

Supplementary tables S12

Comparative genomics and metabolic profiling of the genus *Lysobacter*

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Table S4. Antimicrobial and extracellular enzyme activity of the *Lysobacter* strains.

Activity assays		<i>L. ant</i> ATCC 29479	<i>L. ant</i> 76	<i>L. cap</i> 55	<i>L. gum</i> 3.2.11	<i>L. enz</i> C3
Enzymatic activity						
	Protease	+	+/-	+	-	+
	Chitinase	+	+	+	+	+
	Glucanase	+	+	+	+	+
Antagonistic activity	Medium					
<u>Fungi</u>						
<i>Rhizoctonia solani</i> AG2-2 IIIb	PDA	-	-	+	+	+
	1/5 PDA	+	-	+	+	+
	R2A	+	+/-	+	+	+
<i>R. solani</i> AG2-2 IIIb, 2 day head start	1/5 PDA	-	-	+/-	+	+/-
	R2A	+	+	+	+	+
<i>R. solani</i>	volatile	-	-	-	-	-
<i>Verticillium dahliae</i> JR2	PDA	+	+	+	+	+
	1/5 PDA	+	+	+	+	+
	R2A	+	+	+	+	+
<i>Verticillium dahliae</i> spores	PDA	-	-	+	+	+
	1/5 PDA	-	-	+	+	+
	R2A	+	+	+	+	+
<i>Fusarium solani</i>	PDA	NT	NT	+	+	+
	1/5 PDA	-	-	+	+	+
	R2A	-	-	+	+	+
<i>Fusarium oxysporum</i> (IRS) spores	PDA	-	-	+	+	+
	1/5 PDA	-	+	+	+	+
	R2A	+	+	+	+	+
<i>Fusarium oxysporum</i> (PRI) spores	PDA	+	-	+	+	+
	1/5 PDA	-	-	+	+	+
	R2A	+	+	+	+	+
<i>Aspergillus niger</i> spores	PDA	-	-	+/-	+/-	+/-
	1/5 PDA	-	+	+	+	+
	R2A	+	+	+	+	+
<i>Cercospora</i> spores	PDA	-	-/+	+	+	+
	1/5 PDA	-	-	+	+	+
	R2A	+	+	+	+	+
<i>Stemphylium</i> spores	PDA	-	-	+	+	+
	1/5 PDA	-/+	-/+	+	+	+
	R2A	+	+	+	+	+
<u>Oomycetes</u>						
<i>Aphanomyces cochloides</i>	PDA	+	+	+	+	+
	1/5 PDA	-	+	+	+	+
	R2A	+	+	+	+	+
<i>Phytophthora infestans</i> 88069	PDA	+	+	+	+	+
	1/5 PDA	-	+	+	+	+
	R2A	+	+	+	+	+
<i>Pythium ultimum</i>	PDA	-	-	+	+	+
	1/5 PDA	-	-/+	+	+	+
	R2A	+	+	+	+	+
<i>Saprolegnia parasitica</i>	PDA	-	+/-	+	+	-/+
	1/5 PDA	-/+	+	+	+	+
	R2A	-	+	+	+	+
<u>Bacteria</u>						
<i>Xanthomonas campestris</i> pv <i>campestris</i>	1/5 PDA	+	+	-	+	-
	R2A	-	+	-	-	-
<i>Pectobacterium atrosepticum</i>	1/5 PDA	-	-	-	-	-
	R2A	-	-	-	-	-
	LB	-	-	-	-	-

Note: + indicates inhibition of the plant pathogen was observed; - indicates no inhibition was observed. +/- indicates an inhibition was observed after 2-3 days of incubation, but the inhibition disappeared upon longer incubation. NT indicates not tested.

L. ant: *Lysobacter antibioticus*; L. cap: *L. capsici*; L. gum: *L. gummosus*; L. enz: *L. enzymogenes*.

Table S5. Number of CDSs encoding peptidases containing a glycosyl hydrolase catalytic domain with chitinase activity in *Lysobacter*, *Stenotrophomonas* and *Xanthomonas* spp.

	Taxonomy ID	# GH18	# GH19	# GH23	# GH48
L. ant ATCC29479		2	3	6	0
L. ant 55		2	0	5	0
L. cap 76		2	0	6	0
L. gum 3.2.11		3	0	6	0
L. enz C3		2	2	6	0
S. mal D457	1163399	2	3	8	0
S. mal K279a	522373	2	2	7	0
S. mal R551-3	391008	2	1	7	0
X. alb GPE PC73	29447	2	0	9	0
X. axo_cit 306	190486	1	2	8	0
X. axo_cit F1	981368	1	1	5	0
X. axo Xac29-1	1304892	1	2	10	0
X. cam_cam B100	340	1	0	8	0
X. cam_cam 8004	314565	1	1	7	0
X. cam_cam ATCC33913	190485	1	0	6	0
X. cam_rap 756C	990315	1	0	7	0
X. cam_ves 85-10	316273	1	1	7	0
X. cit_cit Aw12879	1137651	1	4	8	0
X. fus_fus 4824R	366649	1	1	5	0
X. ory_ory KACC10331	291331	1	1	5	0
X. ory_ory MAFF311018	342109	1	1	5	0
X. ory_ory PXO99A	360094	1	2	5	0
X. ory_ory BLS256	383407	1	1	5	0

Note: Taxonomy ID refers to ID number in NCBI. The values for the *Stenotrophomonas* and *Xanthomonas* strains were obtained from CAZy database.

L. ant: *Lysobacter antibioticus*; L. cap: *L. capsici*; L. gum: *L. gummosus*; L. enz: *L. enzymogenes*.

S. mal: *Stenotrophomonas maltophilia*; X. alb: *Xanthomonas albilineans*; X. axo_cit_306:

X. axonoponis pv. citri str. 306; X. axo_cit F1: X. axonoponis pv. citrumelo F1; X. cam_cam:

X. *campestris* pv. *campestris*; X.cam_rap: X. *campestris* pv. *raphani* X. cam_ves:

X. *campestris* pv. *vesicatoria*; X. cit_cit Aw12879: X. *citri* subsp. *citri* Aw12879; X. fus_fus:

X. *fuscans* subsp. *fuscans*; X. ory_ory: X. *oryzae* pv. *oryzae*; X. ory_ory BLS256: X. *oryzae*

pv. *oryzicola* BLS256

Table S6. CDSs encoding peptidases containing a glycoside hydrolase domain with chitinase activity.

ID	PFAM domains		
<i>L. ant</i> ATCC29479			
LA29479_768	Glyco_hydro_18	CBM_5_12	Fn3-like
LA29479_4426	Glyco_hydro_18	CBM_5_12	Fn3-like
LA29479_108	Glyco_hydro_19		
LA29479_1555	Glyco_hydro_19		
LA29479_2721	Glyco_hydro_19	PG_binding_1	
LA29479_173	SLT	LysM	
LA29479_550	SLT		
LA29479_2732	SLT		
LA29479_3128	SLT		
LA29479_3846	SLT	LysM	
LA29479_3980	SLT_L	SLT	
<i>L. ant</i> 76			
LA76x_490	Glyco_hydro_18	CBM_5_12	fn3
LA76x_1507	Glyco_hydro_18	CBM_5_12	fn3
LA76x_1715	SLT		
LA76x_2402	SLT		
LA76x_3017	SLT	LysM	
LA76x_3546	SLT	LysM	
LA76x_4569	SLT_L	SLT	
<i>L. cap</i> 55			
LC55x_1252	Glyco_hydro_18	CBM_5_12	fn3
LC55x_4660	Glyco_hydro_18	CBM_5_12	fn3
LC55x_515	SLT_L	SLT	
LC55x_1606	SLT		
LC55x_2425	SLT		
LC55x_3046	SLT	LysM	
LC55x_3500	SLT	LysM	
LC55x_4497	SLT		
<i>L. gum</i> 3.2.11			
LG3211_1152	Glyco_hydro_18	CBM_5_12	fn3
LG3211_1156	Glyco_hydro_18	CBM_5_12	fn3
LG3211_4770	Glyco_hydro_18	CBM_5_12	fn3
LG3211_1691	GH23	SLT	LysM
LG3211_2174	GH23	SLT	LysM
LG3211_2812	GH23	SLT	
LG3211_3609	GH23	SLT	
LG3211_4306	GH23	SLT	
LG3211_510	GH23	SLT_L	SLT
<i>L. enz</i> C3			
LEC3_0401	Glyco_hydro_18	CBM_5_12	
LEC3_1126	Glyco_hydro_18	CBM_5_12	
LEC3_2053	Glyco_hydro_19		
LEC3_3325	Glyco_hydro_19		
LEC3_0326	SLT_L	SLT	
LEC3_1657	SLT	LysM	
LEC3_2132	SLT	LysM	Fn3-like
LEC3_2818	SLT		Fn3-like
LEC3_3603	SLT		
LEC3_4365	SLT		

Note: BLASTp analysis was performed with the GH domain of reference sequences using a cut-off of e-value < e-5. Subsequently, blast hits were subjected to PFAM analysis and only those that contained a significant hit for a GH domain were considered as a CDS containing a GH domain with chitinase activity.

L. ant: *Lysobacter antibioticus*; L. cap: *L. capsici*; L. gum: *L. gummosus*; L. enz: *L. enzymogenes*.

Table S7. Number of CDSs encoding peptidases containing a glycosyl hydrolase catalytic domain with glucanase activity in *Lysobacter*, *Stenotrophomonas* and *Xanthomonas* spp.

	Taxonomy ID	GH1	GH3	GH5	GH6	GH9	GH12	GH16	GH30	GH51	GH71	GH74
L. ant 29479		1	2	0	0	0	0	2	0	0	1	0
L. ant 55		0	2	0	0	0	0	1	0	0	0	0
L. cap 76		0	3	0	0	0	0	3	0	0	0	0
L. gum 3.2.11		0	4	0	0	0	0	2	0	0	0	0
L. enz. C3		0	3	1	0	0	0	2	0	0	0	0
S. mal D457	1163399	0	5	0	0	0	0	0	0	0	0	0
S. mal K279a	522373	0	4	0	0	0	0	1	0	0	0	0
S. mal R551-3	391008	0	3	0	0	0	0	0	0	0	0	0
X. alb GPE PC73	29447	0	6	2	1	1	1	0	0	1	0	0
X. axo_cit 306	190486	0	6	6	0	1	1	1	3	1	0	1
X. axo_cit F1	981368	0	6	6	0	1	1	0	2	1	0	1
X. axo Xac29-1	1304892	0	6	6	0	1	0	1	1	1	0	1
X. cam_cam B100	340	0	8	6	2	1	2	1	2	1	0	1
X. cam_cam 8004	314565	0	8	6	2	1	2	1	2	1	0	1
X. cam_cam ATCC33913	190485	0	8	6	2	1	2	1	2	1	0	1
X. cam_rap 756C	990315	0	8	6	1	1	2	1	2	1	0	1
X. cam-ves 85-10	316273	0	6	6	0	1	1	0	2	1	0	1
X. cit_cit Aq12879	1137651	0	6	6	0	1	2	1	3	1	0	1
X. fus_fus 4824R	366649	0	6	6	0	1	1	0	1	1	0	1
X. ory_ory KACC10331	291331	0	6	5	1	0	2	0	1	1	0	0
X. ory_ory MAFF311018	342109	0	6	5	1	0	2	0	1	1	0	0
X. ory_ory PXO99A	360094	0	6	5	1	0	2	0	1	1	0	0
X. ory_ory BLS256	383407	0	6	7	3	0	0	0	2	1	0	0

Note: other domains with glucanase activity according to CAZy database include GH7, GH26, GH44, GH45, GH48, GH55, GH64, GH81, GH87, GH124, GH128, GH131 were not detected or not present in the strains listed above.

