Ca_Desi_SNP1624	[G/A]	<i>Ca_Desi_LG03</i>	68.300
Ca_Desi_SNP1625	[T/C]	<i>Ca_Desi_LG03</i>	68.425
Ca_Desi_SNP1626	[T/C]	<i>Ca_Desi_LG03</i>	69.023
Ca_Desi_SNP1627	[C/T]	<i>Ca_Desi_LG03</i>	69.074
Ca_Desi_SNP1628	[C/T]	<i>Ca_Desi_LG03</i>	69.175
Ca_Desi_SNP1629	[G/A]	<i>Ca_Desi_LG03</i>	69.180

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP1630	[A/C]	<i>Ca_Desi_LG03</i>	69.301
Ca_Desi_SNP1631	[T/G]	<i>Ca_Desi_LG03</i>	69.564
Ca_Desi_SNP1632	[T/C]	<i>Ca_Desi_LG03</i>	69.583
Ca_Desi_SNP1633	[T/A]	<i>Ca_Desi_LG03</i>	69.685
Ca_Desi_SNP1634	[G/A]	<i>Ca_Desi_LG03</i>	70.062
Ca_Desi_SNP1635	[G/A]	<i>Ca_Desi_LG03</i>	70.088
Ca_Desi_SNP1636	[G/A]	<i>Ca_Desi_LG03</i>	70.212
Ca_Desi_SNP1637	[C/T]	<i>Ca_Desi_LG03</i>	71.001
Ca_Desi_SNP1638	[A/G]	<i>Ca_Desi_LG03</i>	71.116
Ca_Desi_SNP1639	[T/C]	<i>Ca_Desi_LG03</i>	71.229
Ca_Desi_SNP1640	[C/G]	<i>Ca_Desi_LG03</i>	71.266
Ca_Desi_SNP1641	[A/G]	<i>Ca_Desi_LG03</i>	71.664
Ca_Desi_SNP1642	[T/C]	<i>Ca_Desi_LG03</i>	71.815
Ca_Desi_SNP1643	[A/G]	<i>Ca_Desi_LG03</i>	71.971
Ca_Desi_SNP1644	[A/G]	<i>Ca_Desi_LG03</i>	72.091
Ca_Desi_SNP1645	[T/C]	<i>Ca_Desi_LG03</i>	72.129
Ca_Desi_SNP1646	[A/C]	<i>Ca_Desi_LG03</i>	72.228
Ca_Desi_SNP1647	[G/C]	<i>Ca_Desi_LG03</i>	72.445
Ca_Desi_SNP1648	[C/G]	<i>Ca_Desi_LG03</i>	72.758
Ca_Desi_SNP1649	[T/G]	<i>Ca_Desi_LG03</i>	72.966
Ca_Desi_SNP1650	[T/C]	<i>Ca_Desi_LG03</i>	73.031
Ca_Desi_SNP1651	[C/A]	<i>Ca_Desi_LG03</i>	73.304
Ca_Desi_SNP1652	[T/G]	<i>Ca_Desi_LG03</i>	73.662
Ca_Desi_SNP1653	[T/A]	<i>Ca_Desi_LG03</i>	73.879
Ca_Desi_SNP1654	[T/C]	<i>Ca_Desi_LG03</i>	74.345
Ca_Desi_SNP1655	[A/G]	<i>Ca_Desi_LG03</i>	74.424
Ca_Desi_SNP1656	[G/T]	<i>Ca_Desi_LG03</i>	74.794
Ca_Desi_SNP1657	[G/A]	<i>Ca_Desi_LG03</i>	75.763
Ca_Desi_SNP1658	[A/C]	<i>Ca_Desi_LG03</i>	76.174
Ca_Desi_SNP1659	[G/A]	<i>Ca_Desi_LG03</i>	76.280
Ca_Desi_SNP1660	[T/C]	<i>Ca_Desi_LG03</i>	76.350
Ca_Desi_SNP1661	[T/G]	<i>Ca_Desi_LG03</i>	76.412
Ca_Desi_SNP1662	[G/C]	<i>Ca_Desi_LG03</i>	76.463
Ca_Desi_SNP1663	[G/T]	<i>Ca_Desi_LG03</i>	76.500
Ca_Desi_SNP1664	[T/A]	<i>Ca_Desi_LG03</i>	76.699
Ca_Desi_SNP1665	[T/C]	<i>Ca_Desi_LG03</i>	76.872
Ca_Desi_SNP1666	[T/C]	<i>Ca_Desi_LG03</i>	76.979
Ca_Desi_SNP1667	[C/A]	<i>Ca_Desi_LG03</i>	77.398
Ca_Desi_SNP1668	[A/G]	<i>Ca_Desi_LG03</i>	77.559
Ca_Desi_SNP1669	[T/A]	<i>Ca_Desi_LG03</i>	77.765
Ca_Desi_SNP1670	[G/C]	<i>Ca_Desi_LG03</i>	77.810
Ca_Desi_SNP1671	[C/T]	<i>Ca_Desi_LG03</i>	78.486
Ca_Desi_SNP1672	[G/A]	<i>Ca_Desi_LG03</i>	78.511
Ca_Desi_SNP1673	[A/G]	<i>Ca_Desi_LG03</i>	78.524
Ca_Desi_SNP1674	[A/G]	<i>Ca_Desi_LG03</i>	78.706
Ca_Desi_SNP1675	[A/G]	<i>Ca_Desi_LG03</i>	78.712
Ca_Desi_SNP1676	[C/A]	<i>Ca_Desi_LG03</i>	78.728
Ca_Desi_SNP1677	[C/G]	<i>Ca_Desi_LG03</i>	78.750

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP1678	[A/C]	Ca_Desig_LG03	78.982
Ca_Desig_SNP1679	[A/C]	Ca_Desig_LG03	78.988
Ca_Desig_SNP1680	[C/T]	Ca_Desig_LG03	79.005
Ca_Desig_SNP1681	[C/A]	Ca_Desig_LG03	79.095
Ca_Desig_SNP1682	[C/A]	Ca_Desig_LG03	79.229
Ca_Desig_SNP1683	[T/C]	Ca_Desig_LG03	79.426
Ca_Desig_SNP1684	[A/G]	Ca_Desig_LG03	79.504
Ca_Desig_SNP1685	[C/T]	Ca_Desig_LG03	79.709
Ca_Desig_SNP1686	[A/G]	Ca_Desig_LG03	79.757
Ca_Desig_SNP1687	[A/G]	Ca_Desig_LG03	79.762
Ca_Desig_SNP1688	[C/T]	Ca_Desig_LG03	80.216
Ca_Desig_SNP1689	[G/A]	Ca_Desig_LG03	80.490
Ca_Desig_SNP1690	[A/G]	Ca_Desig_LG03	80.779
Ca_Desig_SNP1691	[A/G]	Ca_Desig_LG03	81.295
Ca_Desig_SNP1692	[A/G]	Ca_Desig_LG03	81.347
Ca_Desig_SNP1693	[T/C]	Ca_Desig_LG03	81.595
Ca_Desig_SNP1694	[C/T]	Ca_Desig_LG03	81.619
Ca_Desig_SNP1695	[A/G]	Ca_Desig_LG03	81.783
Ca_Desig_SNP1696	[C/T]	Ca_Desig_LG03	81.788
Ca_Desig_SNP1697	[G/T]	Ca_Desig_LG03	81.991
Ca_Desig_SNP1698	[A/G]	Ca_Desig_LG03	82.001
Ca_Desig_SNP1699	[T/A]	Ca_Desig_LG03	82.099
Ca_Desig_SNP1700	[C/T]	Ca_Desig_LG03	82.496
Ca_Desig_SNP1701	[C/T]	Ca_Desig_LG03	82.532
Ca_Desig_SNP1702	[T/C]	Ca_Desig_LG03	83.322
Ca_Desig_SNP1703	[A/T]	Ca_Desig_LG03	83.663
Ca_Desig_SNP1704	[T/A]	Ca_Desig_LG03	83.986
Ca_Desig_SNP1705	[G/C]	Ca_Desig_LG03	84.689
Ca_Desig_SNP1706	[A/G]	Ca_Desig_LG03	84.731
Ca_Desig_SNP1707	[T/C]	Ca_Desig_LG03	85.071
Ca_Desig_SNP1708	[C/T]	Ca_Desig_LG03	85.779
Ca_Desig_SNP1709	[C/T]	Ca_Desig_LG03	85.993
Ca_Desig_SNP1710	[A/G]	Ca_Desig_LG04	0.000
Ca_Desig_SNP1711	[T/C]	Ca_Desig_LG04	10.181
Ca_Desig_SNP1712	[G/C]	Ca_Desig_LG04	10.511
Ca_Desig_SNP1713	[T/C]	Ca_Desig_LG04	10.735
Ca_Desig_SNP1714	[A/T]	Ca_Desig_LG04	11.298
Ca_Desig_SNP1715	[G/T]	Ca_Desig_LG04	12.115
Ca_Desig_SNP1716	[T/A]	Ca_Desig_LG04	12.456
Ca_Desig_SNP1717	[C/A]	Ca_Desig_LG04	13.273
Ca_Desig_SNP1718	[T/C]	Ca_Desig_LG04	13.702
Ca_Desig_SNP1719	[T/C]	Ca_Desig_LG04	14.874
Ca_Desig_SNP1720	[T/C]	Ca_Desig_LG04	15.130
Ca_Desig_SNP1721	[G/T]	Ca_Desig_LG04	15.983
Ca_Desig_SNP1722	[G/A]	Ca_Desig_LG04	16.006
Ca_Desig_SNP1723	[G/T]	Ca_Desig_LG04	16.074
Ca_Desig_SNP1724	[A/C]	Ca_Desig_LG04	16.304
Ca_Desig_SNP1725	[C/T]	Ca_Desig_LG04	16.742

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP1726	[G/A]	Ca_Desig_LG04	16.812
Ca_Desig_SNP1727	[C/T]	Ca_Desig_LG04	17.222
Ca_Desig_SNP1728	[T/C]	Ca_Desig_LG04	17.855
Ca_Desig_SNP1729	[T/G]	Ca_Desig_LG04	18.028
Ca_Desig_SNP1730	[G/A]	Ca_Desig_LG04	18.427
Ca_Desig_SNP1731	[A/G]	Ca_Desig_LG04	18.675
Ca_Desig_SNP1732	[T/C]	Ca_Desig_LG04	18.688
Ca_Desig_SNP1733	[C/T]	Ca_Desig_LG04	18.859
Ca_Desig_SNP1734	[C/T]	Ca_Desig_LG04	18.999
Ca_Desig_SNP1735	[T/G]	Ca_Desig_LG04	19.170
Ca_Desig_SNP1736	[C/T]	Ca_Desig_LG04	19.374
Ca_Desig_SNP1737	[A/T]	Ca_Desig_LG04	19.467
Ca_Desig_SNP1738	[G/C]	Ca_Desig_LG04	19.483
Ca_Desig_SNP1739	[C/T]	Ca_Desig_LG04	20.158
Ca_Desig_SNP1740	[A/T]	Ca_Desig_LG04	20.221
Ca_Desig_SNP1741	[C/T]	Ca_Desig_LG04	20.302
Ca_Desig_SNP1742	[G/A]	Ca_Desig_LG04	20.484
Ca_Desig_SNP1743	[G/A]	Ca_Desig_LG04	20.511
Ca_Desig_SNP1744	[A/G]	Ca_Desig_LG04	20.935
Ca_Desig_SNP1745	[C/T]	Ca_Desig_LG04	21.144
Ca_Desig_SNP1746	[C/T]	Ca_Desig_LG04	21.272
Ca_Desig_SNP1747	[T/G]	Ca_Desig_LG04	21.285
Ca_Desig_SNP1748	[G/T]	Ca_Desig_LG04	21.503
Ca_Desig_SNP1749	[A/T]	Ca_Desig_LG04	21.757
Ca_Desig_SNP1750	[G/A]	Ca_Desig_LG04	21.848
Ca_Desig_SNP1751	[A/T]	Ca_Desig_LG04	21.851
Ca_Desig_SNP1752	[C/T]	Ca_Desig_LG04	22.037
Ca_Desig_SNP1753	[C/G]	Ca_Desig_LG04	22.104
Ca_Desig_SNP1754	[C/G]	Ca_Desig_LG04	22.163
Ca_Desig_SNP1755	[T/C]	Ca_Desig_LG04	22.198
Ca_Desig_SNP1756	[A/C]	Ca_Desig_LG04	22.224
Ca_Desig_SNP1757	[T/C]	Ca_Desig_LG04	22.238
Ca_Desig_SNP1758	[T/C]	Ca_Desig_LG04	22.539
Ca_Desig_SNP1759	[T/A]	Ca_Desig_LG04	22.632
Ca_Desig_SNP1760	[T/C]	Ca_Desig_LG04	23.095
Ca_Desig_SNP1761	[T/C]	Ca_Desig_LG04	23.267
Ca_Desig_SNP1762	[C/T]	Ca_Desig_LG04	23.269
Ca_Desig_SNP1763	[G/A]	Ca_Desig_LG04	23.343
Ca_Desig_SNP1764	[T/C]	Ca_Desig_LG04	23.378
Ca_Desig_SNP1765	[C/T]	Ca_Desig_LG04	23.422
Ca_Desig_SNP1766	[C/A]	Ca_Desig_LG04	23.475
Ca_Desig_SNP1767	[A/G]	Ca_Desig_LG04	23.576
Ca_Desig_SNP1768	[A/G]	Ca_Desig_LG04	23.603
Ca_Desig_SNP1769	[C/T]	Ca_Desig_LG04	23.780
Ca_Desig_SNP1770	[G/A]	Ca_Desig_LG04	23.784
Ca_Desig_SNP1771	[A/G]	Ca_Desig_LG04	24.000
Ca_Desig_SNP1772	[G/T]	Ca_Desig_LG04	24.107
Ca_Desig_SNP1773	[G/C]	Ca_Desig_LG04	24.244

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP1774	[T/C]	<i>Ca_Desi_LG04</i>	24.457
Ca_Desi_SNP1775	[C/A]	<i>Ca_Desi_LG04</i>	24.505
Ca_Desi_SNP1776	[T/C]	<i>Ca_Desi_LG04</i>	24.839
Ca_Desi_SNP1777	[T/C]	<i>Ca_Desi_LG04</i>	25.093
Ca_Desi_SNP1778	[C/T]	<i>Ca_Desi_LG04</i>	25.130
Ca_Desi_SNP1779	[G/A]	<i>Ca_Desi_LG04</i>	25.179
Ca_Desi_SNP1780	[T/C]	<i>Ca_Desi_LG04</i>	25.218
Ca_Desi_SNP1781	[T/C]	<i>Ca_Desi_LG04</i>	25.234
Ca_Desi_SNP1782	[C/T]	<i>Ca_Desi_LG04</i>	25.445
Ca_Desi_SNP1783	[C/T]	<i>Ca_Desi_LG04</i>	25.496
Ca_Desi_SNP1784	[A/G]	<i>Ca_Desi_LG04</i>	25.676
Ca_Desi_SNP1785	[G/A]	<i>Ca_Desi_LG04</i>	25.773
Ca_Desi_SNP1786	[C/G]	<i>Ca_Desi_LG04</i>	25.847
Ca_Desi_SNP1787	[T/A]	<i>Ca_Desi_LG04</i>	25.862
Ca_Desi_SNP1788	[A/G]	<i>Ca_Desi_LG04</i>	25.939
Ca_Desi_SNP1789	[C/G]	<i>Ca_Desi_LG04</i>	26.049
Ca_Desi_SNP1790	[T/C]	<i>Ca_Desi_LG04</i>	26.106
Ca_Desi_SNP1791	[T/C]	<i>Ca_Desi_LG04</i>	26.148
Ca_Desi_SNP1792	[C/G]	<i>Ca_Desi_LG04</i>	26.305
Ca_Desi_SNP1793	[T/A]	<i>Ca_Desi_LG04</i>	26.465
Ca_Desi_SNP1794	[A/G]	<i>Ca_Desi_LG04</i>	26.501
Ca_Desi_SNP1795	[G/A]	<i>Ca_Desi_LG04</i>	26.553
Ca_Desi_SNP1796	[G/A]	<i>Ca_Desi_LG04</i>	26.730
Ca_Desi_SNP1797	[C/T]	<i>Ca_Desi_LG04</i>	26.913
Ca_Desi_SNP1798	[T/C]	<i>Ca_Desi_LG04</i>	26.957
Ca_Desi_SNP1799	[T/C]	<i>Ca_Desi_LG04</i>	27.367
Ca_Desi_SNP1800	[G/T]	<i>Ca_Desi_LG04</i>	27.393
Ca_Desi_SNP1801	[A/C]	<i>Ca_Desi_LG04</i>	27.646
Ca_Desi_SNP1802	[T/G]	<i>Ca_Desi_LG04</i>	27.809
Ca_Desi_SNP1803	[A/C]	<i>Ca_Desi_LG04</i>	27.868
Ca_Desi_SNP1804	[G/T]	<i>Ca_Desi_LG04</i>	28.494
Ca_Desi_SNP1805	[G/T]	<i>Ca_Desi_LG04</i>	28.738
Ca_Desi_SNP1806	[A/G]	<i>Ca_Desi_LG04</i>	28.787
Ca_Desi_SNP1807	[G/T]	<i>Ca_Desi_LG04</i>	28.796
Ca_Desi_SNP1808	[A/T]	<i>Ca_Desi_LG04</i>	29.122
Ca_Desi_SNP1809	[G/T]	<i>Ca_Desi_LG04</i>	29.601
Ca_Desi_SNP1810	[A/G]	<i>Ca_Desi_LG04</i>	30.527
Ca_Desi_SNP1811	[G/A]	<i>Ca_Desi_LG04</i>	30.944
Ca_Desi_SNP1812	[A/T]	<i>Ca_Desi_LG04</i>	31.979
Ca_Desi_SNP1813	[G/T]	<i>Ca_Desi_LG04</i>	32.255
Ca_Desi_SNP1814	[T/C]	<i>Ca_Desi_LG04</i>	32.976
Ca_Desi_SNP1815	[G/C]	<i>Ca_Desi_LG04</i>	33.669
Ca_Desi_SNP1816	[A/G]	<i>Ca_Desi_LG04</i>	33.742
Ca_Desi_SNP1817	[A/G]	<i>Ca_Desi_LG04</i>	34.507
Ca_Desi_SNP1818	[T/C]	<i>Ca_Desi_LG04</i>	34.978
Ca_Desi_SNP1819	[A/C]	<i>Ca_Desi_LG04</i>	35.207
Ca_Desi_SNP1820	[A/G]	<i>Ca_Desi_LG04</i>	35.604
Ca_Desi_SNP1821	[A/C]	<i>Ca_Desi_LG04</i>	36.342

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP1822	[A/G]	<i>Ca_Desi_LG04</i>	36.362
Ca_Desi_SNP1823	[A/G]	<i>Ca_Desi_LG04</i>	37.198
Ca_Desi_SNP1824	[G/A]	<i>Ca_Desi_LG04</i>	37.353
Ca_Desi_SNP1825	[T/G]	<i>Ca_Desi_LG04</i>	38.530
Ca_Desi_SNP1826	[A/C]	<i>Ca_Desi_LG04</i>	38.966
Ca_Desi_SNP1827	[T/A]	<i>Ca_Desi_LG04</i>	39.302
Ca_Desi_SNP1828	[T/C]	<i>Ca_Desi_LG04</i>	39.319
Ca_Desi_SNP1829	[T/G]	<i>Ca_Desi_LG04</i>	39.380
Ca_Desi_SNP1830	[G/A]	<i>Ca_Desi_LG04</i>	39.451
Ca_Desi_SNP1831	[T/G]	<i>Ca_Desi_LG04</i>	39.648
Ca_Desi_SNP1832	[G/A]	<i>Ca_Desi_LG04</i>	39.921
Ca_Desi_SNP1833	[C/T]	<i>Ca_Desi_LG04</i>	40.115
Ca_Desi_SNP1834	[A/G]	<i>Ca_Desi_LG04</i>	40.386
Ca_Desi_SNP1835	[A/C]	<i>Ca_Desi_LG04</i>	40.401
Ca_Desi_SNP1836	[A/G]	<i>Ca_Desi_LG04</i>	41.152
Ca_Desi_SNP1837	[A/G]	<i>Ca_Desi_LG04</i>	41.203
Ca_Desi_SNP1838	[A/C]	<i>Ca_Desi_LG04</i>	41.381
Ca_Desi_SNP1839	[C/A]	<i>Ca_Desi_LG04</i>	41.421
Ca_Desi_SNP1840	[T/A]	<i>Ca_Desi_LG04</i>	41.524
Ca_Desi_SNP1841	[T/C]	<i>Ca_Desi_LG04</i>	42.254
Ca_Desi_SNP1842	[T/A]	<i>Ca_Desi_LG04</i>	42.717
Ca_Desi_SNP1843	[C/T]	<i>Ca_Desi_LG04</i>	42.994
Ca_Desi_SNP1844	[T/G]	<i>Ca_Desi_LG04</i>	43.310
Ca_Desi_SNP1845	[C/T]	<i>Ca_Desi_LG04</i>	43.450
Ca_Desi_SNP1846	[T/G]	<i>Ca_Desi_LG04</i>	43.508
Ca_Desi_SNP1847	[C/T]	<i>Ca_Desi_LG04</i>	43.518
Ca_Desi_SNP1848	[T/A]	<i>Ca_Desi_LG04</i>	43.534
Ca_Desi_SNP1849	[G/T]	<i>Ca_Desi_LG04</i>	43.584
Ca_Desi_SNP1850	[A/T]	<i>Ca_Desi_LG04</i>	43.618
Ca_Desi_SNP1851	[T/A]	<i>Ca_Desi_LG04</i>	43.641
Ca_Desi_SNP1852	[A/T]	<i>Ca_Desi_LG04</i>	43.692
Ca_Desi_SNP1853	[C/A]	<i>Ca_Desi_LG04</i>	43.735
Ca_Desi_SNP1854	[C/T]	<i>Ca_Desi_LG04</i>	43.786
Ca_Desi_SNP1855	[A/G]	<i>Ca_Desi_LG04</i>	43.799
Ca_Desi_SNP1856	[A/G]	<i>Ca_Desi_LG04</i>	43.947
Ca_Desi_SNP1857	[T/C]	<i>Ca_Desi_LG04</i>	43.988
Ca_Desi_SNP1858	[T/C]	<i>Ca_Desi_LG04</i>	44.009
Ca_Desi_SNP1859	[A/G]	<i>Ca_Desi_LG04</i>	44.015
Ca_Desi_SNP1860	[T/G]	<i>Ca_Desi_LG04</i>	44.113
Ca_Desi_SNP1861	[A/C]	<i>Ca_Desi_LG04</i>	44.170
Ca_Desi_SNP1862	[A/G]	<i>Ca_Desi_LG04</i>	44.253
Ca_Desi_SNP1863	[T/C]	<i>Ca_Desi_LG04</i>	44.351
Ca_Desi_SNP1864	[T/A]	<i>Ca_Desi_LG04</i>	44.370
Ca_Desi_SNP1865	[G/A]	<i>Ca_Desi_LG04</i>	44.382
Ca_Desi_SNP1866	[A/G]	<i>Ca_Desi_LG04</i>	44.429
Ca_Desi_SNP1867	[A/C]	<i>Ca_Desi_LG04</i>	44.433
Ca_Desi_SNP1868	[C/A]	<i>Ca_Desi_LG04</i>	44.494
Ca_Desi_SNP1869	[G/A]	<i>Ca_Desi_LG04</i>	44.511

