



**República Argentina - Poder Ejecutivo Nacional**  
2019 - Año de la Exportación

**Resolución**

**Número:**

**Referencia:** Resolución EX-2019-86188838-APN-DRV#INASE

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VISTO el Expediente N° EX-2019-86188838-APN-DRV#INASE del Registro del INSTITUTO NACIONAL DE SEMILLAS, organismo descentralizado de la órbita del MINISTERIO DE AGRICULTURA, GANADERÍA Y PESCA, y la necesidad de establecer normas tendientes a garantizar el cumplimiento de la Ley de Semillas y Creaciones Fitogenéticas N° 20.247, y

CONSIDERANDO:

Que el INSTITUTO NACIONAL DE SEMILLAS, organismo descentralizado de la órbita del MINISTERIO DE AGRICULTURA, GANADERÍA Y PESCA, órgano de aplicación de la Ley de Semillas y Creaciones Fitogenéticas N° 20.247, tiene como uno de sus propósitos fundamentales establecer criterios para garantizar la calidad genética de las semillas y proteger la propiedad de las creaciones fitogenéticas en el marco del objetivo de la citada Ley.

Que, asimismo, se requiere establecer un listado de marcadores basados en ADN del tipo Single Nucleotide Polimorphism (SNP) para complementar el cumplimiento del requisito de diferenciabilidad de las nuevas creaciones fitogenéticas.

Que los marcadores tipo SNP se han seleccionado mediante un trabajo conjunto del sector público y privado en base a estudios genotípicos sobre el germoplasma de la especie.

Que es necesario establecer, para la organización, siembra y conducción de las Colecciones de Referencia de Soja, una fecha límite de presentación de nuevas solicitudes de inscripción en el Registro Nacional de la Propiedad de Cultivares y/o Registro Nacional de Cultivares del INSTITUTO NACIONAL DE SEMILLAS, muestras de semillas e información de genotipado de cada variedad presentada.

Que la COMISIÓN NACIONAL DE SEMILLAS, creada por la Ley de Semillas y Creaciones Fitogenéticas N° 20.247, se ha pronunciado favorablemente al uso de este tipo de marcadores, según surge del Acta N° 468 de fecha 8 de octubre de 2019.

Que la Dirección de Registro de Variedades, la Dirección de Calidad y la Dirección de Asuntos Jurídicos, pertenecientes al INSTITUTO NACIONAL DE SEMILLAS, han tomado la intervención técnica que les compete.

Que el suscripto es competente para dictar el presente acto en virtud de lo establecido en el Artículo 9° del Decreto N° 2.817 de fecha 30 de diciembre de 1991, ratificado por la Ley N° 25.845.

Por ello,

## EL PRESIDENTE DEL DIRECTORIO DEL INSTITUTO NACIONAL DE SEMILLAS

### RESUELVE:

ARTÍCULO 1°.- Apruébase el listado de marcadores de ADN tipo Single Nucleotide Polimorphism (SNP), que figura en el Anexo I (IF-2019-100315855-APN-INASE#MAGYP) de la presente Resolución, para la identificación de variedades de soja a los fines de garantizar el cumplimiento del requisito de diferenciabilidad de la Ley de Semillas y Creaciones Fitogenéticas N° 20.247.

ARTÍCULO 2°.- Apruébese como fecha límite para presentación de nuevas solicitudes de inscripción en el Registro Nacional de la Propiedad de Cultivares y/o Registro Nacional de Cultivares del INSTITUTO NACIONAL DE SEMILLAS organismo descentralizado en la órbita del MINISTERIO DE AGRICULTURA, GANADERÍA Y PESCA, muestras de semillas e información de genotipado de cada variedad presentada, el 30 de septiembre de cada año, siendo rechazadas aquellas solicitudes que no cumplan con todo lo solicitado en este artículo.

ARTÍCULO 3°.- El INSTITUTO NACIONAL DE SEMILLAS dispondrá, de acuerdo a como lo considere, cómo será la forma de lectura de los alelos y formato de presentación de los datos de genotipado.

ARTÍCULO 4°.- El INSTITUTO NACIONAL DE SEMILLAS podrá actualizar el listado de marcadores que figura en el Anexo I (IF-2019-100315855-APN-INASE#MAGYP) cuando razones técnicas así lo aconsejaran.

ARTÍCULO 5°.- El INSTITUTO NACIONAL DE SEMILLAS, publica el Protocolo guía para la presentación de datos de genotipado en el Anexo II (IF-2019-100316598-APN-INASE#MAGYP) de la presente resolución para ser presentados ante la Dirección de Registro de Variedades por parte de los interesados en inscribir en el Registro Nacional de la Propiedad de Cultivares y/o Registro Nacional de Cultivares nuevas creaciones fitogenéticas de la especie soja, siendo esta presentación de carácter obligatorio para poder acceder a las inscripciones en los mencionados Registros, para nuevas variedades, para aquellas cuyos trámites de inscripción fueran iniciados con anterioridad a la presente Resolución, y para todas aquellas variedades ya inscritas en el Registro Nacional de la Propiedad de Cultivares y/o Registro Nacional de Cultivares.

ARTÍCULO 6°.- En el contexto del cumplimiento de la Ley de Semillas y Creaciones Fitogenéticas N° 20.247 solo será válido el grupo de marcadores que el INSTITUTO NACIONAL DE SEMILLAS establezca.

ARTÍCULO 7°.- Comuníquese, publíquese, dese a la Dirección Nacional del Registro Oficial y oportunamente archívese.

Digitally signed by LAVIGNOLLE Raimundo  
Date: 2019.11.08 09:41:47 ART  
Location: Ciudad Autónoma de Buenos Aires

Digitally signed by GESTION DOCUMENTAL  
ELECTRONICA - GDE  
Date: 2019.11.08 09:42:16 -03:00

**Listado de marcadores seleccionados para estudio de diferenciabilidad y manejo de colección de referencia**

Nº	Nombre del marcador	Nº	Nombre del marcador	Nº	Nombre del marcador
1	Gm01_1013695_A_G	46	Gm01_32899706_A_G	91	Gm01_43254220_T_C
2	Gm01_11835461_T_C	47	Gm01_3327321_A_C	92	Gm01_43413943_T_C
3	Gm01_1279146_C_T	48	Gm01_334575_A_G	93	Gm01_43576945_G_A
4	Gm01_12853172_C_T	49	Gm01_3372977_A_C	94	Gm01_43767242_C_A
5	Gm01_1344976_A_G	50	Gm01_33891376_A_G	95	Gm01_44304195_T_C
6	Gm01_138835_A_G	51	Gm01_34560330_T_C	96	Gm01_44443891_A_G
7	Gm01_14097047_T_C	52	Gm01_3458582_T_C	97	Gm01_44790492_G_A
8	Gm01_1428598_T_G	53	Gm01_34668255_T_C	98	Gm01_45165995_A_C
9	Gm01_14818197_C_T	54	Gm01_35048367_A_G	99	Gm01_4517478_T_C
10	Gm01_14910545_C_A	55	Gm01_35151660_A_C	100	Gm01_45665752_G_A
11	Gm01_1502816_G_A	56	Gm01_3519206_T_C	101	Gm01_4595776_G_A
12	Gm01_15851740_A_C	57	Gm01_35448254_C_T	102	Gm01_45975397_C_T
13	Gm01_16388569_G_A	58	Gm01_35496161_T_C	103	Gm01_4642545_A_G
14	Gm01_1653315_T_C	59	Gm01_35587217_G_T	104	Gm01_46534870_A_G
15	Gm01_1744951_C_A	60	Gm01_35840821_A_G	105	Gm01_46545441_G_A
16	Gm01_1887205_G_A	61	Gm01_3585713_C_A	106	Gm01_46672210_C_A
17	Gm01_18915610_T_C	62	Gm01_3596804_A_C	107	Gm01_46765711_G_A
18	Gm01_19942022_G_A	63	Gm01_3638269_G_A	108	Gm01_47023597_C_A
19	Gm01_20542501_C_T	64	Gm01_36393636_C_T	109	Gm01_47130768_A_G
20	Gm01_21804377_G_T	65	Gm01_36723932_G_A	110	Gm01_4726775_C_A
21	Gm01_21883574_G_A	66	Gm01_36994849_A_G	111	Gm01_47296536_T_C
22	Gm01_2267573_T_C	67	Gm01_3715007_G_A	112	Gm01_47342247_A_G
23	Gm01_23586582_C_A	68	Gm01_3770764_A_C	113	Gm01_47734651_C_A
24	Gm01_2585749_A_C	69	Gm01_37767294_A_G	114	Gm01_4777842_G_A
25	Gm01_2708722_C_T	70	Gm01_3832790_G_T	115	Gm01_47807975_G_A
26	Gm01_27164384_T_G	71	Gm01_38661096_A_G	116	Gm01_47853391_T_C
27	Gm01_27463902_G_T	72	Gm01_3905200_A_G	117	Gm01_47942462_A_C
28	Gm01_2813785_C_T	73	Gm01_39561856_T_C	118	Gm01_48057519_A_G
29	Gm01_281790_T_C	74	Gm01_39724988_A_G	119	Gm01_48119773_C_T
30	Gm01_28628358_A_C	75	Gm01_39803394_C_A	120	Gm01_48181097_C_T
31	Gm01_28759367_G_A	76	Gm01_4002275_A_G	121	Gm01_48222840_C_T
32	Gm01_28848622_A_G	77	Gm01_40195425_G_T	122	Gm01_48306028_T_C
33	Gm01_29091115_A_G	78	Gm01_402061_A_C	123	Gm01_48418410_G_T
34	Gm01_29169958_A_G	79	Gm01_4021131_A_G	124	Gm01_48469239_T_C
35	Gm01_2928374_C_A	80	Gm01_40429688_T_C	125	Gm01_48524758_C_T
36	Gm01_29990637_T_C	81	Gm01_40455897_T_C	126	Gm01_48565309_G_A
37	Gm01_30080907_T_C	82	Gm01_41403051_C_T	127	Gm01_48617111_G_A
38	Gm01_3016694_A_G	83	Gm01_41493471_T_C	128	Gm01_48684218_C_T
39	Gm01_3063603_T_G	84	Gm01_41604325_A_G	129	Gm01_48740400_G_A
40	Gm01_3121012_T_G	85	Gm01_41828048_A_G	130	Gm01_48860794_C_T
41	Gm01_31506268_T_C	86	Gm01_41993098_T_C	131	Gm01_49121708_G_T
42	Gm01_31906055_A_G	87	Gm01_42151166_C_T	132	Gm01_4912239_G_A
43	Gm01_32144754_T_C	88	Gm01_42468038_A_C	133	Gm01_49196746_A_G
44	Gm01_32354171_C_A	89	Gm01_42848317_T_G	134	Gm01_49281276_T_G
45	Gm01_3281127_A_G	90	Gm01_43106876_A_G	135	Gm01_49322760_C_A

N°	Nombre del marcador	N°	Nombre del marcador	N°	Nombre del marcador
136	Gm01_49403702_A_G	181	Gm01_54220674_T_C	226	Gm02_13737468_A_C
137	Gm01_49412063_T_G	182	Gm01_54250250_T_C	227	Gm02_14127417_A_G
138	Gm01_49687691_C_T	183	Gm01_54285824_G_A	228	Gm02_14215487_T_G
139	Gm01_49770288_T_C	184	Gm01_54432202_T_G	229	Gm02_14345423_T_G
140	Gm01_49816449_T_C	185	Gm01_54488416_C_A	230	Gm02_14508130_C_T
141	Gm01_49912586_C_A	186	Gm01_54521885_T_C	231	Gm02_14715495_T_C
142	Gm01_49987647_C_T	187	Gm01_5453015_T_G	232	Gm02_15067760_G_A
143	Gm01_50035662_A_C	188	Gm01_54622722_C_A	233	Gm02_1517184_T_G
144	Gm01_50098348_G_T	189	Gm01_54686660_C_A	234	Gm02_18273334_A_G
145	Gm01_50202416_C_T	190	Gm01_54752856_A_C	235	Gm02_1830094_T_C
146	Gm01_50262496_T_C	191	Gm01_54807842_C_A	236	Gm02_18626206_C_T
147	Gm01_50318073_A_G	192	Gm01_54843428_G_T	237	Gm02_19218365_T_C
148	Gm01_50423856_A_C	193	Gm01_54932021_T_G	238	Gm02_20197918_A_C
149	Gm01_5044640_G_A	194	Gm01_54962372_G_A	239	Gm02_207506_A_G
150	Gm01_50507289_A_G	195	Gm01_55060537_G_T	240	Gm02_21065065_T_C
151	Gm01_50644671_A_C	196	Gm01_55124547_G_A	241	Gm02_2158660_G_A
152	Gm01_50744456_A_C	197	Gm01_55226574_A_G	242	Gm02_22067031_G_T
153	Gm01_50889550_T_C	198	Gm01_5555585_C_T	243	Gm02_2246479_A_G
154	Gm01_510342_G_A	199	Gm01_55608992_G_A	244	Gm02_22829006_T_C
155	Gm01_51034693_A_C	200	Gm01_55789200_A_C	245	Gm02_2320070_C_A
156	Gm01_51330200_C_A	201	Gm01_565991_A_C	246	Gm02_23589448_C_T
157	Gm01_51376821_C_A	202	Gm01_5716473_G_A	247	Gm02_24460388_G_T
158	Gm01_51460913_C_A	203	Gm01_5936538_C_T	248	Gm02_2467152_C_T
159	Gm01_5159361_A_G	204	Gm01_688663_A_G	249	Gm02_26182810_A_G
160	Gm01_51612381_A_G	205	Gm01_822979_A_G	250	Gm02_26699210_A_G
161	Gm01_51636488_G_A	206	Gm01_8484147_T_C	251	Gm02_269063_A_C
162	Gm01_51721249_T_C	207	Gm01_901691_C_T	252	Gm02_27295513_G_A
163	Gm01_51764870_C_T	208	Gm01_963847_T_C	253	Gm02_27824060_T_G
164	Gm01_51831718_G_A	209	Gm02_10074856_T_C	254	Gm02_28331531_C_A
165	Gm01_51890126_A_G	210	Gm02_10241719_A_G	255	Gm02_2885598_C_A
166	Gm01_51946478_A_C	211	Gm02_1033642_T_C	256	Gm02_2920341_C_T
167	Gm01_52102056_T_C	212	Gm02_10373210_C_T	257	Gm02_29528097_T_C
168	Gm01_52154366_A_G	213	Gm02_10536842_A_G	258	Gm02_30036458_G_A
169	Gm01_5238004_A_G	214	Gm02_10709966_C_T	259	Gm02_30250662_T_C
170	Gm01_52551516_A_G	215	Gm02_11494870_T_C	260	Gm02_30439101_A_G
171	Gm01_52642507_T_G	216	Gm02_11540598_C_T	261	Gm02_30787675_T_G
172	Gm01_52887948_A_G	217	Gm02_11628896_T_C	262	Gm02_3091665_T_G
173	Gm01_5300057_T_C	218	Gm02_11998056_T_C	263	Gm02_30996860_A_G
174	Gm01_53242363_T_G	219	Gm02_12078209_G_A	264	Gm02_31905028_C_A
175	Gm01_53278791_G_T	220	Gm02_12168684_T_G	265	Gm02_32043775_T_C
176	Gm01_53675540_T_C	221	Gm02_12244605_A_G	266	Gm02_32346915_G_A
177	Gm01_53772846_G_T	222	Gm02_12303360_T_G	267	Gm02_32487728_T_C
178	Gm01_53900971_G_A	223	Gm02_13117615_T_C	268	Gm02_32605960_T_C
179	Gm01_54025362_C_T	224	Gm02_13476678_G_A	269	Gm02_32880763_C_T
180	Gm01_54123492_T_C	225	Gm02_13552155_A_G	270	Gm02_32904473_T_C

N°	Nombre del marcador	N°	Nombre del marcador	N°	Nombre del marcador
271	Gm02_33117418_G_T	316	Gm02_42788887_A_G	361	Gm02_46778366_G_A
272	Gm02_33608259_T_C	317	Gm02_42844384_T_C	362	Gm02_46855228_G_A
273	Gm02_3364524_C_T	318	Gm02_42928916_T_C	363	Gm02_4688093_C_A
274	Gm02_3429963_G_A	319	Gm02_43117347_T_C	364	Gm02_47051470_C_T
275	Gm02_34381583_T_C	320	Gm02_43139891_G_A	365	Gm02_47064977_G_A
276	Gm02_34765594_A_G	321	Gm02_4319761_C_T	366	Gm02_47125519_G_A
277	Gm02_35348897_T_C	322	Gm02_43641969_C_A	367	Gm02_47268207_C_T
278	Gm02_35471507_A_G	323	Gm02_43725963_A_G	368	Gm02_47314350_T_C
279	Gm02_3594255_T_G	324	Gm02_43777700_A_G	369	Gm02_47394316_A_G
280	Gm02_36300454_T_C	325	Gm02_43889571_T_C	370	Gm02_47515175_G_A
281	Gm02_3644248_T_C	326	Gm02_43952429_A_G	371	Gm02_47528737_C_T
282	Gm02_36666688_T_C	327	Gm02_44033150_T_C	372	Gm02_47790307_C_T
283	Gm02_37441958_T_C	328	Gm02_44114374_C_A	373	Gm02_4785649_G_T
284	Gm02_3774471_G_A	329	Gm02_44156636_G_T	374	Gm02_48248895_A_C
285	Gm02_38261529_G_A	330	Gm02_44190678_C_T	375	Gm02_48382122_G_A
286	Gm02_3835570_T_C	331	Gm02_44256235_A_G	376	Gm02_4848464_G_A
287	Gm02_3860736_G_A	332	Gm02_4430768_C_T	377	Gm02_48583877_A_C
288	Gm02_38843686_T_C	333	Gm02_44354376_T_C	378	Gm02_48594877_C_T
289	Gm02_3906107_A_G	334	Gm02_44401175_C_T	379	Gm02_48702118_T_G
290	Gm02_39299266_A_G	335	Gm02_44461839_G_A	380	Gm02_48821067_T_C
291	Gm02_3954305_C_T	336	Gm02_44510528_T_C	381	Gm02_48874048_G_A
292	Gm02_39548191_C_A	337	Gm02_447495_G_A	382	Gm02_49069634_C_T
293	Gm02_39931059_T_C	338	Gm02_44778963_T_C	383	Gm02_4909353_C_T
294	Gm02_40019470_G_A	339	Gm02_44863895_G_T	384	Gm02_49126947_T_C
295	Gm02_4019916_A_G	340	Gm02_4487187_A_C	385	Gm02_49276771_G_A
296	Gm02_4069373_T_G	341	Gm02_44923400_G_T	386	Gm02_49388210_T_G
297	Gm02_40709810_G_A	342	Gm02_45051600_A_G	387	Gm02_4957187_A_G
298	Gm02_40730869_T_C	343	Gm02_45183828_C_T	388	Gm02_49616128_C_A
299	Gm02_41021889_G_T	344	Gm02_45289939_A_G	389	Gm02_49679631_A_G
300	Gm02_41400852_G_A	345	Gm02_45366539_A_G	390	Gm02_496816_T_C
301	Gm02_41481689_T_C	346	Gm02_45445720_T_C	391	Gm02_49727178_A_C
302	Gm02_41505846_A_G	347	Gm02_45533271_C_A	392	Gm02_49776196_A_G
303	Gm02_41583970_C_A	348	Gm02_45596920_A_G	393	Gm02_49986718_G_A
304	Gm02_4159788_T_C	349	Gm02_45602331_C_T	394	Gm02_50175034_G_A
305	Gm02_41788343_T_C	350	Gm02_45805567_A_G	395	Gm02_50242535_T_C
306	Gm02_41860500_T_C	351	Gm02_45940601_T_C	396	Gm02_50304676_T_C
307	Gm02_41931129_T_G	352	Gm02_46023727_T_C	397	Gm02_50358347_C_T
308	Gm02_41979401_T_C	353	Gm02_46060359_C_A	398	Gm02_50383419_C_T
309	Gm02_4206514_A_G	354	Gm02_46187810_C_T	399	Gm02_504059_C_A
310	Gm02_42073855_G_A	355	Gm02_4618881_T_C	400	Gm02_50546149_C_T
311	Gm02_42204732_T_C	356	Gm02_46243447_G_A	401	Gm02_50706913_G_A
312	Gm02_42355637_A_G	357	Gm02_46288368_G_A	402	Gm02_50710552_G_A
313	Gm02_42404873_T_C	358	Gm02_46504621_T_C	403	Gm02_50936574_G_T
314	Gm02_42650889_T_C	359	Gm02_46555984_C_T	404	Gm02_51025014_A_C
315	Gm02_42737643_C_T	360	Gm02_46630927_G_A	405	Gm02_5107836_C_A