L. ant: *Lysobacter antibioticus*; L. cap: *L. capsici*; L. gum: *L. gummosus*; L. enz: *L. enzymogenes*; S. mal: *Stenotrophomonas maltophilia*; X. alb: *Xanthomonas albilineans*; X. axo_cit_306: *X. axonoponis* pv. *citri* str. 306; X. axo_cit F1: *X. axonoponis* pv. *citrumelo* F1; X. cam_cam: *X. campestris* pv. *campestris*; X. cam_rap: *X. campestris* pv. *raphani*; X. cam-ves: *X. campestris* pv. *vesicatoria*; X. cit_cit Aw12879: *X. citri* subsp. *citri* Aw12879; X. fus_fus: *X. fuscans* subsp. *fuscans*; X. ory_ory: *X. oryzae* pv. *oryzae*; X. ory_ory BLS256: *X. oryzae* pv. *oryzicola* BLS256.

Table S8. CDSs encoding peptidases containing glycoside hydrolase domain with glucanase activity.

ID	PFAM domain		
<i>L. ant</i> ATCC29479			
LA29479_1193	Glyco_hydro_1		
LA29479_4718	Glyco_hydro_3		
LA29479_5063	Glyco_hydro_3	Glyco_hydro_3_C	
LA29479_1051	Glyco_hydro_16		
LA29479_2056	Glyco_hydro_16		
LA29479_2110	Glyco_hydro_71		
<i>L. ant</i> 76			
LA76x_3474	GH3	Glyco_hydro_3	
LA76x_4814	GH3	Glyco_hydro_3	Glyco_hydro_3_C
LA76x_2591	GH16	Glyco_hydro_16	
<i>L. cap</i> 55			
LC55x_216	Glyco_hydro_3	Glyco_hydro_3_C	
LC55x_3422	Glyco_hydro_3		
LC55x_4890	Glyco_hydro_3	Glyco_hydro_3_C	
LC55x_1557	Glyco_hydro_16	CBM_6	
LC55x_2740	Glyco_hydro_16		
LC55x_4859	Glyco_hydro_16		
<i>L. gum</i> 3.2.11			
LG3211_1762	Glyco_hydro_3		
LG3211_1840	Glyco_hydro_3	Glyco_hydro_3_C	
LG3211_203	Glyco_hydro_3	Glyco_hydro_3_C	
LG3211_4758	Glyco_hydro_3	Glyco_hydro_3_C	
LG3211_2492	Glyco_hydro_16		
LG3211_2614	Glyco_hydro_16		
<i>L. enz</i> C3			
LEC3_1718	Glyco_hydro_3		
LEC3_2523	Glyco_hydro_3	Glyco_hydro_3_C	Fn3-like
LEC3_5129	Glyco_hydro_3	Glyco_hydro_3_C	
LEC3_3663	Cellulase		
LEC3_0490	Glyco_hydro_16	CBM_6	
LEC3_2518	Glyco_hydro_16		

L. ant: *Lysobacter antibioticus*; *L. cap*: *L. capsici*; *L. gum*: *L. gummosus*; *L. enz*: *L. enzymogenes*.

Table S9. Number of CDSs encoding peptidase identified by BLASTp analysis in the MEROPS database.

	<i>L. ant</i> ATCC29479	<i>L. ant</i> 76	<i>L. cap</i> 55	<i>L. gum</i> 3.2.11	<i>L. enz</i> C3
Total no. CDS	372	330	325	298	324
% per genome	7.2	6.4	5.7	5.6	5.8
Family					
<i>Aspartic Peptidases</i>					
A08	1	1	1	1	1
A24A	1	1	1	1	1
<i>Cysteine Peptidases</i>					
C01A	2	1	0	1	0
C02A	1	1	1	0	1
C11	1	1	0	1	0
C14B	3	0	0	0	0
C15	1	1	1	1	1
C19	0	1	0	0	0
C26	10	11	9	9	7
C39	3	3	3	3	1
C40	3	3	2	2	3
C44	5	5	4	6	7
C55	1	1	0	0	0
C56	8	8	7	3	2
C59	0	0	1	1	1
C80	1	2	0	0	0
C82	0	2	3	1	0
<i>Inhibitors</i>					
I29	0	0	0	1	0
I39	0	2	2	2	0
I51	1	1	1	1	1
I78	2	2	2	2	1
I87	0	3	3	3	0
<i>Metallopeptidases</i>					
M01	3	3	3	3	3
M02	2	2	2	2	2
M03A	1	1	1	1	1
M04	5	6	9	7	6
M06	1	0	0	0	0
M09A	2	2	1	1	1
M09B	0	11	8	5	0
M10A	0	0	1	1	0
M10B	0	1	1	0	0
M12A	2	1	0	0	0
M12B	1	1	0	0	0
M13	5	6	5	5	6
M14A	1	3	5	3	1
M14B	0	0	0	1	0
M14X	2	0	0	0	2
M15A	0	0	0	0	1
M15B	1	1	1	1	1
M15C	1	2	1	0	2
M15D	1	1	1	1	1

M16B	8	8	6	6	10
M17	2	2	2	2	2
M19	2	2	3	2	3
M20A	6	2	2	2	6
M20B	1	0	0	0	0
M20D	2	2	2	2	2
M20F	0	1	1	1	0
M20X	0	2	2	2	0
M22	4	0	0	0	4
M23A	1	1	1	1	1
M23B	16	16	18	17	12
M24A	2	2	2	2	2
M24B	3	3	3	3	3
M28A	1	1	1	0	0
M28B	1	0	0	0	1
M28D	0	1	1	1	0
M28E	4	4	5	5	6
M28X	0	0	1	0	1
M35	2	2	2	2	2
M36	0	0	0	1	0
M38	10	10	12	10	9
M41	1	1	1	1	1
M48A	0	1	0	0	0
M48B	1	1	1	1	1
M48C	0	3	4	3	0
M48X	4	0	0	0	4
M50B	1	1	3	2	2
M56	2	2	2	1	1
M61	1	1	1	1	1
M66	1	1	2	1	1
M72	4	3	3	4	4
M79	0	2	1	2	0
M90	0	1	1	1	0
M97	0	0	0	2	0
<i>Asparagine peptide lyases</i>					
N06	0	1	2	2	0
<i>Serine Peptidases</i>					
S01A	6	1	1	1	8
S01B	3	3	1	0	6
S01C	0	3	4	4	0
S01D	3	3	6	6	5
S01E	0	5	4	5	0
S01X	4	1	1	1	4
S08A	85	29	25	22	46
S08B	9	0	0	0	6
S09A	2	2	2	3	2
S09B	3	4	4	5	3
S09C	9	12	12	7	10
S09D	1	1	1	1	1
S09X	7	5	8	7	5
S11	2	2	2	2	2
S12	11	10	20	13	15

S14	1	1	1	1	1
S15	3	0	0	0	7
S16	4	2	2	2	3
S24	2	2	2	2	2
S26A	1	2	2	2	3
S28	0	0	1	0	0
S33	30	32	30	31	28
S41A	5	3	4	3	8
S45	3	4	1	2	1
S46	4	4	3	3	4
S49	3	0	0	0	2
S49A	0	1	1	1	0
S49B	0	2	1	1	0
S51	1	1	2	2	1
S53	1	0	1	0	0
S54	3	4	4	4	3
S73	0	1	0	1	0
<i>Threonine Peptidases</i>					
T01B	1	1	1	1	1
T02	3	2	2	2	3
T03	2	2	2	2	2
<i>Peptidases of Unknown Catalytic Type</i>					
U48	1	0	0	0	2
U62	5	6	5	5	5
U68	1	0	0	0	2
U69	1	7	0	2	0
U73	0	4	4	4	0

L. ant: *Lysobacter antibioticus*; L. cap: *L. capsici*; L. gum: *L. gummosus*; L. enz: *L. enzymogenes*.

			LA29479_1174	68.5	LA76x_2473	68.5	LC55x_2891	69.4	LG3211_2609	67.2	LEC3_3854	65.2
			LA29479_4489	67.4	LA76x_3411	68.3	LC55x_4002	68.8	LG3211_3829	62.7	LEC3_2743	63.8
			LA29479_2359	67.0	LA76x_4670	67.4	LC55x_4025	68.6	LG3211_3868	60.4	LEC3_3852	63.7
			LA29479_3277	67.0	LA76x_3326	67.0	LC55x_4023	67.3				
			LA29479_2446	65.9	LA76x_203	66.1	LC55x_4021	66.4				
			LA29479_3568	65.6	LA76x_3976	65.6	LC55x_2732	66.3				
			LA29479_3602	64.4	LA76x_4010	64.4	LC55x_4015	61.6				
			LA29479_3577	61.2	LA76x_4670	62.4	LC55x_4066	61.4				
			LA29479_4489	61.2	LA76x_3985	61.2						
					LA76x_516	60.5						
Lysyl peptidase 4	KF738081	S01D	LA29479_3277	75.3	LA76x_203	75.3	LC55x_5147	93.4	LG3211_5119	99.5	LEC3_0165	87.0
Serine peptidase 1, family S8	KF738082	S08A	LA29479_5054	74.7	LA76x_4821	74.8	LC55x_211	81.9	LG3211_196	99.8	LEC3_5135	72.3
Serine peptidase 2, family S8	KF738083	S08A	LA29479_4	77.5	LA76x_3180	77.4	LC55x_3192	85.1	LG3211_2038	99.7	LEC3_1973	81.9
<i>Metallopeptidases</i>												
Hemagglutinin/ proteinase	KF738078	M04	LA29479_3568	91.8	LA76x_3976	91.8	LC55x_2891	91.5	LG3211_2741	100.0	LEC3_2743	86.7
			LA29479_1174	89.7	LA76x_2473	90.0	LC55x_4002	82.7	LG3211_3813	87.3	LEC3_3837	74.6
			LA29479_413	81.8	LA76x_5040	80.9	LC55x_4031	81.7	LG3211_4445	83.4	LEC3_3841	71.8
			LA29479_3570	75.5	LA76x_3980	76.4	LC55x_2887	76.4	LG3211_2739	75.9	LEC3_2741	71.3
			LA29479_3572	75.5	LA76x_2475	75.5	LC55x_2889	76.1	LG3211_3832	75.9	LEC3_3839	70.0
			LA29479_3575	75.5	LA76x_3978	75.5	LC55x_4007	74.6	LG3211_3815	72.7	LEC3_3845	66.1
			LA29479_1171	75.1	LA76x_3983	75.5	LC55x_4030	70.5	LG3211_3821	71.4	LEC3_3854	66.1
			LA29479_3571	74.6	LA76x_3979	74.6	LC55x_4003	69.1	LG3211_3817	69.1	LEC3_3852	65.2
			LA29479_3577	74.1	LA76x_3985	74.1	LC55x_4005	69.1	LG3211_4445	69.1	LEC3_3843	63.4
			LA29479_3573	69.6	LA76x_3981	69.6	LC55x_4008	69.1	LG3211_3819	68.2	LEC3_3850	60.7
			LA29479_2359	64.0	LA76x_3326	64.0	LC55x_4015	68.8	LG3211_3829	68.2		
			LA29479_4409	63.1	LA76x_507	63.1	LC55x_4009	67.9				
			LA29479_3277	61.3	LA76x_203	60.4	LC55x_4021	64.3				
							LC55x_4023	63.4				
							LC55x_4025	63.4				
							LC55x_4028	60.7				
β-lytic-metallo-endopeptidase	KF738072	M23A	LA29479_74	74.2	LA76x_3114	74.2	LC55x_945	82.5	LG3211_883	99.2	LEC3_0833	81.2
Metallopeptidase, family M72	KF738080	M72	LA29479_4589	87.0	LA76x_1409	86.7	LC55x_1143	89.4	LG3211_1059	99.8	LEC3_1028	79.7

Note: cut-off E-value for BLASTp analysis was set at 10^{-5} . L. ant: *Lysobacter antibioticus*; L. cap: *L. capsici*; L. gum: *L. gummosus*; L. enz: *L. enzymogenes*.

