

Supplementary Table S1. Distribution patterns of genes related to hybrid traits in 240 genetic resources and F₁ hybrid rice combinations.

No	Variety/Line	S5			Rf3		Rf4	
		Indica-SNP	Japonica-SNP	S5-Indel	RF3-5	RF3-10	FR4-14	M19280
1	9019	+	-	-	-	+	-	-
2	Basmati 370	-	-	-	+	-	+	+
3	Chiherang	+	-	-	-	-	-	-
4	Cigeulis	+	-	-	-	-	-	-
5	Ciliwung	+	-	-	-	-	-	-
6	FFZ1	+	-	-	+	+	-	-
7	Giza178	+	-	-	+	+	+	+
8	HHZ12-SAL2-Y3-Y1	+	-	-	+	+	-	-
9	HHZ12-SAL8-Y1-Y2	+	-	-	+	+	+/-	-
10	IR05N412	+	-	-	+	+	-	-
11	IR05N412	+	-	-	-	+	-	-
12	IR06A145	+	-	-	+	+	+	+
13	IR09N538	+	-	-	-	+	-	-
14	IR10A267	+	-	-	-	+	+/-	-
15	IR10N305-1	+	-	-	-	-	+	+
16	IR78581-12-3-2-2-1	+	-	-	+	+	+	+
17	IR98070-kB13-1-2-2-1-1-1	+	-	-	+	+	+	+
18	IR98070-kB14-1-2-3-1-4-1	+	-	-	+	+	+	+
19	IR98102-kB9-1-1-1-1-1-1	+	-	-	+	+	+	+
20	IR98102-kB9-1-1-3-1-1-B2-1	+	-	-	+	+	+	+
21	IR98229-9-2-1-k1-1-6-1-1	+	-	-	+	+	-	-
22	IR98229-24-1-1-k1-1-1-1-1	+	-	-	+	+	+	+
23	IR98241-24-2-1-k1-1-1-1	+	-	-	+	+	+/-	-
24	IR101872-46-1-K1-1-2-1	+	-	-	-	+	-	-
25	L24	+	-	-	-	+	-	+/-
26	NSIC 238	+	-	-	-	-	+	+
27	KR3R	+	-	-	-	+	+/-	+
28	OM52	+	-	-	+	+	+	-
29	TLR353	+	-	-	+	+	+	+
30	TLR363	+	-	-	+	+	+/-	-
31	Vietnam collection 1	+	-	-	+	+	+	-
32	WEED TOLERANT RICE 1-1	+	-	-	+	+	+	+
33	Zhong419	+	-	-	+	+	+/-	+
34	6527	+	-	-	+	+	-	-
35	Com. Collection 3	+	-	-	-	-	-	-
36	HHZ1-Y4-Y1	+	-	-	+	+	+	+
37	HUA564	+	-	-	-	+	-	-
38	IR02A127	+	-	-	-	-	+	+
39	IR05N359	-	-	-	-	-	-	-
40	IR06A181	+	-	-	+	+	+	+
41	IR08N136	+	-	-	+	+	-	-
42	IR10K153	-	-	-	+	+	+/-	+
43	IR11A303	+	-	-	+	+	-	-
44	IR11A334	+	-	-	+	+	+/-	+/-
45	Japonica 1	+	+	-	-	-	+	+

46	SACG4	+	-	-	+	+	-	-
47	SAGC-02	+	-	-	+	+	-	-
48	ZH1	+	-	-	+	+	+	-
49	HHZ11-Y10-DT3-Y3	+	-	-	-	-	+	+
50	HHZ5-DT1-DT1	+	-	-	+	+	+	+
51	HHZ5-SAL12-DT3-Y2	+	-	-	+	+	-	+
52	HHZ5-SAL8-DT2-SAL1	+	-	-	+	+	+	-
53	HHZ8-SAL14-SAL1-SUB1	+	-	-	+	+	+	+
54	HHZ8-SAL6-SAL3-SAL1	+	-	-	+	+	+	+
55	HHZ8-SAL6-SAL3-Y1	+	-	-	+	+	+	+
56	HHZ8-SAL6-SAL3-Y2	+	-	-	+	+	-	+
57	IR06M150	+	-	-	+	+	-	-
58	IR72 (IR72)	+	-	-	+	+	+/-	+/-
59	Teqing	+	-	-	+	+	-	-
60	TME80518	+	-	-	+	+	-	-
61	KR2R	+	-	-	+	+	+/-	+
62	A 69-1	+	-	-	+	+	+	+
63	BR 28-SalTol	+	-	-	+	+	+	-
64	Chulsa	+	-	-	+	+/-	+/-	+/-
65	IR04A395	+	-	-	-	+	+	+
66	IR07A234	+	-	-	+	+	+/-	+
67	IR10A 227	+	-	-	+	+	+	+
68	IR65482-4-136	+	-	-	+	+	+	+
69	AN 424627	+	-	-	+	+	+	+
70	BR 26	-	+	-	-	+	+	+
71	Daerip H-R11-2-1-1-1	+	-	-	-	-	-	-
72	IR64 Sub1	+	-	-	+	+	+	+
73	IR68897H-B24-B-1-1-2	+	-	-	+	+	+	+
74	IR09A228	+	-	-	+	+	-	-
75	J.P.5-IR946-2-2-2/IR1635-1F	+	-	-	+	+	+/-	+
76	IR9727-82-1-2-2	+	-	-	+	+	-	-
77	IR98073-3-1-1-K1-1	+	-	-	+	+	+	+
78	IR98107-kB3-1-1-2-1-1	+	-	-	-	+	+	+
79	IR98108-kB13-1-2-3-1-2-1	+	-	-	+	-	-	-
80	IR98161-2-1-1-k2-2-2	+	-	-	-	+	-	-
81	IR98194-9-2-1-k1-1-1	+	-	-	+	+	+	+
82	IR101861-7-1-K1-1-1	+	-	-	+	+	+/-	+
83	IRRI 102	+	-	-	+	+	+	+
84	Jasponica Bulk Aroma4-1	+	-	-	+	+	+	+
85	Jasponica Bulk Aroma5-1	+	-	-	-	+	+/-	+/-
86	KCD1	+	-	-	+	+	+	+
87	MY1H-R23-3-1-1-1-1	+	-	-	+	+	+	+
88	MY1H-R23-3-2-1-1-1	+	-	-	+	+	+	-
89	NSIC 222	+	-	-	+	+	+	+
90	OM100411	+	-	-	+	+	+	+
91	OM10375	+	-	-	-	-	-	-
92	OM4900	+	-	-	+	+	-	-
93	OM7347	+	-	-	+	+	-	-
94	OM8108	+	-	-	+	+	-	-
95	OMCS 2012	+	-	-	+	+	+	+
96	Pearl riceH-R28-3-2-1-1	+	-	+	+	+	+/-	+