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP1870	[C/A]	<i>Ca_Desi_LG04</i>	44.645
Ca_Desi_SNP1871	[G/A]	<i>Ca_Desi_LG04</i>	44.676
Ca_Desi_SNP1872	[T/C]	<i>Ca_Desi_LG04</i>	44.716
Ca_Desi_SNP1873	[A/T]	<i>Ca_Desi_LG04</i>	44.754
Ca_Desi_SNP1874	[T/C]	<i>Ca_Desi_LG04</i>	44.759
Ca_Desi_SNP1875	[A/C]	<i>Ca_Desi_LG04</i>	44.791
Ca_Desi_SNP1876	[T/C]	<i>Ca_Desi_LG04</i>	44.841
Ca_Desi_SNP1877	[G/T]	<i>Ca_Desi_LG04</i>	44.874
Ca_Desi_SNP1878	[T/G]	<i>Ca_Desi_LG04</i>	44.907
Ca_Desi_SNP1879	[A/G]	<i>Ca_Desi_LG04</i>	44.963
Ca_Desi_SNP1880	[A/C]	<i>Ca_Desi_LG04</i>	45.091
Ca_Desi_SNP1881	[A/C]	<i>Ca_Desi_LG04</i>	45.143
Ca_Desi_SNP1882	[G/A]	<i>Ca_Desi_LG04</i>	45.362
Ca_Desi_SNP1883	[C/T]	<i>Ca_Desi_LG04</i>	45.387
Ca_Desi_SNP1884	[A/T]	<i>Ca_Desi_LG04</i>	45.388
Ca_Desi_SNP1885	[C/T]	<i>Ca_Desi_LG04</i>	45.397
Ca_Desi_SNP1886	[T/A]	<i>Ca_Desi_LG04</i>	45.470
Ca_Desi_SNP1887	[T/C]	<i>Ca_Desi_LG04</i>	45.486
Ca_Desi_SNP1888	[T/C]	<i>Ca_Desi_LG04</i>	45.700
Ca_Desi_SNP1889	[A/G]	<i>Ca_Desi_LG04</i>	45.724
Ca_Desi_SNP1890	[G/A]	<i>Ca_Desi_LG04</i>	45.828
Ca_Desi_SNP1891	[A/C]	<i>Ca_Desi_LG04</i>	45.873
Ca_Desi_SNP1892	[C/G]	<i>Ca_Desi_LG04</i>	45.947
Ca_Desi_SNP1893	[C/T]	<i>Ca_Desi_LG04</i>	45.994
Ca_Desi_SNP1894	[G/A]	<i>Ca_Desi_LG04</i>	46.016
Ca_Desi_SNP1895	[T/A]	<i>Ca_Desi_LG04</i>	46.053
Ca_Desi_SNP1896	[G/A]	<i>Ca_Desi_LG04</i>	46.122
Ca_Desi_SNP1897	[C/G]	<i>Ca_Desi_LG04</i>	46.144
Ca_Desi_SNP1898	[T/A]	<i>Ca_Desi_LG04</i>	46.460
Ca_Desi_SNP1899	[C/A]	<i>Ca_Desi_LG04</i>	46.573
Ca_Desi_SNP1900	[T/G]	<i>Ca_Desi_LG04</i>	46.820
Ca_Desi_SNP1901	[T/C]	<i>Ca_Desi_LG04</i>	46.899
Ca_Desi_SNP1902	[G/A]	<i>Ca_Desi_LG04</i>	46.899
Ca_Desi_SNP1903	[T/G]	<i>Ca_Desi_LG04</i>	47.110
Ca_Desi_SNP1904	[T/C]	<i>Ca_Desi_LG04</i>	47.123
Ca_Desi_SNP1905	[A/G]	<i>Ca_Desi_LG04</i>	47.162
Ca_Desi_SNP1906	[A/T]	<i>Ca_Desi_LG04</i>	47.236
Ca_Desi_SNP1907	[T/C]	<i>Ca_Desi_LG04</i>	47.259
Ca_Desi_SNP1908	[C/T]	<i>Ca_Desi_LG04</i>	47.474
Ca_Desi_SNP1909	[C/A]	<i>Ca_Desi_LG04</i>	47.538
Ca_Desi_SNP1910	[A/G]	<i>Ca_Desi_LG04</i>	47.538
Ca_Desi_SNP1911	[C/A]	<i>Ca_Desi_LG04</i>	47.566
Ca_Desi_SNP1912	[T/C]	<i>Ca_Desi_LG04</i>	47.572
Ca_Desi_SNP1913	[G/A]	<i>Ca_Desi_LG04</i>	47.584
Ca_Desi_SNP1914	[A/G]	<i>Ca_Desi_LG04</i>	47.605
Ca_Desi_SNP1915	[C/T]	<i>Ca_Desi_LG04</i>	47.641
Ca_Desi_SNP1916	[G/A]	<i>Ca_Desi_LG04</i>	47.693
Ca_Desi_SNP1917	[A/T]	<i>Ca_Desi_LG04</i>	47.696

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP1918	[A/C]	Ca_Desig_LG04	47.757
Ca_Desig_SNP1919	[T/A]	Ca_Desig_LG04	47.766
Ca_Desig_SNP1920	[A/G]	Ca_Desig_LG04	47.769
Ca_Desig_SNP1921	[C/A]	Ca_Desig_LG04	47.822
Ca_Desig_SNP1922	[G/T]	Ca_Desig_LG04	47.879
Ca_Desig_SNP1923	[C/A]	Ca_Desig_LG04	48.018
Ca_Desig_SNP1924	[G/T]	Ca_Desig_LG04	48.045
Ca_Desig_SNP1925	[C/T]	Ca_Desig_LG04	48.048
Ca_Desig_SNP1926	[G/A]	Ca_Desig_LG04	48.085
Ca_Desig_SNP1927	[G/A]	Ca_Desig_LG04	48.131
Ca_Desig_SNP1928	[T/A]	Ca_Desig_LG04	48.147
Ca_Desig_SNP1929	[T/A]	Ca_Desig_LG04	48.152
Ca_Desig_SNP1930	[G/T]	Ca_Desig_LG04	48.178
Ca_Desig_SNP1931	[A/G]	Ca_Desig_LG04	48.197
Ca_Desig_SNP1932	[T/G]	Ca_Desig_LG04	48.201
Ca_Desig_SNP1933	[G/T]	Ca_Desig_LG04	48.263
Ca_Desig_SNP1934	[G/A]	Ca_Desig_LG04	48.266
Ca_Desig_SNP1935	[T/G]	Ca_Desig_LG04	48.279
Ca_Desig_SNP1936	[T/C]	Ca_Desig_LG04	48.328
Ca_Desig_SNP1937	[A/G]	Ca_Desig_LG04	48.442
Ca_Desig_SNP1938	[A/G]	Ca_Desig_LG04	48.474
Ca_Desig_SNP1939	[A/G]	Ca_Desig_LG04	48.493
Ca_Desig_SNP1940	[C/A]	Ca_Desig_LG04	48.502
Ca_Desig_SNP1941	[A/G]	Ca_Desig_LG04	48.542
Ca_Desig_SNP1942	[T/C]	Ca_Desig_LG04	48.619
Ca_Desig_SNP1943	[G/A]	Ca_Desig_LG04	48.632
Ca_Desig_SNP1944	[A/G]	Ca_Desig_LG04	48.637
Ca_Desig_SNP1945	[T/A]	Ca_Desig_LG04	48.726
Ca_Desig_SNP1946	[T/G]	Ca_Desig_LG04	48.769
Ca_Desig_SNP1947	[A/G]	Ca_Desig_LG04	48.858
Ca_Desig_SNP1948	[A/G]	Ca_Desig_LG04	48.868
Ca_Desig_SNP1949	[A/C]	Ca_Desig_LG04	48.928
Ca_Desig_SNP1950	[T/G]	Ca_Desig_LG04	48.950
Ca_Desig_SNP1951	[C/T]	Ca_Desig_LG04	48.998
Ca_Desig_SNP1952	[A/G]	Ca_Desig_LG04	49.023
Ca_Desig_SNP1953	[T/C]	Ca_Desig_LG04	49.040
Ca_Desig_SNP1954	[G/A]	Ca_Desig_LG04	49.073
Ca_Desig_SNP1955	[A/G]	Ca_Desig_LG04	49.188
Ca_Desig_SNP1956	[A/G]	Ca_Desig_LG04	49.255
Ca_Desig_SNP1957	[A/G]	Ca_Desig_LG04	49.291
Ca_Desig_SNP1958	[G/T]	Ca_Desig_LG04	49.305
Ca_Desig_SNP1959	[T/C]	Ca_Desig_LG04	49.314
Ca_Desig_SNP1960	[C/T]	Ca_Desig_LG04	49.351
Ca_Desig_SNP1961	[A/C]	Ca_Desig_LG04	49.409
Ca_Desig_SNP1962	[T/G]	Ca_Desig_LG04	49.424
Ca_Desig_SNP1963	[C/G]	Ca_Desig_LG04	49.434
Ca_Desig_SNP1964	[G/A]	Ca_Desig_LG04	49.475
Ca_Desig_SNP1965	[C/A]	Ca_Desig_LG04	49.511

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP1966	[G/A]	Ca_Desig_LG04	49.571
Ca_Desig_SNP1967	[T/A]	Ca_Desig_LG04	49.594
Ca_Desig_SNP1968	[A/G]	Ca_Desig_LG04	49.618
Ca_Desig_SNP1969	[G/A]	Ca_Desig_LG04	49.622
Ca_Desig_SNP1970	[T/G]	Ca_Desig_LG04	49.670
Ca_Desig_SNP1971	[C/A]	Ca_Desig_LG04	49.758
Ca_Desig_SNP1972	[A/G]	Ca_Desig_LG04	49.762
Ca_Desig_SNP1973	[C/T]	Ca_Desig_LG04	49.810
Ca_Desig_SNP1974	[C/G]	Ca_Desig_LG04	49.811
Ca_Desig_SNP1975	[C/T]	Ca_Desig_LG04	49.811
Ca_Desig_SNP1976	[A/C]	Ca_Desig_LG04	49.815
Ca_Desig_SNP1977	[A/G]	Ca_Desig_LG04	49.819
Ca_Desig_SNP1978	[A/G]	Ca_Desig_LG04	49.862
Ca_Desig_SNP1979	[G/A]	Ca_Desig_LG04	49.866
Ca_Desig_SNP1980	[C/G]	Ca_Desig_LG04	49.872
Ca_Desig_SNP1981	[C/A]	Ca_Desig_LG04	49.914
Ca_Desig_SNP1982	[G/A]	Ca_Desig_LG04	49.916
Ca_Desig_SNP1983	[G/T]	Ca_Desig_LG04	49.936
Ca_Desig_SNP1984	[C/G]	Ca_Desig_LG04	49.994
Ca_Desig_SNP1985	[A/T]	Ca_Desig_LG04	49.997
Ca_Desig_SNP1986	[T/G]	Ca_Desig_LG04	50.085
Ca_Desig_SNP1987	[A/T]	Ca_Desig_LG04	50.088
Ca_Desig_SNP1988	[A/G]	Ca_Desig_LG04	50.200
Ca_Desig_SNP1989	[A/G]	Ca_Desig_LG04	50.249
Ca_Desig_SNP1990	[A/C]	Ca_Desig_LG04	50.315
Ca_Desig_SNP1991	[A/T]	Ca_Desig_LG04	50.316
Ca_Desig_SNP1992	[C/A]	Ca_Desig_LG04	50.347
Ca_Desig_SNP1993	[C/T]	Ca_Desig_LG04	50.381
Ca_Desig_SNP1994	[A/G]	Ca_Desig_LG04	50.388
Ca_Desig_SNP1995	[G/T]	Ca_Desig_LG04	50.410
Ca_Desig_SNP1996	[A/C]	Ca_Desig_LG04	50.420
Ca_Desig_SNP1997	[T/C]	Ca_Desig_LG04	50.637
Ca_Desig_SNP1998	[T/C]	Ca_Desig_LG04	50.659
Ca_Desig_SNP1999	[G/A]	Ca_Desig_LG04	50.667
Ca_Desig_SNP2000	[G/A]	Ca_Desig_LG04	50.693
Ca_Desig_SNP2001	[T/G]	Ca_Desig_LG04	50.695
Ca_Desig_SNP2002	[C/A]	Ca_Desig_LG04	50.719
Ca_Desig_SNP2003	[G/C]	Ca_Desig_LG04	50.730
Ca_Desig_SNP2004	[T/C]	Ca_Desig_LG04	50.848
Ca_Desig_SNP2005	[C/G]	Ca_Desig_LG04	50.849
Ca_Desig_SNP2006	[A/G]	Ca_Desig_LG04	50.860
Ca_Desig_SNP2007	[C/T]	Ca_Desig_LG04	50.969
Ca_Desig_SNP2008	[C/G]	Ca_Desig_LG04	51.036
Ca_Desig_SNP2009	[A/G]	Ca_Desig_LG04	51.119
Ca_Desig_SNP2010	[G/T]	Ca_Desig_LG04	51.282
Ca_Desig_SNP2011	[C/A]	Ca_Desig_LG04	51.285
Ca_Desig_SNP2012	[A/T]	Ca_Desig_LG04	51.287
Ca_Desig_SNP2013	[T/C]	Ca_Desig_LG04	51.308

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP2014	[T/A]	Ca_Desig_LG04	51.372
Ca_Desig_SNP2015	[A/C]	Ca_Desig_LG04	51.431
Ca_Desig_SNP2016	[A/G]	Ca_Desig_LG04	51.437
Ca_Desig_SNP2017	[C/T]	Ca_Desig_LG04	51.473
Ca_Desig_SNP2018	[T/G]	Ca_Desig_LG04	51.504
Ca_Desig_SNP2019	[T/C]	Ca_Desig_LG04	51.565
Ca_Desig_SNP2020	[A/G]	Ca_Desig_LG04	51.584
Ca_Desig_SNP2021	[T/C]	Ca_Desig_LG04	51.598
Ca_Desig_SNP2022	[C/A]	Ca_Desig_LG04	51.632
Ca_Desig_SNP2023	[C/T]	Ca_Desig_LG04	51.702
Ca_Desig_SNP2024	[T/C]	Ca_Desig_LG04	51.713
Ca_Desig_SNP2025	[A/C]	Ca_Desig_LG04	51.717
Ca_Desig_SNP2026	[C/G]	Ca_Desig_LG04	51.799
Ca_Desig_SNP2027	[T/G]	Ca_Desig_LG04	51.835
Ca_Desig_SNP2028	[A/T]	Ca_Desig_LG04	51.893
Ca_Desig_SNP2029	[A/G]	Ca_Desig_LG04	51.899
Ca_Desig_SNP2030	[A/T]	Ca_Desig_LG04	51.933
Ca_Desig_SNP2031	[T/C]	Ca_Desig_LG04	52.042
Ca_Desig_SNP2032	[T/C]	Ca_Desig_LG04	52.079
Ca_Desig_SNP2033	[A/G]	Ca_Desig_LG04	52.168
Ca_Desig_SNP2034	[A/C]	Ca_Desig_LG04	52.195
Ca_Desig_SNP2035	[T/C]	Ca_Desig_LG04	52.283
Ca_Desig_SNP2036	[T/C]	Ca_Desig_LG04	52.307
Ca_Desig_SNP2037	[T/A]	Ca_Desig_LG04	52.307
Ca_Desig_SNP2038	[G/A]	Ca_Desig_LG04	52.311
Ca_Desig_SNP2039	[T/A]	Ca_Desig_LG04	52.330
Ca_Desig_SNP2040	[C/T]	Ca_Desig_LG04	52.483
Ca_Desig_SNP2041	[G/C]	Ca_Desig_LG04	52.749
Ca_Desig_SNP2042	[C/T]	Ca_Desig_LG04	52.793
Ca_Desig_SNP2043	[C/T]	Ca_Desig_LG04	52.900
Ca_Desig_SNP2044	[G/A]	Ca_Desig_LG04	52.965
Ca_Desig_SNP2045	[A/G]	Ca_Desig_LG04	53.152
Ca_Desig_SNP2046	[A/C]	Ca_Desig_LG04	53.171
Ca_Desig_SNP2047	[C/T]	Ca_Desig_LG04	53.216
Ca_Desig_SNP2048	[T/C]	Ca_Desig_LG04	53.479
Ca_Desig_SNP2049	[C/T]	Ca_Desig_LG04	53.518
Ca_Desig_SNP2050	[T/C]	Ca_Desig_LG04	53.592
Ca_Desig_SNP2051	[T/C]	Ca_Desig_LG04	53.685
Ca_Desig_SNP2052	[A/G]	Ca_Desig_LG04	53.740
Ca_Desig_SNP2053	[T/C]	Ca_Desig_LG04	53.805
Ca_Desig_SNP2054	[T/C]	Ca_Desig_LG04	53.830
Ca_Desig_SNP2055	[G/A]	Ca_Desig_LG04	53.954
Ca_Desig_SNP2056	[T/G]	Ca_Desig_LG04	54.021
Ca_Desig_SNP2057	[T/A]	Ca_Desig_LG04	54.089
Ca_Desig_SNP2058	[C/A]	Ca_Desig_LG04	54.161
Ca_Desig_SNP2059	[G/T]	Ca_Desig_LG04	54.167
Ca_Desig_SNP2060	[T/C]	Ca_Desig_LG04	54.181
Ca_Desig_SNP2061	[C/T]	Ca_Desig_LG04	54.237

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP2062	[C/G]	<i>Ca_Desi_LG04</i>	54.263
Ca_Desi_SNP2063	[A/T]	<i>Ca_Desi_LG04</i>	54.309
Ca_Desi_SNP2064	[C/T]	<i>Ca_Desi_LG04</i>	54.352
Ca_Desi_SNP2065	[A/T]	<i>Ca_Desi_LG04</i>	54.360
Ca_Desi_SNP2066	[A/C]	<i>Ca_Desi_LG04</i>	54.370
Ca_Desi_SNP2067	[T/G]	<i>Ca_Desi_LG04</i>	54.471
Ca_Desi_SNP2068	[A/G]	<i>Ca_Desi_LG04</i>	54.662
Ca_Desi_SNP2069	[C/A]	<i>Ca_Desi_LG04</i>	54.709
Ca_Desi_SNP2070	[T/C]	<i>Ca_Desi_LG04</i>	54.740
Ca_Desi_SNP2071	[G/A]	<i>Ca_Desi_LG04</i>	54.918
Ca_Desi_SNP2072	[A/C]	<i>Ca_Desi_LG04</i>	54.957
Ca_Desi_SNP2073	[G/A]	<i>Ca_Desi_LG04</i>	55.199
Ca_Desi_SNP2074	[A/G]	<i>Ca_Desi_LG04</i>	55.305
Ca_Desi_SNP2075	[T/C]	<i>Ca_Desi_LG04</i>	55.511
Ca_Desi_SNP2076	[T/C]	<i>Ca_Desi_LG04</i>	55.572
Ca_Desi_SNP2077	[T/C]	<i>Ca_Desi_LG04</i>	55.715
Ca_Desi_SNP2078	[C/T]	<i>Ca_Desi_LG04</i>	55.735
Ca_Desi_SNP2079	[T/G]	<i>Ca_Desi_LG04</i>	55.746
Ca_Desi_SNP2080	[G/A]	<i>Ca_Desi_LG04</i>	55.821
Ca_Desi_SNP2081	[T/C]	<i>Ca_Desi_LG04</i>	55.830
Ca_Desi_SNP2082	[T/A]	<i>Ca_Desi_LG04</i>	55.930
Ca_Desi_SNP2083	[G/T]	<i>Ca_Desi_LG04</i>	56.077
Ca_Desi_SNP2084	[A/T]	<i>Ca_Desi_LG04</i>	56.093
Ca_Desi_SNP2085	[T/C]	<i>Ca_Desi_LG04</i>	56.142
Ca_Desi_SNP2086	[C/T]	<i>Ca_Desi_LG04</i>	56.189
Ca_Desi_SNP2087	[G/T]	<i>Ca_Desi_LG04</i>	56.269
Ca_Desi_SNP2088	[G/A]	<i>Ca_Desi_LG04</i>	56.304
Ca_Desi_SNP2089	[T/C]	<i>Ca_Desi_LG04</i>	56.435
Ca_Desi_SNP2090	[A/T]	<i>Ca_Desi_LG04</i>	56.442
Ca_Desi_SNP2091	[A/C]	<i>Ca_Desi_LG04</i>	56.604
Ca_Desi_SNP2092	[G/A]	<i>Ca_Desi_LG04</i>	56.636
Ca_Desi_SNP2093	[A/G]	<i>Ca_Desi_LG04</i>	56.844
Ca_Desi_SNP2094	[A/G]	<i>Ca_Desi_LG04</i>	56.949
Ca_Desi_SNP2095	[C/A]	<i>Ca_Desi_LG04</i>	57.090
Ca_Desi_SNP2096	[T/C]	<i>Ca_Desi_LG04</i>	57.146
Ca_Desi_SNP2097	[G/A]	<i>Ca_Desi_LG04</i>	57.151
Ca_Desi_SNP2098	[T/C]	<i>Ca_Desi_LG04</i>	57.365
Ca_Desi_SNP2099	[T/G]	<i>Ca_Desi_LG04</i>	57.464
Ca_Desi_SNP2100	[G/C]	<i>Ca_Desi_LG04</i>	57.498
Ca_Desi_SNP2101	[A/G]	<i>Ca_Desi_LG04</i>	57.543
Ca_Desi_SNP2102	[C/T]	<i>Ca_Desi_LG04</i>	57.561
Ca_Desi_SNP2103	[C/T]	<i>Ca_Desi_LG04</i>	57.640
Ca_Desi_SNP2104	[G/A]	<i>Ca_Desi_LG04</i>	57.948
Ca_Desi_SNP2105	[A/C]	<i>Ca_Desi_LG04</i>	58.166
Ca_Desi_SNP2106	[C/A]	<i>Ca_Desi_LG04</i>	58.210
Ca_Desi_SNP2107	[T/G]	<i>Ca_Desi_LG04</i>	58.385
Ca_Desi_SNP2108	[G/T]	<i>Ca_Desi_LG04</i>	58.519
Ca_Desi_SNP2109	[G/A]	<i>Ca_Desi_LG04</i>	58.531

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP2110	[A/C]	Ca_Desig_LG04	58.549
Ca_Desig_SNP2111	[T/G]	Ca_Desig_LG04	58.697
Ca_Desig_SNP2112	[A/G]	Ca_Desig_LG04	59.364
Ca_Desig_SNP2113	[T/G]	Ca_Desig_LG04	59.452
Ca_Desig_SNP2114	[T/C]	Ca_Desig_LG04	59.616
Ca_Desig_SNP2115	[T/C]	Ca_Desig_LG04	59.781
Ca_Desig_SNP2116	[G/T]	Ca_Desig_LG04	59.818
Ca_Desig_SNP2117	[C/T]	Ca_Desig_LG04	59.853
Ca_Desig_SNP2118	[T/C]	Ca_Desig_LG04	60.563
Ca_Desig_SNP2119	[T/G]	Ca_Desig_LG04	60.887
Ca_Desig_SNP2120	[C/A]	Ca_Desig_LG04	60.901
Ca_Desig_SNP2121	[T/C]	Ca_Desig_LG04	61.071
Ca_Desig_SNP2122	[T/G]	Ca_Desig_LG04	61.124
Ca_Desig_SNP2123	[T/G]	Ca_Desig_LG04	61.131
Ca_Desig_SNP2124	[A/C]	Ca_Desig_LG04	61.439
Ca_Desig_SNP2125	[C/T]	Ca_Desig_LG04	61.603
Ca_Desig_SNP2126	[C/A]	Ca_Desig_LG04	61.706
Ca_Desig_SNP2127	[A/C]	Ca_Desig_LG04	61.914
Ca_Desig_SNP2128	[T/G]	Ca_Desig_LG04	62.546
Ca_Desig_SNP2129	[A/G]	Ca_Desig_LG04	63.085
Ca_Desig_SNP2130	[C/A]	Ca_Desig_LG04	63.295
Ca_Desig_SNP2131	[A/G]	Ca_Desig_LG04	63.969
Ca_Desig_SNP2132	[G/T]	Ca_Desig_LG04	64.063
Ca_Desig_SNP2133	[C/A]	Ca_Desig_LG04	64.875
Ca_Desig_SNP2134	[G/T]	Ca_Desig_LG04	64.952
Ca_Desig_SNP2135	[C/A]	Ca_Desig_LG04	65.233
Ca_Desig_SNP2136	[A/G]	Ca_Desig_LG04	65.669
Ca_Desig_SNP2137	[C/T]	Ca_Desig_LG04	65.891
Ca_Desig_SNP2138	[A/G]	Ca_Desig_LG04	65.893
Ca_Desig_SNP2139	[G/A]	Ca_Desig_LG04	65.936
Ca_Desig_SNP2140	[T/A]	Ca_Desig_LG04	66.146
Ca_Desig_SNP2141	[C/A]	Ca_Desig_LG04	66.152
Ca_Desig_SNP2142	[C/A]	Ca_Desig_LG04	66.179
Ca_Desig_SNP2143	[A/G]	Ca_Desig_LG04	66.370
Ca_Desig_SNP2144	[A/G]	Ca_Desig_LG04	66.488
Ca_Desig_SNP2145	[G/A]	Ca_Desig_LG04	66.921
Ca_Desig_SNP2146	[T/C]	Ca_Desig_LG04	67.018
Ca_Desig_SNP2147	[C/T]	Ca_Desig_LG04	67.063
Ca_Desig_SNP2148	[T/A]	Ca_Desig_LG04	67.115
Ca_Desig_SNP2149	[A/T]	Ca_Desig_LG04	67.225
Ca_Desig_SNP2150	[T/C]	Ca_Desig_LG04	67.227
Ca_Desig_SNP2151	[A/C]	Ca_Desig_LG04	67.299
Ca_Desig_SNP2152	[T/C]	Ca_Desig_LG04	67.322
Ca_Desig_SNP2153	[T/C]	Ca_Desig_LG04	67.487
Ca_Desig_SNP2154	[A/C]	Ca_Desig_LG04	67.516
Ca_Desig_SNP2155	[G/A]	Ca_Desig_LG04	67.633
Ca_Desig_SNP2156	[A/C]	Ca_Desig_LG04	67.670
Ca_Desig_SNP2157	[G/A]	Ca_Desig_LG04	67.724