Table S11. Overview of the antimicrobial compounds produced by *Lysobacter*.

Species	Compound	Activity	Gene	References
<i>L. antibioticus</i>	1-hydroxy-6-methoxyphenazine	antioomycete		[1]
	1-Hydroxy-6-methoxyphenazine 5,10-dioxide (myxin)			[2]
	4-hydroxyphenylacetic acid	antioomycete		[3]
<i>L. capsici</i>	cyclo(L-Pro-L-Tyr	antioomycete		[4]
<i>L. enzymogenes</i>	dihydromaltophilin (HSAF)	antifungal/antioomycete	PKS/NRPS	[5,6,7]
	biosurfactant	antifungal/antioomycete		[8]
	cyclic lipodepsipeptide (WAP-8294A2)	antibacterial	WAPS1,2; NRPS	[9]
<i>L. gummosus</i>	2,4-diacetylphloroglucinol	antifungal		[10]
<i>L. lactamgenus</i>	cephabacin	unknown	<i>pcnABC</i> ; PKS/NRPS	[11,12]
<i>Lysobacter</i> sp.	tripropeptin C (cyclic lipodepsipeptide)	antibacterial		[13,14]
	lysobactin (macrocyclic depsipeptide)	antibacterial	<i>lybAB</i> ; NRPS	[15]
	xanthobaccin A, B & C	antibacterial		[16,17]
	endopeptidase L1,4,5	antibacterial - lysis	<i>alpAB</i>	[18,19,20]
	N-acetylmuramoyl-L-alanine amidase	antibacterial - lysis		[18,19,20]
	muramidase	antibacterial - lysis		[18,19,20]
<i>Lysobacter</i> spp.	β -1,3-glucanases	antifungal	<i>gluABC</i>	[21]
	chitinases	antifungal	<i>chiA</i>	[2,2,22]

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Table S12. Overview of reference protein sequences used for blastp analysis in the *Lysobacter* genomes. '+' indicates a hit in the genome sequence with cut-off E value of e-05 and >60 % identity (>70% for NRPS). Not detected is indicated with '-'.

Compound	Derivative/alternate name	Protein name	<i>L. ant</i> ATCC29479	<i>L. ant</i> 76	<i>L. cap</i> 55	<i>L. gum</i> 3.2.11	<i>L. enz</i> C3	Reference sequence obtained from:	Accession number	Reference	
<i>Exoenzymes</i> chitinase		ChiA	+	+	+	+	+	<i>Lysobacter enzymogenes</i> OH11	DQ888611	Qian et al, 2012	
		ChiA	-	-	-	-	-	<i>Serratia marcescens</i> 2170	AB015996	Watanabe et al, 1997	
		ChiB	-	-	-	-	-	<i>Serratia marcescens</i> 2170	BAA31568	Watanabe et al, 1997	
		ChiC	-	-	-	-	-	<i>Serratia marcescens</i> 2170	-	Watanabe et al, 1997	
		ChiA	+	+	+	+	+	<i>Stenotrophomonas maltophilia</i> 34S1	AAB70917	Kobayashi et al, 2002	
		ChiA	-	-	-	-	-	<i>Bacillus circulans</i> WL-12	AAA81528	Watanabe et al, 1990	
		ChiC	-	-	-	-	-	<i>Bacillus circulans</i> WL-12	BAA13974	Watanabe et al, 1990	
		ChiD	-	-	-	-	-	<i>Bacillus circulans</i> WL-12	BAA34114	Watanabe et al, 1990	
	endopeptidase		AlpA	+	+	+	+	+	<i>Lysobacter</i> spp. XL1	ACZ72924	Lapteva et al, 2012
			AlpB	+	+	+	-	-	<i>Lysobacter</i> spp. XL1	ACZ72925	Lapteva et al, 2012
		GH16	+	+	+	+	-	<i>Lysobacter gummosus</i> UASM 402	AHE78434	Goekcen et al, 2014	
		M04_1	+	+	+	+	+	<i>Lysobacter gummosus</i> UASM 402	AHE78433	Goekcen et al, 2014	
		M23A	+	+	+	+	+	<i>Lysobacter gummosus</i> UASM 402	AHE78427	Goekcen et al, 2014	
		M72	+	+	+	+	+	<i>Lysobacter gummosus</i> UASM 402	AHE78435	Goekcen et al, 2014	
		OmpA-like_1	+	+	+	+	+	<i>Lysobacter gummosus</i> UASM 402	AHE78431	Goekcen et al, 2014	
		OmpA-like_2	+	+	+	+	+	<i>Lysobacter gummosus</i> UASM 402	AHE78432	Goekcen et al, 2014	
		S01D_1	+	+	+	+	+	<i>Lysobacter gummosus</i> UASM 402	AHE78428	Goekcen et al, 2014	
		S01D_2	+	+	+	+	+	<i>Lysobacter gummosus</i> UASM 402	AHE78429	Goekcen et al, 2014	
		S01D_3	+	+	+	+	+	<i>Lysobacter gummosus</i> UASM 402	AHE78430	Goekcen et al, 2014	
		S01D_4	+	+	+	+	+	<i>Lysobacter gummosus</i> UASM 402	AHE78436	Goekcen et al, 2014	
		S01E_1	+	+	+	+	+	<i>Lysobacter gummosus</i> UASM 402	AHE78422	Goekcen et al, 2014	
		S01E_2	-	-	+	+	+	<i>Lysobacter gummosus</i> UASM 402	AHE78423	Goekcen et al, 2014	
		S01E_3	+	+	+	+	+	<i>Lysobacter gummosus</i> UASM 402	AHE78424	Goekcen et al, 2014	
		S01E_4	+	+	+	+	+	<i>Lysobacter gummosus</i> UASM 402	AHE78425	Goekcen et al, 2014	
		S01E_5	+	+	-	-	-	<i>Lysobacter gummosus</i> UASM 402	AHE78426	Goekcen et al, 2014	
		S08A_1	+	+	+	+	+	<i>Lysobacter gummosus</i> UASM 402	AHE78437	Goekcen et al, 2014	
		S08A_2	+	+	+	+	+	<i>Lysobacter gummosus</i> UASM 402	AHE78438	Goekcen et al, 2014	
exoprotease			AprA	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_3210)	Paulsen et al, 2005; Loper et al, 2012
glucanase			GluA	-	-	+	+	+	<i>Lysobacter enzymogenes</i> C3	AAN77503	Palumbo et al, 2003
			GluB	+	+	+	+	+	<i>Lysobacter enzymogenes</i> C3	AAN77504	Palumbo et al, 2003
		GluC	-	-	+	+	+	<i>Lysobacter enzymogenes</i> C3	AAN77505	Palumbo et al, 2003	
		PFLU3229	-	-	-	-	-	<i>Pseudomonas fluorescens</i> SBW25	NC_012660 (PFLU3229)	Silby et al, 2009	
<i>Antibiotics</i>											
cephabacin	cephalosporin	PcnAB	-	-	-	-	-	<i>Lysobacter lactamgenus</i> YK90	BAA08846	Kimura et al 1996	
		PcnC	-	-	-	-	-	<i>Lysobacter lactamgenus</i> YK90	Q48739	Kimura et al 1996	
		CpbI	-	-	-	-	-	<i>Lysobacter lactamgenus</i> IFO14288	ABB80392	Demirev et al 2006	
		CpbK	-	-	-	-	-	<i>Lysobacter lactamgenus</i> IFO14288	ABB80393	Demirev et al 2006	
DAPG		PhIA	-	-	-	-	-	<i>Pseudomonas fluorescens</i> Q2-87	AAB48109	Bangera and Thomashow 1999	
		PhIB	-	-	-	-	-	<i>Pseudomonas fluorescens</i> Q2-87	AAB48107	Bangera and Thomashow 1999	
		PhIC	-	-	-	-	-	<i>Pseudomonas fluorescens</i> Q2-87	AAB48108	Bangera and Thomashow 1999	
		PhID	-	-	-	-	-	<i>Pseudomonas fluorescens</i> Q2-87	AAB48106	Bangera and Thomashow 1999	
		PhIE	-	-	-	-	-	<i>Pseudomonas fluorescens</i> Q2-87	AAB48105	Bangera and Thomashow 1999	
		PhIF	-	-	-	-	-	<i>Pseudomonas fluorescens</i> Q2-87	AAB48110	Bangera and Thomashow 1999	
		PhIF	-	-	-	-	-	<i>Pseudomonas fluorescens</i> Q2-87	AAB48110	Bangera and Thomashow 1999	
HCN	hydrogen cyanide	HcnA	-	-	-	-	-	<i>Pseudomonas protegens</i> CHAO	CP000076 (PFL_2577)	Gross and Loper 2009; Paulsen et al, 2005; Loper et al, 2012	
		HcnB	-	-	-	-	-	<i>Pseudomonas protegens</i> CHAO	CP000076 (PFL_2578)	Gross and Loper 2009; Paulsen et al, 2005; Loper et al, 2012	
		HcnC	-	-	-	-	-	<i>Pseudomonas protegens</i> CHAO	CP000076 (PFL_2579)	Gross and Loper 2009; Paulsen et al, 2005; Loper et al, 2012	
HRP	dialkylresorsinol	DarA	-	-	-	-	-	<i>Pseudomonas chlororaphis</i> subsp. <i>aureofaciens</i> 30-84	EJL05820	Loper et al, 2012	
		DarB	-	-	-	-	-	<i>Pseudomonas chlororaphis</i> subsp. <i>aureofaciens</i> 30-84	EJL05977	Loper et al, 2012	
		DarC	-	-	-	-	-	<i>Pseudomonas chlororaphis</i> subsp. <i>aureofaciens</i> 30-84	EJL06701	Loper et al, 2012	
		DarR	-	-	-	-	-	<i>Pseudomonas chlororaphis</i> subsp. <i>aureofaciens</i> 30-84	EJL07355	Loper et al, 2012	
		DarS	-	-	-	-	-	<i>Pseudomonas chlororaphis</i> subsp. <i>aureofaciens</i> 30-84	EJL07090	Loper et al, 2012	
Phenazine		PhzA1	+	+	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA4210)	Winsor et al, 2009	
		PhzB1	+	+	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA4211)	Winsor et al, 2009	
		PhzC1	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA4212)	Winsor et al, 2009	
		PhzD1	+	+	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA4213)	Winsor et al, 2009	
		PhzE1	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA4214)	Winsor et al, 2009	
		PhzF1	+	+	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA4215)	Winsor et al, 2009	
		PhzG1	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA4216)	Winsor et al, 2009	
		PhzH	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA0051)	Winsor et al, 2009	
		PhzM	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA4209)	Winsor et al, 2009	
		PhzS	+	+	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA4217)	Winsor et al, 2009	
		MexG	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA4205)	Winsor et al, 2009	
		MexH	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA4206)	Winsor et al, 2009	
		MexI	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA4207)	Winsor et al, 2009	
		OmpD	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA4208)	Winsor et al, 2009	
		PhzA2	+	+	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA1899)	Winsor et al, 2009	
		PhzB2	+	+	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA1900)	Winsor et al, 2009	
		PhzC2	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA1901)	Winsor et al, 2009	
		PhzD2	+	+	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA1902)	Winsor et al, 2009	
		PhzE2	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA1903)	Winsor et al, 2009	
		PhzF2	+	+	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA1904)	Winsor et al, 2009	

