

Supplementary Table 1. List of reference species and their GenBank accession numbers used in ANI, *is*DDH, and phylogenetic tree

Species	Strains ^a	GenBank accession no.
<i>Pectobacterium aroidearum</i>	PC1	CP001657.1
<i>P. atrosepticum</i>	JG10-08	CP007744.1
<i>P. brasiliense</i>	SX309	CP020350.1
<i>P. carotovorum</i>	WPP14	CP051652.1
<i>P. odoriferum</i>	BC S7	CP009678.1
<i>P. parmentieri</i>	RNS 08-42-1A ^T	CP015749.1
<i>P. parvum</i>	NCPPB3395	GCF_000749915.1
<i>P. polaris</i>	NIBIO1006 ^T	CP017481.1
<i>P. punjabense</i>	SS95 ^T	CP038498.1
<i>P. versatile</i>	SCC1	CP021894.1
<i>P. wasabiae</i>	CFBP3304 ^T	CP015750.1
<i>Dickeya dadantii</i>	3937	CP002038.1
<i>D. fangzhongdai</i>	DSM101947 ^T	CP025003.1

ANI, average nucleotide identity; *is*DDH, *in silico* DNA-DNA hybridization.

^aT, type strain.

Supplementary Table 2. Utilization of carbon source of PZ1 using BIOLOG test

Utilization	Ppo	Ppv	Ppv PZ1
Citrate	+	-	-
Lactose	+	+	+
Melibiose	+	+	+
Raffinose	+	+	+

Ppo, *Pectobacterium polaris*; Ppv, *P. parvum*.

Reference data was retrieved from Pasanen et al. (2020).

Reference

Pasanen, M., Waleron, M., Schott, T., Cleenwerck, I., Misztak, A., Waleron, K., Pritchard, L., Bakr, R., Degefu, Y., van der Wolf, J., Vandamme, P. and Pirhonen, M. 2020. *Pectobacterium parvum* sp. nov., having a *Salmonella* SPI-1-like type III secretion system and low virulence. *Int. J. Syst. Evol. Microbiol.* 70:2440-2448.

Supplementary Table 3. Comparison of the genes encoding the extracellular plant cell wall degrading enzymes in the *Pectobacterium* species