97	Pearl riceH-R52-2-1-1-1	+	-	+	+	+	+/-	+
98	PHB73H-R9-2-1-1-1	+	-	-	+	+	+	+
99	Phka Romeat	+	-	-	+	+	-	-
100	Phka Rumchang	+	-	-	+	+	-	-
101	PhkaRumchek	+	-	-	+	+	-	-
102	Phka Rumdeng	+	-	-	+	+	-	-
103	Phka Rumduol	+	-	-	+	+	-	-
104	Popoul	+	-	-	-	-	+	+
105	Rumpe	+	-	-	+	+	+	+
106	S430	+	-	-	-	-	-	-
107	San pidao	+	-	-	+	+	-	-
108	TH82H-R2-1-1-1-1	+	-	-	+	+	-	-
109	TLR405	+	-	-	+	+	-	-
110	TLR407	+	-	-	-	+	-	-
111	WC467-2-1-1-1-2-2-1-1	+	-	+	+	+	+	+
112	WC467-2-3-2-1-2-1-1-1	+	-	+	+	+	+	+
113	WC468-2-1-3-1-2-3-1-1	+	-	+	+	+	+	+
114	WC488-6-1-1-2-1-1-1-1	+	-	-	-	-	+/-	-
115	WC488-6-1-1-2-1-3-1-1	+	-	+	+	+	+	+
116	WC495-1-1-1-1-2-3-1-1	+	-	+	+	+	+	+
117	WC509-4-1-2-1-2-3-1-1	+	-	-	+	+	+	+
118	WC540-2-1-3-1-1-1-1-1	+	-	-	+	+	+	+
119	WC540-2-1-3-1-2-2-1-1	+	-	+	+	+	+	+
120	WC540-2-3-3-1-2-3-1-1	+	-	+	+	+	+	+
121	WC549-1-1-2-1-1-1-1-1	+	-	+	+	+	+/-	-
122	WC570-2-1-3-1-1-1-1-1	+	-	+	+	+	+	+
123	WC634-1-1-2-1-2-1-1-1	+	-	+	+	+	+	+
124	WC647-1-1-1-1-1-2-1-1	+	-	-	+	+	+	-
125	WC962-1-2-1-1-1-1	+	-	-	+	+	-	+
126	WC964-1-1-2-1-3-1-1-1	+	-	-	+	+	+	+
127	WC972-3-3-1-1-1-1	-	-	-	+	+	+	+
128	WC972-4-2-1-3-2-1	+	-	-	+	+	+	-
129	Oksusubyeo	+	-	-	+	+	+/-	+
130	Restorer 1-1	+	-	+	+	+	+/-	+
131	Restorer 2-1	+	-	-	+	+	+/-	+
132	Restorer 3-1	+	-	-	-	-	-	-
133	Indonesia col. 1(2016)	+	-	+	-	-	-	-
134	Indonesia col. 2(2016)	+	-	+	+	+	-	-
135	HYT 116H-3-1-3-2-1-1	+	-	-	-	+	-	-
136	HYT 116H-17-2-1-1-2-1	+	-	-	-	+	-	-
137	HYT 116H-31-2-3-1-1-1	+	-	-	-	+	-	-
138	HYT 116H-46-1-1-1-1-1	+	-	-	-	+	-	-
139	HYT 116H-50-1-1-2-1-1	+	-	-	-	+	-	-
140	HYT 119H-18-2-2-2-1-1	+	-	-	-	+	-	-
141	HYT 119H-18-3-2-2-2-2	+	-	-	-	+	-	-
142	HYT 119H-21-1-3-2-2-1	+	-	-	-	+	-	-
143	HYT 123H-13-3-3-1-2-1	+	-	-	-	+	-	-

144	HYT 124H-3-3-1-1-2-1	+	-	-	+	+	-	-
145	HYT 128H-8-2-2-2-2-1	+	-	-	-	-	-	-
146	HYT 128H-11-2-1-1-2-1	+	-	-	-	-	-	-
147	HYT 130H-3-2-3-1-1-1	+	-	-	+	+	-	-
148	CASH 1H-1-2-3-1-1-1	+	-	-	+	+	-	-
149	CASH 1H-4-3-2-1-1-1	+	-	-	-	+	+/-	+
150	CASH 1H-34-2-2-2-1-1	+	-	-	-	+	-	-
151	Hipa Jatim 1H-5-2-2-3-2-1	+	-	-	+	+	-	-
152	IR68897H-94 B-1-3-3-1-1	+	-	-	+	+	+	+
153	IR101922-BK-KB-2-2-1	+	-	-	+	+	+	+
154	IR101922-BK-KB-6-1-1	+	-	-	+	+	+	+
155	IR101923-BK-KB-1-2-1	+	-	-	+	+	+	+
156	IR101923-BK-KB-3-2-1	+	-	-	+	+	-	-
157	IR101923-BK-KB-4-2-1	+	-	-	+	+	-	-
158	IR101923-BK-KB-4-3-1	+	-	-	+	+	+/-	+
159	IR101923-BK-KB-7-1-1	+	-	-	+	+	-	-
160	IR101924-BK-KB-2-3-1	+	-	-	+	+	+/-	+
161	IR101924-BK-KB-7-2-1	+	-	-	+	+	+/-	+
162	IR101924-BK-KB-10-2-1	+	-	-	+	+	+/-	+
163	IR101924-BK-KB-11-3-1	+	-	-	+	+	+/-	+
164	IR101924-BK-KB-14-1-1	+	-	-	+	+	+/-	+
165	IR101924-BK-KB-14-2-1	+	-	-	+	+	+/-	+
166	IR101933-BK-KB-2-1-1	+	-	-	+	+	+/-	+
167	IR101937-BK-KB-3-2-1	-	-	-	+	+	+/-	+
168	IR101937-BK-KB-9-3-1	+	-	-	+	-	+	+
169	KR0301-B-12-1-1-1	+	-	-	+	-	+	+
170	KR0302-B-5-2-2-1	+	-	-	-	+	+/-	+
171	KR0302-B-5-3-1-1	+	-	-	+	+	+/-	+
172	KR0302-B-14-2-1-1	+	-	-	+	+	+	+
173	KR0302-B-17-1-3-1	-	-	-	+	+	+	+
174	KR0302-B-10-2-1-1	+	-	-	+	+	+	+
175	KR0302-B-10-2-2-1	+	-	-	+	+	+	+
176	KR0302-B-13-1-1-1	+	-	-	+	+	+	+
177	GR19-1-8-2-2-1	+	-	-	+	+	+	+
178	GR20-1-3-1-1-1	+	-	-	+	+	+	+
179	PHB 73H-1-2-3-1-2-1	+	-	-	+	+	+/-	+
180	PHB 73H-18-2-2-3-1-1	+	-	-	+	+	+	+
181	Matibay H-5-3-1-1-1-1	+	-	-	-	+	+/-	+/-
182	ABp H-20-2-1-1-1-1	+	-	-	-	+	+/-	+/-
183	ABp H-29-2-1-1-2-1	+	-	-	+	+	+	+
184	ABp H-33-2-3-2-1-1	+	-	-	+	+	+	+
185	Hipa Jatim 2H-1-3-3-1-2-1	+	-	-	+	+	+/-	+
186	HYT 106H-17-2-1-2-1-1	+	-	-	-	+	-	-
187	HYT 106H-17-2-2-3-2-1	+	-	-	+	+	-	-
188	HYT 106H-17-2-3-1-2-1	+	-	-	-	+	-	-
189	HYT 106H-17-3-1-1-1-1	+	-	-	-	+	-	-