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP2158	[A/G]	Ca_Desig_LG04	67.746
Ca_Desig_SNP2159	[A/G]	Ca_Desig_LG04	67.944
Ca_Desig_SNP2160	[T/C]	Ca_Desig_LG04	68.026
Ca_Desig_SNP2161	[C/G]	Ca_Desig_LG04	68.223
Ca_Desig_SNP2162	[C/A]	Ca_Desig_LG04	68.352
Ca_Desig_SNP2163	[C/T]	Ca_Desig_LG04	68.360
Ca_Desig_SNP2164	[G/C]	Ca_Desig_LG04	68.598
Ca_Desig_SNP2165	[G/A]	Ca_Desig_LG04	68.788
Ca_Desig_SNP2166	[T/C]	Ca_Desig_LG04	68.868
Ca_Desig_SNP2167	[G/T]	Ca_Desig_LG04	68.916
Ca_Desig_SNP2168	[A/G]	Ca_Desig_LG04	69.187
Ca_Desig_SNP2169	[C/T]	Ca_Desig_LG04	69.259
Ca_Desig_SNP2170	[A/T]	Ca_Desig_LG04	69.377
Ca_Desig_SNP2171	[A/G]	Ca_Desig_LG04	69.411
Ca_Desig_SNP2172	[A/G]	Ca_Desig_LG04	69.432
Ca_Desig_SNP2173	[C/T]	Ca_Desig_LG04	69.831
Ca_Desig_SNP2174	[G/A]	Ca_Desig_LG04	69.855
Ca_Desig_SNP2175	[A/G]	Ca_Desig_LG04	69.888
Ca_Desig_SNP2176	[G/A]	Ca_Desig_LG04	70.080
Ca_Desig_SNP2177	[A/G]	Ca_Desig_LG04	70.169
Ca_Desig_SNP2178	[G/C]	Ca_Desig_LG04	70.274
Ca_Desig_SNP2179	[C/T]	Ca_Desig_LG04	70.393
Ca_Desig_SNP2180	[T/C]	Ca_Desig_LG04	70.443
Ca_Desig_SNP2181	[C/G]	Ca_Desig_LG04	70.446
Ca_Desig_SNP2182	[T/C]	Ca_Desig_LG04	70.540
Ca_Desig_SNP2183	[C/G]	Ca_Desig_LG04	70.899
Ca_Desig_SNP2184	[A/G]	Ca_Desig_LG04	70.936
Ca_Desig_SNP2185	[T/G]	Ca_Desig_LG04	71.021
Ca_Desig_SNP2186	[T/G]	Ca_Desig_LG04	71.147
Ca_Desig_SNP2187	[A/G]	Ca_Desig_LG04	71.376
Ca_Desig_SNP2188	[A/G]	Ca_Desig_LG04	71.553
Ca_Desig_SNP2189	[A/G]	Ca_Desig_LG04	71.569
Ca_Desig_SNP2190	[C/T]	Ca_Desig_LG04	71.605
Ca_Desig_SNP2191	[T/C]	Ca_Desig_LG04	71.623
Ca_Desig_SNP2192	[A/G]	Ca_Desig_LG04	71.707
Ca_Desig_SNP2193	[A/G]	Ca_Desig_LG04	71.887
Ca_Desig_SNP2194	[A/G]	Ca_Desig_LG04	71.938
Ca_Desig_SNP2195	[T/G]	Ca_Desig_LG04	72.160
Ca_Desig_SNP2196	[T/A]	Ca_Desig_LG04	72.530
Ca_Desig_SNP2197	[C/T]	Ca_Desig_LG04	72.810
Ca_Desig_SNP2198	[G/T]	Ca_Desig_LG04	72.861
Ca_Desig_SNP2199	[C/T]	Ca_Desig_LG04	73.204
Ca_Desig_SNP2200	[A/G]	Ca_Desig_LG04	73.329
Ca_Desig_SNP2201	[A/G]	Ca_Desig_LG04	73.373
Ca_Desig_SNP2202	[T/C]	Ca_Desig_LG04	73.466
Ca_Desig_SNP2203	[G/A]	Ca_Desig_LG04	73.718
Ca_Desig_SNP2204	[C/T]	Ca_Desig_LG04	73.868
Ca_Desig_SNP2205	[T/G]	Ca_Desig_LG04	73.881

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP2206	[T/A]	<i>Ca_Desi_LG04</i>	73.946
Ca_Desi_SNP2207	[T/C]	<i>Ca_Desi_LG04</i>	74.358
Ca_Desi_SNP2208	[C/T]	<i>Ca_Desi_LG04</i>	74.383
Ca_Desi_SNP2209	[A/G]	<i>Ca_Desi_LG04</i>	74.604
Ca_Desi_SNP2210	[A/T]	<i>Ca_Desi_LG04</i>	74.653
Ca_Desi_SNP2211	[G/A]	<i>Ca_Desi_LG04</i>	74.665
Ca_Desi_SNP2212	[G/A]	<i>Ca_Desi_LG04</i>	74.730
Ca_Desi_SNP2213	[C/A]	<i>Ca_Desi_LG04</i>	74.840
Ca_Desi_SNP2214	[C/T]	<i>Ca_Desi_LG04</i>	74.890
Ca_Desi_SNP2215	[T/G]	<i>Ca_Desi_LG04</i>	74.894
Ca_Desi_SNP2216	[A/G]	<i>Ca_Desi_LG04</i>	74.932
Ca_Desi_SNP2217	[G/A]	<i>Ca_Desi_LG04</i>	75.168
Ca_Desi_SNP2218	[A/C]	<i>Ca_Desi_LG04</i>	75.244
Ca_Desi_SNP2219	[A/G]	<i>Ca_Desi_LG04</i>	75.470
Ca_Desi_SNP2220	[C/T]	<i>Ca_Desi_LG04</i>	75.669
Ca_Desi_SNP2221	[A/G]	<i>Ca_Desi_LG04</i>	75.773
Ca_Desi_SNP2222	[A/G]	<i>Ca_Desi_LG04</i>	76.537
Ca_Desi_SNP2223	[C/T]	<i>Ca_Desi_LG04</i>	76.811
Ca_Desi_SNP2224	[C/T]	<i>Ca_Desi_LG04</i>	76.908
Ca_Desi_SNP2225	[T/C]	<i>Ca_Desi_LG04</i>	77.017
Ca_Desi_SNP2226	[A/G]	<i>Ca_Desi_LG04</i>	77.053
Ca_Desi_SNP2227	[G/A]	<i>Ca_Desi_LG04</i>	77.198
Ca_Desi_SNP2228	[G/T]	<i>Ca_Desi_LG04</i>	77.211
Ca_Desi_SNP2229	[C/G]	<i>Ca_Desi_LG04</i>	77.384
Ca_Desi_SNP2230	[T/C]	<i>Ca_Desi_LG04</i>	77.574
Ca_Desi_SNP2231	[T/G]	<i>Ca_Desi_LG04</i>	77.829
Ca_Desi_SNP2232	[G/A]	<i>Ca_Desi_LG04</i>	77.847
Ca_Desi_SNP2233	[G/T]	<i>Ca_Desi_LG04</i>	77.967
Ca_Desi_SNP2234	[A/T]	<i>Ca_Desi_LG04</i>	77.980
Ca_Desi_SNP2235	[T/A]	<i>Ca_Desi_LG04</i>	78.004
Ca_Desi_SNP2236	[T/C]	<i>Ca_Desi_LG04</i>	78.180
Ca_Desi_SNP2237	[T/C]	<i>Ca_Desi_LG04</i>	78.225
Ca_Desi_SNP2238	[A/G]	<i>Ca_Desi_LG04</i>	78.380
Ca_Desi_SNP2239	[A/G]	<i>Ca_Desi_LG04</i>	78.491
Ca_Desi_SNP2240	[C/T]	<i>Ca_Desi_LG04</i>	78.547
Ca_Desi_SNP2241	[C/T]	<i>Ca_Desi_LG04</i>	78.556
Ca_Desi_SNP2242	[G/A]	<i>Ca_Desi_LG04</i>	78.633
Ca_Desi_SNP2243	[A/G]	<i>Ca_Desi_LG04</i>	78.754
Ca_Desi_SNP2244	[G/A]	<i>Ca_Desi_LG04</i>	78.773
Ca_Desi_SNP2245	[A/C]	<i>Ca_Desi_LG04</i>	78.874
Ca_Desi_SNP2246	[T/A]	<i>Ca_Desi_LG04</i>	79.006
Ca_Desi_SNP2247	[G/A]	<i>Ca_Desi_LG04</i>	79.126
Ca_Desi_SNP2248	[G/T]	<i>Ca_Desi_LG04</i>	79.225
Ca_Desi_SNP2249	[A/G]	<i>Ca_Desi_LG04</i>	79.332
Ca_Desi_SNP2250	[T/C]	<i>Ca_Desi_LG04</i>	79.408
Ca_Desi_SNP2251	[T/C]	<i>Ca_Desi_LG04</i>	79.426
Ca_Desi_SNP2252	[A/C]	<i>Ca_Desi_LG04</i>	79.852
Ca_Desi_SNP2253	[G/A]	<i>Ca_Desi_LG04</i>	80.175

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP2254	[T/G]	Ca_Desig_LG04	80.279
Ca_Desig_SNP2255	[T/G]	Ca_Desig_LG04	80.313
Ca_Desig_SNP2256	[G/T]	Ca_Desig_LG04	80.348
Ca_Desig_SNP2257	[T/G]	Ca_Desig_LG04	80.693
Ca_Desig_SNP2258	[T/A]	Ca_Desig_LG04	81.107
Ca_Desig_SNP2259	[A/G]	Ca_Desig_LG04	81.309
Ca_Desig_SNP2260	[T/G]	Ca_Desig_LG04	81.983
Ca_Desig_SNP2261	[A/G]	Ca_Desig_LG04	82.093
Ca_Desig_SNP2262	[C/G]	Ca_Desig_LG04	82.257
Ca_Desig_SNP2263	[T/C]	Ca_Desig_LG04	82.790
Ca_Desig_SNP2264	[A/T]	Ca_Desig_LG04	82.810
Ca_Desig_SNP2265	[G/A]	Ca_Desig_LG04	82.919
Ca_Desig_SNP2266	[T/G]	Ca_Desig_LG04	83.078
Ca_Desig_SNP2267	[C/A]	Ca_Desig_LG04	83.977
Ca_Desig_SNP2268	[T/G]	Ca_Desig_LG04	84.048
Ca_Desig_SNP2269	[A/C]	Ca_Desig_LG04	84.664
Ca_Desig_SNP2270	[T/C]	Ca_Desig_LG04	84.721
Ca_Desig_SNP2271	[T/G]	Ca_Desig_LG04	85.365
Ca_Desig_SNP2272	[T/G]	Ca_Desig_LG04	85.944
Ca_Desig_SNP2273	[T/G]	Ca_Desig_LG04	85.949
Ca_Desig_SNP2274	[A/C]	Ca_Desig_LG04	86.240
Ca_Desig_SNP2275	[G/C]	Ca_Desig_LG04	86.290
Ca_Desig_SNP2276	[T/C]	Ca_Desig_LG04	87.627
Ca_Desig_SNP2277	[A/C]	Ca_Desig_LG04	91.745
Ca_Desig_SNP2278	[T/C]	Ca_Desig_LG04	94.250
Ca_Desig_SNP2279	[A/C]	Ca_Desig_LG04	94.548
Ca_Desig_SNP2280	[A/G]	Ca_Desig_LG04	94.690
Ca_Desig_SNP2281	[A/G]	Ca_Desig_LG04	95.921
Ca_Desig_SNP2282	[G/A]	Ca_Desig_LG04	96.031
Ca_Desig_SNP2283	[A/C]	Ca_Desig_LG04	97.782
Ca_Desig_SNP2284	[T/G]	Ca_Desig_LG05	0.000
Ca_Desig_SNP2285	[T/C]	Ca_Desig_LG05	2.005
Ca_Desig_SNP2286	[T/C]	Ca_Desig_LG05	2.906
Ca_Desig_SNP2287	[A/G]	Ca_Desig_LG05	6.592
Ca_Desig_SNP2288	[A/C]	Ca_Desig_LG05	7.367
Ca_Desig_SNP2289	[A/T]	Ca_Desig_LG05	8.031
Ca_Desig_SNP2290	[A/G]	Ca_Desig_LG05	8.168
Ca_Desig_SNP2291	[A/C]	Ca_Desig_LG05	11.729
Ca_Desig_SNP2292	[T/C]	Ca_Desig_LG05	11.736
Ca_Desig_SNP2293	[G/A]	Ca_Desig_LG05	11.945
Ca_Desig_SNP2294	[A/C]	Ca_Desig_LG05	12.308
Ca_Desig_SNP2295	[T/A]	Ca_Desig_LG05	13.330
Ca_Desig_SNP2296	[A/C]	Ca_Desig_LG05	14.077
Ca_Desig_SNP2297	[T/C]	Ca_Desig_LG05	14.410
Ca_Desig_SNP2298	[A/G]	Ca_Desig_LG05	14.439
Ca_Desig_SNP2299	[A/T]	Ca_Desig_LG05	14.800
Ca_Desig_SNP2300	[C/G]	Ca_Desig_LG05	14.947
Ca_Desig_SNP2301	[T/G]	Ca_Desig_LG05	15.061

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP2302	[T/C]	<i>Ca_Desi_LG05</i>	15.267
Ca_Desi_SNP2303	[A/T]	<i>Ca_Desi_LG05</i>	15.634
Ca_Desi_SNP2304	[T/C]	<i>Ca_Desi_LG05</i>	15.947
Ca_Desi_SNP2305	[T/A]	<i>Ca_Desi_LG05</i>	15.994
Ca_Desi_SNP2306	[T/C]	<i>Ca_Desi_LG05</i>	16.773
Ca_Desi_SNP2307	[C/T]	<i>Ca_Desi_LG05</i>	16.975
Ca_Desi_SNP2308	[C/T]	<i>Ca_Desi_LG05</i>	17.521
Ca_Desi_SNP2309	[T/C]	<i>Ca_Desi_LG05</i>	18.122
Ca_Desi_SNP2310	[T/C]	<i>Ca_Desi_LG05</i>	18.201
Ca_Desi_SNP2311	[T/C]	<i>Ca_Desi_LG05</i>	18.461
Ca_Desi_SNP2312	[G/A]	<i>Ca_Desi_LG05</i>	18.515
Ca_Desi_SNP2313	[C/T]	<i>Ca_Desi_LG05</i>	18.744
Ca_Desi_SNP2314	[A/G]	<i>Ca_Desi_LG05</i>	18.990
Ca_Desi_SNP2315	[T/C]	<i>Ca_Desi_LG05</i>	19.374
Ca_Desi_SNP2316	[A/G]	<i>Ca_Desi_LG05</i>	19.377
Ca_Desi_SNP2317	[T/G]	<i>Ca_Desi_LG05</i>	20.006
Ca_Desi_SNP2318	[A/G]	<i>Ca_Desi_LG05</i>	20.039
Ca_Desi_SNP2319	[C/T]	<i>Ca_Desi_LG05</i>	20.102
Ca_Desi_SNP2320	[T/C]	<i>Ca_Desi_LG05</i>	20.388
Ca_Desi_SNP2321	[A/G]	<i>Ca_Desi_LG05</i>	20.476
Ca_Desi_SNP2322	[C/T]	<i>Ca_Desi_LG05</i>	20.608
Ca_Desi_SNP2323	[A/G]	<i>Ca_Desi_LG05</i>	20.810
Ca_Desi_SNP2324	[C/T]	<i>Ca_Desi_LG05</i>	21.302
Ca_Desi_SNP2325	[A/G]	<i>Ca_Desi_LG05</i>	21.626
Ca_Desi_SNP2326	[C/T]	<i>Ca_Desi_LG05</i>	21.885
Ca_Desi_SNP2327	[A/G]	<i>Ca_Desi_LG05</i>	22.069
Ca_Desi_SNP2328	[A/G]	<i>Ca_Desi_LG05</i>	22.091
Ca_Desi_SNP2329	[A/C]	<i>Ca_Desi_LG05</i>	22.126
Ca_Desi_SNP2330	[A/G]	<i>Ca_Desi_LG05</i>	22.612
Ca_Desi_SNP2331	[C/T]	<i>Ca_Desi_LG05</i>	22.874
Ca_Desi_SNP2332	[G/T]	<i>Ca_Desi_LG05</i>	23.046
Ca_Desi_SNP2333	[A/T]	<i>Ca_Desi_LG05</i>	23.367
Ca_Desi_SNP2334	[T/C]	<i>Ca_Desi_LG05</i>	23.683
Ca_Desi_SNP2335	[T/G]	<i>Ca_Desi_LG05</i>	23.744
Ca_Desi_SNP2336	[T/C]	<i>Ca_Desi_LG05</i>	23.792
Ca_Desi_SNP2337	[T/A]	<i>Ca_Desi_LG05</i>	23.805
Ca_Desi_SNP2338	[C/G]	<i>Ca_Desi_LG05</i>	24.875
Ca_Desi_SNP2339	[T/C]	<i>Ca_Desi_LG05</i>	25.012
Ca_Desi_SNP2340	[A/C]	<i>Ca_Desi_LG05</i>	25.029
Ca_Desi_SNP2341	[C/T]	<i>Ca_Desi_LG05</i>	25.833
Ca_Desi_SNP2342	[A/G]	<i>Ca_Desi_LG05</i>	25.834
Ca_Desi_SNP2343	[A/G]	<i>Ca_Desi_LG05</i>	25.948
Ca_Desi_SNP2344	[G/A]	<i>Ca_Desi_LG05</i>	26.237
Ca_Desi_SNP2345	[A/C]	<i>Ca_Desi_LG05</i>	26.679
Ca_Desi_SNP2346	[G/A]	<i>Ca_Desi_LG05</i>	26.766
Ca_Desi_SNP2347	[A/G]	<i>Ca_Desi_LG05</i>	26.913
Ca_Desi_SNP2348	[T/G]	<i>Ca_Desi_LG05</i>	27.507
Ca_Desi_SNP2349	[A/G]	<i>Ca_Desi_LG05</i>	27.515

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP2350	[G/A]	Ca_Desig_LG05	27.620
Ca_Desig_SNP2351	[A/C]	Ca_Desig_LG05	27.755
Ca_Desig_SNP2352	[G/A]	Ca_Desig_LG05	27.865
Ca_Desig_SNP2353	[T/G]	Ca_Desig_LG05	28.042
Ca_Desig_SNP2354	[C/T]	Ca_Desig_LG05	28.115
Ca_Desig_SNP2355	[A/T]	Ca_Desig_LG05	28.564
Ca_Desig_SNP2356	[T/G]	Ca_Desig_LG05	28.659
Ca_Desig_SNP2357	[C/T]	Ca_Desig_LG05	29.214
Ca_Desig_SNP2358	[A/G]	Ca_Desig_LG05	29.997
Ca_Desig_SNP2359	[T/A]	Ca_Desig_LG05	30.007
Ca_Desig_SNP2360	[T/A]	Ca_Desig_LG05	30.039
Ca_Desig_SNP2361	[G/T]	Ca_Desig_LG05	31.332
Ca_Desig_SNP2362	[T/C]	Ca_Desig_LG05	31.552
Ca_Desig_SNP2363	[C/A]	Ca_Desig_LG05	32.027
Ca_Desig_SNP2364	[T/G]	Ca_Desig_LG05	32.574
Ca_Desig_SNP2365	[A/T]	Ca_Desig_LG05	33.214
Ca_Desig_SNP2366	[G/A]	Ca_Desig_LG05	33.498
Ca_Desig_SNP2367	[A/C]	Ca_Desig_LG05	33.777
Ca_Desig_SNP2368	[A/G]	Ca_Desig_LG05	33.814
Ca_Desig_SNP2369	[C/T]	Ca_Desig_LG05	34.433
Ca_Desig_SNP2370	[C/G]	Ca_Desig_LG05	34.453
Ca_Desig_SNP2371	[A/C]	Ca_Desig_LG05	34.668
Ca_Desig_SNP2372	[G/T]	Ca_Desig_LG05	34.704
Ca_Desig_SNP2373	[T/C]	Ca_Desig_LG05	34.902
Ca_Desig_SNP2374	[G/T]	Ca_Desig_LG05	34.985
Ca_Desig_SNP2375	[T/C]	Ca_Desig_LG05	35.008
Ca_Desig_SNP2376	[G/C]	Ca_Desig_LG05	35.011
Ca_Desig_SNP2377	[C/G]	Ca_Desig_LG05	35.250
Ca_Desig_SNP2378	[A/C]	Ca_Desig_LG05	35.404
Ca_Desig_SNP2379	[C/T]	Ca_Desig_LG05	35.604
Ca_Desig_SNP2380	[G/A]	Ca_Desig_LG05	35.638
Ca_Desig_SNP2381	[A/G]	Ca_Desig_LG05	35.649
Ca_Desig_SNP2382	[G/T]	Ca_Desig_LG05	35.968
Ca_Desig_SNP2383	[T/C]	Ca_Desig_LG05	36.068
Ca_Desig_SNP2384	[T/C]	Ca_Desig_LG05	36.106
Ca_Desig_SNP2385	[C/T]	Ca_Desig_LG05	36.889
Ca_Desig_SNP2386	[T/G]	Ca_Desig_LG05	36.895
Ca_Desig_SNP2387	[G/A]	Ca_Desig_LG05	36.943
Ca_Desig_SNP2388	[A/C]	Ca_Desig_LG05	37.002
Ca_Desig_SNP2389	[A/C]	Ca_Desig_LG05	37.108
Ca_Desig_SNP2390	[T/C]	Ca_Desig_LG05	37.189
Ca_Desig_SNP2391	[C/T]	Ca_Desig_LG05	37.305
Ca_Desig_SNP2392	[C/T]	Ca_Desig_LG05	37.314
Ca_Desig_SNP2393	[T/G]	Ca_Desig_LG05	37.445
Ca_Desig_SNP2394	[A/G]	Ca_Desig_LG05	37.901
Ca_Desig_SNP2395	[T/A]	Ca_Desig_LG05	37.996
Ca_Desig_SNP2396	[C/A]	Ca_Desig_LG05	38.152
Ca_Desig_SNP2397	[T/G]	Ca_Desig_LG05	38.257