pyoluteorin		PhzG2	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA1905)	Winsor et al, 2009	
		PIIA	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2787)	Gross and Loper 2009; Paulsen et al, 2005	
		PIIB	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2788)	Gross and Loper 2009; Paulsen et al, 2005	
		PIIC	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2789)	Gross and Loper 2009; Paulsen et al, 2005	
		PIID	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2790)	Gross and Loper 2009; Paulsen et al, 2005	
		PIIE	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2791)	Gross and Loper 2009; Paulsen et al, 2005	
		PIIF	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2792)	Gross and Loper 2009; Paulsen et al, 2005	
		PIIG	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2793)	Gross and Loper 2009; Paulsen et al, 2005	
		PIIM	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2784)	Gross and Loper 2009; Paulsen et al, 2005	
		PIIR	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2785)	Gross and Loper 2009; Paulsen et al, 2005	
	pyrrrolnitrin		PrrnA	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_3604)	Gross and Loper 2009; Paulsen et al, 2005
			PrrnB	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_3605)	Gross and Loper 2009; Paulsen et al, 2005
		PrrnC	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_3606)	Gross and Loper 2009; Paulsen et al, 2005	
rhizoxin		PrrnD	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_3607)	Gross and Loper 2009; Paulsen et al, 2005	
		RzxB	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2989)	Loper et al, 2008; Loper et al, 2012	
		RzxC	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2990)	Loper et al, 2008; Loper et al, 2012	
		RzxD	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2991)	Loper et al, 2008; Loper et al, 2012	
		RzxH	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2992)	Loper et al, 2008; Loper et al, 2012	
		RzxE	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2993)	Loper et al, 2008; Loper et al, 2012	
		RzxF	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2994)	Loper et al, 2008; Loper et al, 2012	
		RzxI	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2995)	Loper et al, 2008; Loper et al, 2012	
cyclo(L-Pro-L-Tyr)	2,5-diketopiperazine	RzxG	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2996)	Loper et al, 2008; Loper et al, 2012	
		RzxA	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2997)	Loper et al, 2008; Loper et al, 2012	
		AZ78_PKS1	-	-	+	+	+	<i>Lysobacter capsici</i> AZ78	AHG93908	Puopolo et al, 2014	
<u>NRPS/PKS clusters</u>											
HSAF	dihydromaltophilin	HSAF - NRPS	-	-	+	+	+	<i>Lysobacter enzymogenes</i> C3	ABL86391	Lou et al, 2011	
		LybA	-	-	-	+	-	<i>Lysobacter</i> sp. ATCC 53042	AEH59099	Hou et al, 2011	
		LybB	-	-	-	+	-	<i>Lysobacter</i> sp. ATCC 53042	AEH59100	Hou et al, 2011	
WAPS	WAP8294A2	WAPS1	-	-	+	-	+	<i>Lysobacter enzymogenes</i> OH11	AEP18656	Zhang et al 2011	
		WAPS2	-	-	+	-	+	<i>Lysobacter enzymogenes</i> OH11	AEP18655	Zhang et al 2011	
tripeptin	cyclic depsipeptide	TrpA	-	-	-	-	-	<i>Collimonas fungivorans</i> Ter331	NIOO		
		TrpB	-	-	-	-	-	<i>Collimonas fungivorans</i> Ter331	YP_004752836	Mela et al, 2011	
		TrpC	-	-	-	-	-	<i>Collimonas fungivorans</i> Ter331	YP_004752837	Mela et al, 2011	
arthrofactin	cyclic lipopeptide	ArfA	-	-	-	-	-	<i>Pseudomonas</i> spp. MIS38	BAC67534	Roongsawang et al, 2003	
		ArfB	-	-	-	-	-	<i>Pseudomonas</i> spp. MIS38	BAC67535	Roongsawang et al, 2003	
		ArfC	-	-	-	-	-	<i>Pseudomonas</i> spp. MIS38	BAC67536	Roongsawang et al, 2003	
brabantamide collimomycin	dipeptide		-	-	-	-	-	<i>Pseudomonas chlororaphis</i> CH-C52		Gross?	
		cfu_1083	-	-	-	-	-	<i>Collimonas fungivorans</i> Ter331	NIOO		
		cfu_1084	-	-	-	-	-	<i>Collimonas fungivorans</i> Ter331	NIOO		
		cfu_1085	-	-	-	-	-	<i>Collimonas fungivorans</i> Ter331	NIOO		
gramicidin	cyclic peptide	LgrA	-	-	-	-	-	<i>Bacillus brevis</i> ATCC 8185	CAD92849	Kessler et al, 2004	
		LgrB	-	-	-	-	-	<i>Bacillus brevis</i> ATCC 8185	CAD92850	Kessler et al, 2004	
		LgrC	-	-	-	-	-	<i>Bacillus brevis</i> ATCC 8185	CAD92851	Kessler et al, 2004	
		LgrD	-	-	-	-	-	<i>Bacillus brevis</i> ATCC 8185	CAD92852	Kessler et al, 2004	
entolysin	cyclic lipopeptide	EtlA	-	-	-	-	-	<i>Pseudomonas enthomophila</i> L48	NC_008027 (PSEEN3332)	Vodovar et al, 2006; Vallet-Gely et al, 2010	
		EtlB	-	-	-	-	-	<i>Pseudomonas enthomophila</i> L48	NC_008027 (PSEEN3045)	Vodovar et al, 2006; Vallet-Gely et al, 2010	
		EtlC	-	-	-	-	-	<i>Pseudomonas enthomophila</i> L48	NC_008027 (PSEEN3044)	Vodovar et al, 2006; Vallet-Gely et al, 2010	
massetolide	cyclic lipopeptide	MassA	-	-	-	-	-	<i>Pseudomonas fluorescens</i> SS101	ABH06367	De Bruijn et al, 2007; Loper et al, 2012	
		MassB	-	-	-	-	-	<i>Pseudomonas fluorescens</i> SS101	ABH06368	De Bruijn et al, 2007; Loper et al, 2012	
		MassC	-	-	-	-	-	<i>Pseudomonas fluorescens</i> SS101	ABH06369	De Bruijn et al, 2007; Loper et al, 2012	
orfamide	cyclic lipopeptide	OfaA	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2145)	Paulsen et al, 2005; Gross et al, 2007	
		OfaB	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2146)	Paulsen et al, 2005; Gross et al, 2007	
		OfaC	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2147)	Paulsen et al, 2005; Gross et al, 2007	
putisolvin	cyclic lipopeptide	PsoA	-	-	-	-	-	<i>Pseudomonas putida</i> PCL1445	DQ151887	Dubern et al, 2008	
		PsoB	-	-	-	-	-	<i>Pseudomonas putida</i> PCL1445	DQ151887	Dubern et al, 2008	
		PsoC	-	-	-	-	-	<i>Pseudomonas putida</i> PCL1445	DQ151887	Dubern et al, 2008	
syringopeptin	cyclic lipopeptide	SypA	-	-	-	-	-	<i>Pseudomonas syringae</i> pv <i>syringae</i> B301D	AAF99707	Scholz-Schreuder et al, 2001	
		SypB	-	-	-	-	-	<i>Pseudomonas syringae</i> pv <i>syringae</i> B301D	AAO72424	Scholz-Schreuder et al, 2001	
		SypC	-	-	-	-	-	<i>Pseudomonas syringae</i> pv <i>syringae</i> B301D	AAO72425	Scholz-Schreuder et al, 2001	
syringomycin	cyclic lipopeptide	SyrE	-	-	-	-	-	<i>Pseudomonas syringae</i> pv <i>syringae</i> B301D	AF047828	Guenzi et al, 1998	
		SyrB1	-	-	-	-	-	<i>Pseudomonas syringae</i> pv <i>syringae</i> B301D	AAA85160	Guenzi et al, 1998	
syringafactin	cyclic lipopeptide	SyIA	-	-	-	-	-	<i>Pseudomonas syringae</i> pv <i>tomato</i> DC3000	NC_004578 (PSPTO_2829)	Buell et al, 2003; Berti et al, 2007	
		SyIB	-	-	-	-	-	<i>Pseudomonas syringae</i> pv <i>tomato</i> DC3000	NC_004578 (PSPTO_2830)	Buell et al, 2003; Berti et al, 2007	
thanamycin/cormycin	cyclic lipopeptide	ThaA	-	-	-	-	-	<i>Pseudomonas chlororaphis</i> CH-C52		Mendes et al, 2011; Watrous et al, 2012	
		ThaB	-	-	-	-	-	<i>Pseudomonas chlororaphis</i> CH-C52		Mendes et al, 2011; Watrous et al, 2012	
thanapeptin/corpeptin	cyclic lipopeptide	Peptin1	-	-	-	-	-	<i>Pseudomonas chlororaphis</i> CH-C52		?	
		Peptin2	-	-	-	-	-	<i>Pseudomonas chlororaphis</i> CH-C52		?	
		Peptin3	-	-	-	-	-	<i>Pseudomonas chlororaphis</i> CH-C52		?	
viscosin	cyclic lipopeptide	ViscA	-	-	-	-	-	<i>Pseudomonas fluorescens</i> SBW25	NC_012660 (PFLU4007)	Silby et al, 2009; De Bruijn et al, 2007	
		ViscB	-	-	-	-	-	<i>Pseudomonas fluorescens</i> SBW25	NC_012660 (PFLU2552)	Silby et al, 2009; De Bruijn et al, 2007	
		ViscC	-	-	-	-	-	<i>Pseudomonas fluorescens</i> SBW25	NC_012660 (PFLU2553)	Silby et al, 2009; De Bruijn et al, 2007	
unknown	(cyclic) lipopeptide	PfI01_2211	-	-	-	-	-	<i>Pseudomonas fluorescens</i> Pf0-1	NC_007492 (PfI01_2211)	Silby et al, 2009; De Bruijn et al, 2007	
		PfI01_2212	-	-	-	-	-	<i>Pseudomonas fluorescens</i> Pf0-1	NC_007492 (PfI01_2212)	Silby et al, 2009; De Bruijn et al, 2007	
		PfI01_2213	-	-	-	-	-	<i>Pseudomonas fluorescens</i> Pf0-1	NC_007492 (PfI01_2213)	Silby et al, 2009; De Bruijn et al, 2007	
			-	-	-	-	-				