190	HYT 106H-17-3-2-3-2-1	+	-	-	-	+	+/-	-
191	HYT 108H-10-2-3-1-3-1	+	-	+	-	+	-	-
192	Jasponica-4-1-1-2-2-1	+	-	-	-	+	+	+
193	Jasponica-12-1-1-2-3-1	+	-	-	+	+	+	+
194	Jasponica-14-3-1-1-1-1	-	-	-	+	+	+	+
195	Jasponica-15-1-1-1-1-1	+	-	-	-	+	+	+
196	Jasponica-26-1-1-1-3-1	+	-	-	+	+	+	+
197	Jasponica-29-3-1-1-2-1	+	-	-	+	+	+/-	+
198	Jasponica-40-3-1-1-2-1	+	-	-	+	+	+	+
199	IR24	+	-	-	+	+	+/-	+
200	IRBB1	+	-	-	+	+	+/-	+
201	IRBB3	+	-	-	+	+	+/-	+
202	IRBB7	+	-	-	+	+	+/-	+
203	IRBB13	+	-	-	+	+	+/-	+
204	IRBB55	+	-	-	+	+	-	+
205	IRBB59	+	-	-	+	+	-	-
206	Dasan	-	-	-	+	+	+	+
207	Hanareum	+	-	-	+	+	+	+
208	KR0203H	+	+	-	+	+	+/-	+/-
209	KR0695H	+	-	-	+/-	+	+/-	+/-
210	KR0696H	+	-	-	+	+	+/-	-
211	KR1454H	+	-	-	+	+	+/-	+/-
212	KR1455H	+	-	-	+	+	+/-	+/-
213	KR1354H	+	+	-	+	+	+/-	+/-
214	KR1497H	+	-	-	+	+	+/-	+/-
215	KR1444H	+	+	-	+	+	+/-	+/-
216	KR1487H	+	-	-	+/-	+	-	-
217	KR1994H	+	-	-	+	+	-	-
218	KR2116H	+	-	-	-	+	+/-	+/-
219	KR2117H	+	+	-	+/-	+	+/-	+/-
220	KR 1B	+	-	+/-	-	+	-	-
221	KR 1A	+	-	-	+	+	+/-	+/-
222	KR 2B	+	-	-	+	+	-	+
223	KR 2A	-	-	+	+	+	+/-	+/-
224	KR 211B	+	-	+	+	+	+/-	-
225	KR 211A	+	-	-	+	+	+/-	-
226	MingHui 63	+	-	-	+	+	+/-	+/-
227	IR75589-31-27-8-33S-5-1	+	-	-	-	+	-	+/-
228	IR102100-KB5S2-1-4-1-1-1-1	+	-	-	-	+	-	-
229	OM052	+	-	-	-	+	+	+
230	IR102100-KB14-2S2-1-22-2-1-2	+	-	-	+	+	-	-
231	IR98070-kB14-1-2-3-1-1	+	-	-	-	+	+	+
232	IR98229-2-2-1-K1-1-1	+	-	-	+	+	+	+
233	IR98229-9-2-1-K1-1-1	+	-	-	+	+	+	+
234	IR98229-9-2-1-K1-1-3	+	-	-	+	+	+	+
235	IR101861-7-1-K1-1-1	+	-	-	+	+	+/-	+

236	IR98241-24-2-1-k1-1-1	+	-	-	+	+	+	-
237	IR98102-kB9-1-1-3-1-1-1	+	-	-	+	+	+	+
238	IR102100-KB12S1-1-25-1-1-1-1	+	-	-	+	+	-	-
239	IR98102-kB21-1-3-1-3-1	+	-	-	-	+	+	+
240	IR102452-KB3-1-2-2-1-1	+	-	-	+	+	-	-

Supplementary Table S2. Distribution patterns of disease and insect resistant genes in 240 genetic resources and F₁ hybrid combinations.