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP2398	[C/G]	<i>Ca_Desi_LG05</i>	38.350
Ca_Desi_SNP2399	[T/G]	<i>Ca_Desi_LG05</i>	38.527
Ca_Desi_SNP2400	[G/A]	<i>Ca_Desi_LG05</i>	39.007
Ca_Desi_SNP2401	[T/C]	<i>Ca_Desi_LG05</i>	39.380
Ca_Desi_SNP2402	[A/G]	<i>Ca_Desi_LG05</i>	39.395
Ca_Desi_SNP2403	[T/G]	<i>Ca_Desi_LG05</i>	39.652
Ca_Desi_SNP2404	[T/C]	<i>Ca_Desi_LG05</i>	39.691
Ca_Desi_SNP2405	[C/T]	<i>Ca_Desi_LG05</i>	39.882
Ca_Desi_SNP2406	[T/G]	<i>Ca_Desi_LG05</i>	40.430
Ca_Desi_SNP2407	[T/C]	<i>Ca_Desi_LG05</i>	40.572
Ca_Desi_SNP2408	[G/T]	<i>Ca_Desi_LG05</i>	40.625
Ca_Desi_SNP2409	[A/C]	<i>Ca_Desi_LG05</i>	40.937
Ca_Desi_SNP2410	[T/C]	<i>Ca_Desi_LG05</i>	40.983
Ca_Desi_SNP2411	[G/C]	<i>Ca_Desi_LG05</i>	41.508
Ca_Desi_SNP2412	[G/T]	<i>Ca_Desi_LG05</i>	41.640
Ca_Desi_SNP2413	[A/C]	<i>Ca_Desi_LG05</i>	41.930
Ca_Desi_SNP2414	[A/C]	<i>Ca_Desi_LG05</i>	41.941
Ca_Desi_SNP2415	[G/A]	<i>Ca_Desi_LG05</i>	41.971
Ca_Desi_SNP2416	[T/G]	<i>Ca_Desi_LG05</i>	42.064
Ca_Desi_SNP2417	[C/A]	<i>Ca_Desi_LG05</i>	42.238
Ca_Desi_SNP2418	[T/G]	<i>Ca_Desi_LG05</i>	42.700
Ca_Desi_SNP2419	[G/A]	<i>Ca_Desi_LG05</i>	43.661
Ca_Desi_SNP2420	[G/A]	<i>Ca_Desi_LG05</i>	43.836
Ca_Desi_SNP2421	[A/C]	<i>Ca_Desi_LG05</i>	43.993
Ca_Desi_SNP2422	[G/T]	<i>Ca_Desi_LG05</i>	44.208
Ca_Desi_SNP2423	[G/T]	<i>Ca_Desi_LG05</i>	44.474
Ca_Desi_SNP2424	[A/T]	<i>Ca_Desi_LG05</i>	45.017
Ca_Desi_SNP2425	[T/G]	<i>Ca_Desi_LG05</i>	45.090
Ca_Desi_SNP2426	[T/C]	<i>Ca_Desi_LG05</i>	45.127
Ca_Desi_SNP2427	[T/C]	<i>Ca_Desi_LG05</i>	45.579
Ca_Desi_SNP2428	[A/G]	<i>Ca_Desi_LG05</i>	46.096
Ca_Desi_SNP2429	[C/T]	<i>Ca_Desi_LG05</i>	46.430
Ca_Desi_SNP2430	[C/A]	<i>Ca_Desi_LG05</i>	46.470
Ca_Desi_SNP2431	[C/T]	<i>Ca_Desi_LG05</i>	46.514
Ca_Desi_SNP2432	[C/A]	<i>Ca_Desi_LG05</i>	46.522
Ca_Desi_SNP2433	[A/G]	<i>Ca_Desi_LG05</i>	46.535
Ca_Desi_SNP2434	[T/C]	<i>Ca_Desi_LG05</i>	46.614
Ca_Desi_SNP2435	[C/T]	<i>Ca_Desi_LG05</i>	46.789
Ca_Desi_SNP2436	[A/C]	<i>Ca_Desi_LG05</i>	46.977
Ca_Desi_SNP2437	[C/A]	<i>Ca_Desi_LG05</i>	46.991
Ca_Desi_SNP2438	[A/C]	<i>Ca_Desi_LG05</i>	47.050
Ca_Desi_SNP2439	[T/G]	<i>Ca_Desi_LG05</i>	47.203
Ca_Desi_SNP2440	[A/T]	<i>Ca_Desi_LG05</i>	47.589
Ca_Desi_SNP2441	[A/G]	<i>Ca_Desi_LG05</i>	47.792
Ca_Desi_SNP2442	[A/G]	<i>Ca_Desi_LG05</i>	47.806
Ca_Desi_SNP2443	[A/G]	<i>Ca_Desi_LG05</i>	48.249
Ca_Desi_SNP2444	[G/A]	<i>Ca_Desi_LG05</i>	48.347
Ca_Desi_SNP2445	[T/A]	<i>Ca_Desi_LG05</i>	48.659

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP2446	[C/T]	<i>Ca_Desi_LG05</i>	48.732
Ca_Desi_SNP2447	[G/A]	<i>Ca_Desi_LG05</i>	48.949
Ca_Desi_SNP2448	[C/A]	<i>Ca_Desi_LG05</i>	49.043
Ca_Desi_SNP2449	[C/A]	<i>Ca_Desi_LG05</i>	49.632
Ca_Desi_SNP2450	[A/G]	<i>Ca_Desi_LG05</i>	50.011
Ca_Desi_SNP2451	[T/C]	<i>Ca_Desi_LG05</i>	50.109
Ca_Desi_SNP2452	[A/G]	<i>Ca_Desi_LG05</i>	50.131
Ca_Desi_SNP2453	[A/C]	<i>Ca_Desi_LG05</i>	50.337
Ca_Desi_SNP2454	[A/G]	<i>Ca_Desi_LG05</i>	50.490
Ca_Desi_SNP2455	[C/T]	<i>Ca_Desi_LG05</i>	50.635
Ca_Desi_SNP2456	[C/A]	<i>Ca_Desi_LG05</i>	50.996
Ca_Desi_SNP2457	[G/T]	<i>Ca_Desi_LG05</i>	51.409
Ca_Desi_SNP2458	[A/G]	<i>Ca_Desi_LG05</i>	51.509
Ca_Desi_SNP2459	[A/G]	<i>Ca_Desi_LG05</i>	51.841
Ca_Desi_SNP2460	[A/C]	<i>Ca_Desi_LG05</i>	52.125
Ca_Desi_SNP2461	[T/G]	<i>Ca_Desi_LG05</i>	52.239
Ca_Desi_SNP2462	[A/C]	<i>Ca_Desi_LG05</i>	52.288
Ca_Desi_SNP2463	[C/A]	<i>Ca_Desi_LG05</i>	52.417
Ca_Desi_SNP2464	[A/G]	<i>Ca_Desi_LG05</i>	52.520
Ca_Desi_SNP2465	[T/A]	<i>Ca_Desi_LG05</i>	52.987
Ca_Desi_SNP2466	[A/G]	<i>Ca_Desi_LG05</i>	53.113
Ca_Desi_SNP2467	[A/G]	<i>Ca_Desi_LG05</i>	53.122
Ca_Desi_SNP2468	[A/G]	<i>Ca_Desi_LG05</i>	53.139
Ca_Desi_SNP2469	[G/A]	<i>Ca_Desi_LG05</i>	53.336
Ca_Desi_SNP2470	[T/G]	<i>Ca_Desi_LG05</i>	53.431
Ca_Desi_SNP2471	[C/T]	<i>Ca_Desi_LG05</i>	53.468
Ca_Desi_SNP2472	[G/T]	<i>Ca_Desi_LG05</i>	53.566
Ca_Desi_SNP2473	[A/C]	<i>Ca_Desi_LG05</i>	53.576
Ca_Desi_SNP2474	[A/C]	<i>Ca_Desi_LG05</i>	54.164
Ca_Desi_SNP2475	[A/G]	<i>Ca_Desi_LG05</i>	55.078
Ca_Desi_SNP2476	[A/C]	<i>Ca_Desi_LG05</i>	55.348
Ca_Desi_SNP2477	[A/G]	<i>Ca_Desi_LG05</i>	55.537
Ca_Desi_SNP2478	[C/G]	<i>Ca_Desi_LG05</i>	55.708
Ca_Desi_SNP2479	[G/A]	<i>Ca_Desi_LG05</i>	55.940
Ca_Desi_SNP2480	[A/T]	<i>Ca_Desi_LG05</i>	56.037
Ca_Desi_SNP2481	[A/C]	<i>Ca_Desi_LG05</i>	56.450
Ca_Desi_SNP2482	[A/C]	<i>Ca_Desi_LG05</i>	56.754
Ca_Desi_SNP2483	[T/C]	<i>Ca_Desi_LG05</i>	56.862
Ca_Desi_SNP2484	[A/G]	<i>Ca_Desi_LG05</i>	57.089
Ca_Desi_SNP2485	[A/G]	<i>Ca_Desi_LG05</i>	57.220
Ca_Desi_SNP2486	[T/G]	<i>Ca_Desi_LG05</i>	57.359
Ca_Desi_SNP2487	[A/G]	<i>Ca_Desi_LG05</i>	57.598
Ca_Desi_SNP2488	[T/C]	<i>Ca_Desi_LG05</i>	57.907
Ca_Desi_SNP2489	[T/A]	<i>Ca_Desi_LG05</i>	57.987
Ca_Desi_SNP2490	[C/G]	<i>Ca_Desi_LG05</i>	58.056
Ca_Desi_SNP2491	[G/T]	<i>Ca_Desi_LG05</i>	58.138
Ca_Desi_SNP2492	[T/C]	<i>Ca_Desi_LG05</i>	58.349
Ca_Desi_SNP2493	[T/C]	<i>Ca_Desi_LG05</i>	58.382

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP2494	[A/G]	Ca_Desig_LG05	58.522
Ca_Desig_SNP2495	[T/A]	Ca_Desig_LG05	58.542
Ca_Desig_SNP2496	[A/C]	Ca_Desig_LG05	58.639
Ca_Desig_SNP2497	[T/G]	Ca_Desig_LG05	58.666
Ca_Desig_SNP2498	[C/T]	Ca_Desig_LG05	58.877
Ca_Desig_SNP2499	[C/T]	Ca_Desig_LG05	58.958
Ca_Desig_SNP2500	[A/G]	Ca_Desig_LG05	59.080
Ca_Desig_SNP2501	[T/G]	Ca_Desig_LG05	59.477
Ca_Desig_SNP2502	[A/G]	Ca_Desig_LG05	60.009
Ca_Desig_SNP2503	[G/A]	Ca_Desig_LG05	60.327
Ca_Desig_SNP2504	[A/T]	Ca_Desig_LG05	60.379
Ca_Desig_SNP2505	[A/T]	Ca_Desig_LG05	61.296
Ca_Desig_SNP2506	[A/G]	Ca_Desig_LG05	61.498
Ca_Desig_SNP2507	[A/C]	Ca_Desig_LG05	61.524
Ca_Desig_SNP2508	[G/A]	Ca_Desig_LG05	62.042
Ca_Desig_SNP2509	[T/A]	Ca_Desig_LG05	62.477
Ca_Desig_SNP2510	[T/G]	Ca_Desig_LG05	62.621
Ca_Desig_SNP2511	[A/G]	Ca_Desig_LG05	62.871
Ca_Desig_SNP2512	[G/A]	Ca_Desig_LG05	62.970
Ca_Desig_SNP2513	[G/T]	Ca_Desig_LG05	63.093
Ca_Desig_SNP2514	[A/G]	Ca_Desig_LG05	63.503
Ca_Desig_SNP2515	[T/C]	Ca_Desig_LG05	63.914
Ca_Desig_SNP2516	[T/C]	Ca_Desig_LG05	64.778
Ca_Desig_SNP2517	[G/T]	Ca_Desig_LG05	64.950
Ca_Desig_SNP2518	[T/G]	Ca_Desig_LG05	65.084
Ca_Desig_SNP2519	[A/C]	Ca_Desig_LG05	65.211
Ca_Desig_SNP2520	[T/C]	Ca_Desig_LG05	65.704
Ca_Desig_SNP2521	[T/C]	Ca_Desig_LG05	66.210
Ca_Desig_SNP2522	[T/C]	Ca_Desig_LG05	66.340
Ca_Desig_SNP2523	[T/C]	Ca_Desig_LG05	67.118
Ca_Desig_SNP2524	[A/G]	Ca_Desig_LG05	67.128
Ca_Desig_SNP2525	[G/A]	Ca_Desig_LG05	67.397
Ca_Desig_SNP2526	[T/C]	Ca_Desig_LG05	67.550
Ca_Desig_SNP2527	[T/C]	Ca_Desig_LG05	67.909
Ca_Desig_SNP2528	[A/C]	Ca_Desig_LG05	68.591
Ca_Desig_SNP2529	[T/G]	Ca_Desig_LG05	68.821
Ca_Desig_SNP2530	[T/G]	Ca_Desig_LG05	68.973
Ca_Desig_SNP2531	[T/C]	Ca_Desig_LG05	69.183
Ca_Desig_SNP2532	[A/C]	Ca_Desig_LG05	69.732
Ca_Desig_SNP2533	[A/G]	Ca_Desig_LG05	70.021
Ca_Desig_SNP2534	[A/C]	Ca_Desig_LG05	70.210
Ca_Desig_SNP2535	[G/T]	Ca_Desig_LG05	70.290
Ca_Desig_SNP2536	[T/G]	Ca_Desig_LG05	70.500
Ca_Desig_SNP2537	[C/T]	Ca_Desig_LG05	70.547
Ca_Desig_SNP2538	[T/G]	Ca_Desig_LG05	70.600
Ca_Desig_SNP2539	[C/T]	Ca_Desig_LG05	70.612
Ca_Desig_SNP2540	[C/T]	Ca_Desig_LG05	70.696
Ca_Desig_SNP2541	[A/G]	Ca_Desig_LG05	71.736

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP2542	[A/C]	Ca_Desig_LG05	72.170
Ca_Desig_SNP2543	[T/G]	Ca_Desig_LG05	72.439
Ca_Desig_SNP2544	[G/C]	Ca_Desig_LG05	72.464
Ca_Desig_SNP2545	[G/A]	Ca_Desig_LG05	72.629
Ca_Desig_SNP2546	[A/G]	Ca_Desig_LG05	73.403
Ca_Desig_SNP2547	[A/G]	Ca_Desig_LG05	73.479
Ca_Desig_SNP2548	[A/C]	Ca_Desig_LG05	73.532
Ca_Desig_SNP2549	[C/T]	Ca_Desig_LG05	74.330
Ca_Desig_SNP2550	[A/G]	Ca_Desig_LG05	74.490
Ca_Desig_SNP2551	[T/C]	Ca_Desig_LG05	74.829
Ca_Desig_SNP2552	[A/C]	Ca_Desig_LG05	74.934
Ca_Desig_SNP2553	[A/C]	Ca_Desig_LG05	75.585
Ca_Desig_SNP2554	[T/C]	Ca_Desig_LG05	75.857
Ca_Desig_SNP2555	[A/C]	Ca_Desig_LG05	76.213
Ca_Desig_SNP2556	[A/T]	Ca_Desig_LG05	76.770
Ca_Desig_SNP2557	[G/C]	Ca_Desig_LG05	76.802
Ca_Desig_SNP2558	[T/A]	Ca_Desig_LG05	77.003
Ca_Desig_SNP2559	[C/A]	Ca_Desig_LG05	77.188
Ca_Desig_SNP2560	[T/C]	Ca_Desig_LG05	77.195
Ca_Desig_SNP2561	[T/C]	Ca_Desig_LG05	77.911
Ca_Desig_SNP2562	[T/C]	Ca_Desig_LG05	78.024
Ca_Desig_SNP2563	[G/A]	Ca_Desig_LG05	78.207
Ca_Desig_SNP2564	[G/A]	Ca_Desig_LG05	78.250
Ca_Desig_SNP2565	[T/C]	Ca_Desig_LG05	79.720
Ca_Desig_SNP2566	[C/T]	Ca_Desig_LG05	79.861
Ca_Desig_SNP2567	[C/G]	Ca_Desig_LG05	82.027
Ca_Desig_SNP2568	[A/T]	Ca_Desig_LG05	83.557
Ca_Desig_SNP2569	[A/C]	Ca_Desig_LG05	84.955
Ca_Desig_SNP2570	[C/T]	Ca_Desig_LG05	84.994
Ca_Desig_SNP2571	[T/C]	Ca_Desig_LG05	85.313
Ca_Desig_SNP2572	[G/T]	Ca_Desig_LG05	86.979
Ca_Desig_SNP2573	[G/A]	Ca_Desig_LG05	89.402
Ca_Desig_SNP2574	[T/G]	Ca_Desig_LG05	94.059
Ca_Desig_SNP2575	[A/C]	Ca_Desig_LG05	94.069
Ca_Desig_SNP2576	[C/A]	Ca_Desig_LG06	0.000
Ca_Desig_SNP2577	[A/G]	Ca_Desig_LG06	0.105
Ca_Desig_SNP2578	[C/A]	Ca_Desig_LG06	0.122
Ca_Desig_SNP2579	[C/G]	Ca_Desig_LG06	0.565
Ca_Desig_SNP2580	[A/G]	Ca_Desig_LG06	0.745
Ca_Desig_SNP2581	[A/G]	Ca_Desig_LG06	3.184
Ca_Desig_SNP2582	[C/A]	Ca_Desig_LG06	3.440
Ca_Desig_SNP2583	[T/G]	Ca_Desig_LG06	4.550
Ca_Desig_SNP2584	[T/G]	Ca_Desig_LG06	4.790
Ca_Desig_SNP2585	[A/G]	Ca_Desig_LG06	5.066
Ca_Desig_SNP2586	[C/G]	Ca_Desig_LG06	5.078
Ca_Desig_SNP2587	[C/T]	Ca_Desig_LG06	5.448
Ca_Desig_SNP2588	[A/G]	Ca_Desig_LG06	6.020
Ca_Desig_SNP2589	[A/C]	Ca_Desig_LG06	6.572

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP2590	[T/C]	<i>Ca_Desi_LG06</i>	6.673
Ca_Desi_SNP2591	[A/G]	<i>Ca_Desi_LG06</i>	6.868
Ca_Desi_SNP2592	[C/A]	<i>Ca_Desi_LG06</i>	7.149
Ca_Desi_SNP2593	[G/T]	<i>Ca_Desi_LG06</i>	7.595
Ca_Desi_SNP2594	[T/C]	<i>Ca_Desi_LG06</i>	8.146
Ca_Desi_SNP2595	[A/G]	<i>Ca_Desi_LG06</i>	8.328
Ca_Desi_SNP2596	[C/T]	<i>Ca_Desi_LG06</i>	8.995
Ca_Desi_SNP2597	[A/G]	<i>Ca_Desi_LG06</i>	9.261
Ca_Desi_SNP2598	[G/A]	<i>Ca_Desi_LG06</i>	9.373
Ca_Desi_SNP2599	[C/A]	<i>Ca_Desi_LG06</i>	9.581
Ca_Desi_SNP2600	[T/G]	<i>Ca_Desi_LG06</i>	9.637
Ca_Desi_SNP2601	[G/T]	<i>Ca_Desi_LG06</i>	9.735
Ca_Desi_SNP2602	[T/C]	<i>Ca_Desi_LG06</i>	10.228
Ca_Desi_SNP2603	[T/C]	<i>Ca_Desi_LG06</i>	10.295
Ca_Desi_SNP2604	[A/G]	<i>Ca_Desi_LG06</i>	10.389
Ca_Desi_SNP2605	[A/C]	<i>Ca_Desi_LG06</i>	10.414
Ca_Desi_SNP2606	[T/G]	<i>Ca_Desi_LG06</i>	10.777
Ca_Desi_SNP2607	[T/A]	<i>Ca_Desi_LG06</i>	10.924
Ca_Desi_SNP2608	[T/G]	<i>Ca_Desi_LG06</i>	10.981
Ca_Desi_SNP2609	[G/A]	<i>Ca_Desi_LG06</i>	11.505
Ca_Desi_SNP2610	[G/A]	<i>Ca_Desi_LG06</i>	11.552
Ca_Desi_SNP2611	[A/C]	<i>Ca_Desi_LG06</i>	12.101
Ca_Desi_SNP2612	[G/A]	<i>Ca_Desi_LG06</i>	12.721
Ca_Desi_SNP2613	[T/C]	<i>Ca_Desi_LG06</i>	12.767
Ca_Desi_SNP2614	[G/T]	<i>Ca_Desi_LG06</i>	12.823
Ca_Desi_SNP2615	[A/G]	<i>Ca_Desi_LG06</i>	12.966
Ca_Desi_SNP2616	[C/T]	<i>Ca_Desi_LG06</i>	13.102
Ca_Desi_SNP2617	[C/T]	<i>Ca_Desi_LG06</i>	13.145
Ca_Desi_SNP2618	[T/G]	<i>Ca_Desi_LG06</i>	13.808
Ca_Desi_SNP2619	[A/G]	<i>Ca_Desi_LG06</i>	14.051
Ca_Desi_SNP2620	[G/A]	<i>Ca_Desi_LG06</i>	14.080
Ca_Desi_SNP2621	[A/C]	<i>Ca_Desi_LG06</i>	14.088
Ca_Desi_SNP2622	[T/A]	<i>Ca_Desi_LG06</i>	14.108
Ca_Desi_SNP2623	[A/C]	<i>Ca_Desi_LG06</i>	14.222
Ca_Desi_SNP2624	[T/G]	<i>Ca_Desi_LG06</i>	14.772
Ca_Desi_SNP2625	[A/G]	<i>Ca_Desi_LG06</i>	14.983
Ca_Desi_SNP2626	[C/G]	<i>Ca_Desi_LG06</i>	15.077
Ca_Desi_SNP2627	[A/G]	<i>Ca_Desi_LG06</i>	15.173
Ca_Desi_SNP2628	[A/T]	<i>Ca_Desi_LG06</i>	15.677
Ca_Desi_SNP2629	[A/G]	<i>Ca_Desi_LG06</i>	15.762
Ca_Desi_SNP2630	[T/G]	<i>Ca_Desi_LG06</i>	15.892
Ca_Desi_SNP2631	[T/G]	<i>Ca_Desi_LG06</i>	16.022
Ca_Desi_SNP2632	[A/G]	<i>Ca_Desi_LG06</i>	16.215
Ca_Desi_SNP2633	[T/C]	<i>Ca_Desi_LG06</i>	16.423
Ca_Desi_SNP2634	[A/G]	<i>Ca_Desi_LG06</i>	16.446
Ca_Desi_SNP2635	[A/G]	<i>Ca_Desi_LG06</i>	16.515
Ca_Desi_SNP2636	[C/T]	<i>Ca_Desi_LG06</i>	16.698
Ca_Desi_SNP2637	[T/A]	<i>Ca_Desi_LG06</i>	16.735

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP2638	[G/A]	Ca_Desig_LG06	16.891
Ca_Desig_SNP2639	[A/T]	Ca_Desig_LG06	16.974
Ca_Desig_SNP2640	[T/C]	Ca_Desig_LG06	16.987
Ca_Desig_SNP2641	[T/G]	Ca_Desig_LG06	17.034
Ca_Desig_SNP2642	[A/T]	Ca_Desig_LG06	17.263
Ca_Desig_SNP2643	[A/G]	Ca_Desig_LG06	17.679
Ca_Desig_SNP2644	[C/A]	Ca_Desig_LG06	18.083
Ca_Desig_SNP2645	[C/T]	Ca_Desig_LG06	18.170
Ca_Desig_SNP2646	[C/A]	Ca_Desig_LG06	18.197
Ca_Desig_SNP2647	[T/C]	Ca_Desig_LG06	18.372
Ca_Desig_SNP2648	[A/G]	Ca_Desig_LG06	18.788
Ca_Desig_SNP2649	[A/C]	Ca_Desig_LG06	18.808
Ca_Desig_SNP2650	[T/C]	Ca_Desig_LG06	18.812
Ca_Desig_SNP2651	[C/T]	Ca_Desig_LG06	18.818
Ca_Desig_SNP2652	[G/A]	Ca_Desig_LG06	18.822
Ca_Desig_SNP2653	[C/T]	Ca_Desig_LG06	18.838
Ca_Desig_SNP2654	[A/G]	Ca_Desig_LG06	19.128
Ca_Desig_SNP2655	[A/C]	Ca_Desig_LG06	19.290
Ca_Desig_SNP2656	[C/T]	Ca_Desig_LG06	19.483
Ca_Desig_SNP2657	[A/C]	Ca_Desig_LG06	19.873
Ca_Desig_SNP2658	[C/G]	Ca_Desig_LG06	19.941
Ca_Desig_SNP2659	[T/G]	Ca_Desig_LG06	20.284
Ca_Desig_SNP2660	[T/C]	Ca_Desig_LG06	20.435
Ca_Desig_SNP2661	[A/T]	Ca_Desig_LG06	20.481
Ca_Desig_SNP2662	[C/A]	Ca_Desig_LG06	20.848
Ca_Desig_SNP2663	[A/G]	Ca_Desig_LG06	21.060
Ca_Desig_SNP2664	[A/G]	Ca_Desig_LG06	21.227
Ca_Desig_SNP2665	[A/G]	Ca_Desig_LG06	21.265
Ca_Desig_SNP2666	[G/T]	Ca_Desig_LG06	21.309
Ca_Desig_SNP2667	[G/C]	Ca_Desig_LG06	21.373
Ca_Desig_SNP2668	[A/C]	Ca_Desig_LG06	21.409
Ca_Desig_SNP2669	[T/G]	Ca_Desig_LG06	21.547
Ca_Desig_SNP2670	[T/C]	Ca_Desig_LG06	21.913
Ca_Desig_SNP2671	[T/G]	Ca_Desig_LG06	22.052
Ca_Desig_SNP2672	[T/A]	Ca_Desig_LG06	22.242
Ca_Desig_SNP2673	[A/G]	Ca_Desig_LG06	22.246
Ca_Desig_SNP2674	[A/C]	Ca_Desig_LG06	22.421
Ca_Desig_SNP2675	[C/T]	Ca_Desig_LG06	22.486
Ca_Desig_SNP2676	[T/A]	Ca_Desig_LG06	22.672
Ca_Desig_SNP2677	[T/A]	Ca_Desig_LG06	23.419
Ca_Desig_SNP2678	[A/G]	Ca_Desig_LG06	23.454
Ca_Desig_SNP2679	[A/C]	Ca_Desig_LG06	23.931
Ca_Desig_SNP2680	[T/A]	Ca_Desig_LG06	24.029
Ca_Desig_SNP2681	[C/A]	Ca_Desig_LG06	24.040
Ca_Desig_SNP2682	[T/G]	Ca_Desig_LG06	24.259
Ca_Desig_SNP2683	[T/G]	Ca_Desig_LG06	24.392
Ca_Desig_SNP2684	[T/G]	Ca_Desig_LG06	24.410
Ca_Desig_SNP2685	[T/G]	Ca_Desig_LG06	24.419