<i>Siderophores</i> achromobactin	AcsA	-	-	-	-	-	<i>Pseudomonas syringae</i> pv <i>syringae</i> B7281			Berti et al, 2009
	AcsA	-	-	-	-	-	<i>Erwinia chrysanthemi</i> 3937	AF416739		Franza et al, 2005
	AcsB	-	-	-	-	-	<i>Erwinia chrysanthemi</i> 3937	AF416739		Franza et al, 2005
	AcsC	-	-	-	-	-	<i>Erwinia chrysanthemi</i> 3937	AF416739		Franza et al, 2005
	AcsD	-	-	-	-	-	<i>Erwinia chrysanthemi</i> 3937	AF416739		Franza et al, 2005
aerobactin	lucA	-	-	-	-	-	<i>Yersinia pseudotuberculosis</i> IP 31758	YP_001399703		Eppinger et al, 2007
	lucB	-	-	-	-	-	<i>Yersinia pseudotuberculosis</i> IP 31758	YP_001399702		Eppinger et al, 2007
	lucC	-	-	-	-	-	<i>Yersinia pseudotuberculosis</i> IP 31758	YP_001399701		Eppinger et al, 2007
	lucD	-	-	-	-	-	<i>Yersinia pseudotuberculosis</i> IP 31758	YP_001399700		Eppinger et al, 2007
enterobactin	EntA	-	-	-	-	-	<i>Escherichia coli</i> O104:H4 str. C227-11	AFST01000002.2		Rasko et al, 2011
	EntB	-	-	-	-	-	<i>Escherichia coli</i> O104:H4 str. C227-11	AFST01000002.2		Rasko et al, 2011
	EntC	-	-	-	-	-	<i>Escherichia coli</i> O104:H4 str. C227-11	AFST01000002.2		Rasko et al, 2011
	EntD	-	-	-	-	-	<i>Escherichia coli</i> O104:H4 str. C227-11	AFST01000002.2		Rasko et al, 2011
	EntE	-	-	-	-	-	<i>Escherichia coli</i> O104:H4 str. C227-11	AFST01000002.2		Rasko et al, 2011
	EntF	-	-	-	-	-	<i>Escherichia coli</i> O104:H4 str. C227-11	AFST01000002.2		Rasko et al, 2011
ornibactin	OrbS	-	-	-	-	-	<i>Burkholderia cenocepacia</i> strain 715j	DQ279459		Agnoli et al, 2006
	OrbB	-	-	-	-	-	<i>Burkholderia cenocepacia</i> strain 715j	DQ279460		Agnoli et al, 2006
	OrbE	-	-	-	-	-	<i>Burkholderia cenocepacia</i> strain 715j	DQ279460		Agnoli et al, 2006
	OrbI	-	-	-	-	-	<i>Burkholderia cenocepacia</i> strain 715j	DQ279460		Agnoli et al, 2006
	OrbS	-	-	-	-	-	<i>Burkholderia cenocepacia</i> J2315	AM747720 (BCAL1688)		Holden et al, 2009
	OrbH	-	-	-	-	-	<i>Burkholderia cenocepacia</i> J2315	AM747720 (BCAL1689)		Holden et al, 2009
	OrbG	-	-	-	-	-	<i>Burkholderia cenocepacia</i> J2315	AM747720 (BCAL1690)		Holden et al, 2009
	OrbC	-	-	-	-	-	<i>Burkholderia cenocepacia</i> J2315	AM747720 (BCAL1691)		Holden et al, 2009
	OrbD	-	-	-	-	-	<i>Burkholderia cenocepacia</i> J2315	AM747720 (BCAL1692)		Holden et al, 2009
	OrbF2	-	-	-	-	-	<i>Burkholderia cenocepacia</i> J2315	AM747720 (BCAL1693)		Holden et al, 2009
	OrbB	-	-	-	-	-	<i>Burkholderia cenocepacia</i> J2315	AM747720 (BCAL1694)		Holden et al, 2009
	OrbE	-	-	-	-	-	<i>Burkholderia cenocepacia</i> J2315	AM747720 (BCAL1695)		Holden et al, 2009
	OrbI	-	-	-	-	-	<i>Burkholderia cenocepacia</i> J2315	AM747720 (BCAL1696)		Holden et al, 2009
	OrbJ	-	-	-	-	-	<i>Burkholderia cenocepacia</i> J2315	AM747720 (BCAL1697)		Holden et al, 2009
	OrbK	-	-	-	-	-	<i>Burkholderia cenocepacia</i> J2315	AM747720 (BCAL1698)		Holden et al, 2009
	PvdA	-	-	-	-	-	<i>Burkholderia cenocepacia</i> J2315	AM747720 (BCAL1699)		Holden et al, 2009
	OrbA	-	-	-	-	-	<i>Burkholderia cenocepacia</i> J2315	AM747720 (BCAL1700)		Holden et al, 2009
	OrbF	-	-	-	-	-	<i>Burkholderia cenocepacia</i> J2315	AM747720 (BCAL1701)		Holden et al, 2009
	OrbL	-	-	-	-	-	<i>Burkholderia cenocepacia</i> J2315	AM747720 (BCAL1702)		Holden et al, 2009
pseudomonin	PmsC	-	-	-	-	-	<i>Pseudomonas fluorescens</i> WCS374	CAA70528		Mercado-Blanco et al, 2001
	PmsE	-	-	-	-	-	<i>Pseudomonas fluorescens</i> WCS374	CAA70529		Mercado-Blanco et al, 2001
	PmsA	-	-	-	-	-	<i>Pseudomonas fluorescens</i> WCS374	CAA70530		Mercado-Blanco et al, 2001
	PmsB	-	-	-	-	-	<i>Pseudomonas fluorescens</i> WCS374	CAA70531		Mercado-Blanco et al, 2001
	PmsG/BasB	-	-	-	-	-	<i>Pseudomonas enthomophila</i> L48	NC_008027 (PSEEN2500)		Vodovar et al, 2006; Gross and Loper 2009; Loper et al, 2012
	PmsF/BasC	-	-	-	-	-	<i>Pseudomonas enthomophila</i> L48	NC_008027 (PSEEN2502)		Vodovar et al, 2006; Gross and Loper 2009; Loper et al, 2012
	PmsD/BasA/D	-	-	-	-	-	<i>Pseudomonas enthomophila</i> L48	NC_008027 (PSEEN2503)		Vodovar et al, 2006; Gross and Loper 2009; Loper et al, 2012
	PmsC	-	-	-	-	-	<i>Pseudomonas enthomophila</i> L48	NC_008027 (PSEEN2504)		Vodovar et al, 2006; Gross and Loper 2009; Loper et al, 2012
	PmsE	-	-	-	-	-	<i>Pseudomonas enthomophila</i> L48	NC_008027 (PSEEN2505)		Vodovar et al, 2006; Gross and Loper 2009; Loper et al, 2012
	PmsA	-	-	-	-	-	<i>Pseudomonas enthomophila</i> L48	NC_008027 (PSEEN2506)		Vodovar et al, 2006; Gross and Loper 2009; Loper et al, 2012
pyochelin	PmsB	-	-	-	-	-	<i>Pseudomonas enthomophila</i> L48	NC_008027 (PSEEN2507)		Vodovar et al, 2006; Gross and Loper 2009; Loper et al, 2012
	PchF	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA4225)		Winsor et al, 2009; Loper et al, 2012
	PchG	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA4224)		Winsor et al, 2009; Loper et al, 2012
	PchE	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA4226)		Winsor et al, 2009; Loper et al, 2012
	PchR	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA4227)		Winsor et al, 2009; Loper et al, 2012
	PchD	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA4228)		Winsor et al, 2009; Loper et al, 2012
	PchC	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA4229)		Winsor et al, 2009; Loper et al, 2012
	PchB	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA4230)		Winsor et al, 2009; Loper et al, 2012
	PchA	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA4231)		Winsor et al, 2009; Loper et al, 2012
	PvdQ	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2385)		Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
pyoverdine	PvdA	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2386)		Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
	FpvI	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2387)		Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
	FpvR	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2388)		Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
	PvdR	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2389)		Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
	PvdT	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2390)		Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
	PA2391	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2391)		Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
	PvdP	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2392)		Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
	PvdM	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2393)		Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
	PvdN	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2394)		Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
	PvdO	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2395)		Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
	PvdF	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2396)		Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
	PvdE	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2397)		Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
	PA2398	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2398)		Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
	PvdD	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2399)		Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
	PvdJ	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2400)		Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
	PA2402	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2402)		Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
	PA2403	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2403)		Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
	PA2404	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2404)		Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
	PA2405	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2405)		Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
	PA2406	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2406)		Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
	PA2407	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2407)		Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012

rhizobactin		PA2408	-	-	+	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2408)	Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
		PA2409	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2409)	Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
		PA2410	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2410)	Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
		PA2411	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2411)	Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
		PA2412	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2412)	Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
		PvdH	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2413)	Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
		PvdL	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2424)	Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
		PvdG	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2425)	Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
		PvdS	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2426)	Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
		PA2427	-	-	-	-	-	<i>Pseudomonas aeruginosa</i> PA01	NC_002516 (PA2427)	Winsor et al, 2009; Gross and Loper 2009; Loper et al, 2012
		RhbA	-	-	-	-	-	<i>Sinorhizobium meliloti</i> strain 2011	AF110737	Lynch et al, 2001
		RhbB	-	-	-	-	-	<i>Sinorhizobium meliloti</i> strain 2011	AF110737	Lynch et al, 2001
		RhbC	-	-	-	-	-	<i>Sinorhizobium meliloti</i> strain 2011	AF110737	Lynch et al, 2001
		RhbD	-	-	-	-	-	<i>Sinorhizobium meliloti</i> strain 2011	AF110737	Lynch et al, 2001
		RhbE	-	-	-	-	-	<i>Sinorhizobium meliloti</i> strain 2011	AF110737	Lynch et al, 2001
		RhbF	-	-	-	-	-	<i>Sinorhizobium meliloti</i> strain 2011	AF110737	Lynch et al, 2001
		RhRA	-	-	-	-	-	<i>Sinorhizobium meliloti</i> strain 2011	AF110737	Lynch et al, 2001
		RhtA	-	-	-	-	-	<i>Sinorhizobium meliloti</i> strain 2011	AF110737	Lynch et al, 2001
staphyloferrin		SbnA	-	-	-	-	-	<i>Staphylococcus aureus</i>	AY251022	Dale et al, 2004
		SbnB	-	-	-	-	-	<i>Staphylococcus aureus</i>	AY251022	Dale et al, 2004
		SbnC	-	-	-	-	-	<i>Staphylococcus aureus</i>	AY251022	Dale et al, 2004
		SbnD	-	-	-	-	-	<i>Staphylococcus aureus</i>	AY251022	Dale et al, 2004
		SbnE	-	-	-	-	-	<i>Staphylococcus aureus</i>	AY251022	Dale et al, 2004
		SbnF	-	-	-	-	-	<i>Staphylococcus aureus</i>	AY251022	Dale et al, 2004
		SbnG	-	-	-	-	-	<i>Staphylococcus aureus</i>	AY251022	Dale et al, 2004
		SbnH	-	-	-	-	-	<i>Staphylococcus aureus</i>	AY251022	Dale et al, 2004
vibroferrin		SbnI	-	-	-	-	-	<i>Staphylococcus aureus</i>	AY251022	Dale et al, 2004
		PvsA	-	-	-	+	-	<i>Xanthomonas campestris</i> pv. <i>raphani</i> T56C	AEL08250	Bogdanova et al, 2011
		PvsB	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>raphani</i> T56C	AEL08251	Bogdanova et al, 2011
		PvsA	-	-	-	-	-	<i>Vibrio parahaemolyticus</i> WP1	BAC16544	Tanabe et al, 2003
		PvsB	-	-	-	-	-	<i>Vibrio parahaemolyticus</i> WP1	BAC16545	Tanabe et al, 2003
		PvsC	-	-	-	-	-	<i>Vibrio parahaemolyticus</i> WP1	BAC16546	Tanabe et al, 2003
		PvsD	-	-	-	-	-	<i>Vibrio parahaemolyticus</i> WP1	BAC16547	Tanabe et al, 2003
		PvsE	-	-	-	-	-	<i>Vibrio parahaemolyticus</i> WP1	BAC16548	Tanabe et al, 2003
Xss		MphE	+	+	+	+	+	<i>Xanthomonas oryzae</i> pv. <i>oryzae</i> KACC10331	NC_006834 (XOO1360)	Lee et al, 2005
		XsuA	-	-	-	-	-	<i>Xanthomonas oryzae</i> pv. <i>oryzae</i> KACC10331	NC_006834 (XOO1369)	Lee et al, 2005
		XssA	-	-	-	-	-	<i>Xanthomonas oryzae</i> pv. <i>oryzae</i> KACC10331	NC_006834 (XOO1358)	Lee et al, 2005
		XssB	-	-	-	-	-	<i>Xanthomonas oryzae</i> pv. <i>oryzae</i> KACC10331	NC_006834 (XOO1357)	Lee et al, 2005
		XssC	-	-	-	-	-	<i>Xanthomonas oryzae</i> pv. <i>oryzae</i> KACC10331	NC_006834 (XOO1356)	Lee et al, 2005
		XssD	-	-	-	-	-	<i>Xanthomonas oryzae</i> pv. <i>oryzae</i> KACC10331	NC_006834 (XOO1355)	Lee et al, 2005
		XssE	-	-	-	-	-	<i>Xanthomonas oryzae</i> pv. <i>oryzae</i> KACC10331	NC_006834 (XOO1354)	Lee et al, 2005
		Pns	-	-	-	-	-	<i>Yersinia pestis</i> KIM10	NC_004088	Deng et al, 2002; Carniel 2001
		YbtE	-	-	-	-	-	<i>Yersinia pestis</i> KIM10	NC_004088	Deng et al, 2002; Carniel 2001
		YbtT	-	-	-	-	-	<i>Yersinia pestis</i> KIM10	NC_004088	Deng et al, 2002; Carniel 2001
yersiniabactin		YbtU	-	-	-	-	-	<i>Yersinia pestis</i> KIM10	NC_004088	Deng et al, 2002; Carniel 2001
		Irp1	-	-	-	-	-	<i>Yersinia pestis</i> KIM10	NC_004088	Deng et al, 2002; Carniel 2001
		Irp2	-	-	-	-	-	<i>Yersinia pestis</i> KIM10	NC_004088	Deng et al, 2002; Carniel 2001
		YbtA	-	-	-	-	-	<i>Yersinia pestis</i> KIM10	NC_004088	Deng et al, 2002; Carniel 2001
		YbtP	-	-	-	-	-	<i>Yersinia pestis</i> KIM10	NC_004088	Deng et al, 2002; Carniel 2001
		YbtQ	-	-	-	-	-	<i>Yersinia pestis</i> KIM10	NC_004088	Deng et al, 2002; Carniel 2001
		YbtX	-	-	-	-	-	<i>Yersinia pestis</i> KIM10	NC_004088	Deng et al, 2002; Carniel 2001
		YbtS	-	-	-	-	-	<i>Yersinia pestis</i> KIM10	NC_004088	Deng et al, 2002; Carniel 2001
<i>Toxins</i>										
mangotoxin		MboA	-	-	-	-	-	<i>Pseudomonas syringae</i> pv. <i>syringae</i> UMAF0167	JX878400	Carrión et al, 2013
		MboB	-	-	-	-	-	<i>Pseudomonas syringae</i> pv. <i>syringae</i> UMAF0167	JX878400	Carrión et al, 2013
		MboC	-	-	-	-	-	<i>Pseudomonas syringae</i> pv. <i>syringae</i> UMAF0167	JX878400	Carrión et al, 2013
		MboD	-	-	-	-	-	<i>Pseudomonas syringae</i> pv. <i>syringae</i> UMAF0167	JX878400	Carrión et al, 2013
		MboE	-	-	-	-	-	<i>Pseudomonas syringae</i> pv. <i>syringae</i> UMAF0167	JX878400	Carrión et al, 2013
		MboF	-	-	-	-	-	<i>Pseudomonas syringae</i> pv. <i>syringae</i> UMAF0167	JX878400	Carrión et al, 2013
fit	insect toxin	FitA	+	+	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2980)	Paulsen et al, 2005; Loper et al, 2012
		FitB	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2981)	Paulsen et al, 2005; Loper et al, 2012
		FitC	+	+	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2982)	Paulsen et al, 2005; Loper et al, 2012
		FitD	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2983)	Paulsen et al, 2005; Loper et al, 2012
		FitE	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2984)	Paulsen et al, 2005; Loper et al, 2012
		FitF	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2985)	Paulsen et al, 2005; Loper et al, 2012
		FitG	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2986)	Paulsen et al, 2005; Loper et al, 2012
		FitH	-	-	-	-	-	<i>Pseudomonas protegens</i> Pf-5	CP000076 (PFL_2987)	Paulsen et al, 2005; Loper et al, 2012
Tc complex	insecticidin	PSF113_0731	-	-	-	-	-	<i>Pseudomonas fluorescens</i> F113	NC_016830 (PSF113_0731)	Redondo-Nieto et al, 2012; Loper et al, 2012
		PSF113_0732	-	-	-	-	-	<i>Pseudomonas fluorescens</i> F113	NC_016830 (PSF113_0732)	Redondo-Nieto et al, 2012; Loper et al, 2012
		PSF113_0733	-	-	-	-	-	<i>Pseudomonas fluorescens</i> F113	NC_016830 (PSF113_0733)	Redondo-Nieto et al, 2012; Loper et al, 2012
		PSF113_0734	-	-	-	-	-	<i>Pseudomonas fluorescens</i> F113	NC_016830 (PSF113_0734)	Redondo-Nieto et al, 2012; Loper et al, 2012

