

Table S1: List of 28 candidate genes related to BW resistance.

The genes which showed statistically significant difference in expression levels between YCM334 and Taean were indicated in bold.

Gene name	Annotation	Reference	note
CA02g09500	Polyprotein		
CA03g04340	Putative CC-NBS-LRR resistance protein		
CA04g00830	Phosphatidylinositol 4-kinase, putative		
CA04g02500	Detected protein of unknown function		
CA05g02730	PREDICTED: probable LRR receptor-like serine/threonine-protein kinase At3g47570-like [<i>Solanum tuberosum</i>]	Kang et al. 2016	highly polymorphic genes between YCM334 and Taean by non-syn ^a SNPs
CA06g11250	Detected protein of unknown function		
CA10g15480	Putative disease resistance protein		
CA12g02380	N-like protein		
CA12g02650	PREDICTED: probable LRR receptor-like serine/threonine-protein kinase At4g36180-like [<i>Solanum lycopersicum</i>]		
CA12g20430	Putative disease resistance protein		
CA02g28670	beta-galactosidase 4		
CA03g23820	beta-galactosidase 4		
CA03g17620	beta-galactosidase 4		
CA07g10490	lipid transfer protein 1	Kang et al. 2016	polymorphic genes between YCM334 and Taean by non-syn ^a SNPs that were differentially expressed between KC350 and Chilbok
CA08g06650	NAD(P)-binding Rossmann-fold superfamily protein		
CA10g08470	lipid transfer protein 1		
CA10g18310	FAD/NAD(P)-binding oxidoreductase		
CA12g19770	Disease resistance protein (CC-NBS-LRR class) family		
CA03g00810	Tobacco mosaic virus		
CA03g29040	Alternaria stem canker		
CA06g00990	Nematode (root knot)		
CA07g01930	Fungal disease	Kang et al. 2016	pepper homologs polymorphic between YCM334 and Taean by non-syn ^a SNPs where disease related QTLs have been mapped in tomato
CA11g02030	Bacterial speck		
CA12g06200	Bacterial spot		
CA12g07610	Leaf mold		

CA04g03400	Calcium-binding EF-hand family protein		
CA12g20490	xyloglucan endotransglucosylase (Precursor)	Hwang et al. 2011	candidate DEGs related to BW resistance between KC350 and Chilbok
CA12g20500	xyloglucan endotransglucosylase/hydrolase protein 16		

Non-syn^a: non-synonymous

Table S2: Band polymorphisms of CAPS markers and BW resistance on a RIL population.

The band polymorphisms of YCM334 and Taean were indicated by a and b, respectively. The level of BW resistance was scored from 1 (resistance) to 5 (susceptible). N/A indicates data not available.

Genotype	CA04g02500	CA03g23820	Phenotype	Genotype	CA04g02500	CA03g23820	Phenotype
YCM334	a	a	1	YT108	b	a	N/A
Taean	b	b	5	YT109	b	b	2
YT4	b	b	3	YT110	b	b	2
YT7	a	b	2	YT111	a	b	2
YT8	a	b	2	YT112	a	b	1
YT9	b	b	2	YT113	b	b	2
YT10	b	b	3	YT114	a	a	3
YT11	b	b	3	YT115	a	a	4
YT12	b	b	4	YT116	b	b	4
YT13	a	a	5	YT118	b	b	3
YT15	a	b	2	YT120	b	b	N/A
YT18	b	a	3	YT121	b	a	3
YT19	a	b	2	YT122	a	b	4
YT20	b	a	5	YT123	a	b	2
YT21	b	a	2	YT124	a	b	5
YT22	a	a	2	YT126	b	a	3
YT23	b	a	2	YT127	a	b	3
YT24	b	a	2	YT129	b	a	4
YT25	b	b	3	YT130	a	a	1
YT26	a	a	2	YT131	a	b	2
YT27	a	b	5	YT132	b	a	4