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP2686	[T/C]	<i>Ca_Desi_LG06</i>	24.585
Ca_Desi_SNP2687	[A/G]	<i>Ca_Desi_LG06</i>	24.661
Ca_Desi_SNP2688	[C/T]	<i>Ca_Desi_LG06</i>	24.683
Ca_Desi_SNP2689	[A/C]	<i>Ca_Desi_LG06</i>	24.697
Ca_Desi_SNP2690	[C/T]	<i>Ca_Desi_LG06</i>	24.809
Ca_Desi_SNP2691	[G/T]	<i>Ca_Desi_LG06</i>	25.258
Ca_Desi_SNP2692	[T/A]	<i>Ca_Desi_LG06</i>	25.388
Ca_Desi_SNP2693	[T/C]	<i>Ca_Desi_LG06</i>	25.403
Ca_Desi_SNP2694	[A/C]	<i>Ca_Desi_LG06</i>	25.616
Ca_Desi_SNP2695	[A/C]	<i>Ca_Desi_LG06</i>	25.677
Ca_Desi_SNP2696	[C/T]	<i>Ca_Desi_LG06</i>	25.767
Ca_Desi_SNP2697	[C/T]	<i>Ca_Desi_LG06</i>	25.799
Ca_Desi_SNP2698	[G/C]	<i>Ca_Desi_LG06</i>	25.853
Ca_Desi_SNP2699	[T/C]	<i>Ca_Desi_LG06</i>	25.953
Ca_Desi_SNP2700	[A/G]	<i>Ca_Desi_LG06</i>	26.189
Ca_Desi_SNP2701	[A/G]	<i>Ca_Desi_LG06</i>	26.211
Ca_Desi_SNP2702	[T/G]	<i>Ca_Desi_LG06</i>	26.239
Ca_Desi_SNP2703	[C/T]	<i>Ca_Desi_LG06</i>	26.285
Ca_Desi_SNP2704	[C/T]	<i>Ca_Desi_LG06</i>	26.383
Ca_Desi_SNP2705	[G/A]	<i>Ca_Desi_LG06</i>	26.630
Ca_Desi_SNP2706	[A/G]	<i>Ca_Desi_LG06</i>	26.807
Ca_Desi_SNP2707	[T/G]	<i>Ca_Desi_LG06</i>	26.880
Ca_Desi_SNP2708	[T/G]	<i>Ca_Desi_LG06</i>	26.954
Ca_Desi_SNP2709	[A/C]	<i>Ca_Desi_LG06</i>	26.966
Ca_Desi_SNP2710	[A/G]	<i>Ca_Desi_LG06</i>	27.064
Ca_Desi_SNP2711	[T/G]	<i>Ca_Desi_LG06</i>	27.254
Ca_Desi_SNP2712	[C/T]	<i>Ca_Desi_LG06</i>	27.556
Ca_Desi_SNP2713	[C/T]	<i>Ca_Desi_LG06</i>	27.884
Ca_Desi_SNP2714	[C/A]	<i>Ca_Desi_LG06</i>	28.375
Ca_Desi_SNP2715	[A/C]	<i>Ca_Desi_LG06</i>	28.810
Ca_Desi_SNP2716	[T/G]	<i>Ca_Desi_LG06</i>	28.980
Ca_Desi_SNP2717	[C/A]	<i>Ca_Desi_LG06</i>	29.138
Ca_Desi_SNP2718	[G/A]	<i>Ca_Desi_LG06</i>	29.484
Ca_Desi_SNP2719	[A/C]	<i>Ca_Desi_LG06</i>	29.517
Ca_Desi_SNP2720	[G/A]	<i>Ca_Desi_LG06</i>	29.608
Ca_Desi_SNP2721	[C/A]	<i>Ca_Desi_LG06</i>	29.628
Ca_Desi_SNP2722	[A/C]	<i>Ca_Desi_LG06</i>	29.665
Ca_Desi_SNP2723	[G/C]	<i>Ca_Desi_LG06</i>	29.855
Ca_Desi_SNP2724	[G/A]	<i>Ca_Desi_LG06</i>	29.875
Ca_Desi_SNP2725	[G/A]	<i>Ca_Desi_LG06</i>	30.145
Ca_Desi_SNP2726	[G/A]	<i>Ca_Desi_LG06</i>	30.173
Ca_Desi_SNP2727	[C/A]	<i>Ca_Desi_LG06</i>	30.336
Ca_Desi_SNP2728	[C/T]	<i>Ca_Desi_LG06</i>	30.577
Ca_Desi_SNP2729	[T/A]	<i>Ca_Desi_LG06</i>	30.961
Ca_Desi_SNP2730	[C/G]	<i>Ca_Desi_LG06</i>	31.301
Ca_Desi_SNP2731	[A/G]	<i>Ca_Desi_LG06</i>	31.317
Ca_Desi_SNP2732	[C/T]	<i>Ca_Desi_LG06</i>	31.381
Ca_Desi_SNP2733	[T/A]	<i>Ca_Desi_LG06</i>	31.403

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP2734	[G/C]	<i>Ca_Desi_LG06</i>	31.413
Ca_Desi_SNP2735	[T/C]	<i>Ca_Desi_LG06</i>	31.443
Ca_Desi_SNP2736	[C/T]	<i>Ca_Desi_LG06</i>	31.646
Ca_Desi_SNP2737	[C/T]	<i>Ca_Desi_LG06</i>	31.649
Ca_Desi_SNP2738	[G/C]	<i>Ca_Desi_LG06</i>	31.935
Ca_Desi_SNP2739	[A/C]	<i>Ca_Desi_LG06</i>	32.148
Ca_Desi_SNP2740	[T/A]	<i>Ca_Desi_LG06</i>	32.308
Ca_Desi_SNP2741	[A/C]	<i>Ca_Desi_LG06</i>	32.316
Ca_Desi_SNP2742	[C/A]	<i>Ca_Desi_LG06</i>	32.950
Ca_Desi_SNP2743	[T/C]	<i>Ca_Desi_LG06</i>	33.070
Ca_Desi_SNP2744	[T/C]	<i>Ca_Desi_LG06</i>	33.278
Ca_Desi_SNP2745	[G/A]	<i>Ca_Desi_LG06</i>	33.320
Ca_Desi_SNP2746	[C/T]	<i>Ca_Desi_LG06</i>	33.462
Ca_Desi_SNP2747	[G/A]	<i>Ca_Desi_LG06</i>	33.583
Ca_Desi_SNP2748	[A/C]	<i>Ca_Desi_LG06</i>	34.054
Ca_Desi_SNP2749	[C/T]	<i>Ca_Desi_LG06</i>	34.525
Ca_Desi_SNP2750	[T/G]	<i>Ca_Desi_LG06</i>	34.712
Ca_Desi_SNP2751	[A/C]	<i>Ca_Desi_LG06</i>	34.823
Ca_Desi_SNP2752	[T/A]	<i>Ca_Desi_LG06</i>	34.856
Ca_Desi_SNP2753	[A/C]	<i>Ca_Desi_LG06</i>	35.055
Ca_Desi_SNP2754	[T/G]	<i>Ca_Desi_LG06</i>	35.444
Ca_Desi_SNP2755	[A/C]	<i>Ca_Desi_LG06</i>	35.541
Ca_Desi_SNP2756	[T/C]	<i>Ca_Desi_LG06</i>	35.860
Ca_Desi_SNP2757	[G/T]	<i>Ca_Desi_LG06</i>	35.894
Ca_Desi_SNP2758	[A/C]	<i>Ca_Desi_LG06</i>	35.988
Ca_Desi_SNP2759	[G/T]	<i>Ca_Desi_LG06</i>	35.989
Ca_Desi_SNP2760	[C/T]	<i>Ca_Desi_LG06</i>	36.576
Ca_Desi_SNP2761	[T/C]	<i>Ca_Desi_LG06</i>	36.685
Ca_Desi_SNP2762	[A/G]	<i>Ca_Desi_LG06</i>	36.868
Ca_Desi_SNP2763	[G/A]	<i>Ca_Desi_LG06</i>	37.069
Ca_Desi_SNP2764	[T/C]	<i>Ca_Desi_LG06</i>	37.103
Ca_Desi_SNP2765	[A/G]	<i>Ca_Desi_LG06</i>	37.199
Ca_Desi_SNP2766	[C/T]	<i>Ca_Desi_LG06</i>	37.225
Ca_Desi_SNP2767	[G/A]	<i>Ca_Desi_LG06</i>	37.517
Ca_Desi_SNP2768	[A/G]	<i>Ca_Desi_LG06</i>	37.574
Ca_Desi_SNP2769	[C/T]	<i>Ca_Desi_LG06</i>	37.587
Ca_Desi_SNP2770	[C/G]	<i>Ca_Desi_LG06</i>	37.703
Ca_Desi_SNP2771	[C/G]	<i>Ca_Desi_LG06</i>	37.828
Ca_Desi_SNP2772	[A/T]	<i>Ca_Desi_LG06</i>	37.987
Ca_Desi_SNP2773	[T/A]	<i>Ca_Desi_LG06</i>	38.109
Ca_Desi_SNP2774	[G/A]	<i>Ca_Desi_LG06</i>	38.353
Ca_Desi_SNP2775	[A/G]	<i>Ca_Desi_LG06</i>	38.398
Ca_Desi_SNP2776	[C/A]	<i>Ca_Desi_LG06</i>	38.707
Ca_Desi_SNP2777	[T/C]	<i>Ca_Desi_LG06</i>	38.738
Ca_Desi_SNP2778	[T/C]	<i>Ca_Desi_LG06</i>	39.011
Ca_Desi_SNP2779	[C/T]	<i>Ca_Desi_LG06</i>	39.014
Ca_Desi_SNP2780	[G/A]	<i>Ca_Desi_LG06</i>	39.117
Ca_Desi_SNP2781	[A/C]	<i>Ca_Desi_LG06</i>	39.450

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP2782	[G/A]	<i>Ca_Desi_LG06</i>	39.676
Ca_Desi_SNP2783	[T/A]	<i>Ca_Desi_LG06</i>	39.819
Ca_Desi_SNP2784	[T/G]	<i>Ca_Desi_LG06</i>	40.017
Ca_Desi_SNP2785	[C/T]	<i>Ca_Desi_LG06</i>	40.017
Ca_Desi_SNP2786	[C/T]	<i>Ca_Desi_LG06</i>	40.360
Ca_Desi_SNP2787	[A/G]	<i>Ca_Desi_LG06</i>	40.789
Ca_Desi_SNP2788	[G/T]	<i>Ca_Desi_LG06</i>	40.881
Ca_Desi_SNP2789	[T/C]	<i>Ca_Desi_LG06</i>	41.035
Ca_Desi_SNP2790	[A/G]	<i>Ca_Desi_LG06</i>	41.075
Ca_Desi_SNP2791	[T/C]	<i>Ca_Desi_LG06</i>	41.088
Ca_Desi_SNP2792	[T/A]	<i>Ca_Desi_LG06</i>	41.264
Ca_Desi_SNP2793	[T/C]	<i>Ca_Desi_LG06</i>	41.490
Ca_Desi_SNP2794	[C/A]	<i>Ca_Desi_LG06</i>	41.551
Ca_Desi_SNP2795	[C/A]	<i>Ca_Desi_LG06</i>	41.576
Ca_Desi_SNP2796	[C/T]	<i>Ca_Desi_LG06</i>	41.817
Ca_Desi_SNP2797	[G/A]	<i>Ca_Desi_LG06</i>	41.932
Ca_Desi_SNP2798	[A/G]	<i>Ca_Desi_LG06</i>	42.006
Ca_Desi_SNP2799	[A/C]	<i>Ca_Desi_LG06</i>	42.041
Ca_Desi_SNP2800	[G/A]	<i>Ca_Desi_LG06</i>	42.168
Ca_Desi_SNP2801	[A/T]	<i>Ca_Desi_LG06</i>	42.249
Ca_Desi_SNP2802	[C/T]	<i>Ca_Desi_LG06</i>	42.387
Ca_Desi_SNP2803	[C/T]	<i>Ca_Desi_LG06</i>	42.654
Ca_Desi_SNP2804	[G/T]	<i>Ca_Desi_LG06</i>	42.714
Ca_Desi_SNP2805	[C/T]	<i>Ca_Desi_LG06</i>	42.775
Ca_Desi_SNP2806	[T/G]	<i>Ca_Desi_LG06</i>	42.820
Ca_Desi_SNP2807	[T/C]	<i>Ca_Desi_LG06</i>	43.307
Ca_Desi_SNP2808	[A/C]	<i>Ca_Desi_LG06</i>	43.414
Ca_Desi_SNP2809	[A/G]	<i>Ca_Desi_LG06</i>	43.554
Ca_Desi_SNP2810	[T/C]	<i>Ca_Desi_LG06</i>	43.588
Ca_Desi_SNP2811	[T/C]	<i>Ca_Desi_LG06</i>	43.649
Ca_Desi_SNP2812	[T/G]	<i>Ca_Desi_LG06</i>	43.679
Ca_Desi_SNP2813	[G/A]	<i>Ca_Desi_LG06</i>	44.023
Ca_Desi_SNP2814	[A/G]	<i>Ca_Desi_LG06</i>	44.114
Ca_Desi_SNP2815	[A/G]	<i>Ca_Desi_LG06</i>	44.665
Ca_Desi_SNP2816	[T/C]	<i>Ca_Desi_LG06</i>	44.774
Ca_Desi_SNP2817	[C/T]	<i>Ca_Desi_LG06</i>	44.879
Ca_Desi_SNP2818	[A/C]	<i>Ca_Desi_LG06</i>	44.881
Ca_Desi_SNP2819	[A/C]	<i>Ca_Desi_LG06</i>	45.109
Ca_Desi_SNP2820	[T/C]	<i>Ca_Desi_LG06</i>	45.170
Ca_Desi_SNP2821	[G/A]	<i>Ca_Desi_LG06</i>	45.229
Ca_Desi_SNP2822	[T/C]	<i>Ca_Desi_LG06</i>	45.231
Ca_Desi_SNP2823	[T/C]	<i>Ca_Desi_LG06</i>	45.469
Ca_Desi_SNP2824	[G/T]	<i>Ca_Desi_LG06</i>	45.490
Ca_Desi_SNP2825	[A/G]	<i>Ca_Desi_LG06</i>	45.510
Ca_Desi_SNP2826	[C/T]	<i>Ca_Desi_LG06</i>	45.532
Ca_Desi_SNP2827	[G/T]	<i>Ca_Desi_LG06</i>	45.588
Ca_Desi_SNP2828	[T/A]	<i>Ca_Desi_LG06</i>	45.683
Ca_Desi_SNP2829	[A/G]	<i>Ca_Desi_LG06</i>	45.728

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP2830	[T/C]	<i>Ca_Desi_LG06</i>	45.752
Ca_Desi_SNP2831	[T/C]	<i>Ca_Desi_LG06</i>	45.796
Ca_Desi_SNP2832	[T/C]	<i>Ca_Desi_LG06</i>	45.857
Ca_Desi_SNP2833	[G/A]	<i>Ca_Desi_LG06</i>	46.039
Ca_Desi_SNP2834	[G/A]	<i>Ca_Desi_LG06</i>	46.146
Ca_Desi_SNP2835	[A/C]	<i>Ca_Desi_LG06</i>	46.160
Ca_Desi_SNP2836	[A/G]	<i>Ca_Desi_LG06</i>	46.577
Ca_Desi_SNP2837	[A/C]	<i>Ca_Desi_LG06</i>	46.666
Ca_Desi_SNP2838	[C/T]	<i>Ca_Desi_LG06</i>	46.711
Ca_Desi_SNP2839	[A/C]	<i>Ca_Desi_LG06</i>	46.750
Ca_Desi_SNP2840	[A/T]	<i>Ca_Desi_LG06</i>	46.780
Ca_Desi_SNP2841	[A/G]	<i>Ca_Desi_LG06</i>	46.794
Ca_Desi_SNP2842	[T/A]	<i>Ca_Desi_LG06</i>	46.807
Ca_Desi_SNP2843	[T/G]	<i>Ca_Desi_LG06</i>	47.138
Ca_Desi_SNP2844	[G/A]	<i>Ca_Desi_LG06</i>	47.667
Ca_Desi_SNP2845	[A/C]	<i>Ca_Desi_LG06</i>	47.682
Ca_Desi_SNP2846	[A/T]	<i>Ca_Desi_LG06</i>	47.695
Ca_Desi_SNP2847	[A/C]	<i>Ca_Desi_LG06</i>	48.051
Ca_Desi_SNP2848	[A/G]	<i>Ca_Desi_LG06</i>	48.306
Ca_Desi_SNP2849	[T/G]	<i>Ca_Desi_LG06</i>	48.449
Ca_Desi_SNP2850	[T/C]	<i>Ca_Desi_LG06</i>	48.876
Ca_Desi_SNP2851	[C/G]	<i>Ca_Desi_LG06</i>	48.931
Ca_Desi_SNP2852	[A/C]	<i>Ca_Desi_LG06</i>	49.123
Ca_Desi_SNP2853	[T/A]	<i>Ca_Desi_LG06</i>	49.242
Ca_Desi_SNP2854	[G/A]	<i>Ca_Desi_LG06</i>	49.284
Ca_Desi_SNP2855	[T/C]	<i>Ca_Desi_LG06</i>	49.692
Ca_Desi_SNP2856	[G/T]	<i>Ca_Desi_LG06</i>	49.796
Ca_Desi_SNP2857	[A/G]	<i>Ca_Desi_LG06</i>	49.970
Ca_Desi_SNP2858	[G/C]	<i>Ca_Desi_LG06</i>	50.111
Ca_Desi_SNP2859	[T/G]	<i>Ca_Desi_LG06</i>	50.172
Ca_Desi_SNP2860	[C/T]	<i>Ca_Desi_LG06</i>	50.698
Ca_Desi_SNP2861	[T/C]	<i>Ca_Desi_LG06</i>	50.758
Ca_Desi_SNP2862	[T/C]	<i>Ca_Desi_LG06</i>	50.820
Ca_Desi_SNP2863	[A/G]	<i>Ca_Desi_LG06</i>	51.156
Ca_Desi_SNP2864	[A/C]	<i>Ca_Desi_LG06</i>	51.292
Ca_Desi_SNP2865	[T/G]	<i>Ca_Desi_LG06</i>	51.315
Ca_Desi_SNP2866	[A/G]	<i>Ca_Desi_LG06</i>	51.944
Ca_Desi_SNP2867	[C/A]	<i>Ca_Desi_LG06</i>	51.946
Ca_Desi_SNP2868	[A/C]	<i>Ca_Desi_LG06</i>	51.965
Ca_Desi_SNP2869	[T/C]	<i>Ca_Desi_LG06</i>	52.199
Ca_Desi_SNP2870	[T/C]	<i>Ca_Desi_LG06</i>	52.641
Ca_Desi_SNP2871	[A/C]	<i>Ca_Desi_LG06</i>	52.658
Ca_Desi_SNP2872	[G/A]	<i>Ca_Desi_LG06</i>	52.909
Ca_Desi_SNP2873	[T/C]	<i>Ca_Desi_LG06</i>	52.993
Ca_Desi_SNP2874	[T/C]	<i>Ca_Desi_LG06</i>	53.028
Ca_Desi_SNP2875	[T/C]	<i>Ca_Desi_LG06</i>	53.311
Ca_Desi_SNP2876	[C/T]	<i>Ca_Desi_LG06</i>	53.400
Ca_Desi_SNP2877	[T/G]	<i>Ca_Desi_LG06</i>	53.424

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP2878	[G/A]	Ca_Desig_LG06	53.451
Ca_Desig_SNP2879	[A/C]	Ca_Desig_LG06	53.479
Ca_Desig_SNP2880	[A/C]	Ca_Desig_LG06	53.846
Ca_Desig_SNP2881	[T/A]	Ca_Desig_LG06	54.069
Ca_Desig_SNP2882	[A/G]	Ca_Desig_LG06	54.073
Ca_Desig_SNP2883	[T/C]	Ca_Desig_LG06	54.109
Ca_Desig_SNP2884	[G/T]	Ca_Desig_LG06	54.164
Ca_Desig_SNP2885	[A/G]	Ca_Desig_LG06	54.349
Ca_Desig_SNP2886	[A/T]	Ca_Desig_LG06	54.569
Ca_Desig_SNP2887	[A/C]	Ca_Desig_LG06	54.625
Ca_Desig_SNP2888	[G/A]	Ca_Desig_LG06	54.676
Ca_Desig_SNP2889	[A/C]	Ca_Desig_LG06	54.737
Ca_Desig_SNP2890	[A/G]	Ca_Desig_LG06	54.800
Ca_Desig_SNP2891	[A/G]	Ca_Desig_LG06	55.013
Ca_Desig_SNP2892	[T/C]	Ca_Desig_LG06	55.028
Ca_Desig_SNP2893	[T/G]	Ca_Desig_LG06	55.186
Ca_Desig_SNP2894	[A/C]	Ca_Desig_LG06	55.424
Ca_Desig_SNP2895	[T/G]	Ca_Desig_LG06	55.864
Ca_Desig_SNP2896	[T/C]	Ca_Desig_LG06	55.946
Ca_Desig_SNP2897	[T/C]	Ca_Desig_LG06	56.149
Ca_Desig_SNP2898	[C/T]	Ca_Desig_LG06	56.494
Ca_Desig_SNP2899	[A/C]	Ca_Desig_LG06	56.508
Ca_Desig_SNP2900	[A/G]	Ca_Desig_LG06	56.539
Ca_Desig_SNP2901	[G/A]	Ca_Desig_LG06	56.715
Ca_Desig_SNP2902	[G/T]	Ca_Desig_LG06	56.733
Ca_Desig_SNP2903	[A/C]	Ca_Desig_LG06	56.755
Ca_Desig_SNP2904	[A/C]	Ca_Desig_LG06	57.250
Ca_Desig_SNP2905	[C/T]	Ca_Desig_LG06	57.254
Ca_Desig_SNP2906	[A/C]	Ca_Desig_LG06	57.325
Ca_Desig_SNP2907	[T/G]	Ca_Desig_LG06	57.422
Ca_Desig_SNP2908	[C/A]	Ca_Desig_LG06	57.425
Ca_Desig_SNP2909	[A/G]	Ca_Desig_LG06	57.677
Ca_Desig_SNP2910	[T/A]	Ca_Desig_LG06	57.730
Ca_Desig_SNP2911	[T/A]	Ca_Desig_LG06	57.871
Ca_Desig_SNP2912	[G/T]	Ca_Desig_LG06	57.966
Ca_Desig_SNP2913	[A/C]	Ca_Desig_LG06	58.050
Ca_Desig_SNP2914	[T/C]	Ca_Desig_LG06	58.157
Ca_Desig_SNP2915	[G/T]	Ca_Desig_LG06	58.644
Ca_Desig_SNP2916	[A/C]	Ca_Desig_LG06	58.744
Ca_Desig_SNP2917	[T/G]	Ca_Desig_LG06	58.979
Ca_Desig_SNP2918	[A/G]	Ca_Desig_LG06	59.178
Ca_Desig_SNP2919	[C/T]	Ca_Desig_LG06	59.362
Ca_Desig_SNP2920	[C/T]	Ca_Desig_LG06	59.512
Ca_Desig_SNP2921	[T/C]	Ca_Desig_LG06	59.532
Ca_Desig_SNP2922	[C/T]	Ca_Desig_LG06	59.836
Ca_Desig_SNP2923	[G/A]	Ca_Desig_LG06	59.900
Ca_Desig_SNP2924	[T/C]	Ca_Desig_LG06	60.127
Ca_Desig_SNP2925	[A/C]	Ca_Desig_LG06	60.288