N°	Nombre del marcador	N°	Nombre del marcador	N°	Nombre del marcador
406	Gm02_51154756_C_T	451	Gm02_9873369_T_C	496	Gm03_25818759_T_C
407	Gm02_51238_A_G	452	Gm02_9990067_T_C	497	Gm03_27021460_A_G
408	Gm02_51272051_C_A	453	Gm03_10408873_C_T	498	Gm03_27285377_A_G
409	Gm02_51411364_G_A	454	Gm03_1077329_C_T	499	Gm03_28015945_T_C
410	Gm02_51429037_T_C	455	Gm03_10982565_T_C	500	Gm03_2818076_T_C
411	Gm02_5155733_T_G	456	Gm03_11396505_C_T	501	Gm03_28414908_A_G
412	Gm02_5202276_T_C	457	Gm03_1209205_G_T	502	Gm03_2892089_C_T
413	Gm02_5343214_T_C	458	Gm03_12163115_T_G	503	Gm03_29074893_T_C
414	Gm02_5380722_C_T	459	Gm03_13015481_T_C	504	Gm03_2932028_G_A
415	Gm02_5456974_A_G	460	Gm03_1302748_T_C	505	Gm03_29375217_T_C
416	Gm02_5595797_G_A	461	Gm03_13245008_C_T	506	Gm03_29628783_T_C
417	Gm02_5640246_C_A	462	Gm03_13642775_C_T	507	Gm03_29817747_G_T
418	Gm02_5809648_C_T	463	Gm03_1374930_T_G	508	Gm03_30529089_A_C
419	Gm02_5929459_C_T	464	Gm03_14228358_T_C	509	Gm03_30647053_T_C
420	Gm02_5987005_C_T	465	Gm03_1441844_C_A	510	Gm03_30809885_T_C
421	Gm02_6180795_T_G	466	Gm03_14840739_T_G	511	Gm03_3087237_A_G
422	Gm02_6225129_T_G	467	Gm03_15615896_C_T	512	Gm03_30955790_A_G
423	Gm02_6503793_A_G	468	Gm03_1583754_T_C	513	Gm03_3164784_G_A
424	Gm02_6734421_T_C	469	Gm03_16281390_A_G	514	Gm03_31711487_A_G
425	Gm02_6821311_A_C	470	Gm03_16612828_A_G	515	Gm03_3225968_G_A
426	Gm02_693740_A_G	471	Gm03_1671384_C_A	516	Gm03_3334303_C_A
427	Gm02_6971683_T_C	472	Gm03_168228_A_G	517	Gm03_3365988_T_G
428	Gm02_7267240_T_G	473	Gm03_1718435_A_G	518	Gm03_345478_G_A
429	Gm02_7435044_T_C	474	Gm03_1758253_T_C	519	Gm03_34741364_A_G
430	Gm02_7517197_T_G	475	Gm03_18113789_C_T	520	Gm03_3497393_A_C
431	Gm02_7590666_T_G	476	Gm03_18254831_C_T	521	Gm03_35330372_G_T
432	Gm02_769809_G_A	477	Gm03_18512439_C_T	522	Gm03_35516341_C_T
433	Gm02_7721197_G_A	478	Gm03_1853758_T_C	523	Gm03_3562176_C_T
434	Gm02_831797_C_T	479	Gm03_1926419_T_G	524	Gm03_35712315_A_G
435	Gm02_8455103_A_G	480	Gm03_1981847_C_T	525	Gm03_35797299_A_G
436	Gm02_8521511_C_A	481	Gm03_2024899_G_A	526	Gm03_35913889_T_C
437	Gm02_8730196_G_A	482	Gm03_20637413_G_T	527	Gm03_35968599_G_A
438	Gm02_881272_G_A	483	Gm03_206707_G_A	528	Gm03_36018412_T_C
439	Gm02_9025221_T_C	484	Gm03_2083705_C_T	529	Gm03_36058927_T_C
440	Gm02_9039246_T_C	485	Gm03_21175765_T_G	530	Gm03_36111069_A_G
441	Gm02_9177001_G_A	486	Gm03_21347065_C_T	531	Gm03_36178327_G_A
442	Gm02_9289865_C_T	487	Gm03_21918775_A_G	532	Gm03_3618454_G_T
443	Gm02_9322142_T_C	488	Gm03_22189671_C_T	533	Gm03_36386316_G_A
444	Gm02_9370878_G_T	489	Gm03_22259196_C_A	534	Gm03_36396038_A_C
445	Gm02_9446659_T_C	490	Gm03_22371830_G_A	535	Gm03_36438792_G_T
446	Gm02_9492605_T_C	491	Gm03_23324209_C_T	536	Gm03_36489202_C_T
447	Gm02_9592601_A_G	492	Gm03_2373742_T_C	537	Gm03_36569286_A_G
448	Gm02_9670302_A_G	493	Gm03_241447_C_A	538	Gm03_3659662_A_G
449	Gm02_971923_C_A	494	Gm03_2485916_T_C	539	Gm03_36634361_G_A
450	Gm02_9795247_C_T	495	Gm03_25305047_T_C	540	Gm03_36714581_T_C

N°	Nombre del marcador	N°	Nombre del marcador	N°	Nombre del marcador
541	Gm03_36816006_A_G	586	Gm03_40417269_A_G	631	Gm03_45994991_T_C
542	Gm03_36863476_C_A	587	Gm03_40452899_C_A	632	Gm03_46055685_C_T
543	Gm03_36969159_A_G	588	Gm03_40600088_A_G	633	Gm03_46096566_A_G
544	Gm03_37024877_C_T	589	Gm03_40613405_T_C	634	Gm03_46209325_G_A
545	Gm03_37146641_T_C	590	Gm03_40663609_G_A	635	Gm03_46214163_C_T
546	Gm03_37245981_T_C	591	Gm03_40727780_A_G	636	Gm03_46337339_T_C
547	Gm03_37286104_T_C	592	Gm03_40768058_C_A	637	Gm03_46380953_T_G
548	Gm03_37326508_A_G	593	Gm03_40910014_T_G	638	Gm03_46445958_G_T
549	Gm03_37366357_C_A	594	Gm03_41020834_T_C	639	Gm03_46508111_A_C
550	Gm03_37432542_C_A	595	Gm03_41090179_T_C	640	Gm03_46592189_A_G
551	Gm03_37488779_G_A	596	Gm03_41135466_C_T	641	Gm03_4665923_C_T
552	Gm03_37534583_G_A	597	Gm03_41228284_A_G	642	Gm03_46889507_T_C
553	Gm03_37654429_G_T	598	Gm03_41305199_G_A	643	Gm03_46998040_A_G
554	Gm03_37711069_G_A	599	Gm03_41605831_A_C	644	Gm03_47039930_T_C
555	Gm03_37773419_C_T	600	Gm03_41984976_T_C	645	Gm03_47106922_G_A
556	Gm03_37819433_T_C	601	Gm03_42148379_T_G	646	Gm03_47161489_A_G
557	Gm03_37902930_C_T	602	Gm03_42223337_G_A	647	Gm03_4718162_C_A
558	Gm03_37963252_A_G	603	Gm03_42308865_C_T	648	Gm03_47212539_T_C
559	Gm03_38069022_A_G	604	Gm03_42595334_T_C	649	Gm03_47320906_C_T
560	Gm03_38121627_T_C	605	Gm03_426154_C_A	650	Gm03_47386481_A_C
561	Gm03_38173815_A_C	606	Gm03_43355787_C_T	651	Gm03_4782127_T_C
562	Gm03_3828735_G_A	607	Gm03_43504459_G_A	652	Gm03_4833386_A_G
563	Gm03_38367581_G_A	608	Gm03_43525455_A_G	653	Gm03_4901669_A_G
564	Gm03_38415618_T_G	609	Gm03_43599557_T_C	654	Gm03_4958610_G_A
565	Gm03_38469714_C_T	610	Gm03_43707104_A_G	655	Gm03_5037059_G_A
566	Gm03_38526701_A_G	611	Gm03_43819565_C_A	656	Gm03_5106459_T_G
567	Gm03_38689365_C_T	612	Gm03_44019995_G_A	657	Gm03_510734_A_G
568	Gm03_38761991_G_T	613	Gm03_44118764_C_T	658	Gm03_5165511_A_C
569	Gm03_38862467_A_G	614	Gm03_44171693_A_C	659	Gm03_5217414_C_T
570	Gm03_38931849_C_A	615	Gm03_44475419_C_A	660	Gm03_5257705_A_G
571	Gm03_38976026_C_T	616	Gm03_44583239_A_C	661	Gm03_5297117_C_A
572	Gm03_3907697_A_G	617	Gm03_4468196_C_T	662	Gm03_5341695_A_G
573	Gm03_39491355_G_T	618	Gm03_44693761_T_C	663	Gm03_5451606_A_C
574	Gm03_39574966_T_C	619	Gm03_44790322_A_G	664	Gm03_5502496_T_C
575	Gm03_39737276_T_C	620	Gm03_44834109_G_A	665	Gm03_566774_G_A
576	Gm03_39796778_T_G	621	Gm03_44920668_A_G	666	Gm03_5796468_A_G
577	Gm03_39843152_T_C	622	Gm03_44992819_A_G	667	Gm03_6035510_A_C
578	Gm03_39915523_C_T	623	Gm03_45217524_G_T	668	Gm03_6459920_A_G
579	Gm03_39945298_T_C	624	Gm03_45416367_C_T	669	Gm03_6631189_A_G
580	Gm03_39998708_A_G	625	Gm03_45488992_G_A	670	Gm03_6844115_A_C
581	Gm03_40052612_T_C	626	Gm03_45614970_C_T	671	Gm03_785680_A_C
582	Gm03_40115297_C_T	627	Gm03_45668212_A_G	672	Gm03_8003327_T_C
583	Gm03_40197155_A_C	628	Gm03_4578272_G_A	673	Gm03_8228940_G_A
584	Gm03_40270199_T_C	629	Gm03_45810070_A_G	674	Gm03_829023_G_T
585	Gm03_40323334_C_T	630	Gm03_45954229_T_C	675	Gm03_9104329_A_G



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676	Gm03_949581_T_C	721	Gm04_30457043_A_G	766	Gm04_46517129_C_T
677	Gm03_9641204_C_A	722	Gm04_30926129_G_A	767	Gm04_46550218_A_G
678	Gm03_9789580_G_T	723	Gm04_31436577_C_A	768	Gm04_46700121_A_G
679	Gm04_10117285_G_A	724	Gm04_32800373_C_T	769	Gm04_46774083_G_A
680	Gm04_10805_T_C	725	Gm04_37126858_A_G	770	Gm04_46835852_A_C
681	Gm04_10868076_G_A	726	Gm04_38135736_T_G	771	Gm04_46873023_T_G
682	Gm04_11433919_T_C	727	Gm04_38840391_A_G	772	Gm04_46932652_T_G
683	Gm04_11936288_G_T	728	Gm04_39087487_T_C	773	Gm04_46966383_G_A
684	Gm04_12216645_G_A	729	Gm04_39753174_T_C	774	Gm04_47092275_T_C
685	Gm04_12283176_T_C	730	Gm04_40345917_C_T	775	Gm04_47158138_T_C
686	Gm04_13022455_C_T	731	Gm04_40398866_C_T	776	Gm04_47313368_T_G
687	Gm04_13284121_T_C	732	Gm04_40811025_C_A	777	Gm04_47367432_A_G
688	Gm04_13509340_T_C	733	Gm04_41071612_A_G	778	Gm04_47540792_T_C
689	Gm04_14549891_C_T	734	Gm04_41328216_A_G	779	Gm04_47642228_A_G
690	Gm04_14641479_A_C	735	Gm04_41537794_G_A	780	Gm04_47718975_A_C
691	Gm04_15048603_A_G	736	Gm04_42153936_T_C	781	Gm04_47957714_A_C
692	Gm04_1621110_C_A	737	Gm04_42290567_T_C	782	Gm04_47981836_T_C
693	Gm04_16244996_G_A	738	Gm04_43002324_T_G	783	Gm04_48140577_G_A
694	Gm04_16338974_A_G	739	Gm04_43059665_A_C	784	Gm04_48198636_G_A
695	Gm04_16476066_C_T	740	Gm04_43800862_C_T	785	Gm04_48244118_G_A
696	Gm04_16999532_T_C	741	Gm04_43885291_A_G	786	Gm04_48414788_T_C
697	Gm04_17773168_A_G	742	Gm04_43966863_G_A	787	Gm04_48812166_A_G
698	Gm04_18000454_A_C	743	Gm04_44046112_T_C	788	Gm04_48856621_C_T
699	Gm04_19107515_A_G	744	Gm04_44114492_T_C	789	Gm04_48977363_C_T
700	Gm04_20729591_G_A	745	Gm04_44170480_C_A	790	Gm04_49060197_T_G
701	Gm04_20796034_A_G	746	Gm04_44220515_C_T	791	Gm04_516796_A_G
702	Gm04_20921247_T_C	747	Gm04_44290827_T_C	792	Gm04_5172181_A_G
703	Gm04_22217995_T_C	748	Gm04_44337597_T_C	793	Gm04_547510_C_T
704	Gm04_2237308_T_C	749	Gm04_44383936_C_T	794	Gm04_5750694_G_A
705	Gm04_2268644_T_C	750	Gm04_44611649_T_C	795	Gm04_5950275_G_A
706	Gm04_23251720_T_C	751	Gm04_45093386_G_A	796	Gm04_6013342_A_C
707	Gm04_2365466_G_T	752	Gm04_45146452_T_G	797	Gm04_6064896_G_A
708	Gm04_24086337_A_G	753	Gm04_45221708_C_T	798	Gm04_622489_A_G
709	Gm04_24276060_G_T	754	Gm04_45313496_C_T	799	Gm04_6341132_T_C
710	Gm04_25230364_T_C	755	Gm04_45440686_T_C	800	Gm04_6643461_A_G
711	Gm04_2574201_T_G	756	Gm04_45514250_A_G	801	Gm04_6897543_G_A
712	Gm04_2632511_T_G	757	Gm04_456406_A_G	802	Gm04_6949955_C_A
713	Gm04_26520135_C_A	758	Gm04_45773963_G_A	803	Gm04_7052221_A_G
714	Gm04_2681971_T_C	759	Gm04_46086046_G_A	804	Gm04_7115824_A_G
715	Gm04_27207244_A_G	760	Gm04_46215544_T_C	805	Gm04_717646_C_T
716	Gm04_28018833_G_A	761	Gm04_46280438_G_A	806	Gm04_7213250_T_C
717	Gm04_28062086_G_A	762	Gm04_46333298_A_G	807	Gm04_7436164_T_C
718	Gm04_28121297_A_G	763	Gm04_46390533_T_C	808	Gm04_7672403_A_G
719	Gm04_282832_A_G	764	Gm04_46428018_A_C	809	Gm04_7957588_G_T
720	Gm04_29535808_A_G	765	Gm04_46469835_C_A	810	Gm04_8004029_C_A

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811	Gm04_8065917_C_T	856	Gm05_2708074_T_C	901	Gm05_33651401_T_C
812	Gm04_8126739_A_G	857	Gm05_27214654_G_A	902	Gm05_33737561_T_C
813	Gm04_8317828_G_A	858	Gm05_27226936_A_G	903	Gm05_33785297_T_C
814	Gm04_8362425_A_G	859	Gm05_27342672_T_G	904	Gm05_33843473_C_T
815	Gm04_8375095_T_C	860	Gm05_27365188_A_G	905	Gm05_34081675_A_G
816	Gm04_8457367_T_C	861	Gm05_27384800_C_T	906	Gm05_34115366_T_C
817	Gm04_8493767_T_C	862	Gm05_27460724_A_G	907	Gm05_34190449_C_T
818	Gm04_8701289_A_G	863	Gm05_28259595_A_G	908	Gm05_34439737_T_C
819	Gm04_8760004_T_G	864	Gm05_28310838_T_C	909	Gm05_34536503_T_C
820	Gm04_8845668_G_T	865	Gm05_2967386_A_G	910	Gm05_34570503_C_A
821	Gm04_8937855_A_G	866	Gm05_29970914_A_G	911	Gm05_34692879_G_T
822	Gm04_9174100_G_A	867	Gm05_30013264_G_A	912	Gm05_34734860_T_C
823	Gm04_9242542_C_T	868	Gm05_30172432_C_T	913	Gm05_34765648_A_G
824	Gm04_9334751_T_C	869	Gm05_30702753_T_C	914	Gm05_34801979_T_G
825	Gm04_9464579_T_C	870	Gm05_30931540_G_A	915	Gm05_34830575_G_A
826	Gm04_9553531_A_G	871	Gm05_30966423_G_T	916	Gm05_34887900_A_G
827	Gm04_9600878_C_A	872	Gm05_30976228_G_A	917	Gm05_34939267_A_G
828	Gm04_972585_C_A	873	Gm05_31048974_G_A	918	Gm05_34976496_A_G
829	Gm04_9789418_C_T	874	Gm05_31274857_A_G	919	Gm05_35039076_C_T
830	Gm04_9824083_A_G	875	Gm05_3131772_G_A	920	Gm05_3505412_G_A
831	Gm05_1062563_A_G	876	Gm05_31317887_C_T	921	Gm05_35103944_A_G
832	Gm05_1106905_A_G	877	Gm05_31334797_C_T	922	Gm05_35237092_T_G
833	Gm05_11165309_C_T	878	Gm05_31399568_T_G	923	Gm05_35262325_T_G
834	Gm05_1209782_A_G	879	Gm05_31553830_C_A	924	Gm05_35326427_C_T
835	Gm05_1236013_A_C	880	Gm05_31662958_A_C	925	Gm05_35368098_A_C
836	Gm05_1294282_C_T	881	Gm05_31767626_A_G	926	Gm05_35416641_C_T
837	Gm05_1490457_C_T	882	Gm05_31827868_T_G	927	Gm05_35450915_T_C
838	Gm05_1500111_G_A	883	Gm05_32043439_T_G	928	Gm05_35518408_T_C
839	Gm05_1547102_C_T	884	Gm05_32097530_A_C	929	Gm05_35650389_C_T
840	Gm05_1602402_C_T	885	Gm05_32130134_T_C	930	Gm05_35690382_A_G
841	Gm05_1705841_A_G	886	Gm05_32327497_T_C	931	Gm05_3569588_T_C
842	Gm05_1744708_G_A	887	Gm05_32565157_T_C	932	Gm05_35724027_A_G
843	Gm05_1802095_T_C	888	Gm05_32654943_T_C	933	Gm05_35860939_C_T
844	Gm05_2032662_C_T	889	Gm05_32734184_G_A	934	Gm05_35992617_T_C
845	Gm05_2109639_G_T	890	Gm05_3284858_A_G	935	Gm05_36196250_T_G
846	Gm05_2183459_A_G	891	Gm05_32908802_T_C	936	Gm05_36266459_A_G
847	Gm05_2216235_A_G	892	Gm05_32980603_A_G	937	Gm05_36393767_C_T
848	Gm05_23799613_A_G	893	Gm05_33050904_A_G	938	Gm05_36429393_C_T
849	Gm05_2548644_C_T	894	Gm05_33075880_T_C	939	Gm05_36465301_T_C
850	Gm05_2647363_C_T	895	Gm05_33130272_A_G	940	Gm05_3664732_A_G
851	Gm05_26685967_G_A	896	Gm05_33176582_G_A	941	Gm05_36671535_C_T
852	Gm05_26716419_G_T	897	Gm05_33268964_T_G	942	Gm05_36749252_T_C
853	Gm05_26728271_G_A	898	Gm05_33290398_G_A	943	Gm05_36769351_T_G
854	Gm05_2674662_T_G	899	Gm05_33576968_A_G	944	Gm05_37043636_A_C
855	Gm05_26773791_T_C	900	Gm05_33618722_T_C	945	Gm05_37071607_G_A

