

Supplementary data

Direct sequencing of RAPD products provides a set of SCAR markers for discrimination of sweet potato cultivars

Hye Min Lee, Young Hoon Park, Tae Hwan Jun, Soon Wook Kwon, In Soo Choi, Yong Chul Kim, Ravi Gupta, Mi Nam Chung, Sun Hyung Kim, Ping Yang, Yiming Wang, and Sun Tae Kim*

Supplementary Table 1. Analysis of DNA polymorphisms generated by 148 RAPD primers in 27 sweet potato cultivars

No	Primer	No. of fragment amplified	No. of polymorphic fragment	Poly-morphism (%)	No	Primer	No. of fragment amplified	No. of polymorphic fragment	Poly-morphism (%)
1	A01	4	0	0	25	D15	6	2	33
2	A02	7	3	43	26	D16	8	6	75
3	A03	7	1	14	27	D17	5	1	20
4	A04	8	2	25	28	D18	5	0	0
5	A05	9	7	78	29	D19	3	0	0
6	A06	3	2	67	30	D20	6	2	33
7	A08	4	0	0	31	E01	6	4	67
8	A09	4	1	25	32	E02	6	1	17
9	A10	10	7	70	33	E03	6	0	0
10	A11	8	5	63	34	E04	6	0	0
11	A12	4	0	0	35	E05	7	2	29
12	A13	6	6	100	36	E06	8	6	75
13	A14	6	3	50	37	E07	10	3	30
14	A15	6	2	33	38	E08	3	0	0
15	A16	9	5	56	39	E09	3	2	67
16	A17	5	3	60	40	E10	4	0	0
17	D07	4	1	25	41	E11	9	4	44
18	D08	5	0	0	42	E12	9	8	89
19	D09	5	1	20	43	E13	9	4	44
20	D10	6	4	67	44	E14	7	0	0
21	D11	4	0	0	45	E15	8	3	38
22	D12	3	0	0	46	E16	6	2	33
23	D13	3	2	67	47	E17	11	7	64
24	D14	4	0	0	48	E18	12	3	25

No	Primer	No. of fragment amplified	No. of polymorphic fragment	Poly-morphism (%)	No	Primer	No. of fragment amplified	No. of polymorphic fragment	Poly-morphism (%)
49	E19	17	10	59	73	G03	6	2	33
50	E20	10	6	60	74	G04	7	1	14
51	F01	9	4	44	75	G05	7	4	57
52	F02	3	0	0	76	G06	7	3	43
53	F03	7	3	43	77	G07	7	3	43
54	F04	6	2	33	78	G08	2	1	50
55	F05	9	2	22	79	G09	5	4	80
56	F06	9	3	33	80	G10	9	5	56
57	F07	3	2	67	81	G11	11	8	73
58	F08	3	0	0	82	G12	5	1	20
59	F09	6	3	50	83	G13	4	0	0
60	F10	7	1	14	84	G14	5	1	20
61	F11	5	3	60	85	G15	8	5	63
62	F12	6	2	33	86	G16	6	0	0
63	F13	8	7	88	87	G17	8	7	88
64	F14	8	5	63	88	G18	6	4	67
65	F15	3	0	0	89	G19	5	1	20
66	F16	8	4	50	90	G20	1	0	0
67	F17	6	4	67	91	H01	7	3	43
68	F18	4	2	50	92	H02	2	2	100
69	F19	6	4	67	93	H03	5	2	40
70	F20	8	7	88	94	H04	7	6	86
71	G01	10	5	50	95	H05	8	3	38
72	G02	6	3	50	96	H06	7	3	43

No	Primer	No. of fragment amplified	No. of polymorphic fragment	Poly-morphism (%)	No	Primer	No. of fragment amplified	No. of polymorphic fragment	Poly-morphism (%)
97	H07	7	5	71	124	AB06	6	2	33
98	H08	3	0	0	125	AB07	5	5	100
99	H09	1	0	0	126	AB08	9	7	78

100	H10	2	1	50	127	AB09	6	3	50
101	H11	2	1	50	128	AB10	5	4	80
102	H12	4	1	25	129	AC01	4	3	75
103	H13	2	0	0	130	AC02	2	0	0
104	H14	7	5	71	131	AC03	4	2	50
105	H15	5	2	40	132	AC04	5	3	60
106	H16	1	0	0	133	AC05	5	2	40
107	H17	4	1	25	134	AC06	4	2	50
108	H18	2	0	0	135	AC07	6	2	33
109	AA01	5	4	80	136	AC08	3	1	33
110	AA02	4	2	50	137	AC09	8	5	63
111	AA03	1	0	0	138	AC10	4	1	25
112	AA04	1	0	0	139	AE01	6	3	50
113	AA05	1	0	0	140	AE02	5	2	40
114	AA06	1	0	0	141	AE03	2	1	50
115	AA07	2	0	0	142	AE04	1	1	100
116	AA08	6	5	83	143	AE05	2	1	50
117	AA09	1	0	0	144	AE06	5	3	60
118	AA10	5	2	40	145	AE07	5	5	100
119	AB01	4	1	25	146	AE08	6	3	50
120	AB02	4	3	75	147	AE09	5	3	60
121	AB03	4	2	50	148	AE10	8	6	75
122	AB04	3	0	0					
					<hr/>				
					Total (148)	815	371	40	
					<hr/>				