No	Variety/ Line	Bacterial Blight						No. of R genes	Blast				No. of R genes	Bph 18(t)	Tsv 1	Total of R genes		
		Xa3S	Xa3R	Xa4	Xa5	Xa7	Xa13		Xa21	Pi-ta	Pib	Pii					Pi5	
1	9019	+	-	+	-	-	-	-	1	+	-	+	-	-	1	-	-	2
2	Basmati 370	+	-	-	+	+	-	-	2	+	-	+	+	+	3	-	+	6
3	Chiherang	+	-	-	-	-	-	-	0	+	-	+	-	-	1	+	-	2
4	Cigeulis	+	-	+	-	-	-	-	1	+	-	+	-	-	1	+	-	3
5	Ciliwung	+	-	-	-	-	-	-	0	+	-	+	-	-	1	+	-	2
6	FFZ1	+	-	+	-	-	-	-	1	+	-	+	-	-	1	-	-	2
7	Giza178	+	-	+	-	-	-	-	1	+	-	+	+	+	3	+	-	5
8	HHZ12-SAL2-Y3-Y1	+	-	+	-	-	-	-	1	-	+	+	-	-	1	-	-	3
9	HHZ12-SAL8-Y1-Y2	+	-	+	-	-	-	-	1	-	+	+	+	+	4	-	-	5
10	IR05N412	+	-	+	-	-	-	-	1	-	+	+	+	+	4	+	-	6
11	IR05N412	+	-	+	-	-	-	-	1	+	-	+	+	+	3	-	-	4
12	IR06A145	+	-	-	-	-	-	-	0	-	+	+	+	+	4	+	-	5
13	IR09N538	+	-	-	+/-	-	-	-	0	+	-	+	-	-	1	+	-	2
14	IR10A267	-	-	+	-	-	-	-	1	-	+	+	-	-	2	+	-	4
15	IR10N305-1	+	-	+	+	-	-	-	2	-	+	+	-	-	2	+	+	6
16	IR78581-12-3-2-2-1	+	-	-	+	-	-	-	1	-	+	+	-	-	2	+	+	5
17	IR98070-kB13-1-2-2-1-1-1	+	-	-	-	-	-	-	0	+	-	+	+	+	3	+	-	4
18	IR98070-kB14-1-2-3-1-4-1	+	+	-	-	-	-	-	1	+	-	+	+	+	3	+	-	5
19	IR98102-kB9-1-1-1-1-1-1	+	-	-	-	-	-	-	0	-	+	+	-	-	2	-	-	2
20	IR98102-kB9-1-1-3-1-1-B2-1	+	-	-	-	-	-	-	0	-	+	+	-	-	2	-	-	2
21	IR98229-9-2-1-k1-1-6-1-1	+	-	-	-	-	-	-	0	-	+	+	-	-	2	-	-	2
22	IR98229-24-1-1-k1-1-1-1-1	+	+	-	-	-	-	-	1	+	-	+	-	-	1	-	-	2
23	IR98241-24-2-1-k1-1-1-1	+	-	-	-	-	-	-	0	-	-	+	+	+	3	-	-	3
24	IR101872-46-1-K1-1-2-1	+	-	-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
25	L24	+	-	-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
26	NSIC 238	+	-	-	-	-	-	-	0	-	+	+	-	-	2	-	-	2
27	KR3R	-	+	-	-	-	-	-	1	-	+	+	-	-	2	-	+	4
28	OM52	+	-	+	-	-	-	-	1	+	-	+	+	+	3	-	+	5
29	TLR353	+	-	-	-	-	-	-	0	+	-	+	+	+	3	-	-	3
30	TLR363	+	-	-	-	-	-	-	0	-	+	+	+	+	4	-	-	4
31	Vietnam collection 1	+	-	-	+	-	-	-	1	-	+	+	-	-	2	+	-	4
32	WEED TOLERANT RICE1-1	+	-	+	-	-	-	-	1	-	+	+	+	+	4	-	-	5
33	Zhong419	+	-	-	-	-	-	-	0	+	-	+	+	+	3	-	+	4
34	6527	+	-	+	-	-	-	-	1	-	+	+	-	-	2	-	-	3
35	Com. Collection 3	+	-	-	-	-	-	-	0	+	+	+	+	+	4	+	-	5
36	HHZ1-Y4-Y1	+	-	+	-	-	-	-	1	+	-	+	+	+	3	-	-	4
37	HUA564	+	-	-	-	-	-	-	0	+	-	+	+	+	3	-	-	3
38	IR02A127	+	-	-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
39	IR05N359	-	-	+	-	-	-	+	2	-	-	+	+	-	2	-	+	5
40	IR06A181	+	-	-	-	-	-	-	0	-	+	-	+	+	3	+	-	4
41	IR08N136	+	-	-	+	-	-	+	2	+	-	-	-	-	0	-	-	2
42	IR10K153	+	-	+	+/-	-	-	-	1	-	+	+	+	+	4	-	-	5
43	IR11A303	+	-	-	-	-	-	-	0	-	+	-	+	-	2	-	-	2
44	IR11A334	+	-	-	-	-	-	-	0	+	+	+	+	-	3	-	-	3
45	Japonica 1	+	-	-	+	-	-	-	1	+	-	+	-	-	1	-	+	3
46	SACG4	+	-	-	-	-	-	-	0	-	+	+	+	+	4	-	-	4
47	SAGC-02	+	-	-	-	-	-	-	0	-	+	+	+	+	4	-	-	4
48	ZH1	+	-	-	-	-	-	-	0	-	+	+	+	+	4	-	-	4