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946	Gm05_37115396_A_G	991	Gm05_40942868_G_A	1036	Gm06_10383065_G_A
947	Gm05_37194257_T_C	992	Gm05_41066968_A_G	1037	Gm06_10464340_G_A
948	Gm05_37260149_A_G	993	Gm05_41151290_T_C	1038	Gm06_10693310_G_A
949	Gm05_37305888_A_G	994	Gm05_41186986_G_A	1039	Gm06_10781518_T_C
950	Gm05_37409751_C_T	995	Gm05_41240881_A_G	1040	Gm06_10823424_C_T
951	Gm05_37480785_T_C	996	Gm05_41265569_A_G	1041	Gm06_10891060_T_C
952	Gm05_37592640_T_C	997	Gm05_41318744_A_G	1042	Gm06_10993554_A_G
953	Gm05_37611048_C_T	998	Gm05_41344316_C_T	1043	Gm06_1101232_T_C
954	Gm05_3764264_C_T	999	Gm05_41394645_G_T	1044	Gm06_11098210_C_T
955	Gm05_37650940_T_C	1000	Gm05_41481303_T_C	1045	Gm06_11333769_G_A
956	Gm05_37744939_G_T	1001	Gm05_41638179_T_C	1046	Gm06_11479872_T_C
957	Gm05_37990846_C_T	1002	Gm05_41658399_C_T	1047	Gm06_11659627_A_G
958	Gm05_38036821_A_C	1003	Gm05_41740936_C_T	1048	Gm06_11948808_G_A
959	Gm05_38073855_C_T	1004	Gm05_41866018_G_A	1049	Gm06_12028624_A_G
960	Gm05_38098748_C_A	1005	Gm05_429856_A_G	1050	Gm06_1216803_A_C
961	Gm05_3859212_C_T	1006	Gm05_492138_C_T	1051	Gm06_12252031_C_T
962	Gm05_38636402_G_A	1007	Gm05_616935_C_A	1052	Gm06_12414435_G_A
963	Gm05_38674350_C_T	1008	Gm05_682648_A_G	1053	Gm06_12544455_A_G
964	Gm05_38703433_T_C	1009	Gm05_7107494_T_C	1054	Gm06_12914255_A_G
965	Gm05_38950372_T_C	1010	Gm05_7499958_G_T	1055	Gm06_12963850_T_C
966	Gm05_38995911_C_T	1011	Gm05_7542380_A_C	1056	Gm06_13008773_A_G
967	Gm05_39021151_C_A	1012	Gm05_7588610_C_T	1057	Gm06_13193350_G_A
968	Gm05_3905135_T_C	1013	Gm05_765761_G_T	1058	Gm06_13237698_A_G
969	Gm05_39054172_A_G	1014	Gm05_7681969_G_A	1059	Gm06_1328895_T_C
970	Gm05_39083568_A_G	1015	Gm05_7714399_A_C	1060	Gm06_13318948_A_G
971	Gm05_39273308_T_G	1016	Gm05_7766091_G_A	1061	Gm06_13401987_C_T
972	Gm05_39341525_C_T	1017	Gm05_7842055_T_C	1062	Gm06_13472059_A_G
973	Gm05_39374746_C_T	1018	Gm05_8031928_A_C	1063	Gm06_13528200_T_C
974	Gm05_39402030_T_C	1019	Gm05_8074146_A_G	1064	Gm06_13621986_A_C
975	Gm05_39432585_C_A	1020	Gm05_8140171_A_G	1065	Gm06_13732043_T_C
976	Gm05_394764_T_C	1021	Gm05_8170257_C_T	1066	Gm06_13811298_C_T
977	Gm05_39576558_A_G	1022	Gm05_8597246_C_T	1067	Gm06_1387164_A_G
978	Gm05_39643904_T_C	1023	Gm05_8656389_T_C	1068	Gm06_13881657_A_G
979	Gm05_40044590_T_G	1024	Gm05_8695812_A_G	1069	Gm06_13990118_C_T
980	Gm05_40147071_T_C	1025	Gm05_8736763_G_A	1070	Gm06_14058543_A_C
981	Gm05_40169104_G_A	1026	Gm05_8810126_G_T	1071	Gm06_14138713_C_A
982	Gm05_40299923_A_G	1027	Gm05_888436_A_G	1072	Gm06_14238413_A_C
983	Gm05_40349605_T_C	1028	Gm05_8916450_C_T	1073	Gm06_14321140_T_C
984	Gm05_40452052_G_T	1029	Gm05_8956994_C_T	1074	Gm06_14359453_T_C
985	Gm05_40517408_T_C	1030	Gm05_9012813_A_G	1075	Gm06_14452528_G_A
986	Gm05_40528969_T_G	1031	Gm05_9097414_G_A	1076	Gm06_1454403_A_C
987	Gm05_40642754_C_A	1032	Gm05_997108_A_G	1077	Gm06_14573229_C_T
988	Gm05_40791973_A_G	1033	Gm06_10124470_T_C	1078	Gm06_14737902_A_G
989	Gm05_40824886_T_C	1034	Gm06_10240897_T_C	1079	Gm06_14859364_A_C
990	Gm05_40919406_C_T	1035	Gm06_10324739_T_G	1080	Gm06_14972027_A_C

N°	Nombre del marcador	N°	Nombre del marcador	N°	Nombre del marcador
1081	Gm06_1514202_T_C	1126	Gm06_30260912_A_G	1171	Gm06_47723155_T_C
1082	Gm06_15702934_A_G	1127	Gm06_30534657_A_G	1172	Gm06_47764344_C_T
1083	Gm06_15793203_T_C	1128	Gm06_31288514_A_C	1173	Gm06_47823144_T_G
1084	Gm06_15910152_A_G	1129	Gm06_3143746_T_C	1174	Gm06_48037370_T_G
1085	Gm06_16084283_C_T	1130	Gm06_3199735_A_G	1175	Gm06_48098064_A_C
1086	Gm06_16133328_G_A	1131	Gm06_32079709_C_A	1176	Gm06_48144110_G_A
1087	Gm06_16207402_T_C	1132	Gm06_32525220_G_T	1177	Gm06_4820133_A_G
1088	Gm06_16315206_A_G	1133	Gm06_3335673_A_G	1178	Gm06_48261084_C_A
1089	Gm06_16390152_A_G	1134	Gm06_33615663_G_A	1179	Gm06_48475049_C_T
1090	Gm06_16566894_G_A	1135	Gm06_3370143_T_C	1180	Gm06_48528885_G_T
1091	Gm06_16669594_G_T	1136	Gm06_3516687_C_T	1181	Gm06_48582951_G_A
1092	Gm06_16745340_A_G	1137	Gm06_3608127_T_C	1182	Gm06_48699388_T_G
1093	Gm06_16853739_A_C	1138	Gm06_37823440_T_C	1183	Gm06_48829470_C_T
1094	Gm06_16923935_T_C	1139	Gm06_3941524_A_G	1184	Gm06_48898037_G_A
1095	Gm06_17188046_A_G	1140	Gm06_40454884_C_T	1185	Gm06_489058_C_A
1096	Gm06_17258654_A_G	1141	Gm06_4298418_T_C	1186	Gm06_48988513_T_C
1097	Gm06_17356033_G_A	1142	Gm06_4302100_C_T	1187	Gm06_49106015_C_T
1098	Gm06_1737718_C_T	1143	Gm06_43235059_C_T	1188	Gm06_49209907_C_T
1099	Gm06_17399306_A_C	1144	Gm06_43432590_G_A	1189	Gm06_49330690_G_T
1100	Gm06_17617727_G_T	1145	Gm06_43980786_G_A	1190	Gm06_49343224_G_T
1101	Gm06_18033759_A_G	1146	Gm06_4422517_A_G	1191	Gm06_4935060_G_A
1102	Gm06_18252495_T_C	1147	Gm06_44964380_T_C	1192	Gm06_49570784_G_A
1103	Gm06_18447419_G_A	1148	Gm06_45362447_C_T	1193	Gm06_49643463_G_A
1104	Gm06_18583273_A_C	1149	Gm06_45768166_A_G	1194	Gm06_49836079_C_T
1105	Gm06_18766611_C_T	1150	Gm06_46078974_G_A	1195	Gm06_49915592_A_C
1106	Gm06_19282687_A_G	1151	Gm06_46186757_C_T	1196	Gm06_4995087_A_G
1107	Gm06_19540686_C_T	1152	Gm06_46271407_G_A	1197	Gm06_50038514_T_C
1108	Gm06_20152926_T_C	1153	Gm06_46321637_C_T	1198	Gm06_50100354_G_T
1109	Gm06_20486758_C_A	1154	Gm06_46375359_G_A	1199	Gm06_50143995_A_G
1110	Gm06_20739900_T_C	1155	Gm06_46425973_T_C	1200	Gm06_50217611_T_C
1111	Gm06_20943239_T_C	1156	Gm06_4644965_G_A	1201	Gm06_50261723_A_G
1112	Gm06_21567013_G_A	1157	Gm06_46564658_C_A	1202	Gm06_50305091_T_C
1113	Gm06_22271239_C_T	1158	Gm06_46677140_C_T	1203	Gm06_50355014_A_G
1114	Gm06_2325487_G_T	1159	Gm06_46790136_C_T	1204	Gm06_50397370_T_C
1115	Gm06_23462870_C_T	1160	Gm06_46905460_G_A	1205	Gm06_50453859_A_G
1116	Gm06_2393421_A_G	1161	Gm06_46970966_C_T	1206	Gm06_5058345_A_G
1117	Gm06_24160775_C_T	1162	Gm06_47026169_C_A	1207	Gm06_5829396_G_A
1118	Gm06_2481084_A_G	1163	Gm06_47063453_G_T	1208	Gm06_5847946_T_G
1119	Gm06_25704938_T_C	1164	Gm06_47191346_C_T	1209	Gm06_6141525_A_C
1120	Gm06_25799930_T_C	1165	Gm06_47238226_A_G	1210	Gm06_6399055_C_T
1121	Gm06_2596995_A_G	1166	Gm06_47338142_T_G	1211	Gm06_6488212_A_C
1122	Gm06_26981990_G_T	1167	Gm06_47402504_A_G	1212	Gm06_657590_T_G
1123	Gm06_27322640_A_G	1168	Gm06_47439414_C_T	1213	Gm06_6576054_G_A
1124	Gm06_28315232_G_A	1169	Gm06_47550354_A_G	1214	Gm06_6797764_C_T
1125	Gm06_28991907_C_T	1170	Gm06_47631544_T_C	1215	Gm06_6838468_A_C

N°	Nombre del marcador	N°	Nombre del marcador	N°	Nombre del marcador
1216	Gm06_6914278_T_C	1261	Gm07_15748996_T_G	1306	Gm07_30471642_A_G
1217	Gm06_6976076_C_T	1262	Gm07_15800472_A_G	1307	Gm07_308906_G_A
1218	Gm06_7072768_A_G	1263	Gm07_15870753_C_A	1308	Gm07_31363791_T_C
1219	Gm06_7259462_T_C	1264	Gm07_16020670_G_T	1309	Gm07_3143196_C_T
1220	Gm06_7323345_T_G	1265	Gm07_16031010_C_T	1310	Gm07_3147674_G_A
1221	Gm06_7683418_G_A	1266	Gm07_16100034_C_T	1311	Gm07_32588864_T_C
1222	Gm06_7756576_G_A	1267	Gm07_16155436_G_A	1312	Gm07_3281799_T_G
1223	Gm06_7836214_T_C	1268	Gm07_1630335_G_A	1313	Gm07_3318193_T_C
1224	Gm06_7918219_C_T	1269	Gm07_16979586_C_T	1314	Gm07_33333813_T_C
1225	Gm06_8015415_G_T	1270	Gm07_17030454_G_A	1315	Gm07_33718140_A_G
1226	Gm06_8079300_T_C	1271	Gm07_17095590_C_T	1316	Gm07_34279212_C_T
1227	Gm06_8483050_C_T	1272	Gm07_17160464_A_G	1317	Gm07_34580678_G_A
1228	Gm06_8979504_A_G	1273	Gm07_17362808_A_G	1318	Gm07_35142318_A_G
1229	Gm06_9081030_C_A	1274	Gm07_17615932_A_G	1319	Gm07_35194991_A_G
1230	Gm06_909751_C_T	1275	Gm07_17922541_T_C	1320	Gm07_35547398_T_C
1231	Gm06_9216536_A_C	1276	Gm07_18175034_G_A	1321	Gm07_35619623_G_A
1232	Gm06_9263869_A_C	1277	Gm07_18293045_C_T	1322	Gm07_35736677_G_A
1233	Gm06_9668798_T_C	1278	Gm07_185603_C_T	1323	Gm07_35809061_C_T
1234	Gm06_969495_G_T	1279	Gm07_18633505_T_C	1324	Gm07_35908169_T_C
1235	Gm06_9756999_T_C	1280	Gm07_18928198_T_C	1325	Gm07_35992034_T_G
1236	Gm06_9803356_C_T	1281	Gm07_19361456_T_C	1326	Gm07_36285014_A_G
1237	Gm06_9952410_T_C	1282	Gm07_19905517_G_A	1327	Gm07_36357080_T_C
1238	Gm07_10193199_G_A	1283	Gm07_20527016_C_T	1328	Gm07_36551753_A_G
1239	Gm07_10236359_A_G	1284	Gm07_21193861_G_A	1329	Gm07_36605671_C_T
1240	Gm07_1034903_T_C	1285	Gm07_21217603_T_C	1330	Gm07_36687397_G_A
1241	Gm07_10403810_C_T	1286	Gm07_22668340_A_G	1331	Gm07_36782624_T_G
1242	Gm07_10451670_C_T	1287	Gm07_22686796_T_C	1332	Gm07_36998381_T_C
1243	Gm07_10806729_G_A	1288	Gm07_23710284_A_G	1333	Gm07_37096617_A_G
1244	Gm07_10926994_A_G	1289	Gm07_2418465_A_G	1334	Gm07_37193303_C_T
1245	Gm07_1119462_A_G	1290	Gm07_24197913_T_G	1335	Gm07_37260926_G_A
1246	Gm07_1246890_T_G	1291	Gm07_24960162_C_A	1336	Gm07_37272144_G_T
1247	Gm07_12858110_C_A	1292	Gm07_260352_G_A	1337	Gm07_37374894_A_C
1248	Gm07_1382983_T_G	1293	Gm07_2646409_C_T	1338	Gm07_37710555_C_T
1249	Gm07_14090959_A_G	1294	Gm07_26960074_A_G	1339	Gm07_37983142_C_A
1250	Gm07_14256111_T_C	1295	Gm07_2704982_G_A	1340	Gm07_38106438_A_C
1251	Gm07_14552113_T_G	1296	Gm07_2740071_G_A	1341	Gm07_38182939_A_C
1252	Gm07_14748407_G_T	1297	Gm07_27445113_A_G	1342	Gm07_38241521_T_C
1253	Gm07_14862607_C_T	1298	Gm07_2784908_G_A	1343	Gm07_38334707_G_A
1254	Gm07_14979158_T_C	1299	Gm07_27998252_G_A	1344	Gm07_3845105_A_C
1255	Gm07_15085661_G_A	1300	Gm07_2814243_A_G	1345	Gm07_38631457_T_C
1256	Gm07_151038_A_C	1301	Gm07_28865848_T_C	1346	Gm07_38861000_C_T
1257	Gm07_15549006_A_G	1302	Gm07_2929896_C_T	1347	Gm07_38991567_G_A
1258	Gm07_15590266_C_T	1303	Gm07_29330183_G_A	1348	Gm07_39160931_A_G
1259	Gm07_15663842_T_C	1304	Gm07_30018015_T_C	1349	Gm07_39225759_C_T
1260	Gm07_15717199_G_T	1305	Gm07_3042699_C_T	1350	Gm07_3953270_T_C

N°	Nombre del marcador	N°	Nombre del marcador	N°	Nombre del marcador
1351	Gm07_3990308_A_G	1396	Gm07_7160924_T_C	1441	Gm08_10570097_C_T
1352	Gm07_40550203_G_A	1397	Gm07_7284474_A_G	1442	Gm08_10789902_T_C
1353	Gm07_40621014_G_A	1398	Gm07_7579367_G_A	1443	Gm08_10947242_C_T
1354	Gm07_40945201_C_T	1399	Gm07_7618698_T_C	1444	Gm08_11073425_T_G
1355	Gm07_41854732_G_A	1400	Gm07_7666127_T_C	1445	Gm08_11257840_T_C
1356	Gm07_41892346_A_G	1401	Gm07_7732175_G_A	1446	Gm08_11501419_A_C
1357	Gm07_42102555_A_G	1402	Gm07_7848929_T_C	1447	Gm08_11914363_C_T
1358	Gm07_42275940_A_C	1403	Gm07_7913364_T_C	1448	Gm08_11971416_C_T
1359	Gm07_42450573_A_G	1404	Gm07_7950118_A_G	1449	Gm08_12189320_G_A
1360	Gm07_42643191_A_G	1405	Gm07_7984980_G_T	1450	Gm08_12251183_T_C
1361	Gm07_42851461_T_C	1406	Gm07_8018299_A_G	1451	Gm08_12309919_A_G
1362	Gm07_42923420_G_A	1407	Gm07_8112122_C_T	1452	Gm08_12392887_C_T
1363	Gm07_42963672_C_A	1408	Gm07_8166605_T_C	1453	Gm08_12475844_A_C
1364	Gm07_43067274_G_T	1409	Gm07_8212204_A_G	1454	Gm08_13914377_A_G
1365	Gm07_43946876_A_G	1410	Gm07_8270118_T_C	1455	Gm08_13959439_T_C
1366	Gm07_439872_A_G	1411	Gm07_8327392_G_A	1456	Gm08_14004130_G_A
1367	Gm07_44451098_G_A	1412	Gm07_8385653_T_C	1457	Gm08_14033412_T_G
1368	Gm07_44621109_A_G	1413	Gm07_8419994_A_G	1458	Gm08_14233959_A_C
1369	Gm07_4837493_A_G	1414	Gm07_8488086_A_G	1459	Gm08_14353179_A_C
1370	Gm07_4921108_G_A	1415	Gm07_8535939_T_C	1460	Gm08_14431777_C_A
1371	Gm07_4968383_C_T	1416	Gm07_856859_T_C	1461	Gm08_14646649_A_G
1372	Gm07_51132_T_C	1417	Gm07_8591371_G_A	1462	Gm08_14709181_C_A
1373	Gm07_5226366_C_T	1418	Gm07_8657083_C_T	1463	Gm08_14781850_T_C
1374	Gm07_527869_G_T	1419	Gm07_8698310_G_A	1464	Gm08_14833954_G_A
1375	Gm07_5352313_T_C	1420	Gm07_8748742_C_T	1465	Gm08_1504393_C_T
1376	Gm07_5490895_G_T	1421	Gm07_8887938_C_T	1466	Gm08_15131577_A_G
1377	Gm07_562809_G_A	1422	Gm07_8928954_G_A	1467	Gm08_15153503_G_T
1378	Gm07_5636973_T_C	1423	Gm07_8966079_T_G	1468	Gm08_15193841_T_C
1379	Gm07_5763368_A_G	1424	Gm07_9006025_G_A	1469	Gm08_15617476_A_G
1380	Gm07_5863012_C_A	1425	Gm07_9057074_G_A	1470	Gm08_15675506_A_C
1381	Gm07_5944283_A_G	1426	Gm07_9102516_A_G	1471	Gm08_15728680_T_C
1382	Gm07_5989451_C_T	1427	Gm07_9181548_T_C	1472	Gm08_15829093_T_G
1383	Gm07_6161800_A_G	1428	Gm07_9267799_G_A	1473	Gm08_15862930_A_C
1384	Gm07_6254353_C_A	1429	Gm07_9305234_A_G	1474	Gm08_15928921_A_G
1385	Gm07_6352113_T_G	1430	Gm07_9372460_G_A	1475	Gm08_16170136_C_A
1386	Gm07_6405598_A_G	1431	Gm07_9402863_A_G	1476	Gm08_16206984_A_G
1387	Gm07_6452520_T_C	1432	Gm07_9452257_T_C	1477	Gm08_1622175_T_C
1388	Gm07_6521175_T_C	1433	Gm07_9535678_A_G	1478	Gm08_16256510_A_C
1389	Gm07_6604493_G_A	1434	Gm07_954565_G_A	1479	Gm08_16516580_A_G
1390	Gm07_6726514_G_A	1435	Gm07_9628835_G_A	1480	Gm08_16594144_T_C
1391	Gm07_675190_G_A	1436	Gm07_9684260_C_T	1481	Gm08_16823465_A_C
1392	Gm07_6781309_T_C	1437	Gm07_9774687_G_A	1482	Gm08_16860906_T_C
1393	Gm07_6859582_A_G	1438	Gm07_9800952_A_G	1483	Gm08_16901934_C_T
1394	Gm07_7032715_G_A	1439	Gm07_9863864_A_C	1484	Gm08_16964379_T_C
1395	Gm07_7096376_G_T	1440	Gm08_10303031_C_T	1485	Gm08_17354374_G_T