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP2926	[A/T]	<i>Ca_Desi_LG06</i>	60.352
Ca_Desi_SNP2927	[T/C]	<i>Ca_Desi_LG06</i>	60.530
Ca_Desi_SNP2928	[G/A]	<i>Ca_Desi_LG06</i>	60.885
Ca_Desi_SNP2929	[G/A]	<i>Ca_Desi_LG06</i>	60.964
Ca_Desi_SNP2930	[C/A]	<i>Ca_Desi_LG06</i>	61.967
Ca_Desi_SNP2931	[C/A]	<i>Ca_Desi_LG06</i>	62.038
Ca_Desi_SNP2932	[T/C]	<i>Ca_Desi_LG06</i>	62.256
Ca_Desi_SNP2933	[G/T]	<i>Ca_Desi_LG06</i>	62.381
Ca_Desi_SNP2934	[C/A]	<i>Ca_Desi_LG06</i>	62.480
Ca_Desi_SNP2935	[A/G]	<i>Ca_Desi_LG06</i>	62.677
Ca_Desi_SNP2936	[A/T]	<i>Ca_Desi_LG06</i>	62.735
Ca_Desi_SNP2937	[G/A]	<i>Ca_Desi_LG06</i>	62.811
Ca_Desi_SNP2938	[G/A]	<i>Ca_Desi_LG06</i>	62.986
Ca_Desi_SNP2939	[T/C]	<i>Ca_Desi_LG06</i>	63.015
Ca_Desi_SNP2940	[A/G]	<i>Ca_Desi_LG06</i>	63.173
Ca_Desi_SNP2941	[C/T]	<i>Ca_Desi_LG06</i>	63.288
Ca_Desi_SNP2942	[T/C]	<i>Ca_Desi_LG06</i>	63.290
Ca_Desi_SNP2943	[G/C]	<i>Ca_Desi_LG06</i>	63.369
Ca_Desi_SNP2944	[T/C]	<i>Ca_Desi_LG06</i>	63.533
Ca_Desi_SNP2945	[G/C]	<i>Ca_Desi_LG06</i>	63.684
Ca_Desi_SNP2946	[T/A]	<i>Ca_Desi_LG06</i>	63.888
Ca_Desi_SNP2947	[C/T]	<i>Ca_Desi_LG06</i>	63.996
Ca_Desi_SNP2948	[A/G]	<i>Ca_Desi_LG06</i>	64.307
Ca_Desi_SNP2949	[C/T]	<i>Ca_Desi_LG06</i>	64.578
Ca_Desi_SNP2950	[T/G]	<i>Ca_Desi_LG06</i>	64.725
Ca_Desi_SNP2951	[G/A]	<i>Ca_Desi_LG06</i>	64.900
Ca_Desi_SNP2952	[C/G]	<i>Ca_Desi_LG06</i>	65.074
Ca_Desi_SNP2953	[G/A]	<i>Ca_Desi_LG06</i>	65.144
Ca_Desi_SNP2954	[T/C]	<i>Ca_Desi_LG06</i>	65.806
Ca_Desi_SNP2955	[A/C]	<i>Ca_Desi_LG06</i>	65.837
Ca_Desi_SNP2956	[A/G]	<i>Ca_Desi_LG06</i>	66.043
Ca_Desi_SNP2957	[A/G]	<i>Ca_Desi_LG06</i>	66.046
Ca_Desi_SNP2958	[T/C]	<i>Ca_Desi_LG06</i>	66.092
Ca_Desi_SNP2959	[T/G]	<i>Ca_Desi_LG06</i>	66.369
Ca_Desi_SNP2960	[T/G]	<i>Ca_Desi_LG06</i>	66.699
Ca_Desi_SNP2961	[A/C]	<i>Ca_Desi_LG06</i>	66.754
Ca_Desi_SNP2962	[T/C]	<i>Ca_Desi_LG06</i>	67.060
Ca_Desi_SNP2963	[C/T]	<i>Ca_Desi_LG06</i>	67.196
Ca_Desi_SNP2964	[G/T]	<i>Ca_Desi_LG06</i>	67.790
Ca_Desi_SNP2965	[A/G]	<i>Ca_Desi_LG06</i>	67.997
Ca_Desi_SNP2966	[C/T]	<i>Ca_Desi_LG06</i>	68.102
Ca_Desi_SNP2967	[A/C]	<i>Ca_Desi_LG06</i>	68.282
Ca_Desi_SNP2968	[A/G]	<i>Ca_Desi_LG06</i>	68.471
Ca_Desi_SNP2969	[T/G]	<i>Ca_Desi_LG06</i>	68.560
Ca_Desi_SNP2970	[G/T]	<i>Ca_Desi_LG06</i>	68.564
Ca_Desi_SNP2971	[T/G]	<i>Ca_Desi_LG06</i>	69.062
Ca_Desi_SNP2972	[C/G]	<i>Ca_Desi_LG06</i>	69.223
Ca_Desi_SNP2973	[G/A]	<i>Ca_Desi_LG06</i>	69.407

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP2974	[T/C]	<i>Ca_Desi_LG06</i>	69.439
Ca_Desi_SNP2975	[T/C]	<i>Ca_Desi_LG06</i>	69.735
Ca_Desi_SNP2976	[G/A]	<i>Ca_Desi_LG06</i>	69.785
Ca_Desi_SNP2977	[T/C]	<i>Ca_Desi_LG06</i>	70.041
Ca_Desi_SNP2978	[T/C]	<i>Ca_Desi_LG06</i>	70.071
Ca_Desi_SNP2979	[A/G]	<i>Ca_Desi_LG06</i>	70.322
Ca_Desi_SNP2980	[T/C]	<i>Ca_Desi_LG06</i>	70.536
Ca_Desi_SNP2981	[G/C]	<i>Ca_Desi_LG06</i>	71.494
Ca_Desi_SNP2982	[A/T]	<i>Ca_Desi_LG06</i>	72.057
Ca_Desi_SNP2983	[T/G]	<i>Ca_Desi_LG06</i>	72.216
Ca_Desi_SNP2984	[T/C]	<i>Ca_Desi_LG06</i>	72.274
Ca_Desi_SNP2985	[A/G]	<i>Ca_Desi_LG06</i>	73.465
Ca_Desi_SNP2986	[A/G]	<i>Ca_Desi_LG06</i>	73.544
Ca_Desi_SNP2987	[T/C]	<i>Ca_Desi_LG06</i>	73.577
Ca_Desi_SNP2988	[T/G]	<i>Ca_Desi_LG06</i>	73.994
Ca_Desi_SNP2989	[T/C]	<i>Ca_Desi_LG06</i>	75.127
Ca_Desi_SNP2990	[G/A]	<i>Ca_Desi_LG06</i>	75.986
Ca_Desi_SNP2991	[T/C]	<i>Ca_Desi_LG06</i>	76.795
Ca_Desi_SNP2992	[A/G]	<i>Ca_Desi_LG06</i>	76.952
Ca_Desi_SNP2993	[A/T]	<i>Ca_Desi_LG06</i>	77.157
Ca_Desi_SNP2994	[C/T]	<i>Ca_Desi_LG06</i>	77.497
Ca_Desi_SNP2995	[C/A]	<i>Ca_Desi_LG06</i>	78.929
Ca_Desi_SNP2996	[T/A]	<i>Ca_Desi_LG06</i>	79.362
Ca_Desi_SNP2997	[T/C]	<i>Ca_Desi_LG06</i>	79.404
Ca_Desi_SNP2998	[C/T]	<i>Ca_Desi_LG06</i>	82.775
Ca_Desi_SNP2999	[G/T]	<i>Ca_Desi_LG06</i>	83.224
Ca_Desi_SNP3000	[G/A]	<i>Ca_Desi_LG06</i>	84.404
Ca_Desi_SNP3001	[A/G]	<i>Ca_Desi_LG06</i>	84.604
Ca_Desi_SNP3002	[A/G]	<i>Ca_Desi_LG06</i>	85.048
Ca_Desi_SNP3003	[T/C]	<i>Ca_Desi_LG06</i>	85.182
Ca_Desi_SNP3004	[A/G]	<i>Ca_Desi_LG06</i>	86.201
Ca_Desi_SNP3005	[G/T]	<i>Ca_Desi_LG06</i>	87.601
Ca_Desi_SNP3006	[T/G]	<i>Ca_Desi_LG07</i>	0.000
Ca_Desi_SNP3007	[T/C]	<i>Ca_Desi_LG07</i>	1.014
Ca_Desi_SNP3008	[T/C]	<i>Ca_Desi_LG07</i>	1.550
Ca_Desi_SNP3009	[T/C]	<i>Ca_Desi_LG07</i>	1.591
Ca_Desi_SNP3010	[A/C]	<i>Ca_Desi_LG07</i>	1.652
Ca_Desi_SNP3011	[A/C]	<i>Ca_Desi_LG07</i>	1.680
Ca_Desi_SNP3012	[T/C]	<i>Ca_Desi_LG07</i>	2.858
Ca_Desi_SNP3013	[A/C]	<i>Ca_Desi_LG07</i>	3.387
Ca_Desi_SNP3014	[C/A]	<i>Ca_Desi_LG07</i>	3.414
Ca_Desi_SNP3015	[A/G]	<i>Ca_Desi_LG07</i>	4.643
Ca_Desi_SNP3016	[T/G]	<i>Ca_Desi_LG07</i>	4.961
Ca_Desi_SNP3017	[T/C]	<i>Ca_Desi_LG07</i>	5.342
Ca_Desi_SNP3018	[C/A]	<i>Ca_Desi_LG07</i>	6.094
Ca_Desi_SNP3019	[A/G]	<i>Ca_Desi_LG07</i>	7.157
Ca_Desi_SNP3020	[A/C]	<i>Ca_Desi_LG07</i>	7.166
Ca_Desi_SNP3021	[A/G]	<i>Ca_Desi_LG07</i>	7.278

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP3022	[C/A]	Ca_Desig_LG07	7.289
Ca_Desig_SNP3023	[A/G]	Ca_Desig_LG07	7.403
Ca_Desig_SNP3024	[T/G]	Ca_Desig_LG07	7.453
Ca_Desig_SNP3025	[A/C]	Ca_Desig_LG07	7.687
Ca_Desig_SNP3026	[T/C]	Ca_Desig_LG07	7.701
Ca_Desig_SNP3027	[A/G]	Ca_Desig_LG07	7.745
Ca_Desig_SNP3028	[T/C]	Ca_Desig_LG07	8.442
Ca_Desig_SNP3029	[A/C]	Ca_Desig_LG07	8.444
Ca_Desig_SNP3030	[C/A]	Ca_Desig_LG07	8.790
Ca_Desig_SNP3031	[T/C]	Ca_Desig_LG07	8.873
Ca_Desig_SNP3032	[G/T]	Ca_Desig_LG07	9.351
Ca_Desig_SNP3033	[C/G]	Ca_Desig_LG07	9.932
Ca_Desig_SNP3034	[T/C]	Ca_Desig_LG07	10.199
Ca_Desig_SNP3035	[C/T]	Ca_Desig_LG07	10.304
Ca_Desig_SNP3036	[A/G]	Ca_Desig_LG07	10.407
Ca_Desig_SNP3037	[T/C]	Ca_Desig_LG07	10.424
Ca_Desig_SNP3038	[T/G]	Ca_Desig_LG07	10.759
Ca_Desig_SNP3039	[A/C]	Ca_Desig_LG07	10.942
Ca_Desig_SNP3040	[C/T]	Ca_Desig_LG07	11.044
Ca_Desig_SNP3041	[C/A]	Ca_Desig_LG07	11.363
Ca_Desig_SNP3042	[G/A]	Ca_Desig_LG07	11.569
Ca_Desig_SNP3043	[T/C]	Ca_Desig_LG07	12.006
Ca_Desig_SNP3044	[A/T]	Ca_Desig_LG07	12.154
Ca_Desig_SNP3045	[A/G]	Ca_Desig_LG07	12.285
Ca_Desig_SNP3046	[T/C]	Ca_Desig_LG07	12.489
Ca_Desig_SNP3047	[G/A]	Ca_Desig_LG07	13.236
Ca_Desig_SNP3048	[A/G]	Ca_Desig_LG07	13.466
Ca_Desig_SNP3049	[A/G]	Ca_Desig_LG07	13.613
Ca_Desig_SNP3050	[A/C]	Ca_Desig_LG07	14.150
Ca_Desig_SNP3051	[A/G]	Ca_Desig_LG07	14.259
Ca_Desig_SNP3052	[T/C]	Ca_Desig_LG07	14.424
Ca_Desig_SNP3053	[A/C]	Ca_Desig_LG07	14.724
Ca_Desig_SNP3054	[T/G]	Ca_Desig_LG07	14.836
Ca_Desig_SNP3055	[T/C]	Ca_Desig_LG07	15.299
Ca_Desig_SNP3056	[A/G]	Ca_Desig_LG07	15.469
Ca_Desig_SNP3057	[A/C]	Ca_Desig_LG07	15.869
Ca_Desig_SNP3058	[G/A]	Ca_Desig_LG07	16.227
Ca_Desig_SNP3059	[A/G]	Ca_Desig_LG07	16.242
Ca_Desig_SNP3060	[A/C]	Ca_Desig_LG07	16.477
Ca_Desig_SNP3061	[A/G]	Ca_Desig_LG07	16.485
Ca_Desig_SNP3062	[G/T]	Ca_Desig_LG07	16.832
Ca_Desig_SNP3063	[T/C]	Ca_Desig_LG07	16.852
Ca_Desig_SNP3064	[A/G]	Ca_Desig_LG07	17.560
Ca_Desig_SNP3065	[T/G]	Ca_Desig_LG07	17.648
Ca_Desig_SNP3066	[T/A]	Ca_Desig_LG07	17.765
Ca_Desig_SNP3067	[T/C]	Ca_Desig_LG07	17.857
Ca_Desig_SNP3068	[T/C]	Ca_Desig_LG07	18.042
Ca_Desig_SNP3069	[C/A]	Ca_Desig_LG07	18.335

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP3070	[T/C]	<i>Ca_Desi_LG07</i>	18.727
Ca_Desi_SNP3071	[A/C]	<i>Ca_Desi_LG07</i>	19.035
Ca_Desi_SNP3072	[A/G]	<i>Ca_Desi_LG07</i>	20.681
Ca_Desi_SNP3073	[T/C]	<i>Ca_Desi_LG07</i>	20.687
Ca_Desi_SNP3074	[T/A]	<i>Ca_Desi_LG07</i>	20.890
Ca_Desi_SNP3075	[T/C]	<i>Ca_Desi_LG07</i>	21.296
Ca_Desi_SNP3076	[T/C]	<i>Ca_Desi_LG07</i>	21.648
Ca_Desi_SNP3077	[C/A]	<i>Ca_Desi_LG07</i>	22.457
Ca_Desi_SNP3078	[T/C]	<i>Ca_Desi_LG07</i>	22.653
Ca_Desi_SNP3079	[T/C]	<i>Ca_Desi_LG07</i>	22.774
Ca_Desi_SNP3080	[A/G]	<i>Ca_Desi_LG07</i>	22.866
Ca_Desi_SNP3081	[G/C]	<i>Ca_Desi_LG07</i>	23.190
Ca_Desi_SNP3082	[T/C]	<i>Ca_Desi_LG07</i>	23.508
Ca_Desi_SNP3083	[C/A]	<i>Ca_Desi_LG07</i>	23.542
Ca_Desi_SNP3084	[A/G]	<i>Ca_Desi_LG07</i>	23.584
Ca_Desi_SNP3085	[A/C]	<i>Ca_Desi_LG07</i>	24.208
Ca_Desi_SNP3086	[A/G]	<i>Ca_Desi_LG07</i>	24.422
Ca_Desi_SNP3087	[T/C]	<i>Ca_Desi_LG07</i>	24.428
Ca_Desi_SNP3088	[T/G]	<i>Ca_Desi_LG07</i>	24.584
Ca_Desi_SNP3089	[T/C]	<i>Ca_Desi_LG07</i>	24.832
Ca_Desi_SNP3090	[C/A]	<i>Ca_Desi_LG07</i>	24.837
Ca_Desi_SNP3091	[C/A]	<i>Ca_Desi_LG07</i>	24.848
Ca_Desi_SNP3092	[T/C]	<i>Ca_Desi_LG07</i>	24.926
Ca_Desi_SNP3093	[C/T]	<i>Ca_Desi_LG07</i>	25.333
Ca_Desi_SNP3094	[C/T]	<i>Ca_Desi_LG07</i>	25.472
Ca_Desi_SNP3095	[C/G]	<i>Ca_Desi_LG07</i>	26.078
Ca_Desi_SNP3096	[T/G]	<i>Ca_Desi_LG07</i>	26.279
Ca_Desi_SNP3097	[C/A]	<i>Ca_Desi_LG07</i>	26.369
Ca_Desi_SNP3098	[G/C]	<i>Ca_Desi_LG07</i>	26.633
Ca_Desi_SNP3099	[A/G]	<i>Ca_Desi_LG07</i>	26.835
Ca_Desi_SNP3100	[A/G]	<i>Ca_Desi_LG07</i>	26.879
Ca_Desi_SNP3101	[T/C]	<i>Ca_Desi_LG07</i>	26.885
Ca_Desi_SNP3102	[A/G]	<i>Ca_Desi_LG07</i>	27.167
Ca_Desi_SNP3103	[G/A]	<i>Ca_Desi_LG07</i>	27.212
Ca_Desi_SNP3104	[T/C]	<i>Ca_Desi_LG07</i>	27.261
Ca_Desi_SNP3105	[G/A]	<i>Ca_Desi_LG07</i>	27.284
Ca_Desi_SNP3106	[A/C]	<i>Ca_Desi_LG07</i>	27.457
Ca_Desi_SNP3107	[T/G]	<i>Ca_Desi_LG07</i>	27.490
Ca_Desi_SNP3108	[G/C]	<i>Ca_Desi_LG07</i>	27.560
Ca_Desi_SNP3109	[A/G]	<i>Ca_Desi_LG07</i>	27.689
Ca_Desi_SNP3110	[C/T]	<i>Ca_Desi_LG07</i>	27.751
Ca_Desi_SNP3111	[G/A]	<i>Ca_Desi_LG07</i>	27.884
Ca_Desi_SNP3112	[C/T]	<i>Ca_Desi_LG07</i>	28.137
Ca_Desi_SNP3113	[T/G]	<i>Ca_Desi_LG07</i>	28.215
Ca_Desi_SNP3114	[C/T]	<i>Ca_Desi_LG07</i>	28.398
Ca_Desi_SNP3115	[A/C]	<i>Ca_Desi_LG07</i>	28.537
Ca_Desi_SNP3116	[A/C]	<i>Ca_Desi_LG07</i>	28.627
Ca_Desi_SNP3117	[A/C]	<i>Ca_Desi_LG07</i>	28.724

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP3118	[T/G]	Ca_Desig_LG07	28.746
Ca_Desig_SNP3119	[G/T]	Ca_Desig_LG07	28.888
Ca_Desig_SNP3120	[C/T]	Ca_Desig_LG07	29.134
Ca_Desig_SNP3121	[A/G]	Ca_Desig_LG07	29.182
Ca_Desig_SNP3122	[A/C]	Ca_Desig_LG07	29.504
Ca_Desig_SNP3123	[A/G]	Ca_Desig_LG07	29.561
Ca_Desig_SNP3124	[A/G]	Ca_Desig_LG07	29.689
Ca_Desig_SNP3125	[T/C]	Ca_Desig_LG07	29.703
Ca_Desig_SNP3126	[T/C]	Ca_Desig_LG07	29.822
Ca_Desig_SNP3127	[C/A]	Ca_Desig_LG07	29.898
Ca_Desig_SNP3128	[G/A]	Ca_Desig_LG07	30.307
Ca_Desig_SNP3129	[A/C]	Ca_Desig_LG07	30.550
Ca_Desig_SNP3130	[C/T]	Ca_Desig_LG07	30.789
Ca_Desig_SNP3131	[T/G]	Ca_Desig_LG07	30.951
Ca_Desig_SNP3132	[T/C]	Ca_Desig_LG07	31.012
Ca_Desig_SNP3133	[T/G]	Ca_Desig_LG07	31.029
Ca_Desig_SNP3134	[T/G]	Ca_Desig_LG07	31.040
Ca_Desig_SNP3135	[A/T]	Ca_Desig_LG07	31.195
Ca_Desig_SNP3136	[C/T]	Ca_Desig_LG07	31.196
Ca_Desig_SNP3137	[T/C]	Ca_Desig_LG07	31.249
Ca_Desig_SNP3138	[T/C]	Ca_Desig_LG07	31.396
Ca_Desig_SNP3139	[G/A]	Ca_Desig_LG07	31.429
Ca_Desig_SNP3140	[A/G]	Ca_Desig_LG07	31.520
Ca_Desig_SNP3141	[C/G]	Ca_Desig_LG07	31.609
Ca_Desig_SNP3142	[T/G]	Ca_Desig_LG07	31.838
Ca_Desig_SNP3143	[G/A]	Ca_Desig_LG07	31.919
Ca_Desig_SNP3144	[T/C]	Ca_Desig_LG07	32.292
Ca_Desig_SNP3145	[G/T]	Ca_Desig_LG07	32.329
Ca_Desig_SNP3146	[G/A]	Ca_Desig_LG07	32.371
Ca_Desig_SNP3147	[A/T]	Ca_Desig_LG07	32.502
Ca_Desig_SNP3148	[T/C]	Ca_Desig_LG07	32.506
Ca_Desig_SNP3149	[T/C]	Ca_Desig_LG07	32.586
Ca_Desig_SNP3150	[A/G]	Ca_Desig_LG07	32.997
Ca_Desig_SNP3151	[C/G]	Ca_Desig_LG07	33.246
Ca_Desig_SNP3152	[A/G]	Ca_Desig_LG07	33.316
Ca_Desig_SNP3153	[G/A]	Ca_Desig_LG07	33.544
Ca_Desig_SNP3154	[G/A]	Ca_Desig_LG07	33.718
Ca_Desig_SNP3155	[T/C]	Ca_Desig_LG07	33.835
Ca_Desig_SNP3156	[A/C]	Ca_Desig_LG07	34.103
Ca_Desig_SNP3157	[T/A]	Ca_Desig_LG07	34.458
Ca_Desig_SNP3158	[C/T]	Ca_Desig_LG07	34.818
Ca_Desig_SNP3159	[T/C]	Ca_Desig_LG07	34.858
Ca_Desig_SNP3160	[A/G]	Ca_Desig_LG07	35.043
Ca_Desig_SNP3161	[A/G]	Ca_Desig_LG07	35.227
Ca_Desig_SNP3162	[C/T]	Ca_Desig_LG07	35.292
Ca_Desig_SNP3163	[A/T]	Ca_Desig_LG07	35.298
Ca_Desig_SNP3164	[A/G]	Ca_Desig_LG07	35.433
Ca_Desig_SNP3165	[T/C]	Ca_Desig_LG07	35.434