49	HHZ11-Y10-DT3-Y3	+	-	+	-	-	-	-	1	+	-	+	+	+	3	-	-	4
50	HHZ5-DT1-DT1	+	-	+	-	-	-	-	1	+	-	+	-	-	1	-	-	2
51	HHZ5-SAL12-DT3-Y2	+	-	+	-	-	-	-	1	+	-	+	-	-	1	-	-	2
52	HHZ5-SAL8-DT2-SAL1	+	-	-	-	-	-	-	0	+	-	+	+	+	3	-	-	3
53	HHZ8-SAL14-SAL1-SUB1	+	-	+	-	-	-	-	1	+	-	+	-	-	1	-	-	2
54	HHZ8-SAL6-SAL3-SAL1	+	-	-	-	-	-	-	0	+	-	+	+	+	3	-	-	3
55	HHZ8-SAL6-SAL3-Y1	+	-	-	-	-	-	-	0	+	-	-	+	+	2	-	-	2
56	HHZ8-SAL6-SAL3-Y2	+	-	-	-	-	-	-	0	+	-	-	+	+	2	-	-	2
57	IR06M150	+	-	-	-	-	-	-	0	+	-	-	+	+	2	+	-	3
58	IR72 (IR72)	+	-	-	-	-	-	-	0	+	-	+	+	+	3	-	-	3
59	Teqing	+	-	-	-	-	-	-	0	-	+	-	+	+	3	+	-	4
60	TME80518	+	-	-	-	-	-	-	0	-	+	+	+	+	4	-	-	4
61	KR2R	+	-	-	-	+	-	-	1	+	-	+	+	+	3	-	-	4
62	A 69-1	+	-	-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
63	BR 28-SalTol	+	-	-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
64	Chulsa	+	-	-	-	-	-	-	0	+	+	+	+	+	4	-	-	4
65	IR04A395	+	-	-	+	-	-	-	1	-	+	+	-	-	2	+	-	4
66	IR07A234	+	-	-	-	-	-	-	0	-	+	+	-	-	2	-	-	2
67	IR10A 227	+	-	-	-	-	-	-	0	-	+	+	-	-	2	+	-	3
68	IR65482-4-136	+	-	-	-	-	-	-	0	-	+	+	-	-	2	+	-	3
69	AN 424627	+	-	-	-	-	-	-	0	-	+	+	-	-	2	+	-	3
70	BR 26	+	-	-	+	-	-	-	1	-	+	+	-	-	2	+	+	5
71	Daerip H-R11-2-1-1-1	+	-	-	+	-	-	-	1	-	+	+	-	-	2	-	-	3
72	IR64 Sub1	-	-	-	+	-	-	-	1	-	+	+	-	-	2	-	-	3
73	IR68897H-B24-B-1-1-2	+	-	-	-	-	-	-	0	+	-	-	+	-	1	+	-	2
74	IR09A228	+	-	+	-	-	-	-	1	-	+	+	-	-	2	-	-	3
75	J.P.5-IR946-2-2/IR1635-1F	+	-	-	+	-	-	-	1	+	-	-	-	-	-	-	-	1
76	IR97727-82-1-2-2	+	-	-	-	-	-	-	0	+	-	+	-	+	2	-	-	2
77	IR98073-3-1-1-K1-1	+	-	-	-	-	-	-	0	-	+	+	-	-	2	-	-	2
78	IR98107-kB3-1-1-2-1-1	+	-	+	-	-	-	-	1	+	-	+	-	-	1	+	-	3
79	IR98108-kB13-1-2-3-1-2-1	+	-	-	-	-	-	-	0	-	+	+	-	-	2	+	-	3
80	IR98161-2-1-1-k2-2-2	+	-	-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
81	IR98194-9-2-1-k1-1-1	+	-	-	-	-	-	-	0	-	+	+	+	+	4	-	-	4
82	IR101861-7-1-K1-1-1	+	-	-	-	-	-	-	0	+	-	+	+	+	3	-	-	3
83	IRRI 102	+	-	+	+	-	-	-	2	-	+	+	+	+	4	-	-	6
84	Jasponica Bulk Aroma4-1	+	-	-	-	-	-	-	0	+	-	+	+	-	2	-	+	3
85	Jasponica Bulk Aroma5-1	+	-	-	-	-	-	-	0	+	+	+	+	+	4	-	-	4
86	KCD1	+	-	+	+/	-	-	-	1	-	+	+	+	+	4	+	-	6
87	MY1H-R23-3-1-1-1-1	+	-	-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
88	MY1H-R23-3-2-1-1-1	+	-	-	-	-	-	-	0	+	-	-	-	-	-	-	-	0
89	NSIC 222	+	-	-	+	-	-	-	1	-	+	+	-	-	2	+	-	4
90	OM100411	+	-	-	-	-	-	-	0	-	+	+	-	-	2	+	-	3
91	OM10375	-	+	-	-	-	-	-	1	-	+	+	-	-	2	-	-	3
92	OM4900	+	+	-	-	-	-	-	1	-	+	+	-	-	2	-	-	3
93	OM7347	+	-	+	+	-	-	-	2	+	-	+	-	-	1	-	-	3
94	OM8108	+	-	-	-	-	-	-	0	-	+	+	-	-	2	-	-	2
95	OMCS 2012	+	-	+	-	-	-	-	1	-	+	+	-	+	3	-	-	4
96	Pearl riceH-R28-3-2-1-1	+	-	-	-	-	-	-	0	-	+	+	-	-	2	-	-	2
97	Pearl riceH-R52-2-1-1-1	+	-	-	-	-	-	-	0	+	-	+	-	-	1	+	-	2
98	PHB73H-R9-2-	-	-	-	-	-	-	-	0	+	-	+	-	-	1	-	-	1

1-1-1																		
99	Phka Romeat	-	-	-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
100	Phka Rumchang	-	+	-	-	-	-	-	1	+	-	+	-	-	1	-	-	2
101	PhkaRumchek	-	+	-	-	-	-	-	1	+	-	+	-	-	1	-	-	2
102	Phka Rumdeng	-	+	-	-	-	-	-	1	+	-	+	-	-	1	-	-	2
103	Phka Rumduol	-	-	-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
104	Popoul	+	-	-	-	-	-	-	0	-	+	+	-	+	3	-	-	3
105	Rumpe	+	-	+	+	-	-	-	2	-	+	+	-	+	3	+	+	7
106	S430	+	-	-	-	-	-	-	0	-	+	+	-	-	2	-	-	2
107	San pidao	+	-	-	-	-	-	-	0	+	+	+	-	-	2	-	-	2
108	TH82H-R2-1-1-1-1	+	-	+/-	-	-	-	-	0	+	+	+	+	+	4	-	-	4
109	TLR405	+	-	-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
110	TLR407	+	-	-	-	-	-	-	0	-	+	+	-	-	2	-	-	2
111	WC467-2-1-1-1-2-2-1-1	+	-	-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
112	WC467-2-3-2-1-2-1-1-1	+	-	-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
113	WC468-2-1-3-1-2-3-1-1	+	-	-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
114	WC488-6-1-1-2-1-1-1-1	+	-	-	-	-	-	-	0	+	+	+	-	-	2	-	-	2
115	WC488-6-1-1-2-1-3-1-1	-	-	-	+	-	-	-	1	+	-	+	-	-	1	-	-	2
116	WC495-1-1-1-1-2-3-1-1	-	-	-	+	-	-	-	1	+	-	+	-	-	1	-	-	2
117	WC509-4-1-2-1-2-3-1-1	+	-	-	-	+	-	-	1	-	+	+	-	+	3	+	-	5
118	WC540-2-1-3-1-1-1-1-1	+	-	+	+	-	-	-	2	-	+	+	-	-	2	-	-	4
119	WC540-2-1-3-1-2-2-1-1	-	-	-	+	-	-	-	1	+	-	+	-	-	1	-	-	2
120	WC540-2-3-3-1-2-3-1-1	+	-	-	+	-	-	-	1	+	-	+	-	-	1	-	+	3
121	WC549-1-1-2-1-1-1-1-1	+	-	-	-	-	-	-	0	+	-	+	-	-	1	-	+	2
122	WC570-2-1-3-1-1-1-1-1	+	-	-	+	-	-	-	1	+	-	+	-	-	1	-	+	3
123	WC634-1-1-2-1-2-1-1-1	+	-	-	+	-	-	-	1	+	-	+	-	-	1	-	+	3
124	WC647-1-1-1-1-1-2-1-1	+	-	-	-	-	-	-	0	-	+	-	-	-	1	+	-	2
125	WC962-1-2-1-1-1-1	+	-	-	-	-	-	-	0	+	-	+	-	-	1	-	+	2
126	WC964-1-1-2-1-3-1-1-1	+	-	-	-	-	-	-	0	+	-	+	-	+	2	-	-	2
127	WC972-3-3-1-1-1-1	+	-	-	-	-	-	-	0	-	-	-	-	-	-	+	-	1
128	WC972-4-2-1-3-2-1	+	-	-	-	-	-	-	0	+	-	+	-	-	1	-	+	2
129	Oksusubyeo	+	-	-	+	-	-	-	1	+	-	+	-	-	1	-	-	2
130	Restorer 1-1	-	+	-	-	-	-	-	1	+	-	+	+	-	2	-	-	3
131	Restorer 2-1	+	-	-	+	-	-	-	1	+	-	+	+	-	2	-	-	3
132	Restorer 3-1	+	-	-	-	-	-	-	0	+	-	+	-	-	1	+	-	2
133	Indonesia col. 1(2016)	+	-	-	-	+	-	-	1	+	-	+	+	-	2	+	-	4
134	Indonesia col. 2(2016)	+	-	-	-	-	-	-	0	+	-	+	-	-	1	+	-	2
135	HYT 116H-3-1-3-2-1-1	+	-	-	-	-	-	-	0	-	+	+	+	-	3	+	-	4
136	HYT 116H-17-2-1-1-2-1	+	-	-	-	-	-	-	0	-	+	+	+	-	3	+	-	4
137	HYT 116H-31-2-3-1-1-1	+	-	-	-	-	-	-	0	-	+	+	-	-	2	+	-	3
138	HYT 116H-46-1-1-1-1-1	+	-	+	-	-	-	-	1	-	+	+	-	-	2	+	-	4
139	HYT 116H-50-1-1-2-1-1	+	-	-	-	-	-	-	0	-	+	+	-	-	2	+	-	3
140	HYT 119H-18-2-2-2-1-1	+	-	-	-	-	-	-	0	-	+	+	-	-	2	+	-	3
141	HYT 119H-18-3-2-2-2-2	+	-	-	-	-	-	-	0	+	-	+	-	-	1	+	-	2
142	HYT 119H-21-1-3-2-2-1	+	-	-	-	-	-	-	0	-	+	+	-	-	2	+	-	3