N°	Nombre del marcador	N°	Nombre del marcador	N°	Nombre del marcador
1486	Gm08_17529249_G_T	1531	Gm08_23245678_A_G	1576	Gm08_42937574_T_C
1487	Gm08_17579846_T_C	1532	Gm08_23639196_T_G	1577	Gm08_42995552_G_A
1488	Gm08_17928709_C_T	1533	Gm08_23691942_G_A	1578	Gm08_43071282_T_C
1489	Gm08_18101486_A_G	1534	Gm08_2394647_G_A	1579	Gm08_43146859_G_T
1490	Gm08_1817703_A_G	1535	Gm08_2467547_G_T	1580	Gm08_43212289_G_T
1491	Gm08_18177939_C_T	1536	Gm08_24919328_G_A	1581	Gm08_43306749_C_T
1492	Gm08_18282721_T_C	1537	Gm08_25219400_A_G	1582	Gm08_43432481_G_T
1493	Gm08_18319356_G_A	1538	Gm08_25518395_C_A	1583	Gm08_43547100_G_A
1494	Gm08_18379278_T_C	1539	Gm08_26551849_C_A	1584	Gm08_44087748_G_A
1495	Gm08_18443609_T_C	1540	Gm08_27721821_G_A	1585	Gm08_44181366_G_A
1496	Gm08_18748606_T_G	1541	Gm08_28027433_T_C	1586	Gm08_44265646_C_T
1497	Gm08_1882181_A_G	1542	Gm08_2837248_T_C	1587	Gm08_44368268_A_G
1498	Gm08_19117033_T_C	1543	Gm08_2852874_A_C	1588	Gm08_44422211_T_C
1499	Gm08_19162244_T_C	1544	Gm08_29497457_C_A	1589	Gm08_44456175_C_T
1500	Gm08_19189540_G_A	1545	Gm08_30079644_T_C	1590	Gm08_44509647_C_T
1501	Gm08_19226069_A_G	1546	Gm08_3018731_A_C	1591	Gm08_44588048_T_C
1502	Gm08_19292385_T_C	1547	Gm08_30225439_G_A	1592	Gm08_44632488_A_G
1503	Gm08_19414487_A_G	1548	Gm08_3049284_T_G	1593	Gm08_44675264_G_A
1504	Gm08_19525771_A_G	1549	Gm08_30750199_A_G	1594	Gm08_44814503_C_T
1505	Gm08_19635121_T_C	1550	Gm08_31401151_T_C	1595	Gm08_45060561_C_T
1506	Gm08_19793746_C_T	1551	Gm08_3178655_C_A	1596	Gm08_45541906_A_C
1507	Gm08_19835719_T_G	1552	Gm08_32671813_A_G	1597	Gm08_45590964_A_G
1508	Gm08_19887196_G_A	1553	Gm08_3272385_G_T	1598	Gm08_45693636_A_C
1509	Gm08_20063778_A_G	1554	Gm08_3285222_T_C	1599	Gm08_45697460_T_C
1510	Gm08_20123542_G_A	1555	Gm08_3369110_G_A	1600	Gm08_45808855_C_T
1511	Gm08_20536534_C_T	1556	Gm08_34085111_C_T	1601	Gm08_45846181_A_G
1512	Gm08_20851904_T_G	1557	Gm08_34506326_G_A	1602	Gm08_45893888_T_C
1513	Gm08_21170988_C_T	1558	Gm08_35102127_G_A	1603	Gm08_46804090_A_G
1514	Gm08_21172458_T_C	1559	Gm08_3519477_A_G	1604	Gm08_46881874_G_A
1515	Gm08_21362406_C_T	1560	Gm08_35467148_T_C	1605	Gm08_46945161_A_G
1516	Gm08_21425355_G_A	1561	Gm08_35664370_C_T	1606	Gm08_4873149_C_T
1517	Gm08_21443387_G_T	1562	Gm08_35856368_C_A	1607	Gm08_4882276_A_G
1518	Gm08_21875763_A_G	1563	Gm08_36324664_T_C	1608	Gm08_4959623_T_C
1519	Gm08_21933156_G_A	1564	Gm08_3985008_T_C	1609	Gm08_5003648_C_T
1520	Gm08_22013366_G_A	1565	Gm08_39969061_C_T	1610	Gm08_5082382_G_T
1521	Gm08_22123551_G_A	1566	Gm08_40012659_C_T	1611	Gm08_5278800_G_T
1522	Gm08_22502686_T_C	1567	Gm08_40066964_A_G	1612	Gm08_5701842_C_T
1523	Gm08_22530478_G_T	1568	Gm08_40220221_A_G	1613	Gm08_5727292_G_A
1524	Gm08_22566050_A_G	1569	Gm08_42292068_G_A	1614	Gm08_8305965_T_C
1525	Gm08_22622648_A_G	1570	Gm08_42368016_C_T	1615	Gm08_9789047_T_C
1526	Gm08_22702507_C_T	1571	Gm08_42541896_C_A	1616	Gm08_9970013_G_T
1527	Gm08_22804628_G_A	1572	Gm08_4266625_A_C	1617	Gm09_104404_T_C
1528	Gm08_2288307_A_G	1573	Gm08_42711337_T_C	1618	Gm09_10520180_T_C
1529	Gm08_23073352_T_C	1574	Gm08_42793022_A_G	1619	Gm09_10880600_G_A
1530	Gm08_23170836_G_A	1575	Gm08_42859155_A_G	1620	Gm09_1111460_T_C

N°	Nombre del marcador	N°	Nombre del marcador	N°	Nombre del marcador
1621	Gm09_1162832_G_A	1666	Gm09_31049357_A_G	1711	Gm09_40407114_C_T
1622	Gm09_11854826_G_T	1667	Gm09_31217330_T_C	1712	Gm09_40535562_T_C
1623	Gm09_12093815_T_G	1668	Gm09_3174245_A_G	1713	Gm09_40638454_A_G
1624	Gm09_12240541_C_A	1669	Gm09_32172026_G_A	1714	Gm09_40706793_A_C
1625	Gm09_1251128_T_C	1670	Gm09_3230237_T_C	1715	Gm09_40822345_T_G
1626	Gm09_12801032_T_C	1671	Gm09_32382867_G_T	1716	Gm09_40899791_G_A
1627	Gm09_1320051_G_A	1672	Gm09_32987730_G_A	1717	Gm09_40910261_C_T
1628	Gm09_13615987_G_T	1673	Gm09_33313292_T_G	1718	Gm09_4094603_G_A
1629	Gm09_1397467_C_T	1674	Gm09_33624152_T_C	1719	Gm09_40978410_G_A
1630	Gm09_14078748_G_T	1675	Gm09_33894091_A_C	1720	Gm09_41103872_T_C
1631	Gm09_1458776_C_T	1676	Gm09_3420354_T_C	1721	Gm09_41253226_T_C
1632	Gm09_14923108_C_A	1677	Gm09_342047_T_C	1722	Gm09_413274_G_A
1633	Gm09_15171182_C_T	1678	Gm09_34354926_C_T	1723	Gm09_41389071_G_A
1634	Gm09_1518813_G_A	1679	Gm09_34830637_A_G	1724	Gm09_4152772_G_A
1635	Gm09_1522327_T_C	1680	Gm09_3570585_A_C	1725	Gm09_41548661_T_C
1636	Gm09_15316337_G_A	1681	Gm09_35962679_T_C	1726	Gm09_41861265_C_A
1637	Gm09_16513681_A_G	1682	Gm09_36305321_T_C	1727	Gm09_41974247_T_C
1638	Gm09_1723633_G_A	1683	Gm09_36346737_T_C	1728	Gm09_42048207_C_T
1639	Gm09_17858067_T_C	1684	Gm09_36486860_T_C	1729	Gm09_42181997_A_G
1640	Gm09_1791363_G_A	1685	Gm09_3658288_T_C	1730	Gm09_42241644_G_A
1641	Gm09_18223900_A_G	1686	Gm09_36586870_C_T	1731	Gm09_42392784_A_C
1642	Gm09_18598782_G_A	1687	Gm09_36844563_T_C	1732	Gm09_42452071_T_G
1643	Gm09_18710874_C_A	1688	Gm09_3708901_T_C	1733	Gm09_4245412_T_C
1644	Gm09_18799217_G_A	1689	Gm09_37637896_T_C	1734	Gm09_42526589_T_C
1645	Gm09_1888876_A_G	1690	Gm09_38013391_A_G	1735	Gm09_42578079_A_G
1646	Gm09_1963703_A_G	1691	Gm09_3807440_T_C	1736	Gm09_42610662_T_C
1647	Gm09_19823605_G_A	1692	Gm09_38454149_A_G	1737	Gm09_43114374_T_C
1648	Gm09_2022443_C_T	1693	Gm09_38771421_G_A	1738	Gm09_43259622_T_G
1649	Gm09_20391885_C_T	1694	Gm09_38797525_C_A	1739	Gm09_43370976_T_C
1650	Gm09_2079870_C_T	1695	Gm09_38908716_T_C	1740	Gm09_4354636_C_T
1651	Gm09_22305708_G_T	1696	Gm09_38927073_A_G	1741	Gm09_43691701_C_T
1652	Gm09_2327785_G_A	1697	Gm09_39295470_A_G	1742	Gm09_43820536_T_C
1653	Gm09_23311310_T_C	1698	Gm09_39298292_A_C	1743	Gm09_43874852_A_G
1654	Gm09_2386432_G_A	1699	Gm09_3934271_C_T	1744	Gm09_439265_T_C
1655	Gm09_24238724_T_C	1700	Gm09_39440033_T_C	1745	Gm09_43958999_A_G
1656	Gm09_2592729_T_C	1701	Gm09_39447611_G_T	1746	Gm09_44020265_C_T
1657	Gm09_2685308_G_A	1702	Gm09_39550551_T_C	1747	Gm09_4404144_C_T
1658	Gm09_27092089_A_G	1703	Gm09_39693036_C_A	1748	Gm09_44054693_A_G
1659	Gm09_2784336_T_G	1704	Gm09_39780964_T_G	1749	Gm09_44188059_T_C
1660	Gm09_28218304_A_G	1705	Gm09_39822766_C_T	1750	Gm09_44266451_T_G
1661	Gm09_2926870_T_C	1706	Gm09_40061792_C_T	1751	Gm09_44398393_C_A
1662	Gm09_2976373_A_G	1707	Gm09_40113368_A_G	1752	Gm09_44598626_G_A
1663	Gm09_29782119_G_A	1708	Gm09_40164588_A_G	1753	Gm09_44732111_G_A
1664	Gm09_30089678_T_C	1709	Gm09_40244367_C_T	1754	Gm09_44855340_C_T
1665	Gm09_3101824_A_G	1710	Gm09_40326613_T_C	1755	Gm09_4517002_T_C



N°	Nombre del marcador	N°	Nombre del marcador	N°	Nombre del marcador
1756	Gm09_45659797_T_C	1801	Gm10_11518881_G_A	1846	Gm10_2904536_C_A
1757	Gm09_4594345_C_T	1802	Gm10_12080275_G_A	1847	Gm10_3022221_T_C
1758	Gm09_46319164_G_T	1803	Gm10_121493_A_G	1848	Gm10_3066211_C_T
1759	Gm09_46437772_T_C	1804	Gm10_12242190_A_C	1849	Gm10_3183187_T_C
1760	Gm09_4663088_G_A	1805	Gm10_12500364_A_G	1850	Gm10_3235061_C_T
1761	Gm09_4799335_A_C	1806	Gm10_12658885_G_A	1851	Gm10_3276787_T_G
1762	Gm09_4881989_A_G	1807	Gm10_1268065_G_A	1852	Gm10_3375821_T_C
1763	Gm09_4991159_G_A	1808	Gm10_13090030_G_A	1853	Gm10_3426604_G_A
1764	Gm09_5016500_C_T	1809	Gm10_13185363_T_C	1854	Gm10_3465857_C_T
1765	Gm09_5038550_T_G	1810	Gm10_1341309_G_A	1855	Gm10_36276152_A_G
1766	Gm09_5122231_A_G	1811	Gm10_13684185_C_A	1856	Gm10_36448006_T_G
1767	Gm09_5514307_C_T	1812	Gm10_1388577_T_C	1857	Gm10_36634025_T_C
1768	Gm09_5647348_G_A	1813	Gm10_1426801_C_T	1858	Gm10_36651216_A_C
1769	Gm09_5799228_A_C	1814	Gm10_14376726_G_A	1859	Gm10_36697318_G_A
1770	Gm09_5906687_C_T	1815	Gm10_14714_C_T	1860	Gm10_36725190_G_A
1771	Gm09_5979646_C_T	1816	Gm10_1475647_G_A	1861	Gm10_36761186_A_G
1772	Gm09_6030925_A_C	1817	Gm10_14985037_C_A	1862	Gm10_36928133_A_G
1773	Gm09_6106747_G_T	1818	Gm10_1526735_T_C	1863	Gm10_36975604_C_T
1774	Gm09_611923_A_G	1819	Gm10_15592777_A_G	1864	Gm10_37019917_A_G
1775	Gm09_6197309_G_A	1820	Gm10_1586434_T_C	1865	Gm10_37066910_G_A
1776	Gm09_6352861_T_C	1821	Gm10_1623075_C_T	1866	Gm10_37168706_G_A
1777	Gm09_6459016_C_A	1822	Gm10_1667248_A_G	1867	Gm10_37469103_C_A
1778	Gm09_6511884_G_A	1823	Gm10_17148524_C_A	1868	Gm10_37618173_A_G
1779	Gm09_6664095_T_C	1824	Gm10_18092265_A_G	1869	Gm10_38025918_A_C
1780	Gm09_6676869_A_G	1825	Gm10_18700582_T_C	1870	Gm10_38105991_T_C
1781	Gm09_6729236_C_T	1826	Gm10_19202280_G_T	1871	Gm10_38147924_G_A
1782	Gm09_6814829_C_T	1827	Gm10_1949353_C_A	1872	Gm10_38593847_C_T
1783	Gm09_6968486_G_A	1828	Gm10_20222067_T_C	1873	Gm10_38661148_C_T
1784	Gm09_7072195_T_C	1829	Gm10_21290666_G_A	1874	Gm10_38751669_C_A
1785	Gm09_720803_C_T	1830	Gm10_21384300_A_G	1875	Gm10_38822578_C_A
1786	Gm09_7375041_C_T	1831	Gm10_214458_C_T	1876	Gm10_38900522_T_C
1787	Gm09_7595772_G_T	1832	Gm10_21509542_T_C	1877	Gm10_3896284_A_G
1788	Gm09_789163_C_T	1833	Gm10_2240113_A_G	1878	Gm10_39350141_T_C
1789	Gm09_7953606_G_T	1834	Gm10_227864_A_G	1879	Gm10_39436379_T_G
1790	Gm09_7983364_A_G	1835	Gm10_2317882_A_G	1880	Gm10_39501335_C_A
1791	Gm09_8251351_A_G	1836	Gm10_23322034_G_A	1881	Gm10_39570259_C_T
1792	Gm09_8831480_A_G	1837	Gm10_23868600_A_G	1882	Gm10_3962673_C_T
1793	Gm09_886505_T_C	1838	Gm10_23967467_T_C	1883	Gm10_39630441_G_A
1794	Gm09_8984771_A_G	1839	Gm10_2437001_A_G	1884	Gm10_39700476_T_C
1795	Gm09_9590399_T_C	1840	Gm10_2482570_A_C	1885	Gm10_39771689_T_G
1796	Gm09_998472_G_A	1841	Gm10_26188429_A_G	1886	Gm10_39827303_A_C
1797	Gm10_10015896_C_T	1842	Gm10_26598887_A_G	1887	Gm10_39937578_G_A
1798	Gm10_1051336_G_A	1843	Gm10_2714130_C_T	1888	Gm10_40022334_A_C
1799	Gm10_10930700_C_T	1844	Gm10_27849090_A_G	1889	Gm10_40077126_A_G
1800	Gm10_11328474_T_C	1845	Gm10_2809074_A_G	1890	Gm10_40258740_G_A

N°	Nombre del marcador	N°	Nombre del marcador	N°	Nombre del marcador
1891	Gm10_4035277_A_C	1936	Gm10_46069887_A_G	1981	Gm10_5206933_A_C
1892	Gm10_40588398_G_A	1937	Gm10_46119255_G_A	1982	Gm10_5295541_G_A
1893	Gm10_406427_T_C	1938	Gm10_46177554_C_T	1983	Gm10_5404728_C_A
1894	Gm10_40646744_G_A	1939	Gm10_46269434_G_A	1984	Gm10_5455842_G_A
1895	Gm10_40692799_T_C	1940	Gm10_4628151_G_A	1985	Gm10_5556984_A_G
1896	Gm10_40784262_C_T	1941	Gm10_46351117_A_G	1986	Gm10_5922076_T_G
1897	Gm10_40875883_A_C	1942	Gm10_4670275_G_A	1987	Gm10_6020959_G_T
1898	Gm10_41032294_A_C	1943	Gm10_46788615_A_G	1988	Gm10_6196864_T_G
1899	Gm10_4103498_G_T	1944	Gm10_46889748_G_A	1989	Gm10_621706_A_G
1900	Gm10_41103076_T_C	1945	Gm10_4722679_A_G	1990	Gm10_6246276_A_G
1901	Gm10_4131044_C_A	1946	Gm10_47296339_T_C	1991	Gm10_6391652_A_G
1902	Gm10_41610215_C_T	1947	Gm10_47377738_C_T	1992	Gm10_6460304_G_A
1903	Gm10_41958155_A_G	1948	Gm10_47417315_G_A	1993	Gm10_6524119_C_T
1904	Gm10_4218276_T_C	1949	Gm10_47552124_C_A	1994	Gm10_6572950_G_A
1905	Gm10_42296579_T_G	1950	Gm10_47616648_C_T	1995	Gm10_6663940_T_C
1906	Gm10_42450430_G_A	1951	Gm10_4775496_T_C	1996	Gm10_7074398_A_G
1907	Gm10_4286365_G_A	1952	Gm10_47774781_T_C	1997	Gm10_711291_G_A
1908	Gm10_42920895_C_T	1953	Gm10_47834616_G_A	1998	Gm10_7507435_C_T
1909	Gm10_42963703_G_A	1954	Gm10_47946637_C_A	1999	Gm10_754804_T_C
1910	Gm10_43004105_A_C	1955	Gm10_47984335_C_T	2000	Gm10_831916_A_G
1911	Gm10_43107961_A_G	1956	Gm10_48002626_G_A	2001	Gm10_9207487_A_C
1912	Gm10_43178809_G_T	1957	Gm10_48111404_A_G	2002	Gm10_925972_C_T
1913	Gm10_4360182_A_G	1958	Gm10_4814162_C_T	2003	Gm10_9522845_A_G
1914	Gm10_43612052_T_G	1959	Gm10_48265015_A_G	2004	Gm10_9575150_C_T
1915	Gm10_43662144_C_T	1960	Gm10_48331152_G_A	2005	Gm10_981062_A_G
1916	Gm10_43783265_G_A	1961	Gm10_48426970_A_G	2006	Gm11_10319200_G_T
1917	Gm10_43840376_T_C	1962	Gm10_48586134_A_C	2007	Gm11_10360391_G_A
1918	Gm10_43894668_A_G	1963	Gm10_48643490_T_C	2008	Gm11_10446473_A_G
1919	Gm10_44042822_A_G	1964	Gm10_48695057_T_C	2009	Gm11_10509014_T_C
1920	Gm10_44091618_T_C	1965	Gm10_48880128_C_T	2010	Gm11_1055471_G_A
1921	Gm10_44137020_T_C	1966	Gm10_4892612_G_A	2011	Gm11_10721006_A_G
1922	Gm10_44227652_C_T	1967	Gm10_48966589_G_A	2012	Gm11_10802698_A_G
1923	Gm10_44274964_T_G	1968	Gm10_49034509_C_T	2013	Gm11_10847172_T_C
1924	Gm10_44553009_T_C	1969	Gm10_49084126_G_A	2014	Gm11_10892564_G_A
1925	Gm10_44563220_A_G	1970	Gm10_49447586_C_T	2015	Gm11_10926986_T_C
1926	Gm10_44744804_A_C	1971	Gm10_49559305_A_G	2016	Gm11_1093109_T_G
1927	Gm10_44972284_T_C	1972	Gm10_49630664_C_T	2017	Gm11_10999596_T_C
1928	Gm10_45141082_A_G	1973	Gm10_4972351_T_C	2018	Gm11_11572077_A_C
1929	Gm10_45245539_G_A	1974	Gm10_49734248_G_T	2019	Gm11_1161553_T_C
1930	Gm10_45332216_A_G	1975	Gm10_49967536_T_C	2020	Gm11_1267809_T_C
1931	Gm10_45670539_T_C	1976	Gm10_49995743_T_G	2021	Gm11_13075838_T_C
1932	Gm10_4568148_C_T	1977	Gm10_50173069_T_C	2022	Gm11_1339540_G_A
1933	Gm10_45863169_A_G	1978	Gm10_5026251_T_C	2023	Gm11_1395042_C_T
1934	Gm10_45890133_C_T	1979	Gm10_50470254_T_C	2024	Gm11_14084162_C_T
1935	Gm10_46008769_G_A	1980	Gm10_5100096_C_T	2025	Gm11_1434561_A_G

