

Supplementary Table 1. The isolates list, country, mating types, genotypes and multilocus haplotype of mitochondrial genome in *Phytophthora infestans*

Isolate ^a	Country	Alternate culture accession	Mating type	RFLP-based haplotype	Genotype ^b	Locus					Multilocus haplotype	Haplotype abbreviation
						Locus 1 rp15-ms	Locus 2 rms-cox2	Locus 3 cox1-nad9	Locus 4 nad3-nad5	Locus 5 nad6-nad4L		
P12021	Russia	N-6-02	A2	Ila	-	3	3	2	2	3	Ila-3-3-2-2-3	Ila-1
P10110	USA	US940504	A2	Ila	US-13	2	3	2	2	3	Ila-2-3-2-2-3	Ila-2
P10257	Hungary	H-24/02	A1	Ila	-	2	4	2	2	3	Ila-2-4-2-2-3	Ila-3
P15149	South Korea	KN-2	A2	Ila	-	2	5	2	1	3	Ila-2-5-2-1-3	Ila-4
P12043	Russia	-	A1	Ila	-	2	5	2	2	3	Ila-2-5-2-2-3	Ila-5
P15101	South Korea	HC-1	A1	Ila	-	2	3	2	2	4	Ila-2-3-2-2-4	Ila-6
P12203	UK	C3 SC97.38.2.2	A1	Ila	EU_8_A1	2	5	2	2	4	Ila-2-5-2-2-4	Ila-7
P6750	Mexico	Goodwin 586	A1	Ila	-	2	5	3	2	4	Ila-2-5-3-2-4	Ila-8
P10122	USA	US970018	A1	IIb	US-11	1	2	1	1	2	IIb-1-2-1-1-2	IIb-1
P9464	USA	035-96G	A1	IIb	US-11	1	2	1	1	1	IIb-1-2-1-1-1	IIb-2
P7629	USA	Varoujan P165, Shaw Ca65	A1	IIb	US-6	1	1	1	1	1	IIb-1-1-1-1-1	IIb-3
AY898628 (IIb)	USA	94-52	A1	IIb	-	1	1	1	3	1	IIb-1-1-1-3-1	IIb-4
MH286884	South Korea	Kpi16-9	A1	Ila	KR_1_A1	2	3	2	2	4	Ila-2-3-2-2-4	Ila-6
MH286885	South Korea	Kpi15-4	A1	IIb	US-11	1	2	1	1	1	IIb-2-1-1-1-1	IIb-2
MH286886	South Korea	Kpi15-3	A2	Ila	KR_2_A2	2	5	2	2	3	IIb-2-5-2-2-3	Ila-5
MH286887	South Korea	Kpi15-10	A1	Ila	SIB-1	2	3	2	2	4	Ila-2-3-2-2-4	Ila-6

^aCulture accession numbers starting with "P" are from the World Oomycete Genetic Resource Collection (<http://phytophthora.ucr.edu>).

^bGenotype determined with RG-57 restriction fragment length polymorphism (RFLP) analysis as described in Martin and Tooley's study (2004) and simple sequence repeat data in this study.

Reference

Martin, F. N. and Tooley, P. W. 2004. Identification of phytophthora isolates to species level using restriction fragment length polymorphism analysis of a polymerase chain reaction-amplified region of mitochondrial DNA. *Phytopathology* 94:983-991.

Supplementary Table 2. The SNPs and InDels of mitochondrial genome sequences among four Korean *Phytophthora infestans* isolate

Type	Location	Gene	AY898627_Ila	AY898628_IIb	KR_1_A1 (SIB-1)	KR_2_A2	US-11	Remark
InDel	Genic	<i>orf170</i>	-	ATT	-	-	ATT	
		<i>orf198</i>	-	A	-	-	A	
		<i>orf199</i>	-	A	-	-	A	
	Intergenic	<i>orf79-cox2</i>	-	(ATCTATTTTAAAT-TAACTTGGTATA-ATTTTTTTTC) ₂	(ATCTATTTTAAAT-TAACTTGGTATA-ATTTTTTTTC) ₂	(ATCTATTTTAAAT-TAACTTGGTATA-ATTTTTTTTC) ₂	(ATCTATTTTAAAT-TAACTTGGTATA-ATTTTTTTTC) ₃	Variation number of tandem repeats
SNP	Genic	<i>nad3-nad5</i>	A	-	A	A	-	
		<i>cob</i>	G	-	G	G	-	
		<i>atp1</i>	G	A	G	G	A	
		<i>atp1</i>	C	T	C	C	T	
		<i>nad2</i>	A	G	A	A	G	
		<i>rps7</i>	A	G	A	A	G	
		<i>cox3</i>	T	C	T	T	C	
		<i>nad5</i>	T	C	T	T	C	
		<i>nad6</i>	T	C	T	T	C	
		<i>nad1</i>	T	C	T	T	C	
		<i>nad1</i>	A	G	A	A	G	
		<i>nad1</i>	A	G	A	A	G	
		<i>nad11</i>	A	G	A	A	G	
		<i>nad11</i>	T	C	T	T	C	
		<i>tRNA_Leu</i>	C	T	C	C	T	
		<i>ymf16</i>	G	A	G	G	A	
		<i>rps3</i>	T	C	T	T	C	
		<i>atp8</i>	A	A	A	A	A	
		<i>rps8</i>	A	G	A	A	G	
		<i>orf100</i>	T	C	T	T	C	
		<i>orf99</i>	T	C	T	T	C	
		<i>orf198</i>	A	C	A	A	C	
		<i>orf198</i>	T	C	T	T	C	
		<i>rns</i>	G	A	G	G	A	
		<i>rns</i>	A	G	A	A	G	
	Intergenic	<i>atp9-nad9</i>	T	A	T	T	A	
		<i>atp9-nad9</i>	T	A	T	T	A	
		<i>tRNA_Arg-nad4L</i>	G	A	G	G	A	
		<i>tRNA_Arg-nad4L</i>	T	A	T	A	T	
		<i>tRNA_Pro-tRNA_Met</i>	G	A	G	G	A	
		<i>orf198-rns</i>	G	A	G	G	A	

SNP, single nucleotide polymorphism; InDel, insertion and deletion.

Supplementary Data 1. The 16 *Phytophthora infestans* DNA FASTA sequences of five loci from mitochondrial genome sequences for haplotyping; loci 1 (*rpl5-rns*), loci 2 (*rns-cox2*), loci 3 (*cox1-nad9*), loci 4 (*nad3-nad5*), and loci 5 (*nad6-nad4L*).