143	HYT 123H-13-3-3-1-2-1	-	-	-	-	-	-	-	0	+	-	+	-	+	2	-	-	2
144	HYT 124H-3-3-1-1-2-1	+	-	-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
145	HYT 128H-8-2-2-2-2-1	+	-	-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
146	HYT 128H-11-2-1-1-2-1	+	-	-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
147	HYT 130H-3-2-3-1-1-1	+	-	+	-	-	-	-	1	+	-	+	-	-	1	-	-	2
148	CASH 1H-1-2-3-1-1-1	+	-	+	-	-	-	-	1	+	-	+	+	-	2	-	-	3
149	CASH 1H-4-3-2-1-1-1	+	-	-	-	-	-	-	0	-	+	+	+	+	4	-	-	4
150	CASH 1H-34-2-2-2-1-1	+	-	-	-	-	-	-	0	+	-	+	+	+	3	-	-	3
151	Hipa Jatim 1H-5-2-2-3-2-1	+	-	-	-	-	-	-	0	-	+	+	-	-	2	-	-	2
152	IR68897H-94 B-1-3-3-1-1	+	-	-	+	-	-	-	1	-	+	+	-	-	2	+	-	4
153	IRT01922-BK-KB-2-2-1	+	-	+	+	-	-	-	2	-	+	+	-	-	2	+	-	5
154	IRT01922-BK-KB-6-1-1	+	-	-	-	-	-	-	0	+	-	+	+	+	3	-	-	3
155	IRT01923-BK-KB-1-2-1	+	-	-	-	-	-	-	0	+	-	+	+	+	3	-	-	3
156	IRT01923-BK-KB-3-2-1	+	-	-	-	-	-	-	0	+	+	+	+	+	4	+	-	5
157	IRT01923-BK-KB-4-2-1	+	-	-	-	-	-	-	0	+	+	+	+	+	4	+	-	5
158	IRT01923-BK-KB-4-3-1	+	-	-	-	-	-	-	0	-	+	+	-	+	3	-	-	3
159	IRT01923-BK-KB-7-1-1	+	-	-	-	-	-	-	0	-	+	+	-	+	3	+	-	4
160	IRT01924-BK-KB-2-3-1	+	-	-	-	-	-	-	0	+	-	+	+	-	2	-	-	2
161	IRT01924-BK-KB-7-2-1	+	-	-	-	-	-	-	0	-	+	+	-	+	3	-	-	3
162	IRT01924-BK-KB-10-2-1	+	-	-	-	-	-	-	0	-	+	+	+	+	4	+	-	5
163	IRT01924-BK-KB-11-3-1	+	-	-	-	-	-	-	0	+	-	+	+	+	3	-	-	3
164	IRT01924-BK-KB-14-1-1	+	-	-	-	-	-	-	0	+	-	+	+	-	2	-	-	2
165	IRT01924-BK-KB-14-2-1	+	-	-	-	-	-	-	0	+	-	+	+	+	3	-	-	3
166	IRT01933-BK-KB-2-1-1	+	-	-	-	-	-	-	0	+	-	+	+	-	2	-	-	2
167	IRT01937-BK-KB-3-2-1	+	-	-	-	-	-	-	0	+	-	+	+	+	3	-	+	4
168	IRT01937-BK-KB-9-3-1	+	-	-	-	-	-	-	0	+	-	+	+	+	3	-	-	3
169	KR0301-B-12-1-1-1	+	-	-	-	+/-	-	-	0	+	+	+	-	-	2	-	-	2
170	KR0302-B-5-2-2-1	-	+	-	-	-	-	-	1	+	-	+	+	+	3	-	+	5
171	KR0302-B-5-3-1-1	+	-	-	-	-	-	-	0	+	-	+	+	+	3	-	+	4
172	KR0302-B-14-2-1-1	-	+	-	-	-	-	-	1	+	-	+	+	+	3	-	+	5
173	KR0302-B-17-1-3-1	-	-	-	-	+/-	-	-	0	-	-	-	-	-	-	-	-	0
174	KR0302-B-10-2-1-1	+	-	-	-	-	-	-	0	+	-	+	+	+	3	-	-	3
175	KR0302-B-10-2-2-1	+	-	-	-	-	-	-	0	+	-	+	+	+	3	-	-	3
176	KR0302-B-13-1-1-1	+	-	-	-	-	-	-	0	+	-	+	+	+	3	-	-	3
177	GR19-1-8-2-2-1	-	-	-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
178	GR20-1-3-1-1-1	-	-	-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
179	PHB 73H-1-2-3-1-2-1	+	-	-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
180	PHB 73H-18-2-2-3-1-1	-	-	-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
181	Matibay H-5-3-1-1-1-1	+	+	-	-	-	-	-	1	+	-	+	-	-	1	-	-	2
182	ABp H-20-2-1-1-1-1	+	-	-	+	-	-	-	1	-	+	+	-	-	2	+	-	4
183	ABp H-29-2-1-1-2-1	+	-	-	+	+	-	-	2	+	-	+	-	+	2	-	-	4
184	ABp H-33-2-3-2-1-1	+	-	-	+	+	-	-	2	+	-	+	-	+	2	-	-	4