N°	Nombre del marcador	N°	Nombre del marcador	N°	Nombre del marcador
2026	Gm11_14571958_T_C	2071	Gm11_33170465_G_T	2116	Gm11_4135246_C_T
2027	Gm11_15220858_T_C	2072	Gm11_3323629_G_A	2117	Gm11_4177326_A_G
2028	Gm11_15558504_T_C	2073	Gm11_33511924_C_T	2118	Gm11_4216279_A_G
2029	Gm11_15603945_A_G	2074	Gm11_3384878_T_C	2119	Gm11_423298_C_T
2030	Gm11_15788688_A_G	2075	Gm11_3432665_A_G	2120	Gm11_4329480_T_C
2031	Gm11_15924043_T_G	2076	Gm11_34928092_A_G	2121	Gm11_4345198_G_A
2032	Gm11_15970311_C_T	2077	Gm11_35886927_T_C	2122	Gm11_4408645_C_T
2033	Gm11_16109471_T_C	2078	Gm11_36124908_T_G	2123	Gm11_4453218_T_C
2034	Gm11_16165070_T_G	2079	Gm11_36404950_G_A	2124	Gm11_4519147_C_A
2035	Gm11_1620921_A_C	2080	Gm11_3641716_A_C	2125	Gm11_4566780_C_T
2036	Gm11_16251053_G_T	2081	Gm11_36469908_T_C	2126	Gm11_4632613_T_C
2037	Gm11_16492046_A_G	2082	Gm11_36518427_A_C	2127	Gm11_4702578_C_A
2038	Gm11_16996443_C_T	2083	Gm11_36581897_A_G	2128	Gm11_473998_T_C
2039	Gm11_17116826_T_C	2084	Gm11_36733260_C_A	2129	Gm11_4796577_A_C
2040	Gm11_1711864_C_T	2085	Gm11_36778892_C_A	2130	Gm11_4961902_C_T
2041	Gm11_17144707_A_G	2086	Gm11_36890484_A_G	2131	Gm11_5238788_G_A
2042	Gm11_17237725_G_A	2087	Gm11_36931482_C_T	2132	Gm11_5536036_C_A
2043	Gm11_1724354_C_A	2088	Gm11_36976384_G_A	2133	Gm11_571208_A_C
2044	Gm11_17318773_A_C	2089	Gm11_37038886_C_T	2134	Gm11_5791137_C_T
2045	Gm11_17417230_A_G	2090	Gm11_37106045_C_T	2135	Gm11_5815221_T_C
2046	Gm11_17462922_A_G	2091	Gm11_37179389_G_T	2136	Gm11_5875855_C_T
2047	Gm11_17531261_C_A	2092	Gm11_37237023_G_T	2137	Gm11_5983320_C_T
2048	Gm11_17537324_T_C	2093	Gm11_37291736_G_A	2138	Gm11_6047318_C_T
2049	Gm11_17607681_A_G	2094	Gm11_37408299_G_A	2139	Gm11_6096879_G_A
2050	Gm11_17645767_C_T	2095	Gm11_37462158_C_T	2140	Gm11_614313_A_G
2051	Gm11_17911_T_C	2096	Gm11_3754670_C_T	2141	Gm11_6232705_A_C
2052	Gm11_17988599_A_G	2097	Gm11_37749863_G_T	2142	Gm11_63293_A_G
2053	Gm11_1804279_T_C	2098	Gm11_37808033_A_G	2143	Gm11_6332303_A_G
2054	Gm11_18083338_T_C	2099	Gm11_37978746_G_T	2144	Gm11_6383207_G_A
2055	Gm11_18730941_A_G	2100	Gm11_38056078_C_T	2145	Gm11_6475157_G_T
2056	Gm11_1874390_T_G	2101	Gm11_38136659_T_C	2146	Gm11_6512939_G_A
2057	Gm11_18829342_A_G	2102	Gm11_38183607_G_A	2147	Gm11_6555265_A_G
2058	Gm11_2092125_G_A	2103	Gm11_38261784_G_A	2148	Gm11_6619367_T_C
2059	Gm11_23209753_T_C	2104	Gm11_38299330_T_G	2149	Gm11_6662908_T_C
2060	Gm11_24186948_A_C	2105	Gm11_38424068_C_T	2150	Gm11_6780396_C_T
2061	Gm11_2565807_G_T	2106	Gm11_38496557_T_C	2151	Gm11_6882885_T_G
2062	Gm11_2625440_A_G	2107	Gm11_3856937_G_T	2152	Gm11_6901726_C_T
2063	Gm11_27494790_T_C	2108	Gm11_38648336_A_G	2153	Gm11_6906614_A_G
2064	Gm11_27896148_A_G	2109	Gm11_38767240_A_G	2154	Gm11_7133690_T_C
2065	Gm11_30114058_A_G	2110	Gm11_38892011_G_A	2155	Gm11_7358578_C_T
2066	Gm11_31989879_A_G	2111	Gm11_38942197_T_C	2156	Gm11_7395703_A_G
2067	Gm11_3277472_C_T	2112	Gm11_38983074_T_C	2157	Gm11_7596095_C_T
2068	Gm11_32839864_A_C	2113	Gm11_39108822_A_G	2158	Gm11_7661182_T_C
2069	Gm11_32910236_A_G	2114	Gm11_3950213_T_C	2159	Gm11_7843684_C_T
2070	Gm11_33120512_A_G	2115	Gm11_4094763_A_G	2160	Gm11_7883763_C_A

N°	Nombre del marcador	N°	Nombre del marcador	N°	Nombre del marcador
2161	Gm11_7934621_G_A	2206	Gm12_2331255_T_C	2251	Gm12_37315664_A_G
2162	Gm11_7983593_A_C	2207	Gm12_2379195_C_A	2252	Gm12_37356120_C_T
2163	Gm11_8039969_A_G	2208	Gm12_24271835_G_A	2253	Gm12_37455120_A_G
2164	Gm11_8095797_G_A	2209	Gm12_24320821_T_C	2254	Gm12_37702572_C_A
2165	Gm11_8137863_G_A	2210	Gm12_25839577_G_A	2255	Gm12_37761495_G_T
2166	Gm11_8185486_G_A	2211	Gm12_27424432_A_G	2256	Gm12_37803362_G_A
2167	Gm11_8237055_T_G	2212	Gm12_2847459_G_A	2257	Gm12_37971963_G_A
2168	Gm11_8363320_T_C	2213	Gm12_2975576_T_C	2258	Gm12_38053931_C_T
2169	Gm11_8556791_G_A	2214	Gm12_30527017_T_C	2259	Gm12_38183927_C_T
2170	Gm11_8942593_T_C	2215	Gm12_3133148_T_C	2260	Gm12_38202617_T_C
2171	Gm11_9038408_C_A	2216	Gm12_3175818_A_G	2261	Gm12_38338813_T_C
2172	Gm11_9176042_A_G	2217	Gm12_3296301_T_G	2262	Gm12_38424093_A_G
2173	Gm11_9919039_G_A	2218	Gm12_33049270_C_A	2263	Gm12_3843573_G_A
2174	Gm11_9961540_C_T	2219	Gm12_33110081_G_T	2264	Gm12_38706055_A_C
2175	Gm12_1070930_T_C	2220	Gm12_33258930_A_C	2265	Gm12_38807727_A_C
2176	Gm12_11177435_T_C	2221	Gm12_33680937_A_G	2266	Gm12_39893147_C_T
2177	Gm12_1161576_T_C	2222	Gm12_33815566_A_G	2267	Gm12_4025840_T_G
2178	Gm12_11797472_T_C	2223	Gm12_33892140_G_A	2268	Gm12_4154550_C_T
2179	Gm12_13017486_C_T	2224	Gm12_34102452_G_A	2269	Gm12_4268262_G_A
2180	Gm12_13354287_T_C	2225	Gm12_3416958_G_A	2270	Gm12_4363882_T_C
2181	Gm12_13624_T_C	2226	Gm12_34217043_C_T	2271	Gm12_4592200_C_T
2182	Gm12_14231203_C_T	2227	Gm12_34380492_G_A	2272	Gm12_4599425_G_A
2183	Gm12_14288013_T_C	2228	Gm12_34421239_A_G	2273	Gm12_4670638_A_C
2184	Gm12_14309506_T_C	2229	Gm12_3459699_C_T	2274	Gm12_4712660_C_T
2185	Gm12_14352578_G_A	2230	Gm12_34729290_T_C	2275	Gm12_4829922_C_T
2186	Gm12_14694597_G_T	2231	Gm12_34979415_C_T	2276	Gm12_4883456_A_C
2187	Gm12_14771254_T_C	2232	Gm12_3500305_A_G	2277	Gm12_506863_G_A
2188	Gm12_1531850_T_C	2233	Gm12_35111865_A_G	2278	Gm12_5475411_T_C
2189	Gm12_15394023_C_T	2234	Gm12_35192993_C_T	2279	Gm12_6023395_T_C
2190	Gm12_15419273_T_G	2235	Gm12_352935_G_A	2280	Gm12_6150215_A_G
2191	Gm12_15451614_G_T	2236	Gm12_35454411_G_A	2281	Gm12_6195964_C_T
2192	Gm12_15472392_A_C	2237	Gm12_35626081_G_A	2282	Gm12_6295017_A_C
2193	Gm12_15514114_G_T	2238	Gm12_36002148_G_T	2283	Gm12_632910_C_T
2194	Gm12_15877490_A_G	2239	Gm12_36432404_T_G	2284	Gm12_6352144_C_A
2195	Gm12_16787022_G_A	2240	Gm12_36496913_T_C	2285	Gm12_6407458_T_C
2196	Gm12_1701288_A_G	2241	Gm12_36510299_T_C	2286	Gm12_6420304_C_T
2197	Gm12_17013260_T_C	2242	Gm12_3663850_A_G	2287	Gm12_6621471_A_G
2198	Gm12_1761905_G_T	2243	Gm12_36700187_G_A	2288	Gm12_6663270_C_T
2199	Gm12_17926750_A_G	2244	Gm12_36780299_G_A	2289	Gm12_6733995_C_T
2200	Gm12_18062812_A_G	2245	Gm12_36839430_C_T	2290	Gm12_6846625_G_T
2201	Gm12_1839277_A_G	2246	Gm12_36960931_T_C	2291	Gm12_688182_T_G
2202	Gm12_1883937_G_A	2247	Gm12_37036017_C_A	2292	Gm12_6892713_T_C
2203	Gm12_2049842_G_A	2248	Gm12_37075152_C_T	2293	Gm12_6932978_G_A
2204	Gm12_2140417_A_G	2249	Gm12_37136269_C_T	2294	Gm12_6943211_G_A
2205	Gm12_2184391_A_G	2250	Gm12_37228707_T_C	2295	Gm12_7082885_C_A

N°	Nombre del marcador	N°	Nombre del marcador	N°	Nombre del marcador
2296	Gm12_7162872_G_A	2341	Gm13_15583636_A_G	2386	Gm13_26684102_C_A
2297	Gm12_7270512_G_A	2342	Gm13_16096547_C_T	2387	Gm13_26749514_T_C
2298	Gm12_7316668_A_G	2343	Gm13_1624949_C_A	2388	Gm13_2685315_A_C
2299	Gm12_7452550_G_A	2344	Gm13_16365275_C_T	2389	Gm13_26874636_G_A
2300	Gm12_7494659_C_T	2345	Gm13_16721293_A_G	2390	Gm13_26949366_C_T
2301	Gm12_7584843_C_T	2346	Gm13_17191857_G_A	2391	Gm13_27013838_A_G
2302	Gm12_7806666_A_G	2347	Gm13_1739314_G_A	2392	Gm13_27132590_C_T
2303	Gm12_7855367_G_A	2348	Gm13_17652991_A_G	2393	Gm13_27212330_G_A
2304	Gm12_7949328_T_C	2349	Gm13_1766981_T_C	2394	Gm13_27257076_C_T
2305	Gm12_8075838_G_A	2350	Gm13_177356_T_C	2395	Gm13_27302662_C_T
2306	Gm12_82828_T_C	2351	Gm13_18597519_C_T	2396	Gm13_27373181_G_A
2307	Gm12_8435100_T_C	2352	Gm13_19040172_G_A	2397	Gm13_27418207_G_A
2308	Gm12_8469462_T_C	2353	Gm13_19452973_G_A	2398	Gm13_27485765_T_C
2309	Gm12_849243_A_G	2354	Gm13_20484995_T_G	2399	Gm13_27527083_G_T
2310	Gm12_8844839_T_G	2355	Gm13_20995641_G_A	2400	Gm13_2758183_T_C
2311	Gm12_9023940_A_C	2356	Gm13_2270752_T_C	2401	Gm13_27601319_C_T
2312	Gm12_9048376_T_C	2357	Gm13_23131251_C_T	2402	Gm13_27659281_A_G
2313	Gm12_9114648_G_T	2358	Gm13_23209914_T_C	2403	Gm13_27665585_A_G
2314	Gm12_975837_G_A	2359	Gm13_23261690_T_C	2404	Gm13_27746684_T_C
2315	Gm12_9770096_T_C	2360	Gm13_2336776_G_A	2405	Gm13_27796524_G_T
2316	Gm12_9840192_G_A	2361	Gm13_23403102_A_G	2406	Gm13_27846120_C_T
2317	Gm12_9871018_G_T	2362	Gm13_23509779_C_T	2407	Gm13_27935177_A_G
2318	Gm12_9929827_C_T	2363	Gm13_23606874_G_A	2408	Gm13_27987641_C_T
2319	Gm13_10330320_T_G	2364	Gm13_23686614_T_C	2409	Gm13_28041039_G_A
2320	Gm13_105760_T_G	2365	Gm13_23783264_A_G	2410	Gm13_28141969_T_G
2321	Gm13_10630165_T_C	2366	Gm13_239895_T_C	2411	Gm13_28206014_A_C
2322	Gm13_10759545_A_C	2367	Gm13_24441863_C_T	2412	Gm13_28252435_A_G
2323	Gm13_11185388_A_G	2368	Gm13_2444492_T_C	2413	Gm13_28323043_C_T
2324	Gm13_11463853_T_C	2369	Gm13_24847753_A_C	2414	Gm13_2833623_T_C
2325	Gm13_1163621_T_C	2370	Gm13_2493212_A_G	2415	Gm13_28339993_G_A
2326	Gm13_11787225_C_T	2371	Gm13_25174854_G_A	2416	Gm13_28437643_G_A
2327	Gm13_12045535_T_C	2372	Gm13_25224091_C_T	2417	Gm13_28478384_T_G
2328	Gm13_12158356_T_G	2373	Gm13_25271849_T_G	2418	Gm13_28544194_T_C
2329	Gm13_12461649_G_A	2374	Gm13_2558742_C_T	2419	Gm13_28637128_G_T
2330	Gm13_1267672_T_C	2375	Gm13_25678355_G_A	2420	Gm13_28770208_C_T
2331	Gm13_13049201_G_T	2376	Gm13_25707705_G_A	2421	Gm13_28826405_A_C
2332	Gm13_13159950_C_A	2377	Gm13_25871969_C_A	2422	Gm13_28868130_A_C
2333	Gm13_1338620_T_G	2378	Gm13_25925316_C_T	2423	Gm13_28918187_A_C
2334	Gm13_13613605_C_T	2379	Gm13_26052291_A_G	2424	Gm13_28957669_T_C
2335	Gm13_13756682_A_G	2380	Gm13_26096564_T_C	2425	Gm13_29042122_C_A
2336	Gm13_13892231_T_C	2381	Gm13_26291720_T_G	2426	Gm13_2911344_A_G
2337	Gm13_1435626_C_T	2382	Gm13_26447438_T_C	2427	Gm13_29123830_C_A
2338	Gm13_14588417_G_A	2383	Gm13_26504428_C_T	2428	Gm13_29265240_A_G
2339	Gm13_1467585_G_A	2384	Gm13_26573887_G_T	2429	Gm13_29375136_A_G
2340	Gm13_1528565_A_G	2385	Gm13_26668562_C_T	2430	Gm13_29418256_C_T

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2431	Gm13_29481243_C_A	2476	Gm13_32603971_C_A	2521	Gm13_36716562_G_T
2432	Gm13_29524129_A_C	2477	Gm13_32712123_C_A	2522	Gm13_36822760_A_C
2433	Gm13_29565413_G_A	2478	Gm13_32795953_T_G	2523	Gm13_36886485_G_A
2434	Gm13_29677928_G_T	2479	Gm13_32875289_C_A	2524	Gm13_3719806_T_G
2435	Gm13_297095_A_G	2480	Gm13_33004100_T_G	2525	Gm13_37204738_A_G
2436	Gm13_29739984_C_A	2481	Gm13_33027247_T_C	2526	Gm13_37254339_T_C
2437	Gm13_29808335_C_T	2482	Gm13_33113825_A_G	2527	Gm13_37339900_C_T
2438	Gm13_29858691_C_A	2483	Gm13_33124381_A_G	2528	Gm13_37988956_C_T
2439	Gm13_2993802_T_C	2484	Gm13_3316463_A_G	2529	Gm13_38032737_G_A
2440	Gm13_29941083_T_C	2485	Gm13_33302559_G_A	2530	Gm13_38133840_A_C
2441	Gm13_30078140_A_G	2486	Gm13_33306556_A_G	2531	Gm13_3822639_T_G
2442	Gm13_3010849_A_G	2487	Gm13_33471044_G_A	2532	Gm13_38249824_T_C
2443	Gm13_30183643_G_T	2488	Gm13_33597361_T_G	2533	Gm13_38412903_T_G
2444	Gm13_30268845_G_A	2489	Gm13_33637077_T_C	2534	Gm13_38442998_C_T
2445	Gm13_30310888_T_C	2490	Gm13_33688582_C_T	2535	Gm13_38492652_C_A
2446	Gm13_30351547_A_G	2491	Gm13_3380078_T_C	2536	Gm13_38554316_C_T
2447	Gm13_30479725_C_T	2492	Gm13_33821100_A_G	2537	Gm13_38840706_A_G
2448	Gm13_30578807_C_A	2493	Gm13_344320_G_A	2538	Gm13_38988256_T_C
2449	Gm13_30620784_G_T	2494	Gm13_34602307_A_G	2539	Gm13_39054715_T_C
2450	Gm13_30684298_C_T	2495	Gm13_34645498_A_G	2540	Gm13_39065528_G_A
2451	Gm13_30744043_A_G	2496	Gm13_34703693_G_A	2541	Gm13_39243428_G_T
2452	Gm13_30792419_T_C	2497	Gm13_34748233_G_A	2542	Gm13_39307253_G_A
2453	Gm13_30896864_A_G	2498	Gm13_3479183_T_C	2543	Gm13_39378998_G_A
2454	Gm13_30942034_A_G	2499	Gm13_34818193_C_T	2544	Gm13_39417983_T_C
2455	Gm13_31013252_A_G	2500	Gm13_34861415_G_A	2545	Gm13_39567369_T_C
2456	Gm13_31079210_G_A	2501	Gm13_3489099_C_T	2546	Gm13_39721684_C_A
2457	Gm13_31135256_T_C	2502	Gm13_34946643_T_C	2547	Gm13_39801689_C_T
2458	Gm13_31262161_G_A	2503	Gm13_35032818_G_A	2548	Gm13_39978113_C_A
2459	Gm13_31313202_T_C	2504	Gm13_35117096_C_T	2549	Gm13_40434294_C_A
2460	Gm13_31358398_C_A	2505	Gm13_35132593_G_T	2550	Gm13_40582006_A_G
2461	Gm13_31424193_T_G	2506	Gm13_35171829_A_G	2551	Gm13_40623113_T_C
2462	Gm13_31491632_C_T	2507	Gm13_35370448_C_T	2552	Gm13_40665132_A_G
2463	Gm13_31602992_A_G	2508	Gm13_3541218_C_T	2553	Gm13_40715679_A_G
2464	Gm13_31736878_G_A	2509	Gm13_35823484_A_G	2554	Gm13_40899875_A_G
2465	Gm13_31766939_T_G	2510	Gm13_35854636_G_A	2555	Gm13_40977421_G_A
2466	Gm13_31860090_G_A	2511	Gm13_35909612_G_A	2556	Gm13_41057913_C_T
2467	Gm13_31934756_G_A	2512	Gm13_36031702_T_C	2557	Gm13_41210917_T_G
2468	Gm13_32011502_T_C	2513	Gm13_3620512_G_A	2558	Gm13_41312689_T_C
2469	Gm13_32100739_A_G	2514	Gm13_36224364_G_A	2559	Gm13_41424200_T_C
2470	Gm13_32171109_G_A	2515	Gm13_36261107_T_G	2560	Gm13_41464063_A_C
2471	Gm13_32210915_T_C	2516	Gm13_36316916_C_T	2561	Gm13_4187551_A_G
2472	Gm13_32254260_T_C	2517	Gm13_36411761_A_G	2562	Gm13_4204489_C_T
2473	Gm13_32368683_G_A	2518	Gm13_36499791_T_C	2563	Gm13_42637507_G_A
2474	Gm13_32435575_G_A	2519	Gm13_36551803_C_T	2564	Gm13_4319851_T_G
2475	Gm13_32480713_G_A	2520	Gm13_36633721_C_T	2565	Gm13_43988715_T_C