YT28	b	a	5	YT134	b	a	N/A
YT29	b	a	3	YT135	b	a	5
YT30	b	b	3	YT136	b	a	3
YT33	b	a	2	YT137	a	b	5
YT34	b	b	1	YT138	a	a	2
YT39	b	a	N/A	YT140	a	b	2
YT40	a	b	4	YT141	b	b	3
YT43	N/A	b	N/A	YT142	a	a	N/A
YT44	b	b	4	YT145	a	b	3
YT48	b	a	2	YT146	a	b	5
YT49	a	a	4	YT147	N/A	b	4
YT50	b	a	2	YT150	a	b	4
YT51	b	a	3	YT152	b	b	1
YT52	a	a	2	YT156	b	a	2
YT54	a	a	4	YT157	a	a	3
YT55	a	b	3	YT158	b	a	2
YT56	a	a	2	YT159	b	b	5
YT57	b	b	5	YT160	b	b	2
YT58	b	b	4	YT161	N/A	N/A	3
YT59	b	b	5	YT162	a	b	2
YT60	b	a	3	YT163	a	b	3
YT61	a	a	2	YT165	b	a	N/A
YT62	a	a	3	YT166	a	b	2
YT63	a	a	N/A	YT167	b	b	2

YT66	b	a	N/A	YT168	b	a	2
YT67	b	b	4	YT169	b	a	2
YT68	a	b	4	YT171	b	b	5
YT69	N/A	N/A	5	YT172	b	b	4
YT70	a	a	2	YT173	a	a	2
YT71	b	b	2	YT174	a	a	3
YT72	b	a	4	YT176	a	b	2
YT73	b	a	2	YT177	a	a	1
YT74	a	b	2	YT179	a	a	2
YT75	b	a	3	YT181	a	b	2
YT76	N/A	a	2	YT183	a	a	2
YT77	a	b	4	YT186	b	a	4
YT78	b	b	4	YT187	b	a	5
YT79	a	b	N/A	YT188	b	a	2
YT81	b	a	4	YT190	b	a	2
YT82	a	a	4	YT191	b	b	3
YT83	a	b	5	YT192	a	b	3
YT84	a	a	3	YT193	a	b	2
YT85	a	a	1	YT194	b	b	N/A
YT86	a	a	3	YT195	a	a	2
YT87	a	a	3	YT196	a	a	2
YT89	a	b	5	YT197	b	b	N/A
YT90	a	a	3	YT199	b	a	2
YT92	b	a	3	YT201	b	a	3

YT93	a	b	4	YT202	a	b	1
YT94	b	b	3	YT204	N/A	b	2
YT96	b	b	3	YT205	a	b	2
YT97	N/A	N/A	2	YT207	a	b	2
YT100	b	b	4	YT209	a	b	3
YT101	b	a	2	YT210	b	a	5
YT104	b	a	4	YT211	b	a	3
YT105	b	a	4	YT212	a	b	1
YT106	a	b	2	YT214	b	b	3
YT107	a	b	2	<i>p</i> -value	0.0294	0.2864	