185	Hipa Jatim 2H-1-3-3-1-2-1	+	-	-	+	+	-	+	3	+	-	+	-	-	1	-	-	4
186	HYT 106H-17-2-1-2-1-1	+	-	+/-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
187	HYT 106H-17-2-2-3-2-1	+	-	+/-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
188	HYT 106H-17-2-3-1-2-1	+	-	-	-	-	-	-	0	-	+	+	-	-	1	-	-	2
189	HYT 106H-17-3-1-1-1-1	+	-	+/-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
190	HYT 106H-17-3-2-3-2-1	+	-	+/-	-	-	-	-	0	+	-	+	+	+	3	-	-	3
191	HYT 108H-10-2-3-1-3-1	+	-	-	-	-	-	-	0	-	+	+	+	+	4	+	-	5
192	Jasponca-4-1-1-2-2-1	+	-	+/-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
193	Jasponca-12-1-1-2-3-1	+	-	+/-	-	-	-	-	0	+	-	+	+	+	3	-	-	3
194	Jasponca-14-3-1-1-1-1	+	-	-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
195	Jasponca-15-1-1-1-1-1	+	-	+/-	+/-	-	-	-	0	+	+	+	+	+	4	+	-	5
196	Jasponca-26-1-1-1-3-1	+	-	-	-	-	-	-	0	+	-	+	+	+	3	-	+/-	3
197	Jasponca-29-3-1-1-2-1	+	-	-	-	-	-	-	0	+	-	+	-	-	1	-	+/-	1
198	Jasponca-40-3-1-1-2-1	+	-	-	-	-	-	-	0	-	+	+	-	-	2	+	-	3
199	IR24	+	-	-	-	-	-	-	0	+	-	+	-	-	1	-	+	2
200	IRBB1	-	+	-	-	-	-	-	1	+	-	+	-	-	1	-	+	3
201	IRBB3	-	+	-	-	-	-	-	1	+	-	+	-	-	1	-	+	3
202	IRBB7	+	-	-	-	+	+	-	2	+	-	+	-	-	1	-	+	4
203	IRBB13	+	-	-	-	-	+	-	1	+	-	+	-	-	1	-	+	3
204	IRBB55	+	-	-	-	-	+	+	2	+	-	+	-	-	1	-	+	4
205	IRBB59	+	-	+/-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
206	Dasan	+	-	-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
207	Hanareum	+	-	-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
208	KR0203H	+	-	-	+/-	-	-	-	0	+	-	+	+	+	3	-	+/-	3
209	KR0695H	-	-	-	-	-	-	-	0	+	-	+	+	+	3	-	+/-	3
210	KR0696H	+	-	-	-	-	-	-	0	+	+	+	+	+	4	-	+/-	4
211	KR1454H	+	-	-	-	+	-	-	1	+	-	+	+	+	3	-	-	4
212	KR1455H	+	-	-	-	+	-	-	1	+	-	+	+	+	3	-	-	4
213	KR1354H	+	+	-	+/-	-	-	-	1	+	-	+	+	+	3	-	+/-	4
214	KR1497H	+	+	-	-	-	-	-	1	+	+	+	+	+	4	-	-	5
215	KR1444H	+	-	-	-	-	-	-	0	+	+	+	+	+	4	-	-	4
216	KR1487H	+	-	+/-	-	-	-	-	0	+	-	+	-	+	2	-	-	2
217	KR1994H	-	-	+/-	-	-	-	-	0	-	+	+	+	+	4	-	-	4
218	KR2116H	+	+	+/-	+/-	-	-	-	1	+	+	+	+	+	4	-	+	6
219	KR2117H	+	+	+/-	+/-	-	-	-	1	+	-	+	-	+	2	-	+	4
220	KR 1B	+	-	-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
221	KR 1A	+	-	-	-	-	-	-	0	+	+	+	+	+	4	-	-	4
222	KR 2B	+	-	-	-	-	-	-	0	+	-	+	-	-	1	-	-	1
223	KR 2A	+	-	-	-	-	-	-	0	+	-	+	+	+	3	-	-	3
224	KR 211B	-	-	+/-	-	-	-	-	0	-	+	+	-	-	2	-	-	2
225	KR 211A	-	-	-	-	-	-	-	0	-	+	+	+	-	3	-	-	3
226	MingHui 63	+	-	-	+	-	-	-	1	+	-	+	-	-	1	+	+/-	3
227	IR75589-31-27-8-33S-5-1	-	-	+/-	-	-	-	-	0	-	+	+	+	+	4	-	-	4
228	IR102100-KB5S2-1-4-1-1-1-1	+	-	-	+	-	-	-	1	+	-	+	-	-	1	+	-	3
229	OM052	+	-	-	-	-	-	-	0	+	+	+	-	+	3	-	+	4
230	IR102100-KB14-2S2-1-22-2-1-2	+	-	-	+	-	-	-	1	+	-	+	-	-	1	+	-	3
231	IR98070-kB14-1-2-3-1-1	-	+	-	-	-	-	-	1	+	+	+	+	+	4	+	-	6
232	IR98229-2-2-1-K1-1-1	+	-	-	+	-	-	-	1	+	-	+	-	-	1	-	-	2
233	IR98229-9-2-1-	+	-	-	+	-	-	-	1	+	-	+	-	-	1	-	-	2

K1-1-1																		
234	IR98229-9-2-1- K1-1-3	+	-	-	+	-	-	-	1	+	-	+	-	-	1	-	-	2
235	IR101861-7-1- K1-1-1	+	-	-	-	-	-	-	0	+	-	+	+	+	3	-	-	3
236	IR98241-24-2- 1-k1-1-1	-	+	-	-	-	-	-	1	+	-	-	-	-	0	-	-	1
237	IR98102-kB9- 1-1-3-1-1-1	+	-	-	-	-	-	-	0	-	+	+	-	-	1	-	-	2
238	IR102100- KB12S1-1-25- 1-1-1-1	+	-	+/-	-	-	-	-	0	+	-	+	-	-	1	+	-	2
239	IR98102-kB21- 1-3-1-3-1	+	-	-	-	-	-	-	0	-	+	+	+	+	3	-	-	4
240	IR102452- KB3-1-2-2-1-1	+	-	-	-	-	-	-	0	+	-	+	-	+	2	-	-	2

Supplementary Table S3. Combinations of disease and insect resistant genes related to bacterial blight, blast, brown planthopper and tungro virus in 240 genetic resources and F₁ hybrid combinations.