N°	Nombre del marcador	N°	Nombre del marcador	N°	Nombre del marcador
2566	Gm13_4520811_T_C	2611	Gm13_8264628_A_C	2656	Gm14_19164288_T_C
2567	Gm13_4595544_C_A	2612	Gm13_8308962_C_A	2657	Gm14_19373649_A_G
2568	Gm13_4674747_T_C	2613	Gm13_850370_T_C	2658	Gm14_2018487_G_T
2569	Gm13_4739271_T_C	2614	Gm13_8529479_G_T	2659	Gm14_2131407_C_T
2570	Gm13_4817327_C_T	2615	Gm13_8587714_T_C	2660	Gm14_2201279_A_G
2571	Gm13_4905331_T_C	2616	Gm13_8720423_A_G	2661	Gm14_2266236_A_G
2572	Gm13_5020064_C_T	2617	Gm13_898111_T_G	2662	Gm14_2311158_G_A
2573	Gm13_50706_A_G	2618	Gm13_9993080_C_T	2663	Gm14_2404878_A_G
2574	Gm13_5075945_G_A	2619	Gm14_10071491_C_T	2664	Gm14_2480875_A_C
2575	Gm13_5211326_T_C	2620	Gm14_10197799_A_G	2665	Gm14_2523580_A_G
2576	Gm13_5259517_G_A	2621	Gm14_10360733_C_T	2666	Gm14_26132219_T_C
2577	Gm13_5376431_T_C	2622	Gm14_10409229_T_G	2667	Gm14_2762103_T_C
2578	Gm13_5480962_C_T	2623	Gm14_10477535_C_T	2668	Gm14_27937142_C_T
2579	Gm13_5566028_T_C	2624	Gm14_1050827_G_A	2669	Gm14_28004374_T_C
2580	Gm13_5674534_C_T	2625	Gm14_10575538_G_A	2670	Gm14_28158698_T_C
2581	Gm13_5769177_G_A	2626	Gm14_10704639_A_G	2671	Gm14_28262597_T_C
2582	Gm13_5789153_A_G	2627	Gm14_1167509_A_G	2672	Gm14_28361034_A_G
2583	Gm13_579178_A_G	2628	Gm14_12224854_G_A	2673	Gm14_2854797_C_A
2584	Gm13_5872811_G_A	2629	Gm14_1253814_C_T	2674	Gm14_2918117_C_T
2585	Gm13_5993892_T_C	2630	Gm14_12712102_T_C	2675	Gm14_30024382_T_C
2586	Gm13_6072061_C_A	2631	Gm14_12850710_T_C	2676	Gm14_3042771_T_C
2587	Gm13_6151892_T_C	2632	Gm14_12979262_C_T	2677	Gm14_30760829_T_C
2588	Gm13_6207590_G_A	2633	Gm14_13067535_C_T	2678	Gm14_3092838_C_T
2589	Gm13_6342969_T_C	2634	Gm14_13119138_G_A	2679	Gm14_31348204_T_C
2590	Gm13_6393530_A_G	2635	Gm14_13290049_C_T	2680	Gm14_3157865_C_A
2591	Gm13_6509852_C_T	2636	Gm14_13337916_T_C	2681	Gm14_31829614_G_T
2592	Gm13_6626930_G_A	2637	Gm14_1340473_G_T	2682	Gm14_32629667_A_C
2593	Gm13_6687503_A_C	2638	Gm14_13510414_A_G	2683	Gm14_32943443_C_T
2594	Gm13_674370_G_A	2639	Gm14_13557173_C_A	2684	Gm14_33918871_C_T
2595	Gm13_6761450_T_G	2640	Gm14_13602389_A_G	2685	Gm14_3420502_A_G
2596	Gm13_6811934_T_G	2641	Gm14_13614066_T_G	2686	Gm14_34265654_T_C
2597	Gm13_6873160_T_C	2642	Gm14_13789185_A_G	2687	Gm14_344009_T_C
2598	Gm13_6925859_A_G	2643	Gm14_13832688_T_C	2688	Gm14_3547361_G_A
2599	Gm13_6962601_A_G	2644	Gm14_1436509_G_A	2689	Gm14_35678375_G_A
2600	Gm13_7102873_G_A	2645	Gm14_1495353_T_C	2690	Gm14_37234273_G_A
2601	Gm13_717318_C_T	2646	Gm14_1564632_C_T	2691	Gm14_37444310_C_T
2602	Gm13_7234018_A_G	2647	Gm14_1613564_T_G	2692	Gm14_3750971_G_A
2603	Gm13_7285098_T_C	2648	Gm14_1657815_T_G	2693	Gm14_3779194_T_C
2604	Gm13_7381714_A_G	2649	Gm14_1723025_T_C	2694	Gm14_37946546_G_T
2605	Gm13_7733811_C_T	2650	Gm14_17569578_A_G	2695	Gm14_3858365_G_T
2606	Gm13_7810247_C_T	2651	Gm14_18515404_A_G	2696	Gm14_38660623_T_C
2607	Gm13_790808_A_G	2652	Gm14_1879468_A_C	2697	Gm14_387906_T_C
2608	Gm13_8046044_G_A	2653	Gm14_18927676_T_C	2698	Gm14_3932543_G_A
2609	Gm13_8168052_C_T	2654	Gm14_19030405_G_A	2699	Gm14_39336505_C_T
2610	Gm13_8232824_G_T	2655	Gm14_19103544_T_C	2700	Gm14_39838365_A_C

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2701	Gm14_4056741_C_T	2746	Gm14_48089424_A_G	2791	Gm14_837938_T_C
2702	Gm14_40852336_C_T	2747	Gm14_4811528_C_A	2792	Gm14_8527621_A_G
2703	Gm14_4087624_G_A	2748	Gm14_48129511_T_C	2793	Gm14_86112_G_A
2704	Gm14_40986359_T_C	2749	Gm14_48219705_C_T	2794	Gm14_8755748_C_T
2705	Gm14_41187024_T_C	2750	Gm14_48312276_T_G	2795	Gm14_879705_C_A
2706	Gm14_41251974_T_C	2751	Gm14_48425707_A_G	2796	Gm14_8918021_T_G
2707	Gm14_4184275_A_G	2752	Gm14_48467415_C_T	2797	Gm14_923444_G_A
2708	Gm14_425198_A_G	2753	Gm14_48535790_T_C	2798	Gm14_9258533_G_A
2709	Gm14_4264490_T_G	2754	Gm14_48656000_T_C	2799	Gm14_9307586_A_G
2710	Gm14_42703536_T_G	2755	Gm14_4889916_T_C	2800	Gm14_9525103_T_C
2711	Gm14_42974017_G_A	2756	Gm14_49107190_G_A	2801	Gm14_9628707_A_G
2712	Gm14_43053930_A_G	2757	Gm14_49199294_C_A	2802	Gm14_9642828_T_C
2713	Gm14_43139188_A_G	2758	Gm14_49503348_C_A	2803	Gm14_9718302_T_G
2714	Gm14_43270248_C_T	2759	Gm14_49564304_T_C	2804	Gm14_9803364_T_G
2715	Gm14_4430386_G_T	2760	Gm14_49636532_G_A	2805	Gm14_9907255_C_T
2716	Gm14_44545755_T_C	2761	Gm14_49680135_A_G	2806	Gm15_10008869_G_T
2717	Gm14_4517748_G_A	2762	Gm14_5031070_G_A	2807	Gm15_10059948_T_C
2718	Gm14_4571618_G_A	2763	Gm14_5418596_A_G	2808	Gm15_1007132_A_C
2719	Gm14_45901019_T_C	2764	Gm14_5784050_G_A	2809	Gm15_10129096_A_C
2720	Gm14_46106800_T_C	2765	Gm14_587754_T_C	2810	Gm15_10261760_T_C
2721	Gm14_46154177_G_T	2766	Gm14_5908034_T_C	2811	Gm15_10416352_C_T
2722	Gm14_46247903_A_G	2767	Gm14_6024101_T_C	2812	Gm15_10467095_G_A
2723	Gm14_46289371_C_T	2768	Gm14_6203160_A_G	2813	Gm15_10580977_T_C
2724	Gm14_46335410_A_G	2769	Gm14_6448182_T_G	2814	Gm15_10665966_A_C
2725	Gm14_46392454_G_T	2770	Gm14_6458854_A_G	2815	Gm15_10802057_G_A
2726	Gm14_4644043_T_C	2771	Gm14_6514301_C_T	2816	Gm15_10874410_A_C
2727	Gm14_46513248_G_A	2772	Gm14_6554406_T_C	2817	Gm15_11097098_G_A
2728	Gm14_46557629_T_G	2773	Gm14_656104_A_G	2818	Gm15_11172677_A_G
2729	Gm14_46635262_T_C	2774	Gm14_6659109_T_C	2819	Gm15_11192460_G_A
2730	Gm14_46845195_C_T	2775	Gm14_6770667_T_C	2820	Gm15_11257759_T_C
2731	Gm14_46898740_A_C	2776	Gm14_6829154_T_C	2821	Gm15_11421179_C_T
2732	Gm14_4706907_T_C	2777	Gm14_6912739_G_A	2822	Gm15_11496274_T_C
2733	Gm14_47081002_T_C	2778	Gm14_6969042_T_C	2823	Gm15_11712082_A_G
2734	Gm14_47178286_A_G	2779	Gm14_7064274_A_G	2824	Gm15_11927735_T_C
2735	Gm14_47354923_T_C	2780	Gm14_7151265_G_A	2825	Gm15_12076819_C_T
2736	Gm14_47418167_T_C	2781	Gm14_7195140_G_A	2826	Gm15_12140462_T_G
2737	Gm14_47475993_G_A	2782	Gm14_7567627_A_G	2827	Gm15_12264838_A_G
2738	Gm14_47565830_C_T	2783	Gm14_766413_G_A	2828	Gm15_12317776_T_C
2739	Gm14_47636308_T_G	2784	Gm14_7733148_T_C	2829	Gm15_12414192_C_T
2740	Gm14_47643269_A_G	2785	Gm14_8027761_C_T	2830	Gm15_12475289_T_C
2741	Gm14_4770786_C_T	2786	Gm14_8096329_G_T	2831	Gm15_12531884_A_G
2742	Gm14_47744620_G_A	2787	Gm14_8128492_T_G	2832	Gm15_12611331_A_G
2743	Gm14_47895113_G_A	2788	Gm14_8186078_G_A	2833	Gm15_12643435_T_C
2744	Gm14_47991114_C_A	2789	Gm14_8288373_T_G	2834	Gm15_12906302_T_C
2745	Gm14_48026115_C_T	2790	Gm14_8294330_A_G	2835	Gm15_13014539_T_C



N°	Nombre del marcador	N°	Nombre del marcador	N°	Nombre del marcador
2836	Gm15_13098003_A_G	2881	Gm15_1940841_T_G	2926	Gm15_37128520_C_T
2837	Gm15_13180039_C_T	2882	Gm15_1969687_A_G	2927	Gm15_37433934_A_G
2838	Gm15_13257987_T_C	2883	Gm15_2021199_T_C	2928	Gm15_3845971_T_C
2839	Gm15_13358960_C_T	2884	Gm15_20452272_C_T	2929	Gm15_38604104_G_A
2840	Gm15_13427310_G_T	2885	Gm15_20639275_T_C	2930	Gm15_39331659_T_C
2841	Gm15_13595237_C_T	2886	Gm15_2072075_A_G	2931	Gm15_39888568_G_A
2842	Gm15_13651090_G_A	2887	Gm15_21151124_A_G	2932	Gm15_40040705_C_T
2843	Gm15_13801080_T_C	2888	Gm15_21383300_C_T	2933	Gm15_40461287_A_G
2844	Gm15_13828058_G_T	2889	Gm15_2198097_A_G	2934	Gm15_40878937_G_A
2845	Gm15_13912259_A_G	2890	Gm15_22270685_G_T	2935	Gm15_4114622_T_C
2846	Gm15_14146264_T_C	2891	Gm15_2241545_A_G	2936	Gm15_42221723_T_G
2847	Gm15_14201752_T_C	2892	Gm15_23117810_G_A	2937	Gm15_4264903_C_T
2848	Gm15_14243520_C_A	2893	Gm15_23528911_C_T	2938	Gm15_42869969_C_T
2849	Gm15_14329774_G_A	2894	Gm15_23567997_G_A	2939	Gm15_4315169_T_C
2850	Gm15_14361475_T_C	2895	Gm15_24054601_A_G	2940	Gm15_43374644_G_A
2851	Gm15_14539028_A_C	2896	Gm15_24502422_G_A	2941	Gm15_43797502_G_T
2852	Gm15_14548441_T_C	2897	Gm15_25122691_T_C	2942	Gm15_44059851_T_C
2853	Gm15_14642145_G_A	2898	Gm15_25411335_G_A	2943	Gm15_4406751_T_C
2854	Gm15_14712034_G_T	2899	Gm15_25514805_G_A	2944	Gm15_44336916_G_A
2855	Gm15_14780339_A_G	2900	Gm15_26275176_G_A	2945	Gm15_4456903_G_A
2856	Gm15_14850682_C_A	2901	Gm15_27358877_G_A	2946	Gm15_44835540_A_G
2857	Gm15_1491376_A_G	2902	Gm15_27571570_A_G	2947	Gm15_44930418_C_T
2858	Gm15_14926607_G_A	2903	Gm15_27914877_T_C	2948	Gm15_45037800_T_C
2859	Gm15_14975243_T_C	2904	Gm15_28588212_T_C	2949	Gm15_4522374_C_A
2860	Gm15_15001782_A_G	2905	Gm15_28616409_T_C	2950	Gm15_45518497_T_C
2861	Gm15_15178159_T_C	2906	Gm15_28916718_C_A	2951	Gm15_45623334_A_G
2862	Gm15_15220762_A_G	2907	Gm15_29706012_C_T	2952	Gm15_45725175_G_A
2863	Gm15_15261622_T_G	2908	Gm15_29956672_C_T	2953	Gm15_46014592_T_C
2864	Gm15_15511644_A_G	2909	Gm15_30269323_G_A	2954	Gm15_4613500_G_A
2865	Gm15_15638272_G_A	2910	Gm15_3050845_G_T	2955	Gm15_46497713_T_C
2866	Gm15_15683212_G_T	2911	Gm15_3160423_T_G	2956	Gm15_46549525_T_C
2867	Gm15_15746095_G_A	2912	Gm15_32298822_C_T	2957	Gm15_46669029_G_T
2868	Gm15_15834696_T_C	2913	Gm15_32461857_T_C	2958	Gm15_46698746_T_C
2869	Gm15_15896387_C_T	2914	Gm15_3281983_G_A	2959	Gm15_46785794_G_A
2870	Gm15_15952535_C_A	2915	Gm15_33001719_T_C	2960	Gm15_46835562_G_T
2871	Gm15_1618820_C_T	2916	Gm15_33030559_A_G	2961	Gm15_46930166_A_G
2872	Gm15_16780064_C_T	2917	Gm15_3334810_G_T	2962	Gm15_47184927_T_G
2873	Gm15_16880335_A_G	2918	Gm15_34248718_A_G	2963	Gm15_47255820_T_C
2874	Gm15_16928891_A_G	2919	Gm15_34423980_G_A	2964	Gm15_47421641_T_C
2875	Gm15_17003064_T_C	2920	Gm15_34798953_C_T	2965	Gm15_47571188_T_C
2876	Gm15_171456_A_G	2921	Gm15_35867161_C_A	2966	Gm15_47621393_G_A
2877	Gm15_17190467_T_C	2922	Gm15_36090790_G_A	2967	Gm15_47679988_T_C
2878	Gm15_1842053_G_T	2923	Gm15_36306421_C_T	2968	Gm15_47744421_G_A
2879	Gm15_1910769_G_A	2924	Gm15_36727035_C_T	2969	Gm15_47871831_A_C
2880	Gm15_193939_A_G	2925	Gm15_36870472_C_T	2970	Gm15_47984642_G_A