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP3166	[A/T]	<i>Ca_Desi_LG07</i>	35.496
Ca_Desi_SNP3167	[T/C]	<i>Ca_Desi_LG07</i>	35.587
Ca_Desi_SNP3168	[G/A]	<i>Ca_Desi_LG07</i>	35.875
Ca_Desi_SNP3169	[A/C]	<i>Ca_Desi_LG07</i>	35.916
Ca_Desi_SNP3170	[T/G]	<i>Ca_Desi_LG07</i>	36.337
Ca_Desi_SNP3171	[C/T]	<i>Ca_Desi_LG07</i>	36.383
Ca_Desi_SNP3172	[T/G]	<i>Ca_Desi_LG07</i>	36.436
Ca_Desi_SNP3173	[A/G]	<i>Ca_Desi_LG07</i>	36.457
Ca_Desi_SNP3174	[C/A]	<i>Ca_Desi_LG07</i>	36.459
Ca_Desi_SNP3175	[G/C]	<i>Ca_Desi_LG07</i>	36.511
Ca_Desi_SNP3176	[A/G]	<i>Ca_Desi_LG07</i>	36.530
Ca_Desi_SNP3177	[T/A]	<i>Ca_Desi_LG07</i>	36.621
Ca_Desi_SNP3178	[C/T]	<i>Ca_Desi_LG07</i>	36.707
Ca_Desi_SNP3179	[T/G]	<i>Ca_Desi_LG07</i>	36.909
Ca_Desi_SNP3180	[C/T]	<i>Ca_Desi_LG07</i>	37.333
Ca_Desi_SNP3181	[G/T]	<i>Ca_Desi_LG07</i>	37.671
Ca_Desi_SNP3182	[T/G]	<i>Ca_Desi_LG07</i>	37.711
Ca_Desi_SNP3183	[G/T]	<i>Ca_Desi_LG07</i>	37.785
Ca_Desi_SNP3184	[A/G]	<i>Ca_Desi_LG07</i>	38.125
Ca_Desi_SNP3185	[G/T]	<i>Ca_Desi_LG07</i>	38.563
Ca_Desi_SNP3186	[G/A]	<i>Ca_Desi_LG07</i>	38.607
Ca_Desi_SNP3187	[C/T]	<i>Ca_Desi_LG07</i>	38.618
Ca_Desi_SNP3188	[A/C]	<i>Ca_Desi_LG07</i>	39.289
Ca_Desi_SNP3189	[T/G]	<i>Ca_Desi_LG07</i>	39.329
Ca_Desi_SNP3190	[C/T]	<i>Ca_Desi_LG07</i>	39.470
Ca_Desi_SNP3191	[A/T]	<i>Ca_Desi_LG07</i>	39.649
Ca_Desi_SNP3192	[G/A]	<i>Ca_Desi_LG07</i>	39.672
Ca_Desi_SNP3193	[C/A]	<i>Ca_Desi_LG07</i>	39.735
Ca_Desi_SNP3194	[T/G]	<i>Ca_Desi_LG07</i>	40.143
Ca_Desi_SNP3195	[A/G]	<i>Ca_Desi_LG07</i>	40.432
Ca_Desi_SNP3196	[C/G]	<i>Ca_Desi_LG07</i>	40.563
Ca_Desi_SNP3197	[G/A]	<i>Ca_Desi_LG07</i>	40.602
Ca_Desi_SNP3198	[G/A]	<i>Ca_Desi_LG07</i>	40.724
Ca_Desi_SNP3199	[C/T]	<i>Ca_Desi_LG07</i>	41.434
Ca_Desi_SNP3200	[C/T]	<i>Ca_Desi_LG07</i>	41.561
Ca_Desi_SNP3201	[C/T]	<i>Ca_Desi_LG07</i>	41.623
Ca_Desi_SNP3202	[C/T]	<i>Ca_Desi_LG07</i>	41.854
Ca_Desi_SNP3203	[A/G]	<i>Ca_Desi_LG07</i>	41.898
Ca_Desi_SNP3204	[G/T]	<i>Ca_Desi_LG07</i>	41.977
Ca_Desi_SNP3205	[A/T]	<i>Ca_Desi_LG07</i>	41.998
Ca_Desi_SNP3206	[A/C]	<i>Ca_Desi_LG07</i>	41.999
Ca_Desi_SNP3207	[T/C]	<i>Ca_Desi_LG07</i>	42.100
Ca_Desi_SNP3208	[T/G]	<i>Ca_Desi_LG07</i>	42.522
Ca_Desi_SNP3209	[G/T]	<i>Ca_Desi_LG07</i>	42.561
Ca_Desi_SNP3210	[T/G]	<i>Ca_Desi_LG07</i>	42.606
Ca_Desi_SNP3211	[A/G]	<i>Ca_Desi_LG07</i>	42.800
Ca_Desi_SNP3212	[T/G]	<i>Ca_Desi_LG07</i>	42.862
Ca_Desi_SNP3213	[G/A]	<i>Ca_Desi_LG07</i>	42.897

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP3214	[A/G]	<i>Ca_Desi_LG07</i>	42.933
Ca_Desi_SNP3215	[A/T]	<i>Ca_Desi_LG07</i>	43.070
Ca_Desi_SNP3216	[T/C]	<i>Ca_Desi_LG07</i>	43.071
Ca_Desi_SNP3217	[C/G]	<i>Ca_Desi_LG07</i>	43.110
Ca_Desi_SNP3218	[G/A]	<i>Ca_Desi_LG07</i>	43.228
Ca_Desi_SNP3219	[A/G]	<i>Ca_Desi_LG07</i>	43.405
Ca_Desi_SNP3220	[T/C]	<i>Ca_Desi_LG07</i>	43.529
Ca_Desi_SNP3221	[T/C]	<i>Ca_Desi_LG07</i>	43.654
Ca_Desi_SNP3222	[A/G]	<i>Ca_Desi_LG07</i>	43.825
Ca_Desi_SNP3223	[A/G]	<i>Ca_Desi_LG07</i>	43.830
Ca_Desi_SNP3224	[T/C]	<i>Ca_Desi_LG07</i>	43.866
Ca_Desi_SNP3225	[C/A]	<i>Ca_Desi_LG07</i>	44.427
Ca_Desi_SNP3226	[A/C]	<i>Ca_Desi_LG07</i>	44.534
Ca_Desi_SNP3227	[T/C]	<i>Ca_Desi_LG07</i>	44.578
Ca_Desi_SNP3228	[C/T]	<i>Ca_Desi_LG07</i>	44.735
Ca_Desi_SNP3229	[G/A]	<i>Ca_Desi_LG07</i>	44.790
Ca_Desi_SNP3230	[G/A]	<i>Ca_Desi_LG07</i>	44.792
Ca_Desi_SNP3231	[T/C]	<i>Ca_Desi_LG07</i>	45.036
Ca_Desi_SNP3232	[A/G]	<i>Ca_Desi_LG07</i>	45.282
Ca_Desi_SNP3233	[A/G]	<i>Ca_Desi_LG07</i>	45.385
Ca_Desi_SNP3234	[T/C]	<i>Ca_Desi_LG07</i>	45.604
Ca_Desi_SNP3235	[C/G]	<i>Ca_Desi_LG07</i>	45.724
Ca_Desi_SNP3236	[C/A]	<i>Ca_Desi_LG07</i>	45.791
Ca_Desi_SNP3237	[T/C]	<i>Ca_Desi_LG07</i>	45.938
Ca_Desi_SNP3238	[T/C]	<i>Ca_Desi_LG07</i>	47.058
Ca_Desi_SNP3239	[A/G]	<i>Ca_Desi_LG07</i>	47.232
Ca_Desi_SNP3240	[C/A]	<i>Ca_Desi_LG07</i>	47.290
Ca_Desi_SNP3241	[A/C]	<i>Ca_Desi_LG07</i>	47.507
Ca_Desi_SNP3242	[A/G]	<i>Ca_Desi_LG07</i>	48.289
Ca_Desi_SNP3243	[G/A]	<i>Ca_Desi_LG07</i>	48.751
Ca_Desi_SNP3244	[C/A]	<i>Ca_Desi_LG07</i>	48.954
Ca_Desi_SNP3245	[T/C]	<i>Ca_Desi_LG07</i>	49.226
Ca_Desi_SNP3246	[A/G]	<i>Ca_Desi_LG07</i>	49.284
Ca_Desi_SNP3247	[G/A]	<i>Ca_Desi_LG07</i>	49.367
Ca_Desi_SNP3248	[A/C]	<i>Ca_Desi_LG07</i>	49.377
Ca_Desi_SNP3249	[A/C]	<i>Ca_Desi_LG07</i>	50.078
Ca_Desi_SNP3250	[C/T]	<i>Ca_Desi_LG07</i>	50.317
Ca_Desi_SNP3251	[C/T]	<i>Ca_Desi_LG07</i>	50.349
Ca_Desi_SNP3252	[T/C]	<i>Ca_Desi_LG07</i>	50.395
Ca_Desi_SNP3253	[T/A]	<i>Ca_Desi_LG07</i>	50.527
Ca_Desi_SNP3254	[T/G]	<i>Ca_Desi_LG07</i>	51.257
Ca_Desi_SNP3255	[C/T]	<i>Ca_Desi_LG07</i>	51.299
Ca_Desi_SNP3256	[A/C]	<i>Ca_Desi_LG07</i>	51.846
Ca_Desi_SNP3257	[A/C]	<i>Ca_Desi_LG07</i>	51.888
Ca_Desi_SNP3258	[A/T]	<i>Ca_Desi_LG07</i>	51.984
Ca_Desi_SNP3259	[A/G]	<i>Ca_Desi_LG07</i>	52.282
Ca_Desi_SNP3260	[T/G]	<i>Ca_Desi_LG07</i>	52.435
Ca_Desi_SNP3261	[G/A]	<i>Ca_Desi_LG07</i>	52.596

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP3262	[C/A]	<i>Ca_Desi_LG07</i>	53.191
Ca_Desi_SNP3263	[A/G]	<i>Ca_Desi_LG07</i>	53.442
Ca_Desi_SNP3264	[G/T]	<i>Ca_Desi_LG07</i>	53.482
Ca_Desi_SNP3265	[A/C]	<i>Ca_Desi_LG07</i>	53.575
Ca_Desi_SNP3266	[A/G]	<i>Ca_Desi_LG07</i>	53.596
Ca_Desi_SNP3267	[A/G]	<i>Ca_Desi_LG07</i>	54.031
Ca_Desi_SNP3268	[T/G]	<i>Ca_Desi_LG07</i>	54.097
Ca_Desi_SNP3269	[A/T]	<i>Ca_Desi_LG07</i>	54.679
Ca_Desi_SNP3270	[T/G]	<i>Ca_Desi_LG07</i>	54.705
Ca_Desi_SNP3271	[T/G]	<i>Ca_Desi_LG07</i>	54.792
Ca_Desi_SNP3272	[C/T]	<i>Ca_Desi_LG07</i>	54.802
Ca_Desi_SNP3273	[C/A]	<i>Ca_Desi_LG07</i>	55.041
Ca_Desi_SNP3274	[A/C]	<i>Ca_Desi_LG07</i>	55.156
Ca_Desi_SNP3275	[T/G]	<i>Ca_Desi_LG07</i>	55.228
Ca_Desi_SNP3276	[T/G]	<i>Ca_Desi_LG07</i>	55.255
Ca_Desi_SNP3277	[A/C]	<i>Ca_Desi_LG07</i>	56.386
Ca_Desi_SNP3278	[T/G]	<i>Ca_Desi_LG07</i>	56.559
Ca_Desi_SNP3279	[A/G]	<i>Ca_Desi_LG07</i>	56.764
Ca_Desi_SNP3280	[C/G]	<i>Ca_Desi_LG07</i>	56.802
Ca_Desi_SNP3281	[T/A]	<i>Ca_Desi_LG07</i>	57.275
Ca_Desi_SNP3282	[A/C]	<i>Ca_Desi_LG07</i>	57.373
Ca_Desi_SNP3283	[A/G]	<i>Ca_Desi_LG07</i>	57.622
Ca_Desi_SNP3284	[C/T]	<i>Ca_Desi_LG07</i>	57.719
Ca_Desi_SNP3285	[A/G]	<i>Ca_Desi_LG07</i>	57.843
Ca_Desi_SNP3286	[A/G]	<i>Ca_Desi_LG07</i>	57.959
Ca_Desi_SNP3287	[A/C]	<i>Ca_Desi_LG07</i>	58.030
Ca_Desi_SNP3288	[A/G]	<i>Ca_Desi_LG07</i>	58.060
Ca_Desi_SNP3289	[A/G]	<i>Ca_Desi_LG07</i>	58.150
Ca_Desi_SNP3290	[C/T]	<i>Ca_Desi_LG07</i>	58.197
Ca_Desi_SNP3291	[T/G]	<i>Ca_Desi_LG07</i>	58.469
Ca_Desi_SNP3292	[A/G]	<i>Ca_Desi_LG07</i>	58.513
Ca_Desi_SNP3293	[T/C]	<i>Ca_Desi_LG07</i>	58.553
Ca_Desi_SNP3294	[A/G]	<i>Ca_Desi_LG07</i>	58.736
Ca_Desi_SNP3295	[T/C]	<i>Ca_Desi_LG07</i>	59.121
Ca_Desi_SNP3296	[A/T]	<i>Ca_Desi_LG07</i>	59.198
Ca_Desi_SNP3297	[T/C]	<i>Ca_Desi_LG07</i>	59.353
Ca_Desi_SNP3298	[A/G]	<i>Ca_Desi_LG07</i>	59.561
Ca_Desi_SNP3299	[A/G]	<i>Ca_Desi_LG07</i>	59.719
Ca_Desi_SNP3300	[A/C]	<i>Ca_Desi_LG07</i>	59.969
Ca_Desi_SNP3301	[C/T]	<i>Ca_Desi_LG07</i>	60.242
Ca_Desi_SNP3302	[A/G]	<i>Ca_Desi_LG07</i>	60.316
Ca_Desi_SNP3303	[A/C]	<i>Ca_Desi_LG07</i>	61.140
Ca_Desi_SNP3304	[T/C]	<i>Ca_Desi_LG07</i>	61.778
Ca_Desi_SNP3305	[C/G]	<i>Ca_Desi_LG07</i>	61.887
Ca_Desi_SNP3306	[A/G]	<i>Ca_Desi_LG07</i>	62.086
Ca_Desi_SNP3307	[A/G]	<i>Ca_Desi_LG07</i>	62.367
Ca_Desi_SNP3308	[A/G]	<i>Ca_Desi_LG07</i>	62.484
Ca_Desi_SNP3309	[C/G]	<i>Ca_Desi_LG07</i>	62.695

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP3310	[C/T]	Ca_Desig_LG07	62.993
Ca_Desig_SNP3311	[A/G]	Ca_Desig_LG07	63.055
Ca_Desig_SNP3312	[A/G]	Ca_Desig_LG07	63.067
Ca_Desig_SNP3313	[G/A]	Ca_Desig_LG07	63.674
Ca_Desig_SNP3314	[T/C]	Ca_Desig_LG07	63.792
Ca_Desig_SNP3315	[A/C]	Ca_Desig_LG07	63.926
Ca_Desig_SNP3316	[T/C]	Ca_Desig_LG07	64.185
Ca_Desig_SNP3317	[T/C]	Ca_Desig_LG07	64.304
Ca_Desig_SNP3318	[A/C]	Ca_Desig_LG07	64.925
Ca_Desig_SNP3319	[G/A]	Ca_Desig_LG07	64.944
Ca_Desig_SNP3320	[A/G]	Ca_Desig_LG07	65.266
Ca_Desig_SNP3321	[T/G]	Ca_Desig_LG07	65.326
Ca_Desig_SNP3322	[G/A]	Ca_Desig_LG07	65.994
Ca_Desig_SNP3323	[C/T]	Ca_Desig_LG07	66.154
Ca_Desig_SNP3324	[C/T]	Ca_Desig_LG07	66.564
Ca_Desig_SNP3325	[C/A]	Ca_Desig_LG07	67.069
Ca_Desig_SNP3326	[C/T]	Ca_Desig_LG07	67.259
Ca_Desig_SNP3327	[T/C]	Ca_Desig_LG07	67.260
Ca_Desig_SNP3328	[A/G]	Ca_Desig_LG07	67.562
Ca_Desig_SNP3329	[T/A]	Ca_Desig_LG07	68.509
Ca_Desig_SNP3330	[A/G]	Ca_Desig_LG07	68.885
Ca_Desig_SNP3331	[T/A]	Ca_Desig_LG07	68.901
Ca_Desig_SNP3332	[A/G]	Ca_Desig_LG07	70.137
Ca_Desig_SNP3333	[C/G]	Ca_Desig_LG07	70.874
Ca_Desig_SNP3334	[C/T]	Ca_Desig_LG07	71.415
Ca_Desig_SNP3335	[T/G]	Ca_Desig_LG07	71.902
Ca_Desig_SNP3336	[C/A]	Ca_Desig_LG07	72.125
Ca_Desig_SNP3337	[G/A]	Ca_Desig_LG07	72.506
Ca_Desig_SNP3338	[A/G]	Ca_Desig_LG07	73.168
Ca_Desig_SNP3339	[A/G]	Ca_Desig_LG07	74.352
Ca_Desig_SNP3340	[T/C]	Ca_Desig_LG07	75.210
Ca_Desig_SNP3341	[T/C]	Ca_Desig_LG07	75.253
Ca_Desig_SNP3342	[T/G]	Ca_Desig_LG07	75.491
Ca_Desig_SNP3343	[C/T]	Ca_Desig_LG07	77.740
Ca_Desig_SNP3344	[G/T]	Ca_Desig_LG07	87.821
Ca_Desig_SNP3345	[C/A]	Ca_Desig_LG08	0.000
Ca_Desig_SNP3346	[A/G]	Ca_Desig_LG08	0.340
Ca_Desig_SNP3347	[C/A]	Ca_Desig_LG08	0.603
Ca_Desig_SNP3348	[A/G]	Ca_Desig_LG08	1.078
Ca_Desig_SNP3349	[A/G]	Ca_Desig_LG08	1.621
Ca_Desig_SNP3350	[T/C]	Ca_Desig_LG08	2.357
Ca_Desig_SNP3351	[A/G]	Ca_Desig_LG08	2.731
Ca_Desig_SNP3352	[G/A]	Ca_Desig_LG08	3.079
Ca_Desig_SNP3353	[T/A]	Ca_Desig_LG08	3.922
Ca_Desig_SNP3354	[G/A]	Ca_Desig_LG08	5.042
Ca_Desig_SNP3355	[A/G]	Ca_Desig_LG08	5.183
Ca_Desig_SNP3356	[T/C]	Ca_Desig_LG08	5.705
Ca_Desig_SNP3357	[A/G]	Ca_Desig_LG08	7.258

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP3358	[A/G]	<i>Ca_Desi_LG08</i>	8.242
Ca_Desi_SNP3359	[G/A]	<i>Ca_Desi_LG08</i>	8.558
Ca_Desi_SNP3360	[G/A]	<i>Ca_Desi_LG08</i>	8.729
Ca_Desi_SNP3361	[C/A]	<i>Ca_Desi_LG08</i>	8.873
Ca_Desi_SNP3362	[C/G]	<i>Ca_Desi_LG08</i>	9.540
Ca_Desi_SNP3363	[T/C]	<i>Ca_Desi_LG08</i>	9.661
Ca_Desi_SNP3364	[C/A]	<i>Ca_Desi_LG08</i>	10.113
Ca_Desi_SNP3365	[T/G]	<i>Ca_Desi_LG08</i>	10.320
Ca_Desi_SNP3366	[A/T]	<i>Ca_Desi_LG08</i>	10.572
Ca_Desi_SNP3367	[A/C]	<i>Ca_Desi_LG08</i>	10.632
Ca_Desi_SNP3368	[A/G]	<i>Ca_Desi_LG08</i>	10.879
Ca_Desi_SNP3369	[A/G]	<i>Ca_Desi_LG08</i>	11.100
Ca_Desi_SNP3370	[C/T]	<i>Ca_Desi_LG08</i>	11.262
Ca_Desi_SNP3371	[A/C]	<i>Ca_Desi_LG08</i>	11.366
Ca_Desi_SNP3372	[A/G]	<i>Ca_Desi_LG08</i>	11.725
Ca_Desi_SNP3373	[T/G]	<i>Ca_Desi_LG08</i>	11.745
Ca_Desi_SNP3374	[T/G]	<i>Ca_Desi_LG08</i>	12.047
Ca_Desi_SNP3375	[G/A]	<i>Ca_Desi_LG08</i>	12.064
Ca_Desi_SNP3376	[T/C]	<i>Ca_Desi_LG08</i>	13.112
Ca_Desi_SNP3377	[A/G]	<i>Ca_Desi_LG08</i>	13.656
Ca_Desi_SNP3378	[T/C]	<i>Ca_Desi_LG08</i>	13.832
Ca_Desi_SNP3379	[G/A]	<i>Ca_Desi_LG08</i>	14.383
Ca_Desi_SNP3380	[C/T]	<i>Ca_Desi_LG08</i>	14.916
Ca_Desi_SNP3381	[T/C]	<i>Ca_Desi_LG08</i>	15.680
Ca_Desi_SNP3382	[T/C]	<i>Ca_Desi_LG08</i>	16.660
Ca_Desi_SNP3383	[T/C]	<i>Ca_Desi_LG08</i>	17.169
Ca_Desi_SNP3384	[G/C]	<i>Ca_Desi_LG08</i>	18.339
Ca_Desi_SNP3385	[C/T]	<i>Ca_Desi_LG08</i>	18.690
Ca_Desi_SNP3386	[A/T]	<i>Ca_Desi_LG08</i>	19.091
Ca_Desi_SNP3387	[T/C]	<i>Ca_Desi_LG08</i>	19.508
Ca_Desi_SNP3388	[T/C]	<i>Ca_Desi_LG08</i>	19.650
Ca_Desi_SNP3389	[G/C]	<i>Ca_Desi_LG08</i>	19.651
Ca_Desi_SNP3390	[G/T]	<i>Ca_Desi_LG08</i>	19.733
Ca_Desi_SNP3391	[C/G]	<i>Ca_Desi_LG08</i>	20.146
Ca_Desi_SNP3392	[T/C]	<i>Ca_Desi_LG08</i>	20.174
Ca_Desi_SNP3393	[G/A]	<i>Ca_Desi_LG08</i>	20.558
Ca_Desi_SNP3394	[G/C]	<i>Ca_Desi_LG08</i>	20.582
Ca_Desi_SNP3395	[T/G]	<i>Ca_Desi_LG08</i>	20.724
Ca_Desi_SNP3396	[G/A]	<i>Ca_Desi_LG08</i>	21.005
Ca_Desi_SNP3397	[T/C]	<i>Ca_Desi_LG08</i>	21.044
Ca_Desi_SNP3398	[C/A]	<i>Ca_Desi_LG08</i>	21.049
Ca_Desi_SNP3399	[A/G]	<i>Ca_Desi_LG08</i>	21.137
Ca_Desi_SNP3400	[T/G]	<i>Ca_Desi_LG08</i>	21.329
Ca_Desi_SNP3401	[C/T]	<i>Ca_Desi_LG08</i>	21.382
Ca_Desi_SNP3402	[C/T]	<i>Ca_Desi_LG08</i>	21.882
Ca_Desi_SNP3403	[A/T]	<i>Ca_Desi_LG08</i>	21.921
Ca_Desi_SNP3404	[C/T]	<i>Ca_Desi_LG08</i>	21.949
Ca_Desi_SNP3405	[T/C]	<i>Ca_Desi_LG08</i>	21.953