No. of Genes	Resistant Genes Combination	Genetic Resources and F ₁ Hybrid Combination									
0		811244	811498								
1	Xa3	812806									
	Xa5,	811212									
	Tsv1	811334									
	Pib	810801	810802	811078	811084	811124	811186	811188	811222	811242	811264
		811266	811274	811286	811290	811292	811294	811420	811426	811428	811510
		811512	811514	811522	811544	811548	811559	811569	811577	811587	811613
	812501	812526	812821								
2	Xa3, Pib	811062	811268	811270	811272	811526					
	Xa4, Pib	811001	811017	811160	811162	811166	811432				
	Xa5, Xa21,	811130									
	Xa5, Pib	811298	811300	811308	811375	812756	812771	812776			
	Pi-ta, Pib	811055	811059	811060	811094	811194	811216	811256	811260	811280	811283
		811288	811296	811446	811485	811551	812551	812821			
	Pi-ta, Bph18(t)	811324									
	Pib, Pi5	810811	811214	811332	811416	812851					
	Pib, Pii	811468	811476	811480							
	Pib, Bph18(t)	811007	811011	811033	811262	811381	811385	811411	812823		
	Pib, Tsv1	811314	811328	811340	811601						
	Pi-ta, Pii	811134									
	Pii, Pi5	811170	811172								
Pii, Bph18(t)	811208										
3	Pib, Pib, Pii	811434									
	Pib, Pii, Pi5	810803	810804	811068	811102	811122	811164	811168	811178	811226	811444
		811456	811458	811474	811478	811484	811500	811502	811506	811563	811575
		811585	812528	812786							
	Pib, Pii, Tsv1	811236									
	Pii, Pi5, Bph18(t)	811174									
	Pi-ta, Pib, Bph18(t)	811196	811198	811200	811220	811248	811397	811405	811407	811414	811599
	Pi-ta, Pib, Pi5	811276	811464	811470							
	Pi-ta, Pib, Pii	811136	812553								
	Xa13, Pib, Tsv1	811609									
	Xa3, Pib, Pii	811377									
	Xa3, Pib, Tsv1	811603	811605								
	Xa3, Pi-ta, Pib	811250	811252								
	Xa4, Pib, Bph18(t)	811009	811218								
	Xa4, Pi-ta, Pib	811025	811113	811210							
	Xa4, Xa5, Pib	811254									
	Xa5, Pib, Bph18(t)	812571	812618	812718							
	Xa5, Pib, Pii	811379									
	Xa5, Pib, Tsv1	811138	811312	811316	811320						
Xa5, Pi-ta, Pib	811204	811206									
4	Pib, Pii, Pi5, Bph18(t)	811047									
	Pib, Pii, Pi5, Tsv1	811110	811482	811492							

	Pi-ta, Pib, Pi5, Bph18(t)	811466								
	Pi-ta, Pib, Pi5, Tsv1	812636								
	Pi-ta, Pib, Pii, Bph18(t)	811391	811395							
	Pi-ta, Pib, Pii, Pi5	810805	810810	810812	811104	811150	811152	811156	811182	811190
		811238	811284	811440	812503	812608	812836			811224
	Pi-ta, Pii, Pi5, Bph18(t)	811128	811180							
	Xa3, Pib, Pi5, Tsv1	810814								
	Xa3, Pib, Pii, Pi5	810808								
	Xa13, Xa21, Pib, Tsv1	811611								
	Xa3, Pi-ta, Pib, Tsv1	811096								
	Xa4, Pib, Pii, Pi5	811030	811120	811158						
	Xa4, Pi-ta, Pib, Bph18(t)	811035	811401							
	Xa4, Pi-ta, Pib, Pi5	811258								
	Xa4, Xa5, Pi-ta, Pib	811304								
	Xa5, Pi-ta, Pib, Bph18(t)	811106	811192	811246	811448	811532				
	Xa5, Xa7, Pib, Pi5	811538	811540							
	Xa5, Xa7, Xa21, Pib	811542								
	Xa7, Pib, Pii, Bph18(t)	811383								
	Xa7, Pib, Pii, Pi5	810806	810807	811184						
	Xa7, Xa13, Pib, Tsv1	811607								
5	Pi-ta, Pib, Pii, Pi5, Bph18(t)	811031	811114	811460	811462	811472	811565	811583		
	Xa3, Pib, Pii, Pi5, Bph18(t)	811051								
	Xa3, Pib, Pii, Pi5, Tsv1	811490								
	Xa3, Pib, Pii, Pi5, Tsv1	811496								
	Xa3, Pi-ta, Pib, Pii, Pi5	810809								
	Xa4, Pib, Pii, Pi5, Bph18(t)	811019								
	Xa4, Pib, Pii, Pi5, Tsv1	811098								
	Xa4, Pi-ta, Pib, Pii, Pi5	811027	811108	811132						
	Xa4, Xa21, Pib, Pii, Tsv1	811126								
	Xa4, Xa5, Pi-ta, Pib, Bph18(t)	811452								
	Xa5, Pi-ta, Pib, Bph18(t), Tsv1	811041	811202							
	Xa7, Pi-ta, Pib, Pi5, Bph18(t)	811302								
6	Xa5, Xa7, Pib, Pii, Pi5, Tsv1	811005								

	Xa4, Pi-ta, Pib, Pii, Pi5, Bph18(t)	§11029
	Xa4, Xa5, Pi-ta, Pib, Bph18(t), Tsv1	§11037
	Xa4,Xa5, Pi-ta, Pib, Pii, Pi5	§11234
	Xa4, Pi-ta, Pib, Pii, Pi5, Bph18(t)	§11240
	Xa3, Pi-ta, Pib, Pii, Pi5, Tsv1	§10813
	Xa3. Pi-ta, Pib, Pii, Pi5	§12736
7	Xa4, Xa5, Pi-ta, Pib, Pi5, Bph18(t), Tsv1	§11278