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2971	Gm15_48117938_G_A	3016	Gm15_7574118_T_C	3061	Gm16_2299577_C_T
2972	Gm15_48259512_T_C	3017	Gm15_7637174_A_C	3062	Gm16_23995972_G_A
2973	Gm15_48313076_A_C	3018	Gm15_7721702_G_A	3063	Gm16_2405914_A_G
2974	Gm15_48596343_G_A	3019	Gm15_7829610_A_G	3064	Gm16_24329186_A_C
2975	Gm15_48604174_C_T	3020	Gm15_7864348_G_T	3065	Gm16_24389823_A_C
2976	Gm15_48653554_A_C	3021	Gm15_8134735_A_G	3066	Gm16_24612301_A_G
2977	Gm15_48727813_T_C	3022	Gm15_8167223_T_C	3067	Gm16_24793404_C_T
2978	Gm15_48802538_C_A	3023	Gm15_8263547_G_T	3068	Gm16_25127133_A_C
2979	Gm15_48971950_T_C	3024	Gm15_8412363_G_A	3069	Gm16_2513346_C_T
2980	Gm15_49023306_T_G	3025	Gm15_8474378_G_T	3070	Gm16_25378270_A_G
2981	Gm15_49088291_T_C	3026	Gm15_8579398_C_T	3071	Gm16_2619084_C_T
2982	Gm15_4911708_G_T	3027	Gm15_8697425_C_A	3072	Gm16_26324517_C_T
2983	Gm15_49226394_G_A	3028	Gm15_8715603_A_G	3073	Gm16_2707467_G_A
2984	Gm15_49318218_A_G	3029	Gm15_872867_T_G	3074	Gm16_27092931_A_G
2985	Gm15_49401353_T_G	3030	Gm15_8815027_T_C	3075	Gm16_27521057_G_T
2986	Gm15_49458992_C_A	3031	Gm15_8934427_C_T	3076	Gm16_27750410_T_C
2987	Gm15_49543373_C_T	3032	Gm15_9058303_T_C	3077	Gm16_27978857_A_C
2988	Gm15_49560894_T_C	3033	Gm15_9164446_A_G	3078	Gm16_2800650_C_T
2989	Gm15_49612939_A_G	3034	Gm15_9413370_G_A	3079	Gm16_28154253_T_C
2990	Gm15_4973977_T_C	3035	Gm15_948412_T_C	3080	Gm16_28232079_A_G
2991	Gm15_50626980_T_C	3036	Gm15_9520804_G_A	3081	Gm16_28266706_T_C
2992	Gm15_50752900_T_C	3037	Gm15_9594410_T_C	3082	Gm16_28443553_T_C
2993	Gm15_50864537_A_G	3038	Gm15_9733870_T_C	3083	Gm16_28753577_A_G
2994	Gm15_511387_T_C	3039	Gm15_9829561_A_G	3084	Gm16_28792833_T_C
2995	Gm15_5203685_C_T	3040	Gm15_9948537_G_A	3085	Gm16_28845819_A_G
2996	Gm15_5638918_T_G	3041	Gm16_10243181_A_G	3086	Gm16_28901653_G_A
2997	Gm15_5725962_A_G	3042	Gm16_103052_T_C	3087	Gm16_28961127_T_G
2998	Gm15_5793738_A_G	3043	Gm16_10793089_G_A	3088	Gm16_29097420_T_C
2999	Gm15_5897409_G_A	3044	Gm16_1101441_C_A	3089	Gm16_29135922_C_T
3000	Gm15_6047557_T_C	3045	Gm16_11091505_C_T	3090	Gm16_29181015_G_T
3001	Gm15_6066709_C_A	3046	Gm16_11889238_A_G	3091	Gm16_29261393_C_A
3002	Gm15_6272006_T_C	3047	Gm16_1251545_A_G	3092	Gm16_29322493_T_C
3003	Gm15_630331_G_A	3048	Gm16_1332815_C_T	3093	Gm16_2950818_G_A
3004	Gm15_6646246_C_T	3049	Gm16_13657908_C_T	3094	Gm16_298188_C_A
3005	Gm15_6674572_A_C	3050	Gm16_1484224_C_T	3095	Gm16_29930067_A_G
3006	Gm15_6823009_G_T	3051	Gm16_1556362_C_T	3096	Gm16_29985920_A_G
3007	Gm15_6925513_T_C	3052	Gm16_1566778_T_C	3097	Gm16_30038668_G_T
3008	Gm15_7023081_G_A	3053	Gm16_1708510_C_T	3098	Gm16_30108889_C_A
3009	Gm15_7080649_A_C	3054	Gm16_1724337_A_C	3099	Gm16_30151465_A_G
3010	Gm15_7147226_G_A	3055	Gm16_1755870_A_G	3100	Gm16_30308287_A_C
3011	Gm15_7217705_A_G	3056	Gm16_17780867_A_G	3101	Gm16_3036177_T_C
3012	Gm15_7343866_C_T	3057	Gm16_18732921_A_G	3102	Gm16_30991544_A_G
3013	Gm15_741627_C_A	3058	Gm16_1936692_C_A	3103	Gm16_3099668_A_C
3014	Gm15_7513319_T_C	3059	Gm16_202054_A_C	3104	Gm16_31161985_G_A
3015	Gm15_756303_T_C	3060	Gm16_22937295_T_C	3105	Gm16_31227305_T_C

N°	Nombre del marcador	N°	Nombre del marcador	N°	Nombre del marcador
3106	Gm16_31292709_T_C	3151	Gm16_36583867_G_A	3196	Gm16_7237873_A_G
3107	Gm16_31332752_G_A	3152	Gm16_36622229_T_C	3197	Gm16_7298497_C_T
3108	Gm16_31454423_G_A	3153	Gm16_36732450_T_C	3198	Gm16_7364708_A_G
3109	Gm16_31547380_T_G	3154	Gm16_36809255_A_C	3199	Gm16_7407374_G_A
3110	Gm16_3166745_A_C	3155	Gm16_36888387_C_T	3200	Gm16_7460429_A_G
3111	Gm16_31710278_G_A	3156	Gm16_36983033_C_A	3201	Gm16_7525351_G_A
3112	Gm16_31787658_T_C	3157	Gm16_37026443_G_T	3202	Gm16_761034_G_T
3113	Gm16_31837545_C_T	3158	Gm16_37161151_A_G	3203	Gm16_7636967_C_T
3114	Gm16_31899513_G_A	3159	Gm16_37209075_T_G	3204	Gm16_7691856_T_C
3115	Gm16_32017661_A_C	3160	Gm16_37319334_C_A	3205	Gm16_7743486_G_T
3116	Gm16_32099047_A_C	3161	Gm16_3775913_T_C	3206	Gm16_7851145_G_A
3117	Gm16_32148034_A_G	3162	Gm16_379576_C_T	3207	Gm16_7947809_A_C
3118	Gm16_32200441_A_C	3163	Gm16_3850224_T_C	3208	Gm16_7990029_T_C
3119	Gm16_3246299_T_G	3164	Gm16_390551_A_G	3209	Gm16_8040403_C_T
3120	Gm16_32484340_T_C	3165	Gm16_3917294_A_C	3210	Gm16_808425_C_T
3121	Gm16_32534697_A_G	3166	Gm16_3962328_C_A	3211	Gm16_8354720_G_A
3122	Gm16_32665742_T_C	3167	Gm16_4034155_A_C	3212	Gm16_8415385_G_A
3123	Gm16_32876100_A_G	3168	Gm16_4285389_A_G	3213	Gm16_8540188_T_C
3124	Gm16_33210540_T_C	3169	Gm16_4351139_A_C	3214	Gm16_901279_T_C
3125	Gm16_33360539_T_C	3170	Gm16_4399162_A_G	3215	Gm16_9014032_G_T
3126	Gm16_3337301_A_G	3171	Gm16_4436009_C_T	3216	Gm16_9593365_G_T
3127	Gm16_33457667_T_G	3172	Gm16_4707461_C_T	3217	Gm16_988233_C_A
3128	Gm16_33608003_A_G	3173	Gm16_4848777_A_G	3218	Gm17_10666981_A_G
3129	Gm16_33742275_G_A	3174	Gm16_486857_G_A	3219	Gm17_11272874_G_A
3130	Gm16_33798911_G_A	3175	Gm16_4908430_C_T	3220	Gm17_11359322_G_T
3131	Gm16_33875871_T_C	3176	Gm16_5340777_C_T	3221	Gm17_11427710_G_T
3132	Gm16_34645180_A_G	3177	Gm16_5429551_T_C	3222	Gm17_11617703_A_C
3133	Gm16_34685922_G_A	3178	Gm16_5477316_T_C	3223	Gm17_11683326_G_A
3134	Gm16_35135922_T_C	3179	Gm16_5566956_T_C	3224	Gm17_11764758_A_G
3135	Gm16_35218386_G_T	3180	Gm16_5614337_C_T	3225	Gm17_12684761_C_T
3136	Gm16_35322776_G_A	3181	Gm16_5656680_T_C	3226	Gm17_12765768_C_T
3137	Gm16_3541782_T_C	3182	Gm16_5871751_G_T	3227	Gm17_12842825_C_T
3138	Gm16_35643452_C_T	3183	Gm16_5928303_A_G	3228	Gm17_13125043_G_T
3139	Gm16_35738081_A_G	3184	Gm16_5998589_A_G	3229	Gm17_13127250_C_T
3140	Gm16_35846_A_G	3185	Gm16_6061510_C_T	3230	Gm17_13253012_A_G
3141	Gm16_35933600_A_G	3186	Gm16_6179363_T_G	3231	Gm17_13349399_G_A
3142	Gm16_3598173_C_T	3187	Gm16_6294306_T_C	3232	Gm17_13487812_A_G
3143	Gm16_36013043_C_A	3188	Gm16_6423098_G_A	3233	Gm17_13605594_G_T
3144	Gm16_36080583_A_C	3189	Gm16_6496577_A_C	3234	Gm17_13660920_C_T
3145	Gm16_36132536_T_C	3190	Gm16_6559259_C_A	3235	Gm17_13722544_A_G
3146	Gm16_36218124_A_G	3191	Gm16_6702694_C_T	3236	Gm17_15493313_G_T
3147	Gm16_36271795_C_T	3192	Gm16_6840143_G_A	3237	Gm17_15872822_C_T
3148	Gm16_36328948_A_G	3193	Gm16_6868110_C_A	3238	Gm17_16158023_A_G
3149	Gm16_36413821_C_A	3194	Gm16_7018526_T_C	3239	Gm17_17726952_A_G
3150	Gm16_36520601_A_G	3195	Gm16_7070805_G_A	3240	Gm17_17971540_A_G

N°	Nombre del marcador	N°	Nombre del marcador	N°	Nombre del marcador
3241	Gm17_18770148_A_G	3286	Gm17_37391436_C_T	3331	Gm17_4789679_C_A
3242	Gm17_20043070_T_C	3287	Gm17_37769727_A_G	3332	Gm17_4874297_T_G
3243	Gm17_2161335_A_G	3288	Gm17_37843080_C_A	3333	Gm17_4967175_G_A
3244	Gm17_2224271_C_T	3289	Gm17_37989202_C_T	3334	Gm17_5042611_T_G
3245	Gm17_22702978_G_T	3290	Gm17_38051554_A_C	3335	Gm17_504609_A_C
3246	Gm17_2327857_T_G	3291	Gm17_38170820_T_C	3336	Gm17_5085904_T_C
3247	Gm17_23618170_C_T	3292	Gm17_38282072_G_A	3337	Gm17_5143085_T_G
3248	Gm17_24474211_A_G	3293	Gm17_38361476_G_T	3338	Gm17_534037_T_C
3249	Gm17_25294261_G_A	3294	Gm17_38461325_T_C	3339	Gm17_5793411_T_C
3250	Gm17_25728389_A_G	3295	Gm17_38465611_G_A	3340	Gm17_6090553_C_T
3251	Gm17_26776447_T_C	3296	Gm17_38540012_A_G	3341	Gm17_6778459_T_G
3252	Gm17_270328_T_C	3297	Gm17_3882060_T_C	3342	Gm17_6841753_C_T
3253	Gm17_27791091_G_A	3298	Gm17_3915385_T_C	3343	Gm17_714916_G_A
3254	Gm17_28453746_T_C	3299	Gm17_39167346_G_A	3344	Gm17_7756014_C_T
3255	Gm17_28538552_C_T	3300	Gm17_39218332_T_C	3345	Gm17_7794179_A_G
3256	Gm17_30225239_A_G	3301	Gm17_39295184_G_A	3346	Gm17_7887554_T_C
3257	Gm17_31111789_G_A	3302	Gm17_39388462_A_G	3347	Gm17_794264_C_T
3258	Gm17_3126540_C_T	3303	Gm17_39479718_C_T	3348	Gm17_8010009_A_C
3259	Gm17_31544109_C_T	3304	Gm17_39532657_C_A	3349	Gm17_8109237_A_C
3260	Gm17_32038975_T_G	3305	Gm17_39584371_G_A	3350	Gm17_8194356_C_T
3261	Gm17_32367167_G_A	3306	Gm17_39797024_C_T	3351	Gm17_8270421_A_G
3262	Gm17_3252095_T_C	3307	Gm17_39804515_T_C	3352	Gm17_8352493_G_A
3263	Gm17_32625352_A_G	3308	Gm17_39948312_A_G	3353	Gm17_8449684_G_A
3264	Gm17_3320209_G_A	3309	Gm17_40022869_C_T	3354	Gm17_8563621_G_A
3265	Gm17_33343495_A_G	3310	Gm17_40102736_A_C	3355	Gm17_8595668_T_C
3266	Gm17_3396471_G_A	3311	Gm17_40125829_A_G	3356	Gm17_8735403_G_A
3267	Gm17_3500196_C_A	3312	Gm17_40173327_C_T	3357	Gm17_8841224_C_T
3268	Gm17_35679376_C_A	3313	Gm17_40335241_A_G	3358	Gm17_8891564_A_G
3269	Gm17_361061_G_A	3314	Gm17_4039342_A_G	3359	Gm17_8939133_A_G
3270	Gm17_36118254_A_G	3315	Gm17_40452379_C_T	3360	Gm17_8956091_G_A
3271	Gm17_36269982_G_A	3316	Gm17_40827927_A_C	3361	Gm17_9065734_G_A
3272	Gm17_3627810_G_A	3317	Gm17_40876856_G_A	3362	Gm17_9114615_A_C
3273	Gm17_36382955_A_G	3318	Gm17_41011181_G_T	3363	Gm17_9191781_T_C
3274	Gm17_36408425_C_T	3319	Gm17_41063513_T_C	3364	Gm17_9278867_G_A
3275	Gm17_36453965_A_G	3320	Gm17_41132916_G_A	3365	Gm17_9590152_T_G
3276	Gm17_36544388_G_A	3321	Gm17_41202044_T_C	3366	Gm17_9608605_C_A
3277	Gm17_36602853_A_G	3322	Gm17_41481512_T_C	3367	Gm17_9684872_T_C
3278	Gm17_36610073_C_T	3323	Gm17_41585706_A_C	3368	Gm17_9749711_A_G
3279	Gm17_36684149_A_G	3324	Gm17_41674343_A_C	3369	Gm18_10114401_T_C
3280	Gm17_36702131_C_T	3325	Gm17_4175237_A_G	3370	Gm18_10445035_A_G
3281	Gm17_36782012_T_C	3326	Gm17_41866889_G_A	3371	Gm18_1056515_C_T
3282	Gm17_36847420_A_G	3327	Gm17_4312738_C_T	3372	Gm18_10709433_A_G
3283	Gm17_3709542_G_A	3328	Gm17_4367666_G_A	3373	Gm18_10830653_G_A
3284	Gm17_37204244_A_C	3329	Gm17_4432877_G_T	3374	Gm18_1112389_C_A
3285	Gm17_37335550_T_C	3330	Gm17_4737388_T_G	3375	Gm18_11342996_T_C

N°	Nombre del marcador	N°	Nombre del marcador	N°	Nombre del marcador
3376	Gm18_1158628_A_G	3421	Gm18_1957770_T_C	3466	Gm18_3219211_C_T
3377	Gm18_11614607_T_C	3422	Gm18_19666596_C_T	3467	Gm18_33112765_G_A
3378	Gm18_11664722_A_G	3423	Gm18_20016356_G_A	3468	Gm18_34158032_G_A
3379	Gm18_11781170_C_T	3424	Gm18_200292_A_G	3469	Gm18_34401760_G_A
3380	Gm18_11888699_G_A	3425	Gm18_2007638_G_T	3470	Gm18_3448045_A_G
3381	Gm18_11934215_G_T	3426	Gm18_20199219_T_C	3471	Gm18_347275_C_A
3382	Gm18_12025451_T_C	3427	Gm18_20208232_G_A	3472	Gm18_34931761_C_T
3383	Gm18_12202303_C_A	3428	Gm18_20636417_C_T	3473	Gm18_3566129_A_G
3384	Gm18_122382_A_G	3429	Gm18_20664588_G_T	3474	Gm18_35693915_A_G
3385	Gm18_1235422_T_C	3430	Gm18_20756476_G_T	3475	Gm18_3659392_C_T
3386	Gm18_12406839_A_G	3431	Gm18_2103682_T_G	3476	Gm18_36637036_C_T
3387	Gm18_12477258_A_G	3432	Gm18_21042079_T_C	3477	Gm18_36929655_T_C
3388	Gm18_12545953_G_A	3433	Gm18_21626428_C_A	3478	Gm18_3715229_A_G
3389	Gm18_12791503_A_G	3434	Gm18_21677373_C_T	3479	Gm18_37200839_T_C
3390	Gm18_12805012_G_A	3435	Gm18_2178121_C_T	3480	Gm18_3778293_G_A
3391	Gm18_13080290_C_T	3436	Gm18_21873812_C_T	3481	Gm18_37934784_G_T
3392	Gm18_1308443_A_G	3437	Gm18_22152820_T_G	3482	Gm18_38257741_G_A
3393	Gm18_13166954_A_G	3438	Gm18_2228646_C_T	3483	Gm18_3851900_G_A
3394	Gm18_13218800_A_G	3439	Gm18_22369640_C_T	3484	Gm18_39612141_T_C
3395	Gm18_13242941_T_C	3440	Gm18_22636376_G_T	3485	Gm18_41666886_T_C
3396	Gm18_13676905_G_A	3441	Gm18_2284997_A_G	3486	Gm18_42005163_A_G
3397	Gm18_14396034_A_G	3442	Gm18_2357279_C_T	3487	Gm18_458242_T_G
3398	Gm18_14859936_G_T	3443	Gm18_23775050_C_T	3488	Gm18_45854947_A_G
3399	Gm18_14951019_T_C	3444	Gm18_24296638_T_C	3489	Gm18_46081850_T_G
3400	Gm18_15324039_A_G	3445	Gm18_2438838_A_G	3490	Gm18_46298863_T_C
3401	Gm18_15595633_A_G	3446	Gm18_24826260_A_G	3491	Gm18_46416185_A_C
3402	Gm18_15628680_G_A	3447	Gm18_2493998_C_T	3492	Gm18_47380987_A_G
3403	Gm18_15669089_G_A	3448	Gm18_25169738_G_A	3493	Gm18_47433491_G_A
3404	Gm18_16141327_G_A	3449	Gm18_2573163_G_A	3494	Gm18_4754894_C_T
3405	Gm18_1620585_T_C	3450	Gm18_2624621_C_T	3495	Gm18_47671359_T_C
3406	Gm18_16378492_T_G	3451	Gm18_26396917_A_G	3496	Gm18_47762143_A_G
3407	Gm18_16558572_C_T	3452	Gm18_2684576_G_A	3497	Gm18_47878067_A_C
3408	Gm18_16599453_T_C	3453	Gm18_27207283_T_C	3498	Gm18_47946184_G_A
3409	Gm18_16728761_A_C	3454	Gm18_27607706_A_G	3499	Gm18_48070209_G_A
3410	Gm18_1712832_T_C	3455	Gm18_2788360_G_T	3500	Gm18_48100117_G_A
3411	Gm18_17690549_C_T	3456	Gm18_2833147_G_A	3501	Gm18_4820361_G_T
3412	Gm18_1788740_C_T	3457	Gm18_28659934_A_G	3502	Gm18_48485986_G_T
3413	Gm18_18199183_G_A	3458	Gm18_2919236_T_G	3503	Gm18_48551788_G_T
3414	Gm18_18437706_A_G	3459	Gm18_29768394_G_A	3504	Gm18_48678473_G_A
3415	Gm18_1848675_G_A	3460	Gm18_298221_T_C	3505	Gm18_4869174_C_T
3416	Gm18_18565643_A_C	3461	Gm18_3047836_T_C	3506	Gm18_48757969_C_T
3417	Gm18_18576322_T_C	3462	Gm18_30521009_C_A	3507	Gm18_48849749_A_C
3418	Gm18_18650956_C_T	3463	Gm18_3169557_A_C	3508	Gm18_48876264_T_C
3419	Gm18_1909453_T_C	3464	Gm18_31838260_G_T	3509	Gm18_4921501_A_G
3420	Gm18_19349342_C_T	3465	Gm18_32169391_A_G	3510	Gm18_4979434_T_G