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP3406	[T/A]	Ca_Desig_LG08	21.971
Ca_Desig_SNP3407	[G/A]	Ca_Desig_LG08	21.976
Ca_Desig_SNP3408	[G/T]	Ca_Desig_LG08	22.014
Ca_Desig_SNP3409	[C/G]	Ca_Desig_LG08	22.207
Ca_Desig_SNP3410	[T/C]	Ca_Desig_LG08	22.232
Ca_Desig_SNP3411	[A/G]	Ca_Desig_LG08	22.455
Ca_Desig_SNP3412	[C/T]	Ca_Desig_LG08	22.610
Ca_Desig_SNP3413	[A/G]	Ca_Desig_LG08	22.777
Ca_Desig_SNP3414	[A/C]	Ca_Desig_LG08	22.789
Ca_Desig_SNP3415	[C/T]	Ca_Desig_LG08	22.790
Ca_Desig_SNP3416	[G/A]	Ca_Desig_LG08	22.818
Ca_Desig_SNP3417	[A/C]	Ca_Desig_LG08	22.912
Ca_Desig_SNP3418	[G/A]	Ca_Desig_LG08	23.656
Ca_Desig_SNP3419	[T/G]	Ca_Desig_LG08	23.664
Ca_Desig_SNP3420	[T/A]	Ca_Desig_LG08	23.935
Ca_Desig_SNP3421	[C/T]	Ca_Desig_LG08	24.262
Ca_Desig_SNP3422	[C/A]	Ca_Desig_LG08	24.434
Ca_Desig_SNP3423	[G/A]	Ca_Desig_LG08	24.547
Ca_Desig_SNP3424	[T/G]	Ca_Desig_LG08	24.855
Ca_Desig_SNP3425	[T/C]	Ca_Desig_LG08	25.610
Ca_Desig_SNP3426	[T/G]	Ca_Desig_LG08	25.753
Ca_Desig_SNP3427	[A/T]	Ca_Desig_LG08	25.756
Ca_Desig_SNP3428	[G/A]	Ca_Desig_LG08	25.812
Ca_Desig_SNP3429	[A/G]	Ca_Desig_LG08	26.103
Ca_Desig_SNP3430	[C/G]	Ca_Desig_LG08	26.439
Ca_Desig_SNP3431	[G/A]	Ca_Desig_LG08	26.439
Ca_Desig_SNP3432	[A/G]	Ca_Desig_LG08	26.516
Ca_Desig_SNP3433	[G/T]	Ca_Desig_LG08	26.835
Ca_Desig_SNP3434	[T/G]	Ca_Desig_LG08	27.063
Ca_Desig_SNP3435	[A/G]	Ca_Desig_LG08	27.550
Ca_Desig_SNP3436	[C/T]	Ca_Desig_LG08	27.788
Ca_Desig_SNP3437	[G/T]	Ca_Desig_LG08	27.834
Ca_Desig_SNP3438	[A/G]	Ca_Desig_LG08	27.909
Ca_Desig_SNP3439	[T/G]	Ca_Desig_LG08	27.981
Ca_Desig_SNP3440	[C/T]	Ca_Desig_LG08	28.612
Ca_Desig_SNP3441	[C/G]	Ca_Desig_LG08	28.997
Ca_Desig_SNP3442	[C/G]	Ca_Desig_LG08	29.105
Ca_Desig_SNP3443	[A/C]	Ca_Desig_LG08	29.244
Ca_Desig_SNP3444	[G/A]	Ca_Desig_LG08	29.389
Ca_Desig_SNP3445	[A/G]	Ca_Desig_LG08	29.455
Ca_Desig_SNP3446	[T/G]	Ca_Desig_LG08	30.042
Ca_Desig_SNP3447	[A/C]	Ca_Desig_LG08	30.299
Ca_Desig_SNP3448	[T/C]	Ca_Desig_LG08	30.430
Ca_Desig_SNP3449	[T/C]	Ca_Desig_LG08	30.550
Ca_Desig_SNP3450	[A/C]	Ca_Desig_LG08	30.629
Ca_Desig_SNP3451	[A/G]	Ca_Desig_LG08	31.181
Ca_Desig_SNP3452	[T/A]	Ca_Desig_LG08	32.666
Ca_Desig_SNP3453	[A/T]	Ca_Desig_LG08	32.873

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP3454	[C/G]	<i>Ca_Desi_LG08</i>	34.621
Ca_Desi_SNP3455	[A/G]	<i>Ca_Desi_LG08</i>	34.668
Ca_Desi_SNP3456	[T/G]	<i>Ca_Desi_LG08</i>	34.738
Ca_Desi_SNP3457	[T/G]	<i>Ca_Desi_LG08</i>	35.325
Ca_Desi_SNP3458	[T/C]	<i>Ca_Desi_LG08</i>	35.810
Ca_Desi_SNP3459	[G/A]	<i>Ca_Desi_LG08</i>	36.055
Ca_Desi_SNP3460	[A/G]	<i>Ca_Desi_LG08</i>	36.209
Ca_Desi_SNP3461	[A/G]	<i>Ca_Desi_LG08</i>	36.253
Ca_Desi_SNP3462	[T/G]	<i>Ca_Desi_LG08</i>	36.340
Ca_Desi_SNP3463	[G/A]	<i>Ca_Desi_LG08</i>	36.542
Ca_Desi_SNP3464	[C/T]	<i>Ca_Desi_LG08</i>	36.803
Ca_Desi_SNP3465	[C/T]	<i>Ca_Desi_LG08</i>	37.290
Ca_Desi_SNP3466	[A/C]	<i>Ca_Desi_LG08</i>	37.963
Ca_Desi_SNP3467	[A/G]	<i>Ca_Desi_LG08</i>	38.257
Ca_Desi_SNP3468	[T/G]	<i>Ca_Desi_LG08</i>	38.628
Ca_Desi_SNP3469	[A/G]	<i>Ca_Desi_LG08</i>	38.657
Ca_Desi_SNP3470	[T/G]	<i>Ca_Desi_LG08</i>	38.824
Ca_Desi_SNP3471	[T/C]	<i>Ca_Desi_LG08</i>	39.091
Ca_Desi_SNP3472	[C/T]	<i>Ca_Desi_LG08</i>	39.843
Ca_Desi_SNP3473	[T/C]	<i>Ca_Desi_LG08</i>	40.210
Ca_Desi_SNP3474	[A/C]	<i>Ca_Desi_LG08</i>	40.402
Ca_Desi_SNP3475	[T/G]	<i>Ca_Desi_LG08</i>	40.777
Ca_Desi_SNP3476	[A/G]	<i>Ca_Desi_LG08</i>	40.793
Ca_Desi_SNP3477	[A/C]	<i>Ca_Desi_LG08</i>	41.009
Ca_Desi_SNP3478	[T/G]	<i>Ca_Desi_LG08</i>	41.031
Ca_Desi_SNP3479	[A/T]	<i>Ca_Desi_LG08</i>	41.254
Ca_Desi_SNP3480	[A/G]	<i>Ca_Desi_LG08</i>	41.740
Ca_Desi_SNP3481	[A/G]	<i>Ca_Desi_LG08</i>	42.006
Ca_Desi_SNP3482	[G/A]	<i>Ca_Desi_LG08</i>	42.361
Ca_Desi_SNP3483	[A/C]	<i>Ca_Desi_LG08</i>	42.377
Ca_Desi_SNP3484	[A/C]	<i>Ca_Desi_LG08</i>	42.485
Ca_Desi_SNP3485	[A/G]	<i>Ca_Desi_LG08</i>	42.492
Ca_Desi_SNP3486	[A/G]	<i>Ca_Desi_LG08</i>	42.569
Ca_Desi_SNP3487	[T/G]	<i>Ca_Desi_LG08</i>	43.068
Ca_Desi_SNP3488	[T/C]	<i>Ca_Desi_LG08</i>	43.329
Ca_Desi_SNP3489	[A/C]	<i>Ca_Desi_LG08</i>	43.764
Ca_Desi_SNP3490	[C/T]	<i>Ca_Desi_LG08</i>	44.015
Ca_Desi_SNP3491	[T/G]	<i>Ca_Desi_LG08</i>	44.194
Ca_Desi_SNP3492	[A/T]	<i>Ca_Desi_LG08</i>	44.663
Ca_Desi_SNP3493	[A/G]	<i>Ca_Desi_LG08</i>	44.882
Ca_Desi_SNP3494	[G/A]	<i>Ca_Desi_LG08</i>	45.071
Ca_Desi_SNP3495	[C/G]	<i>Ca_Desi_LG08</i>	45.440
Ca_Desi_SNP3496	[T/C]	<i>Ca_Desi_LG08</i>	45.879
Ca_Desi_SNP3497	[C/A]	<i>Ca_Desi_LG08</i>	45.989
Ca_Desi_SNP3498	[G/T]	<i>Ca_Desi_LG08</i>	46.059
Ca_Desi_SNP3499	[A/C]	<i>Ca_Desi_LG08</i>	46.342
Ca_Desi_SNP3500	[C/T]	<i>Ca_Desi_LG08</i>	46.352
Ca_Desi_SNP3501	[C/T]	<i>Ca_Desi_LG08</i>	47.010

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP3502	[T/C]	Ca_Desig_LG08	47.164
Ca_Desig_SNP3503	[G/A]	Ca_Desig_LG08	47.438
Ca_Desig_SNP3504	[A/G]	Ca_Desig_LG08	47.454
Ca_Desig_SNP3505	[A/C]	Ca_Desig_LG08	47.750
Ca_Desig_SNP3506	[T/A]	Ca_Desig_LG08	47.947
Ca_Desig_SNP3507	[C/A]	Ca_Desig_LG08	48.426
Ca_Desig_SNP3508	[C/A]	Ca_Desig_LG08	48.559
Ca_Desig_SNP3509	[T/A]	Ca_Desig_LG08	49.495
Ca_Desig_SNP3510	[A/G]	Ca_Desig_LG08	49.591
Ca_Desig_SNP3511	[T/G]	Ca_Desig_LG08	49.635
Ca_Desig_SNP3512	[T/C]	Ca_Desig_LG08	49.676
Ca_Desig_SNP3513	[G/A]	Ca_Desig_LG08	49.792
Ca_Desig_SNP3514	[G/C]	Ca_Desig_LG08	49.829
Ca_Desig_SNP3515	[T/C]	Ca_Desig_LG08	49.938
Ca_Desig_SNP3516	[T/C]	Ca_Desig_LG08	50.067
Ca_Desig_SNP3517	[T/C]	Ca_Desig_LG08	50.074
Ca_Desig_SNP3518	[T/C]	Ca_Desig_LG08	50.174
Ca_Desig_SNP3519	[A/C]	Ca_Desig_LG08	50.202
Ca_Desig_SNP3520	[T/G]	Ca_Desig_LG08	50.204
Ca_Desig_SNP3521	[A/C]	Ca_Desig_LG08	50.549
Ca_Desig_SNP3522	[A/T]	Ca_Desig_LG08	50.617
Ca_Desig_SNP3523	[C/A]	Ca_Desig_LG08	50.623
Ca_Desig_SNP3524	[T/C]	Ca_Desig_LG08	51.029
Ca_Desig_SNP3525	[G/T]	Ca_Desig_LG08	51.542
Ca_Desig_SNP3526	[G/T]	Ca_Desig_LG08	51.556
Ca_Desig_SNP3527	[A/G]	Ca_Desig_LG08	51.751
Ca_Desig_SNP3528	[G/C]	Ca_Desig_LG08	51.842
Ca_Desig_SNP3529	[A/C]	Ca_Desig_LG08	51.862
Ca_Desig_SNP3530	[C/A]	Ca_Desig_LG08	52.211
Ca_Desig_SNP3531	[C/G]	Ca_Desig_LG08	52.456
Ca_Desig_SNP3532	[A/T]	Ca_Desig_LG08	52.468
Ca_Desig_SNP3533	[A/C]	Ca_Desig_LG08	53.645
Ca_Desig_SNP3534	[C/A]	Ca_Desig_LG08	53.727
Ca_Desig_SNP3535	[T/G]	Ca_Desig_LG08	53.793
Ca_Desig_SNP3536	[T/G]	Ca_Desig_LG08	54.055
Ca_Desig_SNP3537	[T/C]	Ca_Desig_LG08	54.212
Ca_Desig_SNP3538	[A/G]	Ca_Desig_LG08	54.218
Ca_Desig_SNP3539	[A/G]	Ca_Desig_LG08	54.457
Ca_Desig_SNP3540	[C/A]	Ca_Desig_LG08	54.497
Ca_Desig_SNP3541	[C/G]	Ca_Desig_LG08	54.553
Ca_Desig_SNP3542	[A/T]	Ca_Desig_LG08	54.593
Ca_Desig_SNP3543	[T/C]	Ca_Desig_LG08	54.839
Ca_Desig_SNP3544	[A/G]	Ca_Desig_LG08	54.904
Ca_Desig_SNP3545	[C/T]	Ca_Desig_LG08	55.002
Ca_Desig_SNP3546	[C/T]	Ca_Desig_LG08	55.050
Ca_Desig_SNP3547	[A/C]	Ca_Desig_LG08	55.244
Ca_Desig_SNP3548	[A/G]	Ca_Desig_LG08	55.939
Ca_Desig_SNP3549	[C/G]	Ca_Desig_LG08	56.131

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desig_SNP3550	[G/A]	Ca_Desig_LG08	56.287
Ca_Desig_SNP3551	[A/G]	Ca_Desig_LG08	56.294
Ca_Desig_SNP3552	[C/G]	Ca_Desig_LG08	56.429
Ca_Desig_SNP3553	[A/C]	Ca_Desig_LG08	56.482
Ca_Desig_SNP3554	[T/G]	Ca_Desig_LG08	56.577
Ca_Desig_SNP3555	[T/G]	Ca_Desig_LG08	57.041
Ca_Desig_SNP3556	[A/G]	Ca_Desig_LG08	57.270
Ca_Desig_SNP3557	[T/C]	Ca_Desig_LG08	57.292
Ca_Desig_SNP3558	[T/G]	Ca_Desig_LG08	57.626
Ca_Desig_SNP3559	[T/G]	Ca_Desig_LG08	57.855
Ca_Desig_SNP3560	[A/G]	Ca_Desig_LG08	57.861
Ca_Desig_SNP3561	[T/A]	Ca_Desig_LG08	58.066
Ca_Desig_SNP3562	[T/G]	Ca_Desig_LG08	58.139
Ca_Desig_SNP3563	[T/A]	Ca_Desig_LG08	59.089
Ca_Desig_SNP3564	[T/A]	Ca_Desig_LG08	59.130
Ca_Desig_SNP3565	[T/C]	Ca_Desig_LG08	59.490
Ca_Desig_SNP3566	[G/A]	Ca_Desig_LG08	59.519
Ca_Desig_SNP3567	[A/G]	Ca_Desig_LG08	59.585
Ca_Desig_SNP3568	[G/A]	Ca_Desig_LG08	59.613
Ca_Desig_SNP3569	[A/G]	Ca_Desig_LG08	59.913
Ca_Desig_SNP3570	[G/T]	Ca_Desig_LG08	59.921
Ca_Desig_SNP3571	[T/C]	Ca_Desig_LG08	60.149
Ca_Desig_SNP3572	[C/T]	Ca_Desig_LG08	60.533
Ca_Desig_SNP3573	[T/A]	Ca_Desig_LG08	60.605
Ca_Desig_SNP3574	[C/T]	Ca_Desig_LG08	60.784
Ca_Desig_SNP3575	[A/G]	Ca_Desig_LG08	60.871
Ca_Desig_SNP3576	[A/G]	Ca_Desig_LG08	60.894
Ca_Desig_SNP3577	[G/A]	Ca_Desig_LG08	60.958
Ca_Desig_SNP3578	[G/A]	Ca_Desig_LG08	61.006
Ca_Desig_SNP3579	[G/A]	Ca_Desig_LG08	61.503
Ca_Desig_SNP3580	[A/C]	Ca_Desig_LG08	61.786
Ca_Desig_SNP3581	[T/C]	Ca_Desig_LG08	61.989
Ca_Desig_SNP3582	[A/G]	Ca_Desig_LG08	62.020
Ca_Desig_SNP3583	[T/C]	Ca_Desig_LG08	62.119
Ca_Desig_SNP3584	[C/T]	Ca_Desig_LG08	62.240
Ca_Desig_SNP3585	[A/G]	Ca_Desig_LG08	62.590
Ca_Desig_SNP3586	[T/C]	Ca_Desig_LG08	62.997
Ca_Desig_SNP3587	[A/G]	Ca_Desig_LG08	63.151
Ca_Desig_SNP3588	[T/C]	Ca_Desig_LG08	63.406
Ca_Desig_SNP3589	[A/G]	Ca_Desig_LG08	63.731
Ca_Desig_SNP3590	[A/G]	Ca_Desig_LG08	63.815
Ca_Desig_SNP3591	[T/G]	Ca_Desig_LG08	63.850
Ca_Desig_SNP3592	[T/G]	Ca_Desig_LG08	64.099
Ca_Desig_SNP3593	[A/G]	Ca_Desig_LG08	64.489
Ca_Desig_SNP3594	[G/T]	Ca_Desig_LG08	64.662
Ca_Desig_SNP3595	[A/G]	Ca_Desig_LG08	64.671
Ca_Desig_SNP3596	[A/G]	Ca_Desig_LG08	64.776
Ca_Desig_SNP3597	[G/A]	Ca_Desig_LG08	64.925

SNP IDs	SNPs	Linkage Group (LGs)	Genetic positions (cM) of mapped SNPs
Ca_Desi_SNP3598	[C/A]	<i>Ca_Desi_LG08</i>	65.180
Ca_Desi_SNP3599	[A/T]	<i>Ca_Desi_LG08</i>	65.229
Ca_Desi_SNP3600	[T/G]	<i>Ca_Desi_LG08</i>	65.498
Ca_Desi_SNP3601	[A/G]	<i>Ca_Desi_LG08</i>	65.499
Ca_Desi_SNP3602	[A/G]	<i>Ca_Desi_LG08</i>	65.529
Ca_Desi_SNP3603	[T/A]	<i>Ca_Desi_LG08</i>	65.657
Ca_Desi_SNP3604	[A/G]	<i>Ca_Desi_LG08</i>	66.029
Ca_Desi_SNP3605	[G/T]	<i>Ca_Desi_LG08</i>	66.290
Ca_Desi_SNP3606	[T/C]	<i>Ca_Desi_LG08</i>	66.881
Ca_Desi_SNP3607	[A/G]	<i>Ca_Desi_LG08</i>	67.785
Ca_Desi_SNP3608	[A/G]	<i>Ca_Desi_LG08</i>	67.838
Ca_Desi_SNP3609	[A/G]	<i>Ca_Desi_LG08</i>	68.508
Ca_Desi_SNP3610	[T/G]	<i>Ca_Desi_LG08</i>	69.895
Ca_Desi_SNP3611	[C/A]	<i>Ca_Desi_LG08</i>	69.976
Ca_Desi_SNP3612	[A/G]	<i>Ca_Desi_LG08</i>	70.526
Ca_Desi_SNP3613	[T/C]	<i>Ca_Desi_LG08</i>	71.006
Ca_Desi_SNP3614	[T/G]	<i>Ca_Desi_LG08</i>	71.265
Ca_Desi_SNP3615	[T/C]	<i>Ca_Desi_LG08</i>	71.606
Ca_Desi_SNP3616	[C/T]	<i>Ca_Desi_LG08</i>	71.844
Ca_Desi_SNP3617	[A/C]	<i>Ca_Desi_LG08</i>	73.520
Ca_Desi_SNP3618	[A/C]	<i>Ca_Desi_LG08</i>	76.736
Ca_Desi_SNP3619	[T/G]	<i>Ca_Desi_LG08</i>	77.683
Ca_Desi_SNP3620	[A/G]	<i>Ca_Desi_LG08</i>	78.156
Ca_Desi_SNP3621	[G/A]	<i>Ca_Desi_LG08</i>	78.509
Ca_Desi_SNP3622	[T/C]	<i>Ca_Desi_LG08</i>	79.375
Ca_Desi_SNP3623	[A/T]	<i>Ca_Desi_LG08</i>	80.766
Ca_Desi_SNP3624	[A/C]	<i>Ca_Desi_LG08</i>	81.334
Ca_Desi_SNP3625	[T/C]	<i>Ca_Desi_LG08</i>	89.085

Table S2: Accessions selected for PH trait association mapping

Sl. No.	Accession Numbers	Cultivar types	Geographical origin	Biological status
1	ICC5590	<i>Desi</i>	India	Breeding/Research material
2	ICC6013	<i>Desi</i>	India	Breeding/Research material
3	ICC5002	<i>Desi</i>	India	Breeding/Research material
4	ICC7184	<i>Desi</i>	Turkey	Traditional cultivar/Landrace
5	ICC4926	<i>Desi</i>	India	Breeding/Research material
6	ICC4657	<i>Desi</i>	India	Traditional cultivar/Landrace
7	ICC12299	<i>Desi</i>	Nepal	Traditional cultivar/Landrace
8	ICC456	<i>Desi</i>	India	Traditional cultivar/Landrace
9	ICC12726	<i>Desi</i>	Ethiopia	Traditional cultivar/Landrace
10	ICC11944	<i>Desi</i>	Nepal	Traditional cultivar/Landrace
11	ICC11498	<i>Desi</i>	India	Traditional cultivar/Landrace
12	ICC9942	<i>Desi</i>	India	Traditional cultivar/Landrace
13	ICC2072	<i>Desi</i>	India	Traditional cultivar/Landrace
14	ICC9737	<i>Desi</i>	Afghanistan	Traditional cultivar/Landrace
15	ICC9002	<i>Desi</i>	Iran	Traditional cultivar/Landrace
16	ICC16374	<i>Desi</i>	Malawi	Breeding material
17	ICC12028	<i>Desi</i>	Mexico	Traditional cultivar/Landrace
18	ICC8318	<i>Desi</i>	India	Traditional cultivar/Landrace
19	ICC15610	<i>Desi</i>	India	Traditional cultivar/Landrace
20	ICC4918	<i>Desi</i>	India	Advanced cultivar
21	ICC1836	<i>Desi</i>	India	Traditional cultivar/Landrace
22	ICC15061	<i>Desi</i>	India	Traditional cultivar/Landrace
23	ICC13523	<i>Kabuli</i>	Iran	Traditional cultivar/Landrace
24	ICC15802	<i>Kabuli</i>	Syria	Traditional cultivar/Landrace
25	ICC13077	<i>Kabuli</i>	India	Traditional cultivar/Landrace
26	ICC15264	<i>Kabuli</i>	Iran	Traditional cultivar/Landrace
27	ICC7308	<i>Kabuli</i>	Peru	Traditional cultivar/Landrace
28	ICC15435	<i>Kabuli</i>	Morocco	Traditional cultivar/Landrace
29	ICC7295	<i>Kabuli</i>	Tunisia	Traditional cultivar/Landrace
30	ICC12328	<i>Kabuli</i>	Cyprus	Traditional cultivar/Landrace
31	ICC14446	<i>Kabuli</i>	Italy	Traditional cultivar/Landrace
32	ICC10755	<i>Kabuli</i>	Turkey	Traditional cultivar/Landrace
33	ICC14190	<i>Kabuli</i>	India	Traditional cultivar/Landrace
34	ICC8042	<i>Kabuli</i>	Iran	Traditional cultivar/Landrace
35	ICC8261	<i>Kabuli</i>	Turkey	Traditional cultivar/Landrace
36	ICC15333	<i>Kabuli</i>	Iran	Traditional cultivar/Landrace
37	ICC15512	<i>Kabuli</i>	Morocco	Traditional cultivar/Landrace
38	ICC10884	<i>Kabuli</i>	Ethiopia	Traditional cultivar/Landrace
39	ICC15551	<i>Kabuli</i>	Australia	Traditional cultivar/Landrace
40	ICC15725	<i>Kabuli</i>	Syrian Arab Republic	Traditional cultivar/Landrace
41	ICC6204	<i>Kabuli</i>	Spain	Traditional cultivar/Landrace
42	ICC6210	<i>Kabuli</i>	Spain	Traditional cultivar/Landrace
43	ICC7654	<i>Kabuli</i>	Turkey	Traditional cultivar/Landrace
44	ICC11847	<i>Kabuli</i>	Chile	Traditional cultivar/Landrace
45	ICC11749	<i>Kabuli</i>	Chile	Traditional cultivar/Landrace
46	ICC14199	<i>Kabuli</i>	Mexico	Breeding material
47	ICC15518	<i>Kabuli</i>	Morocco	Traditional cultivar/Landrace
48	ICC16814	<i>Kabuli</i>	Portugal	Traditional cultivar/Landrace

Sl. No.	Accession Numbers	Cultivar types	Geographical origin	Biological status
49	ICC16811	<i>Kabuli</i>	Portugal	Traditional cultivar/Landrace
50	ICC6253	<i>Kabuli</i>	Morocco	Traditional cultivar/Landrace
51	ICC11301	<i>Kabuli</i>	United States of America	Traditional cultivar/Landrace
52	ICC10749	<i>Kabuli</i>	Turkey	Traditional cultivar/Landrace
53	ICC14216	<i>Kabuli</i>	Mexico	Breeding/Research material
54	ICC14203	<i>Kabuli</i>	Mexico	Traditional cultivar/Landrace
55	ICC11742	<i>Kabuli</i>	Chile	Traditional cultivar/Landrace
56	ICC13821	<i>Kabuli</i>	Ethiopia	Traditional cultivar/Landrace
57	ICC14462	<i>Kabuli</i>	India	Traditional cultivar/Landrace
58	ICC14220	<i>Kabuli</i>	Kenya	Traditional cultivar/Landrace
59	ICC15944	<i>Kabuli</i>	United States of America	Advanced/Improved cultivar
60	ICC11303	<i>Kabuli</i>	Chile	Traditional cultivar/Landrace
61	ICC12034	<i>Kabuli</i>	Mexico	Advanced/Improved cultivar
62	ICC7346	<i>Kabuli</i>	Mexico	Breeding/Research material
63	ICC15994	<i>Kabuli</i>	Spain	Traditional cultivar/Landrace
64	ICC18591	<i>Kabuli</i>	Mexico	Traditional cultivar/Landrace
65	ICC8155	<i>Kabuli</i>	United States of America	Traditional cultivar/Landrace