Secretion systems

General system

T1SS

T2SS

T3SS

SecY	+	+	+	+	+	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> str. 85-10	YP_362750	Thieme et al, 2005
SecE	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> str. 85-10	YP_362716	Thieme et al, 2005
SecG	+	+	-	-	+	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> str. 85-10	YP_364585	Thieme et al, 2005
TatA	-	+	+	+	+	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> str. 85-10	Q3BMG1	Thieme et al, 2005
TatB	-	-	+	-	+	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> str. 85-10	Q3BMG2	Thieme et al, 2005
TatC	+	+	+	+	+	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> str. 85-10	YP_366050	Thieme et al, 2005
TolC	+	-	+	-	+	<i>Escherichia coli</i> K1-12	P02930	Hackett et al, 1993
MsbA	-	-	-	-	-	<i>Vibrio cholerae</i> O1 biovar El Tor str. N16961	Q9KQW9	Heidelberg et al, 2000
AcrA	-	-	-	-	-	<i>Escherichia coli</i> OH111:H- str. 11128	YP_003233025	Ogura et al, 2009
SsmD	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt2432)	Crossman et al, 2008
TolC	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt3928)	Crossman et al, 2008
SsmJ	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt0038)	Crossman et al, 2008
ExeA	-	-	-	-	-	<i>Aeromonas hydrophila</i> Ah65	CAA57225	Howard et al, 1993
ExeB	-	-	-	-	-	<i>Aeromonas hydrophila</i> Ah65	CAA57226	Howard et al, 1993
ExeC	-	-	-	-	-	<i>Aeromonas hydrophila</i> Ah65	CAA47125	Howard et al, 1993
ExeD	-	-	-	-	-	<i>Aeromonas hydrophila</i> Ah65	CAA47124	Howard et al, 1993
ExeE	-	-	-	-	-	<i>Aeromonas hydrophila</i> Ah65	CAA47126	Howard et al, 1993
ExeF	-	-	-	-	-	<i>Aeromonas hydrophila</i> Ah65	CAA47127	Howard et al, 1993
ExeG	-	-	-	-	-	<i>Aeromonas hydrophila</i> Ah65	CAA47128	Howard et al, 1993
ExeH	-	-	-	-	-	<i>Aeromonas hydrophila</i> Ah65	CAA47129	Howard et al, 1993
ExeI	-	-	-	-	-	<i>Aeromonas hydrophila</i> Ah65	CAA47130	Howard et al, 1993
ExeJ	-	-	-	-	-	<i>Aeromonas hydrophila</i> Ah65	CAA47131	Howard et al, 1993
ExeK	-	-	-	-	-	<i>Aeromonas hydrophila</i> Ah65	CAA47132	Howard et al, 1993
ExeL	-	-	-	-	-	<i>Aeromonas hydrophila</i> Ah65	CAA47133	Howard et al, 1993
ExeM	-	-	-	-	-	<i>Aeromonas hydrophila</i> Ah65	CAA47134	Howard et al, 1993
ExeN	-	-	-	-	-	<i>Aeromonas hydrophila</i> Ah65	CAA47135	Howard et al, 1993
TapD	-	-	-	-	-	<i>Aeromonas hydrophila</i> Ah65	AAC43998	Howard et al, 1993
Smlt2729	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt2729)	Karaba et al, 2013; Crossman et al, 2008
Smlt2730	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt2730)	Karaba et al, 2013; Crossman et al, 2008
GspH	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt2731)	Karaba et al, 2013; Crossman et al, 2008
GspI	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt2732)	Karaba et al, 2013; Crossman et al, 2008
GspJ	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt2733)	Karaba et al, 2013; Crossman et al, 2008
Smlt2735	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt2735)	Karaba et al, 2013; Crossman et al, 2008
Smlt2736	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt2736)	Karaba et al, 2013; Crossman et al, 2008
Smlt2737	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt2737)	Karaba et al, 2013; Crossman et al, 2008
GspF	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt2740)	Karaba et al, 2013; Crossman et al, 2008
GspE	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt2741)	Karaba et al, 2013; Crossman et al, 2008
GspD	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt2742)	Karaba et al, 2013; Crossman et al, 2008
GspM	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt2743)	Karaba et al, 2013; Crossman et al, 2008
GspL	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt2744)	Karaba et al, 2013; Crossman et al, 2008
GspK	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt2745)	Karaba et al, 2013; Crossman et al, 2008
GspG	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt2746)	Karaba et al, 2013; Crossman et al, 2008
Smlt2747	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt2747)	Karaba et al, 2013; Crossman et al, 2008
XspE	+	+	+	+	+	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt0687)	Karaba et al, 2013; Crossman et al, 2008
XspF	+	+	+	+	+	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt0688)	Karaba et al, 2013; Crossman et al, 2008
XspG	+	+	+	+	+	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt0689)	Karaba et al, 2013; Crossman et al, 2008
XspH	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt0690)	Karaba et al, 2013; Crossman et al, 2008
XspI	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt0691)	Karaba et al, 2013; Crossman et al, 2008
XspJ	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt0692)	Karaba et al, 2013; Crossman et al, 2008
XspK	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt0693)	Karaba et al, 2013; Crossman et al, 2008
XspL	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt0694)	Karaba et al, 2013; Crossman et al, 2008
XspM	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt0695)	Karaba et al, 2013; Crossman et al, 2008
XspN	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt0696)	Karaba et al, 2013; Crossman et al, 2008
XspD	+	+	+	+	+	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt0697)	Karaba et al, 2013; Crossman et al, 2008
HrcC	-	-	-	-	-	<i>Pseudomonas syringae</i> pv. <i>tomato</i> DC3000	NC_004578 (PSPTO_1389)	Buell et al, 2003
HrcJ	-	-	-	-	-	<i>Pseudomonas syringae</i> pv. <i>tomato</i> DC3000	NC_004578 (PSPTO_1384)	Buell et al, 2003
HrcN	-	-	-	-	-	<i>Pseudomonas syringae</i> pv. <i>tomato</i> DC3000	NC_004578 (PSPTO_1400)	Buell et al, 2003
HrcQa	-	-	-	-	-	<i>Pseudomonas syringae</i> pv. <i>tomato</i> DC3000	NC_004578 (PSPTO_1397)	Buell et al, 2003
HrcQb	-	-	-	-	-	<i>Pseudomonas syringae</i> pv. <i>tomato</i> DC3000	NC_004578 (PSPTO_1396)	Buell et al, 2003
HrcR	-	-	-	-	-	<i>Pseudomonas syringae</i> pv. <i>tomato</i> DC3000	NC_004578 (PSPTO_1395)	Buell et al, 2003
HrcS	-	-	-	-	-	<i>Pseudomonas syringae</i> pv. <i>tomato</i> DC3000	NC_004578 (PSPTO_1394)	Buell et al, 2003
HrcT	-	-	-	-	-	<i>Pseudomonas syringae</i> pv. <i>tomato</i> DC3000	NC_004578 (PSPTO_1393)	Buell et al, 2003
HrcU	-	-	-	-	-	<i>Pseudomonas syringae</i> pv. <i>tomato</i> DC3000	NC_004578 (PSPTO_1392)	Buell et al, 2003
HrcV	-	-	-	-	-	<i>Pseudomonas syringae</i> pv. <i>tomato</i> DC3000	NC_004578 (PSPTO_1402)	Buell et al, 2003
FliC	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NC_003902	Da Silva et al, 2002
FliD	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NC_003902	Da Silva et al, 2002
FlgL	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NC_003902	Da Silva et al, 2002
FglK	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NC_003902	Da Silva et al, 2002
FglD	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NC_003902	Da Silva et al, 2002
FglE	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NC_003902	Da Silva et al, 2002
FglF	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NC_003902	Da Silva et al, 2002
FLgG	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NC_003902	Da Silva et al, 2002
MotB	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NC_003902	Da Silva et al, 2002
MotA	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NC_003902	Da Silva et al, 2002
FliE	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NC_003902	Da Silva et al, 2002