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3511	Gm18_50401738_C_T	3556	Gm18_56839033_A_C	3601	Gm18_61723602_C_T
3512	Gm18_51128392_G_A	3557	Gm18_56910277_C_A	3602	Gm18_61918670_A_G
3513	Gm18_5133882_G_A	3558	Gm18_57037107_C_T	3603	Gm18_61970234_C_T
3514	Gm18_51659540_A_G	3559	Gm18_57126096_C_T	3604	Gm18_62036271_A_G
3515	Gm18_51772288_T_C	3560	Gm18_57227205_C_A	3605	Gm18_62122809_A_G
3516	Gm18_51867289_C_T	3561	Gm18_57289081_C_T	3606	Gm18_62190919_A_G
3517	Gm18_52315759_T_C	3562	Gm18_57346419_T_C	3607	Gm18_6370950_A_G
3518	Gm18_52459634_A_G	3563	Gm18_57517100_C_T	3608	Gm18_6528611_G_A
3519	Gm18_52555414_C_T	3564	Gm18_57583738_A_G	3609	Gm18_6584445_C_T
3520	Gm18_52688288_A_G	3565	Gm18_57699960_G_A	3610	Gm18_6636054_G_T
3521	Gm18_52751146_G_A	3566	Gm18_57832929_C_A	3611	Gm18_6697094_C_T
3522	Gm18_52908174_G_T	3567	Gm18_58010203_G_T	3612	Gm18_6764775_G_T
3523	Gm18_5305873_T_C	3568	Gm18_580733_C_T	3613	Gm18_6909361_G_A
3524	Gm18_53098348_A_G	3569	Gm18_58143983_T_C	3614	Gm18_7012291_T_C
3525	Gm18_53147357_A_C	3570	Gm18_58287938_C_T	3615	Gm18_7149340_A_G
3526	Gm18_53425148_C_T	3571	Gm18_58333122_A_G	3616	Gm18_7233159_C_A
3527	Gm18_53457728_G_A	3572	Gm18_58521532_G_T	3617	Gm18_7290439_G_A
3528	Gm18_53574057_G_T	3573	Gm18_58588820_A_C	3618	Gm18_7348168_A_G
3529	Gm18_53627468_T_G	3574	Gm18_58663461_T_C	3619	Gm18_7428216_T_C
3530	Gm18_53682015_C_A	3575	Gm18_58712410_T_C	3620	Gm18_747510_C_A
3531	Gm18_53762458_A_G	3576	Gm18_58806948_C_A	3621	Gm18_7573213_G_A
3532	Gm18_53810098_C_A	3577	Gm18_58906161_G_A	3622	Gm18_7790416_C_T
3533	Gm18_53856096_T_C	3578	Gm18_59009549_G_A	3623	Gm18_7895324_G_A
3534	Gm18_54021599_G_T	3579	Gm18_59083419_T_C	3624	Gm18_829765_C_A
3535	Gm18_5403212_A_G	3580	Gm18_59184470_T_C	3625	Gm18_8448247_G_A
3536	Gm18_54076266_T_C	3581	Gm18_59265445_T_G	3626	Gm18_8460381_A_G
3537	Gm18_54164632_C_A	3582	Gm18_59331419_C_T	3627	Gm18_8777288_A_G
3538	Gm18_54390711_G_T	3583	Gm18_59406769_A_G	3628	Gm18_879821_T_C
3539	Gm18_54778060_C_T	3584	Gm18_59543358_C_T	3629	Gm18_8851746_A_G
3540	Gm18_54874544_A_C	3585	Gm18_59600111_C_A	3630	Gm18_8937974_T_C
3541	Gm18_54979_G_A	3586	Gm18_5961229_G_A	3631	Gm18_9033598_G_A
3542	Gm18_55000978_G_A	3587	Gm18_59774559_C_T	3632	Gm18_9133223_C_A
3543	Gm18_55167509_A_G	3588	Gm18_59830615_A_C	3633	Gm18_9265696_A_G
3544	Gm18_55286927_T_G	3589	Gm18_59887474_A_G	3634	Gm18_9359843_A_G
3545	Gm18_55484045_A_G	3590	Gm18_59980727_T_C	3635	Gm18_9382031_T_C
3546	Gm18_55580646_T_C	3591	Gm18_60144414_A_G	3636	Gm18_963047_A_G
3547	Gm18_55627617_T_C	3592	Gm18_60278667_G_A	3637	Gm18_9665720_C_T
3548	Gm18_56012604_C_T	3593	Gm18_6032670_T_G	3638	Gm18_9678773_T_C
3549	Gm18_56097147_A_G	3594	Gm18_60625180_A_C	3639	Gm18_9770108_C_T
3550	Gm18_56226616_G_A	3595	Gm18_60938849_C_T	3640	Gm18_9834584_T_C
3551	Gm18_56300625_C_A	3596	Gm18_61009028_C_A	3641	Gm18_9886770_G_A
3552	Gm18_56486524_T_C	3597	Gm18_61113746_G_A	3642	Gm18_9992192_C_A
3553	Gm18_56548201_A_G	3598	Gm18_61175038_G_A	3643	Gm19_1019093_C_T
3554	Gm18_56571714_C_T	3599	Gm18_61378941_A_G	3644	Gm19_10309298_A_G
3555	Gm18_56713153_C_T	3600	Gm18_61450878_G_T	3645	Gm19_10497079_T_C

N°	Nombre del marcador	N°	Nombre del marcador	N°	Nombre del marcador
3646	Gm19_1051648_G_A	3691	Gm19_32194361_T_C	3736	Gm19_39261055_G_A
3647	Gm19_11154958_T_C	3692	Gm19_32318695_G_A	3737	Gm19_39298979_C_T
3648	Gm19_1126440_G_A	3693	Gm19_3242376_G_A	3738	Gm19_39380280_G_A
3649	Gm19_116338_A_G	3694	Gm19_33380479_G_T	3739	Gm19_39421168_C_A
3650	Gm19_11984846_C_T	3695	Gm19_3343257_G_T	3740	Gm19_39433067_C_T
3651	Gm19_12437993_T_C	3696	Gm19_33747911_T_C	3741	Gm19_39635898_A_G
3652	Gm19_1255866_T_G	3697	Gm19_33847882_G_A	3742	Gm19_39686084_T_C
3653	Gm19_12665984_A_G	3698	Gm19_34006819_T_G	3743	Gm19_39723056_G_T
3654	Gm19_12915522_A_G	3699	Gm19_34156474_A_C	3744	Gm19_39853941_C_T
3655	Gm19_1296583_T_C	3700	Gm19_3416538_A_G	3745	Gm19_39985816_G_A
3656	Gm19_1333661_A_G	3701	Gm19_34243974_T_C	3746	Gm19_40053178_G_A
3657	Gm19_1420943_T_C	3702	Gm19_34320762_A_C	3747	Gm19_40143590_T_C
3658	Gm19_14259604_G_A	3703	Gm19_34339992_A_G	3748	Gm19_40219547_C_T
3659	Gm19_1489018_G_A	3704	Gm19_3458700_A_G	3749	Gm19_40508288_C_T
3660	Gm19_1542717_C_T	3705	Gm19_34600226_T_C	3750	Gm19_40644937_G_A
3661	Gm19_1565909_A_G	3706	Gm19_34687566_A_G	3751	Gm19_40662679_G_T
3662	Gm19_159297_C_A	3707	Gm19_34840388_C_A	3752	Gm19_40783256_T_C
3663	Gm19_16222413_G_T	3708	Gm19_34924899_G_A	3753	Gm19_41144271_A_G
3664	Gm19_1656743_T_C	3709	Gm19_35007908_T_C	3754	Gm19_41192542_G_T
3665	Gm19_17130920_C_T	3710	Gm19_35240406_C_T	3755	Gm19_41265238_A_C
3666	Gm19_17422266_C_A	3711	Gm19_35284520_T_C	3756	Gm19_41343324_G_A
3667	Gm19_18073747_A_G	3712	Gm19_35358097_T_C	3757	Gm19_41381563_A_C
3668	Gm19_1811142_T_C	3713	Gm19_35449676_C_T	3758	Gm19_41420857_A_G
3669	Gm19_19001554_G_A	3714	Gm19_35549926_A_G	3759	Gm19_41516358_G_A
3670	Gm19_19343619_C_T	3715	Gm19_35776664_G_A	3760	Gm19_41557773_A_C
3671	Gm19_1954907_T_C	3716	Gm19_35840587_C_T	3761	Gm19_41595422_A_G
3672	Gm19_1974292_A_G	3717	Gm19_35979179_A_G	3762	Gm19_41638742_G_T
3673	Gm19_2067992_A_G	3718	Gm19_36242055_C_T	3763	Gm19_41757011_C_A
3674	Gm19_20884990_T_C	3719	Gm19_36313784_T_C	3764	Gm19_41863305_G_A
3675	Gm19_2221028_T_C	3720	Gm19_36505181_A_G	3765	Gm19_41918030_A_G
3676	Gm19_22281909_G_A	3721	Gm19_36588644_A_G	3766	Gm19_41971622_A_G
3677	Gm19_22528410_C_T	3722	Gm19_36641660_G_A	3767	Gm19_42007555_C_T
3678	Gm19_22847816_G_A	3723	Gm19_36691284_C_T	3768	Gm19_42054264_C_T
3679	Gm19_23297209_C_T	3724	Gm19_37591447_T_C	3769	Gm19_42089062_C_T
3680	Gm19_2372133_C_T	3725	Gm19_37631304_T_G	3770	Gm19_42143190_T_C
3681	Gm19_24007348_T_C	3726	Gm19_37657631_T_C	3771	Gm19_42195616_G_A
3682	Gm19_2416332_G_A	3727	Gm19_37893995_G_A	3772	Gm19_42246131_A_G
3683	Gm19_25524688_C_T	3728	Gm19_37932358_C_T	3773	Gm19_42397882_C_T
3684	Gm19_26473354_C_T	3729	Gm19_38121212_G_A	3774	Gm19_42459502_G_A
3685	Gm19_26882869_A_G	3730	Gm19_38159634_G_A	3775	Gm19_427448_T_C
3686	Gm19_27283886_C_T	3731	Gm19_38239219_A_C	3776	Gm19_42812863_T_C
3687	Gm19_30103637_T_C	3732	Gm19_38402678_A_G	3777	Gm19_43013222_C_A
3688	Gm19_30946638_G_A	3733	Gm19_38512160_T_C	3778	Gm19_43117852_A_C
3689	Gm19_3149820_T_C	3734	Gm19_38814028_T_C	3779	Gm19_43356748_T_C
3690	Gm19_3162877_A_G	3735	Gm19_39114852_G_A	3780	Gm19_43386606_C_A

N°	Nombre del marcador	N°	Nombre del marcador	N°	Nombre del marcador
3781	Gm19_43626162_G_T	3826	Gm19_49497775_C_A	3871	Gm20_1789933_A_G
3782	Gm19_43678560_A_G	3827	Gm19_49629185_G_A	3872	Gm20_18077332_C_T
3783	Gm19_43874271_A_C	3828	Gm19_49693401_T_C	3873	Gm20_1822177_A_G
3784	Gm19_44277545_C_T	3829	Gm19_49786000_A_G	3874	Gm20_1943918_A_C
3785	Gm19_44311841_T_G	3830	Gm19_50107667_C_T	3875	Gm20_2060912_A_C
3786	Gm19_44377195_T_C	3831	Gm19_50184509_A_G	3876	Gm20_2138532_A_G
3787	Gm19_44462578_G_A	3832	Gm19_50205252_A_G	3877	Gm20_2244000_G_A
3788	Gm19_44761515_G_A	3833	Gm19_50256_T_C	3878	Gm20_23477210_T_C
3789	Gm19_44802873_A_G	3834	Gm19_50267660_G_A	3879	Gm20_23536158_A_G
3790	Gm19_45000827_A_C	3835	Gm19_50322283_T_G	3880	Gm20_2372509_T_C
3791	Gm19_45062248_T_C	3836	Gm19_50486916_C_T	3881	Gm20_2432223_A_C
3792	Gm19_45152186_A_G	3837	Gm19_50545618_G_A	3882	Gm20_24360444_C_T
3793	Gm19_45209801_G_A	3838	Gm19_634202_A_G	3883	Gm20_2499205_A_G
3794	Gm19_45255796_A_G	3839	Gm19_6476616_A_G	3884	Gm20_25063646_C_T
3795	Gm19_45361938_A_G	3840	Gm19_7350768_G_A	3885	Gm20_26092580_G_A
3796	Gm19_45441251_C_T	3841	Gm19_7386845_G_A	3886	Gm20_26500747_G_A
3797	Gm19_45525374_A_G	3842	Gm19_8154523_T_G	3887	Gm20_26785339_T_C
3798	Gm19_46279899_A_C	3843	Gm19_8197899_T_C	3888	Gm20_2804571_C_T
3799	Gm19_46733772_T_C	3844	Gm19_823640_A_G	3889	Gm20_28550287_G_A
3800	Gm19_47089771_A_C	3845	Gm19_8463500_C_T	3890	Gm20_294157_A_C
3801	Gm19_47211510_C_T	3846	Gm19_8622769_A_G	3891	Gm20_3020597_T_C
3802	Gm19_47270486_T_C	3847	Gm19_8641214_A_G	3892	Gm20_30245573_G_A
3803	Gm19_47662191_T_C	3848	Gm19_8723573_T_C	3893	Gm20_30417244_C_T
3804	Gm19_47672198_G_A	3849	Gm19_8761389_C_T	3894	Gm20_3078662_A_G
3805	Gm19_47918398_G_A	3850	Gm19_8799077_A_C	3895	Gm20_33049242_A_G
3806	Gm19_47972547_T_C	3851	Gm19_885858_A_G	3896	Gm20_33099801_G_A
3807	Gm19_48037479_C_A	3852	Gm19_8890466_C_T	3897	Gm20_33727273_A_G
3808	Gm19_48074289_A_C	3853	Gm19_939098_T_C	3898	Gm20_33770596_G_A
3809	Gm19_48107469_A_C	3854	Gm19_9513765_C_A	3899	Gm20_33842096_A_G
3810	Gm19_48168077_G_A	3855	Gm19_9978735_A_G	3900	Gm20_34181219_T_C
3811	Gm19_48253473_A_C	3856	Gm20_1046460_A_C	3901	Gm20_34240236_A_G
3812	Gm19_48317911_T_C	3857	Gm20_1133712_A_G	3902	Gm20_342779_T_C
3813	Gm19_48378286_A_G	3858	Gm20_1178406_A_G	3903	Gm20_34474878_T_C
3814	Gm19_48433644_A_G	3859	Gm20_12318232_A_G	3904	Gm20_34626867_A_G
3815	Gm19_48478450_G_A	3860	Gm20_1306005_A_G	3905	Gm20_34881595_C_T
3816	Gm19_48707459_C_T	3861	Gm20_1348454_T_G	3906	Gm20_34942502_G_A
3817	Gm19_48957790_T_C	3862	Gm20_135948_G_A	3907	Gm20_35095841_T_G
3818	Gm19_49088729_G_A	3863	Gm20_1379470_T_C	3908	Gm20_35232978_A_G
3819	Gm19_49128491_C_A	3864	Gm20_1456885_A_G	3909	Gm20_35378782_G_T
3820	Gm19_49208411_C_A	3865	Gm20_14721991_A_G	3910	Gm20_35625615_C_T
3821	Gm19_49261156_G_A	3866	Gm20_1485442_C_T	3911	Gm20_35714111_A_C
3822	Gm19_49266400_C_A	3867	Gm20_15338309_T_C	3912	Gm20_35892819_A_G
3823	Gm19_49388460_G_T	3868	Gm20_15908501_A_G	3913	Gm20_36002148_T_C
3824	Gm19_49429376_G_A	3869	Gm20_1621036_T_C	3914	Gm20_36153048_C_A
3825	Gm19_49462084_A_G	3870	Gm20_1673167_C_T	3915	Gm20_36478507_A_G



N°	Nombre del marcador
3916	Gm20_36542128_T_C
3917	Gm20_36651429_A_G
3918	Gm20_36710448_A_C
3919	Gm20_36728646_A_C
3920	Gm20_36811082_A_G
3921	Gm20_36934546_A_G
3922	Gm20_376751_C_T
3923	Gm20_37909306_G_A
3924	Gm20_37996729_T_C
3925	Gm20_38040816_A_G
3926	Gm20_38151772_C_T
3927	Gm20_38195568_G_A
3928	Gm20_38306103_T_C
3929	Gm20_38391185_C_T
3930	Gm20_38578470_T_C
3931	Gm20_38616560_T_C
3932	Gm20_39017922_C_T
3933	Gm20_39217076_T_C
3934	Gm20_39523137_A_G
3935	Gm20_39582428_T_C
3936	Gm20_39698421_G_A
3937	Gm20_40166186_C_A
3938	Gm20_40283611_G_A
3939	Gm20_40486756_A_G
3940	Gm20_40618399_T_C
3941	Gm20_40957777_C_T
3942	Gm20_41076001_T_G
3943	Gm20_41127680_A_C
3944	Gm20_41180602_G_A
3945	Gm20_41233490_T_C
3946	Gm20_41638255_T_G
3947	Gm20_41663783_G_A
3948	Gm20_41722165_C_T
3949	Gm20_41768075_G_T
3950	Gm20_41835758_A_G
3951	Gm20_41919369_T_C
3952	Gm20_42027385_C_A
3953	Gm20_42078113_C_T
3954	Gm20_42222083_G_A
3955	Gm20_42988581_T_G
3956	Gm20_43080764_T_G
3957	Gm20_43146832_A_G
3958	Gm20_43379802_C_T
3959	Gm20_43485102_G_T
3960	Gm20_43540222_C_A

N°	Nombre del marcador
3961	Gm20_43631496_T_C
3962	Gm20_43810783_C_T
3963	Gm20_43967040_A_G
3964	Gm20_44049329_C_T
3965	Gm20_44260228_A_G
3966	Gm20_44329030_A_G
3967	Gm20_44446670_G_A
3968	Gm20_44488564_G_A
3969	Gm20_44566507_A_G
3970	Gm20_44585208_A_G
3971	Gm20_44728794_A_C
3972	Gm20_44828590_T_G
3973	Gm20_44830703_G_T
3974	Gm20_44936870_T_C
3975	Gm20_45116741_C_A
3976	Gm20_45327121_C_A
3977	Gm20_45348343_C_T
3978	Gm20_45394375_T_G
3979	Gm20_45460065_T_C
3980	Gm20_45499889_C_A
3981	Gm20_45603015_C_A
3982	Gm20_45724030_T_C
3983	Gm20_45830184_T_C
3984	Gm20_45896946_G_A
3985	Gm20_45953874_G_A
3986	Gm20_46008718_T_C
3987	Gm20_46056821_A_G
3988	Gm20_46108934_G_A
3989	Gm20_46161456_C_T
3990	Gm20_46235513_G_A
3991	Gm20_46314790_C_T
3992	Gm20_46513542_G_T
3993	Gm20_46574547_T_C
3994	Gm20_480832_G_A
3995	Gm20_51113_C_T
3996	Gm20_621723_A_G
3997	Gm20_6831960_T_C
3998	Gm20_695013_A_C
3999	Gm20_763496_A_C
4000	Gm20_7927513_A_G
4001	Gm20_8185857_T_C
4002	Gm20_827937_T_C
4003	Gm20_880979_G_A
4004	Gm20_932104_T_C

Los marcadores provienen de un grupo mayor de marcadores tipo Single Nucleotide Polimorphism (SNP) desarrollados por USDA (United States Department of Agriculture) que se encuentra disponible públicamente. La información referida a los marcadores seleccionados se encuentra en el siguiente link: <https://soybase.org/>.



República Argentina - Poder Ejecutivo Nacional  
2019 - Año de la Exportación

**Hoja Adicional de Firmas**  
**Anexo**

**Número:**

**Referencia:** Anexo I EX-2019-86188838-APN-DRV#INASE

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El documento fue importado por el sistema GEDO con un total de 31 pagina/s.

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Date: 2019.11.08 09:20:23 ART  
Location: Ciudad Autónoma de Buenos Aires

Digitally signed by GESTION DOCUMENTAL  
ELECTRÓNICA - GDE  
Date: 2019.11.08 09:20:50 -03:00

**PROTOCOLO GUÍA PARA LA PRESENTACIÓN DE INFORMACIÓN DE GENOTIPADO PARA VARIEDADES DE SOJA**

**PARA TODAS AQUELLAS VARIEDADES QUE NO FUERON PRESENTADAS MEDIANTE PLATAFORMA DE TRÁMITES A DISTANCIA (TAD)**

Enviar la información en formato electrónico a la casilla de correo: variedades@inase.gov.ar, adjuntando la siguiente información:

- Archivo Excel donde en las filas se indique al marcador y en las columnas se detallen los datos de los alelos por variedad. El dato de los alelos que corresponden a una variedad y marcador, se deben informar en la misma casilla, sin códigos, signos u otras nomenclaturas. La lectura de los alelos debe coincidir con los alelos que se indican para el marcador en la base de datos de la cual ha sido tomado.
- Nota firmada por el Representante legalmente autorizado y el Ing. Agr. Patrocinante indicando desde que casilla de correo se envía la información, cómo se denomina el archivo que contiene dicha información y el listado de nombres de las variedades para las cuales hace entrega de información.

**PARA TODAS AQUELLAS VARIEDADES QUE FUERON PRESENTADAS O SE PRESENTARÁN MEDIANTE PLATAFORMA DE TRÁMITES A DISTANCIA (TAD)**

Incorporar al trámite correspondiente de solicitud de inscripción de la variedad, el archivo Excel mencionado, como adjunto en información adicional.



República Argentina - Poder Ejecutivo Nacional  
2019 - Año de la Exportación

**Hoja Adicional de Firmas**  
**Anexo**

**Número:**

**Referencia:** Anexo II EX-2019-86188838-APN-DRV#INASE

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