Enzyme	Gene name	Cell compartment	Pca JR1.1	Ppa HC	Ppv PZ1		Pod JK2.1		Pbr HNP201719		Pca BP201601.1		Pve MYP201603		
			Gene locus	Gene locus	Homology (%)	Gene locus	Homology (%)	Gene locus	Homology (%)	Gene locus	Homology (%)	Gene locus	Homology (%)	Gene locus	Homology (%)
Pectate/Pectin lyases	<i>pelA</i>	Extracellular (Out)	EH204_19670	GMW39_21930	90	GMX10_09305	93	EO763_20340	98	GMW71_04590	95	EH203_01885	96	HG702_03465	95
	<i>pelB</i>	Extracellular (Out)	EH204_19675	GMW39_21925	89	GMX10_09300	91	EO763_20345	96	GMW71_04595	92	EH203_01880	100	HG702_03460	94
	<i>pelC</i>	Extracellular (Out)	EH204_19680	GMW39_21920	92	GMX10_09295	94	EO763_20350	94	GMW71_04600	95	EH203_01875	99	HG702_03455	95
	<i>pelZ</i>	Extracellular (Out)	EH204_19685	GMW39_21915	88	GMX10_09290	93	EO763_20355	95	GMW71_04605	94	EH203_01870	99	HG702_03450	96
	<i>pelI</i>	Extracellular (Out)	EH204_05200	GMW39_01905	92	GMX10_12540	99	EO763_05855	93	GMW71_11870	94	EH203_16545	100	HG702_18075	93
	<i>pelL</i>	Extracellular (Out)	EH204_11975	GMW39_08460	89	GMX10_16395	95	EO763_12825	95	GMW71_15650	94	EH203_12340	99	HG702_13860	97
	<i>hrpW</i>	Extracellular (Out)	EH204_09745	N/P	N/P	N/P	N/P	EO763_10605	96	GMW71_17660	91	EH203_10390	98	HG702_11590	96
	<i>pel</i>	Extracellular (Out)	EH204_14950	N/P	N/P	GMX10_22430	92	EO763_15475	92	GMW71_20810	94	EH203_06690	100	HG702_08255	93
	<i>pnl</i>	Secreted ^a	EH204_14005	GMW39_09790	88	GMX10_22295	84	EO763_07850	93	GMW71_13845	91	EH203_14325	99	HG702_15830	97
	Pectin esterases	<i>paeY</i>	Extracellular (Out)	EH204_15920	GMW39_12830	87	GMX10_00495	91	EO763_16245	97	GMW71_00880	91	EH203_05950	97	HG702_07410
<i>pemA</i>		Extracellular (Out)	EH204_15925	GMW39_12835	86	GMX10_00500	95	EO763_16250	97	GMW71_00885	94	EH203_05945	99	HG702_07405	97
<i>pemB</i>		Extracellular (Anchored)	EH204_21130	GMW39_19960	84	GMX10_07765	90	EO763_21850	94	GMW71_05985	90	EH203_21225	94	HG702_01920	95
Rhamno galacturonate lyase	<i>rhiE</i>	Extracellular (Out)	EH204_03680	GMW39_14570	87	GMX10_10680	93	EO763_03680	96	GMW71_10350	93	EH203_17990	955	HG702_19570	96
Polygalacturonases	<i>pehA</i>	Extracellular (Out)	EH204_05205	GMW39_01910	97	GMX10_12545	91	EO763_05860	96	GMW71_11875	90	EH203_16540	100	HG702_18070	97
	<i>pehN</i>	Extracellular (Out)	EH204_05695	GMW39_02395	91	GMX10_13050	96	EO763_06345	95	GMW71_12380	95	EH203_16045	100	HG702_17550	96
Cellulases	<i>bcsZ</i>	Periplasm/ Extracellular(Anchored)	EH204_00350	GMW39_18660	87	GMX10_06975	94	EO763_00350	94	GMW71_07155	92	EH203_00325	99	HG702_00625	96
	<i>celV</i>	Extracellular (Out)	EH204_08895	GMW39_05555	89	GMX10_17640	94	EO763_09980	98	GMW71_18295	94	EH203_09775	97	HG702_10955	95
	<i>putative cellulase</i>	Secreted ^a	EH204_10190	GMW39_06705	87	GMX10_19510	96	EO763_11040	95	GMW71_17185	94	EH203_10835	98	HG702_12095	95
	<i>bglA</i>	Periplasm/ Extracellular(Anchored)	EH204_00060	GMW39_18940	90	GMX10_06595	95	EO763_00060	96	GMW71_06855	95	EH203_00060	99	HG702_00945	97
	<i>bglB</i>	Periplasm/ Extracellular(Anchored)	EH204_02935	GMW39_15520	91	GMX10_04090	96	EO763_02985	96	GMW71_09610	93	EH203_18790	99	HG702_20310	96
	<i>bglD</i>	Periplasm/ Extracellular(Anchored)	EH204_07000	N/P	N/P	GMX10_14440	95	EO763_07585	95	GMW71_13670	95	EH203_14445	96	HG702_16130	97
Metalloproteases	-	Extracellular (Out)	N/P	N/P	N/P	N/P	N/P	EO763_15140	N/P	N/P	N/P	N/P	N/P	HG702_08490	N/P
	<i>prtW</i>	Extracellular (Out)	EH204_12945	GMW39_03995	84	GMX10_20975	93	EO763_13980	95	GMW71_14730	94	EH203_13365	100	HG702_14830	100
	<i>prt1</i>	Extracellular (Out)	EH204_15715	GMW39_12640	88	GMX10_13580	93	EO763_16045	95	GMW71_00675	93	N/P	N/P	HG702_07615	96
	<i>prtC</i>	Extracellular (Out)	EH204_03215	GMW39_15055	89	GMX10_10265	93	EO763_03255	92	GMW71_09855	95	EH203_18510	99	HG702_20030	97
	<i>prtC</i>	Extracellular (Out)	EH204_03220	GMW39_15050	91	GMX10_10270	94	EO763_03260	96	GMW71_09860	95	EH203_18505	98	HG702_20025	97
	-	Extracellular (Out)	EH204_09950	GMW39_06165	88	GMX10_18465	97	EO763_10785	96	GMW71_17470	92	EH203_10580	96	HG702_11850	96
	-	Extracellular (Out)	EH204_09595	GMW39_05940	87	GMX10_19205	93	EO763_10440	95	GMW71_17840	93	EH203_10215	97	HG702_11400	95
	<i>lasA</i>	Extracellular (Out)	EH204_09305	N/P	N/P	GMX10_17915	94	EO763_10145	95	GMW71_18135	95	EH203_09920	96	HG702_11110	93
Serine proteases	-	Extracellular (Out)	EH204_06890	GMW39_03505	84	GMX10_14300	93	EO763_07475	94	GMW71_13555	92	EH203_14570	99	HG702_16245	95
	-	Extracellular (Out)	EH204_20350	GMW39_21215	90	GMX10_08630	93	EO763_20995	97	GMW71_05190	93	EH203_01235	98	HG702_02810	98
	-	Extracellular (Out)	N/P	N/P	N/P	N/P	N/P	N/P	N/P	GMW71_11330	N/P	N/P	N/P	HG702_18640	N/P
	-	Secreted ^a	EH204_09315	N/P	N/P	GMX10_17925	91	EO763_10155	96	GMW71_18125	95	EH203_09930	98	HG702_11120	94

N/P, non-predicted or not found gene; Pca, *Pectobacterium carotovorum*; Ppa, *Pectobacterium parmentieri*; Ppv, *Pectobacterium parvum*; Pod, *Pectobacterium odoriferum*; Pbr, *Pectobacterium brasiliense*; Pve, *Pectobacterium versatile*.

^aSecreted = not determined cell compartment, but has signal peptide