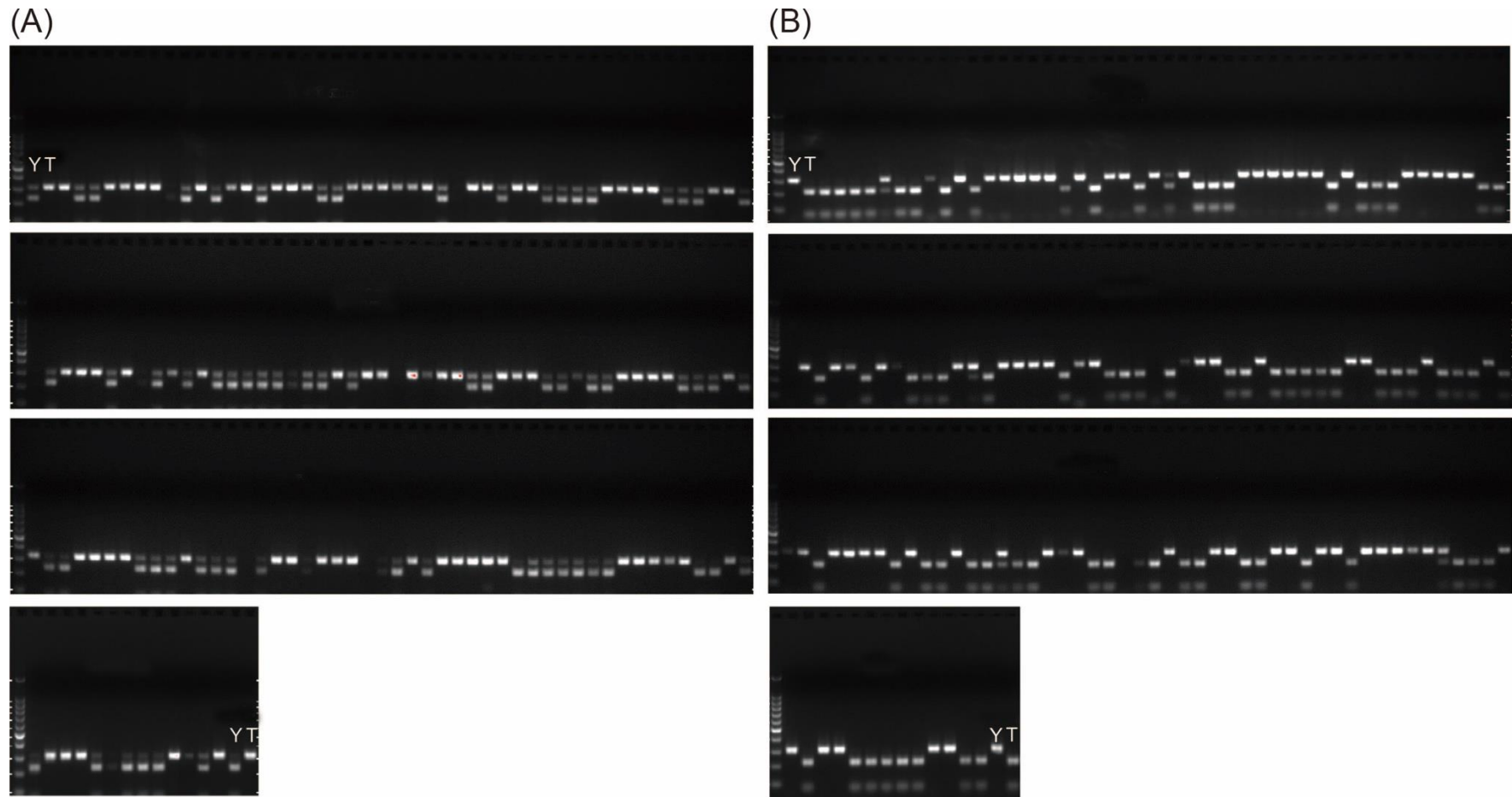
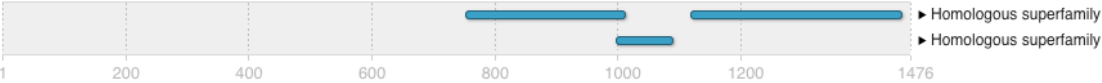


Fig. S1: Validation of CAPS marker using a RIL population.

The CAPS markers for (A) CA04g2500 and (B) CA03g23820 had band polymorphism among the RIL population. The band polymorphism for CA04g2500 was significantly associated with BW resistance ($p < 0.05$). Y and T indicate YCM334 and Taean, respectively.

Homologous superfamilies



Domains and repeats



Detailed signature matches

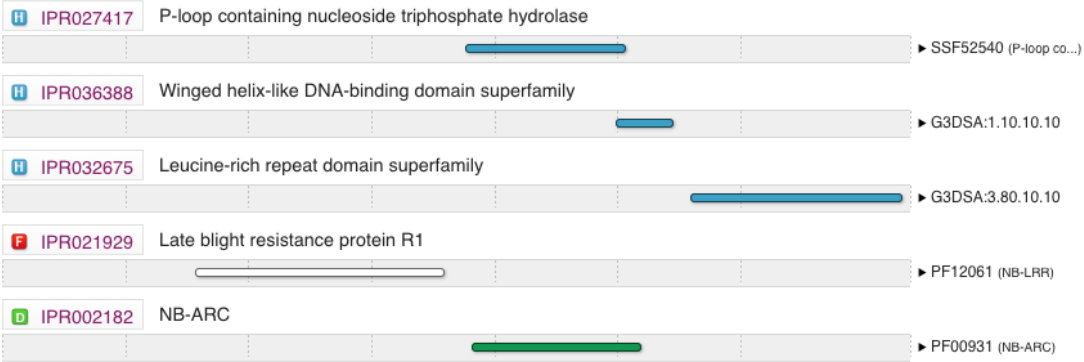


Fig. S2: Annotation of CA10g15480 using Interproscan