	FlgB	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlgC	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlgG	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlhM	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlhN	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlhA	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlhB	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlhH	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlhL	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlhQ	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlhP	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlhR	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlhK	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlgH	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlgI	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlhO	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlgA	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlgJ	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlhF	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlhA	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlhI	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlhS	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlgM	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlgB	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlgC	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlhJ	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlhG	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
	FlhN	-	-	-	-	-	Xanthomonas campestris pv. campestris str. ATCC 33913	NC_003902	Da Silva et al, 2002
ATPase FlhI/YscN family	LEC3_5105	+	+	+	+	+	Lysobacter enzymogenes C3	-	-
type III secretion apparatus	LEC3_5106	+	+	+	+	+	Lysobacter enzymogenes C3	-	-
hypothetical protein	LEC3_5107	+	+	+	+	+	Lysobacter enzymogenes C3	-	-
type III secretion apparatus	LEC3_5108	+	+	+	+	+	Lysobacter enzymogenes C3	-	-
conserved hypothetical	LEC3_5109	+	+	+	+	+	Lysobacter enzymogenes C3	-	-
conserved hypothetical	LEC3_5110	+	+	+	+	+	Lysobacter enzymogenes C3	-	-
type III secretion apparatus	LEC3_5111	+	+	+	+	+	Lysobacter enzymogenes C3	-	-
type III secretion protein	LEC3_5112	+	+	+	+	+	Lysobacter enzymogenes C3	-	-
hypothetical protein	LEC3_5113	-	-	-	-	-	Lysobacter enzymogenes C3	-	-
type III secretion protein	LEC3_5114	+	+	+	+	+	Lysobacter enzymogenes C3	-	-
His Kinase A (phospho)	LEC3_5115	+	+	+	+	+	Lysobacter enzymogenes C3	-	-
hypothetical protein	LEC3_5116	-	-	-	-	-	Lysobacter enzymogenes C3	-	-
conserved hypothetical	LEC3_5117	-	-	-	-	-	Lysobacter enzymogenes C3	-	-
response regulator	recep	+	+	+	+	+	Lysobacter enzymogenes C3	-	-
type III secretion apparatus	LEC3_5119	+	+	+	+	+	Lysobacter enzymogenes C3	-	-
type III secretion apparatus	LEC3_5120	+	+	+	+	+	Lysobacter enzymogenes C3	-	-
type III secretion family	LEC3_5121	+	+	+	+	+	Lysobacter enzymogenes C3	-	-
type III secretion apparatus	LEC3_5122	+	+	+	+	+	Lysobacter enzymogenes C3	-	-
type III secretion protein	LEC3_5123	+	+	+	+	+	Lysobacter enzymogenes C3	-	-
T3SS-I	HrpR	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	HrpS	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	HrpA	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	HrpZ	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	HrpB	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	HrcJ	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	HrpD	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	YscL	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	HrpF	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	HrpG	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	YscC	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	HrpT	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	HrpV	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	YscU	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	cell_division	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	HrcT	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	YscS	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	YscR	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	HrcQa	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	HrcQb	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	HrpP	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	YscO	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	FlhI	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	HrpQ	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	HrcV	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	HrpJ	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	HrpL	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	exoprotein	-	-	-	-	-	Pseudomonads	-	Victor
T3SS-I	HopA1	-	-	-	-	-	Pseudomonads	-	Victor

	T3SS-I	ShcA	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	Hyp.1	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	Hyp.2	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	Hyp.3	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	Hyp.4	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	Hyp.5	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	Hyp.6	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	RhcV	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	RhcC2	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	Hyp.7	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	gene8	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	RhcC1	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	Hyp.9	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	Hyp. 10	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	RhcJ	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	Hyp. 11	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	RhcL	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	RhcN	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	MhcB	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	RhcQ	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	RhcR	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	RhcS	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	RhcU	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	gene12	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	gene13	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	cds	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	cds14	-	-	-	-	-	Pseudomonads	-	Victor
	T3SS-II	cds15	-	-	-	-	-	Pseudomonads	-	Victor
T4SS	VirB1	-	-	-	-	-	-	<i>Agrobacterium tumefaciens</i> plasmid pTiAB2/73	AF329849	Schmidt et al, unpublished; Warren et al, 2013
	VirB2	-	-	-	-	-	-	<i>Agrobacterium tumefaciens</i> plasmid pTiAB2/73	AF329849	Schmidt et al, unpublished; Warren et al, 2013
	VirB3	-	-	-	-	-	-	<i>Agrobacterium tumefaciens</i> plasmid pTiAB2/73	AF329849	Schmidt et al, unpublished; Warren et al, 2013
	VirB4	-	-	-	-	-	-	<i>Agrobacterium tumefaciens</i> plasmid pTiAB2/73	AF329849	Schmidt et al, unpublished; Warren et al, 2013
	VirB5	-	-	-	-	-	-	<i>Agrobacterium tumefaciens</i> plasmid pTiAB2/73	AF329849	Schmidt et al, unpublished; Warren et al, 2013
	VirB6	-	-	-	-	-	-	<i>Agrobacterium tumefaciens</i> plasmid pTiAB2/73	AF329849	Schmidt et al, unpublished; Warren et al, 2013
	VirB7	-	-	-	-	-	-	<i>Agrobacterium tumefaciens</i> plasmid pTiAB2/73	AF329849	Schmidt et al, unpublished; Warren et al, 2013
	VirB8	-	-	-	-	-	-	<i>Agrobacterium tumefaciens</i> plasmid pTiAB2/73	AF329849	Schmidt et al, unpublished; Warren et al, 2013
	VirB9	-	-	-	-	-	-	<i>Agrobacterium tumefaciens</i> plasmid pTiAB2/73	AF329849	Schmidt et al, unpublished; Warren et al, 2013
	VirB10	-	-	-	-	-	-	<i>Agrobacterium tumefaciens</i> plasmid pTiAB2/73	AF329849	Schmidt et al, unpublished; Warren et al, 2013
	VirB11	-	-	-	-	-	-	<i>Agrobacterium tumefaciens</i> plasmid pTiAB2/73	AF329849	Schmidt et al, unpublished; Warren et al, 2013
	VirD4	-	-	-	-	-	-	<i>Agrobacterium tumefaciens</i> plasmid pTiAB2/73	AF329849	Schmidt et al, unpublished; Warren et al, 2013
	TrbI/VirB10	-	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1283)	Crossman et al, 2008
	TrbG	-	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1284)	Crossman et al, 2008
	TrbF	-	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1285)	Crossman et al, 2008
	TrbL/VirB6	-	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1286)	Crossman et al, 2008
	TrbJ	-	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1287)	Crossman et al, 2008
	TrbE/VirB4	-	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1288)	Crossman et al, 2008
	TrbD	-	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1289)	Crossman et al, 2008
	TrbC/VirB2	-	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1290)	Crossman et al, 2008
	TrbB/VirB11	-	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1291)	Crossman et al, 2008
T5SS	TraG/VirD4	-	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1293)	Crossman et al, 2008
	TspB	-	-	-	-	-	-	<i>Neisseria meningitidis</i> 69166	EJU62795	no info; Tseng et al, 2012
	Omp85	-	-	-	-	-	-	<i>Escherichia coli</i> str. K-12 substr. MG1655	AAC73288	Blattner et al, 1997
	Smlt1001	-	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1001)	Karaba et al, 2013
	AlpA	-	-	-	-	-	-	<i>Helicobacter pylori</i> OK310	YP_007538498	Yahara et al, 2013
T6SS	SphB	-	-	-	-	-	-	<i>Bordetella pertussis</i> CS	YP_005588486	Zhang et al, 2011
	AspA/NalP	-	-	-	-	-	-	<i>Neisseria meningitidis</i> H44/76	AAN71715	Van Ulsem et al, 2001
	IgA1	-	-	-	-	-	-	<i>Neisseria gonorrhoeae</i>	P09790	Pohlner et al, 1987
	VasA	-	-	-	-	-	-	<i>Aeromonas hydrophila</i> SSU	ABG57138	Suarez et al, 2008
	VasF	-	-	-	-	-	-	<i>Aeromonas hydrophila</i> SSU	ABG57143	Suarez et al, 2008
	VasH	-	-	-	-	-	-	<i>Aeromonas hydrophila</i> SSU	ABG57145	Suarez et al, 2008
	VasK	-	-	-	-	-	-	<i>Aeromonas hydrophila</i> SSU	ABG57148	Suarez et al, 2008
	VasA	-	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> str. 85-10	YP_365969	Thieme et al, 2005
	ClpB	-	-	-	-	+	+	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> str. 85-10	YP_365967	Thieme et al, 2005
	type VI secretion proteir	LEC3_0431	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type VI secretion-associ	LEC3_0432	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	OmpA/MotB family prot	LEC3_0433	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	hypothetical protein	LEC3_0434	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type VI secretion-associ	LEC3_0435	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type VI secretion system	LEC3_0436	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	conserved hypothetical	LEC3_0437	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	conserved hypothetical	LEC3_0438	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	hypothetical protein	LEC3_0439	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	hypothetical protein	LEC3_0440	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	arginine deiminase	LEC3_0441	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type VI secretion system	LEC3_0442	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type IV / VI secretion sy	LEC3_0443	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-