Supplementary Table 2. Genetic distances matrix among the 27 cultivars obtained from the 13 SCAR markers

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
1	1.000																											
2	0.444	1.000																										
3	0.667	0.571	1.000																									
4	0.250	0.444	0.333	1.000																								
5	0.000	0.000	0.000	0.571	1.000																							
6	0.444	0.600	0.571	0.444	0.250	1.000																						
7	0.200	0.364	0.250	0.800	0.667	0.727	1.000																					
8	0.600	0.364	0.500	0.600	0.444	0.364	0.500	1.000																				
9	0.667	0.400	0.571	0.444	0.500	0.600	0.545	0.545	1.000																			
10	0.333	0.571	0.500	0.333	0.000	0.571	0.250	0.250	0.286	1.000																		
11	0.750	0.444	0.667	0.250	0.000	0.444	0.200	0.400	0.667	0.333	1.000																	
12	0.600	0.364	0.500	0.400	0.444	0.545	0.500	0.833	0.545	0.250	0.400	1.000																
13	0.500	0.667	0.667	0.500	0.286	0.889	0.600	0.400	0.667	0.667	0.500	0.600	1.000															
14	0.400	0.545	0.500	0.600	0.444	0.727	0.667	0.667	0.545	0.500	0.400	0.833	0.800	1.000														
15	0.727	0.500	0.444	0.545	0.400	0.667	0.615	0.615	0.667	0.444	0.545	0.769	0.727	0.769	1.000													
16	0.444	0.400	0.571	0.667	0.750	0.600	0.727	0.727	0.800	0.286	0.444	0.727	0.667	0.727	0.667	1.000												
17	0.800	0.364	0.500	0.400	0.444	0.545	0.500	0.667	0.909	0.250	0.600	0.667	0.600	0.500	0.769	0.727	1.000											
18	0.750	0.444	0.667	0.250	0.286	0.667	0.400	0.600	0.667	0.333	0.500	0.800	0.750	0.600	0.727	0.667	0.800	1.000										
19	0.800	0.545	0.500	0.400	0.222	0.727	0.500	0.500	0.727	0.500	0.600	0.667	0.800	0.667	0.923	0.545	0.833	0.800	1.000									
20	0.800	0.364	0.500	0.400	0.444	0.545	0.500	0.667	0.909	0.250	0.600	0.667	0.600	0.500	0.769	0.727	1.000	0.800	0.833	1.000								
21	0.000	0.000	0.000	0.333	0.400	0.000	0.250	0.500	0.000	0.000	0.000	0.500	0.000	0.500	0.222	0.286	0.000	0.000	0.000	0.000	1.000							
22	0.857	0.500	0.800	0.286	0.000	0.500	0.222	0.667	0.500	0.400	0.571	0.667	0.571	0.444	0.600	0.500	0.667	0.857	0.667	0.667	0.000	1.000						
23	0.667	0.400	0.571	0.444	0.500	0.600	0.545	0.545	1.000	0.286	0.667	0.545	0.667	0.545	0.667	0.800	0.909	0.667	0.727	0.909	0.000	0.500	1.000					
24	0.500	0.667	0.667	0.500	0.286	0.889	0.600	0.400	0.667	0.667	0.500	0.600	1.000	0.800	0.727	0.667	0.600	0.750	0.800	0.600	0.000	0.571	0.667	1.000				
25	0.500	0.667	0.667	0.500	0.286	0.889	0.600	0.400	0.667	0.667	0.500	0.600	1.000	0.800	0.727	0.667	0.600	0.750	0.800	0.600	0.000	0.571	0.667	1.000	1.000			
26	0.444	0.400	0.571	0.667	0.500	0.400	0.545	0.909	0.600	0.286	0.444	0.727	0.444	0.727	0.500	0.800	0.545	0.444	0.364	0.545	0.571	0.500	0.600	0.444	0.444	1.000		
27	0.444	0.400	0.571	0.667	0.750	0.600	0.727	0.727	0.800	0.286	0.444	0.727	0.667	0.727	0.667	1.000	0.727	0.667	0.545	0.727	0.286	0.500	0.800	0.667	0.667	0.800	1.000	