	type VI secretion proteir	LEC3_0444	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type VI secretion lipopr	LEC3_0445	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	tetratricopeptide repeat	LEC3_0446	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type VI secretion proteir	LEC3_0447	-	-	-	+	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type VI secretion proteir	LEC3_0448	-	-	-	+	+	<i>Lysobacter enzymogenes</i> C3	-	-
	conserved hypothetical	LEC3_0449	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	lysine-specific histone d	LEC3_0450	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type VI secretion systen	LEC3_0451	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type VI secretion proteir	LEC3_0452	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type VI secretion proteir	LEC3_0453	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type VI secretion ATPas	LEC3_0454	-	-	-	+	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type VI secretion systen	LEC3_0455	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type VI secretion proteir	LEC3_2572	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type VI secretion proteir	LEC3_2573	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	conserved hypothetical	LEC3_2574	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	ImpE/SciE family proteir	LEC3_2575	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type VI secretion systen	LEC3_2576	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type VI secretion proteir	LEC3_2577	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type VI secretion proteir	LEC3_2578	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type VI secretion ATPas	LEC3_2579	-	-	-	+	+	<i>Lysobacter enzymogenes</i> C3	-	-
	hypothetical protein	LEC3_2580	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type VI secretion systen	LEC3_2581	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	conserved hypothetical	LEC3_2582	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type VI secretion systen	LEC3_2583	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type VI secretion proteir	LEC3_2584	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type VI secretion systen	LEC3_2585	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type VI secretion proteir	LEC3_2586	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type VI secretion-associ	LEC3_2587	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type VI secretion-associ	LEC3_2591	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
	type VI secretion systen	LEC3_3331	-	-	-	-	+	<i>Lysobacter enzymogenes</i> C3	-	-
T7SS	Rv3864	-	-	-	-	-	-	<i>Mycobacterium tuberculosis</i> H37Rv	NC_000962 (Rv3864)	Cole et al, 1998; Abdallah et al, 207
	Rv3865	-	-	-	-	-	-	<i>Mycobacterium tuberculosis</i> H37Rv	NC_000962 (Rv3865)	Cole et al, 1998; Abdallah et al, 207
	Rv3866	-	-	-	-	-	-	<i>Mycobacterium tuberculosis</i> H37Rv	NC_000962 (Rv3866)	Cole et al, 1998; Abdallah et al, 207
	Rv3867	-	-	-	-	-	-	<i>Mycobacterium tuberculosis</i> H37Rv	NC_000962 (Rv3867)	Cole et al, 1998; Abdallah et al, 207
	Rv3868	-	-	-	-	-	-	<i>Mycobacterium tuberculosis</i> H37Rv	NC_000962 (Rv3868)	Cole et al, 1998; Abdallah et al, 207
	Rv3869	-	-	-	-	-	-	<i>Mycobacterium tuberculosis</i> H37Rv	NC_000962 (Rv3869)	Cole et al, 1998; Abdallah et al, 207
	Rv3870	-	-	-	-	-	-	<i>Mycobacterium tuberculosis</i> H37Rv	NC_000962 (Rv3870)	Cole et al, 1998; Abdallah et al, 207
	Rv3871	-	-	-	-	-	-	<i>Mycobacterium tuberculosis</i> H37Rv	NC_000962 (Rv3871)	Cole et al, 1998; Abdallah et al, 207
	Rv3872	-	-	-	-	-	-	<i>Mycobacterium tuberculosis</i> H37Rv	NC_000962 (Rv3872)	Cole et al, 1998; Abdallah et al, 207
	Rv3873	-	-	-	-	-	-	<i>Mycobacterium tuberculosis</i> H37Rv	NC_000962 (Rv3873)	Cole et al, 1998; Abdallah et al, 207
	Rv3874	-	-	-	-	-	-	<i>Mycobacterium tuberculosis</i> H37Rv	NC_000962 (Rv3874)	Cole et al, 1998; Abdallah et al, 207
	Rv3875	-	-	-	-	-	-	<i>Mycobacterium tuberculosis</i> H37Rv	NC_000962 (Rv3875)	Cole et al, 1998; Abdallah et al, 207
	Rv3876	-	-	-	-	-	-	<i>Mycobacterium tuberculosis</i> H37Rv	NC_000962 (Rv3876)	Cole et al, 1998; Abdallah et al, 207
	Rv3877	-	-	-	-	-	-	<i>Mycobacterium tuberculosis</i> H37Rv	NC_000962 (Rv3877)	Cole et al, 1998; Abdallah et al, 207
	Rv3878	-	-	-	-	-	-	<i>Mycobacterium tuberculosis</i> H37Rv	NC_000962 (Rv3878)	Cole et al, 1998; Abdallah et al, 207
	MycP1	-	-	-	-	-	-	<i>Mycobacterium tuberculosis</i> H37Rv	NC_000962 (Rv3883)	Cole et al, 1998; Abdallah et al, 207
Attachment/motility exopolysaccharides/xanthan	GumP	-	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637792	Da Silva et al, 2002
	GumO	-	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637793	Da Silva et al, 2002
	GumN	-	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637794	Da Silva et al, 2002
	Hypothetical	-	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637795	Da Silva et al, 2002
	GumM	-	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637796	Da Silva et al, 2002
	GumL	-	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637797	Da Silva et al, 2002
	GumK	-	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637798	Da Silva et al, 2002
	GumJ	-	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637799	Da Silva et al, 2002
	GumI	-	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637800	Da Silva et al, 2002
	GumH	-	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637801	Da Silva et al, 2002
	GumG	-	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637802	Da Silva et al, 2002
	GumF	-	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637803	Da Silva et al, 2002
	GumE	-	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637804	Da Silva et al, 2002
	GumD	-	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637805	Da Silva et al, 2002
	GumC	-	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637806	Da Silva et al, 2002
	GumB	-	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637807	Da Silva et al, 2002
	EpsA	-	-	-	-	-	-	<i>Bacillus amyloliquefaciens</i> subsp. <i>plantarum</i> str. FZB42	ABS75498	Chen et al, 2007
	EpsB	-	-	-	-	-	-	<i>Bacillus amyloliquefaciens</i> subsp. <i>plantarum</i> str. FZB42	ABS75497	Chen et al, 2007
	EpsC	-	-	-	-	-	-	<i>Bacillus amyloliquefaciens</i> subsp. <i>plantarum</i> str. FZB42	ABS75496	Chen et al, 2007
	EpsD	-	-	-	-	-	-	<i>Bacillus amyloliquefaciens</i> subsp. <i>plantarum</i> str. FZB42	ABS75495	Chen et al, 2007
	EpsE	-	-	-	-	-	-	<i>Bacillus amyloliquefaciens</i> subsp. <i>plantarum</i> str. FZB42	ABS75494	Chen et al, 2007
	EpsF	-	-	-	-	-	-	<i>Bacillus amyloliquefaciens</i> subsp. <i>plantarum</i> str. FZB42	ABS75493	Chen et al, 2007
	EpsG	-	-	-	-	-	-	<i>Bacillus amyloliquefaciens</i> subsp. <i>plantarum</i> str. FZB42	ABS75492	Chen et al, 2007
	EpsH	-	-	-	-	-	-	<i>Bacillus amyloliquefaciens</i> subsp. <i>plantarum</i> str. FZB42	ABS75491	Chen et al, 2007
	EpsI	-	-	-	-	-	-	<i>Bacillus amyloliquefaciens</i> subsp. <i>plantarum</i> str. FZB42	ABS75490	Chen et al, 2007
	EpsJ	-	-	-	-	-	-	<i>Bacillus amyloliquefaciens</i> subsp. <i>plantarum</i> str. FZB42	ABS75489	Chen et al, 2007
	EpsK	-	-	-	-	-	-	<i>Bacillus amyloliquefaciens</i> subsp. <i>plantarum</i> str. FZB42	ABS75488	Chen et al, 2007
	EpsL	-	-	-	-	-	-	<i>Bacillus amyloliquefaciens</i> subsp. <i>plantarum</i> str. FZB42	ABS75487	Chen et al, 2007

fimbrae/pili	EpsM	-	-	-	-	-	<i>Bacillus amyloiquefaciens</i> subsp. <i>plantarum</i> str. FZB42	ABS75486	Chen et al, 2007
	EpsN	-	-	-	-	-	<i>Bacillus amyloiquefaciens</i> subsp. <i>plantarum</i> str. FZB42	ABS75485	Chen et al, 2007
	EpsO	-	-	-	-	-	<i>Bacillus amyloiquefaciens</i> subsp. <i>plantarum</i> str. FZB42	ABS75484	Chen et al, 2007
	Smlt0706	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1290)	Crossman et al, 2008
	Smlt0707	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1290)	Crossman et al, 2008
	Smlt0708	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1290)	Crossman et al, 2008
	Smlt0709	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1290)	Crossman et al, 2008
	Smlt0732	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1290)	Crossman et al, 2008
	Smlt0733	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1290)	Crossman et al, 2008
	Smlt0734	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1290)	Crossman et al, 2008
	Smlt0735	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1290)	Crossman et al, 2008
	Smlt0736	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1290)	Crossman et al, 2008
	Smlt1508	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1290)	Crossman et al, 2008
	Smlt1509	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1290)	Crossman et al, 2008
	Smlt1510	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1290)	Crossman et al, 2008
	Smlt1511	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1290)	Crossman et al, 2008
	Smlt1512	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1290)	Crossman et al, 2008
	Smlt2867	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1290)	Crossman et al, 2008
	Smlt2868	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1290)	Crossman et al, 2008
	Smlt2869	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1290)	Crossman et al, 2008
	Smlt2870	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1290)	Crossman et al, 2008
	Smlt2871	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1290)	Crossman et al, 2008
	Smlt2872	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1290)	Crossman et al, 2008
	Smlt2873	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1290)	Crossman et al, 2008
	Smlt2874	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1290)	Crossman et al, 2008
	Smlt2875	-	-	-	-	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt1290)	Crossman et al, 2008
flagella	FlaE	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637272	Da Silva et al, 2002
	FlaA	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637319	Da Silva et al, 2002
	FlaB	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637317	Da Silva et al, 2002
	FlaB	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637317	Da Silva et al, 2002
	FlaC	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637316	Da Silva et al, 2002
	FlaC	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637316	Da Silva et al, 2002
	FlaD	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637315	Da Silva et al, 2002
	FlaE	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637314	Da Silva et al, 2002
	FlaF	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637313	Da Silva et al, 2002
	FlaG	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637312	Da Silva et al, 2002
	FlaG	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> str. ATCC 33913	NP_637312	Da Silva et al, 200

Quorum sensing	RpfG	+	+	+	+	+	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt2233)	Crossman et al, 2008
	RpfC	-	-	-	+	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt2234)	Crossman et al, 2008
Rpf/DSF signalling	RpfF	-	-	-	+	-	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt2235)	Crossman et al, 2008
	RpfB	+	+	+	+	+	<i>Stenotrophomonas maltophilia</i> K279a	NC_010943 (Smlt2236a)	Crossman et al, 2008
DF signalling	xcc-b100_4202	-	+	+	+	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> B100	AM920689 (xcc-b100_4202)	Vorholter et al, 2008
	xcc-b100_4203	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> B101	AM920689 (xcc-b100_4203)	Vorholter et al, 2008
	xcc-b100_4204	-	-	-	-	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> B102	AM920689 (xcc-b100_4204)	Vorholter et al, 2008
	xcc-b100_4205	+	+	+	+	+	<i>Xanthomonas campestris</i> pv. <i>campestris</i> B103	AM920689 (xcc-b100_4205)	Vorholter et al, 2008
	xcc-b100_4206	+	+	-	+	-	<i>Xanthomonas campestris</i> pv. <i>campestris</i> B104	AM920689 (xcc-b100_4206)	Vorholter et al, 2008
	XanB2	+	+	+	+	+	<i>Xanthomonas campestris</i> pv. <i>campestris</i> B105	AM920689 (xcc-b100_4207)	Vorholter et al, 2008
Other									
Argonaut RNAi silencing	P0025	-	-	-	-	-	<i>Thermus thermophilis</i> HB27	AAS82356	Swarts et al, 2014
	P0026	-	-	-	-	-	<i>Thermus thermophilis</i> HB27	AAS82355	Swarts et al, 2014

L. ant: *Lysobacter antibioticus*; L. cap: *L. capsici*; L. gum: *L. gummosus*; L. enz: *L. enzymogenes*.

Table S13. NRPS/PKS clusters identified in the *Lysobacter* genome sequences using AntiSmash and subsequent domain and prediction analysis. Per cluster, the top row describes the GeneID number, the middle row describes the domains identified by PFAM analysis and bottom row describes the amino acid predicted to be incorporated based on NRPS/PKS, NRPS predictor2 and phylogenetic analysis.

***L. ant* ATCC29479**

cluster 1	1048	1047	1046
	C1	T	A Dhb

cluster 2 #14 aa	1716	1715	1712		1710			1709		1708		1707		1706			
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	
	A	T	CAT	CAT	CAT	CAT	CAT	CAT	CAT	CAT	CAT	CAT	CAT	CAT	CAT	CAT	
	?		Ala	Ala	?	Arg	Asp	Asp	Asp	Asp	Phe/Asn	Thr	Asp	Pro	?	Ala	Ala

cluster 3	2680	2678	2677
	C	A ?	A ?

cluster 4 #8 aa	1	2	3	2957	5	6	7	2956
	C1AT Val	CAT Orn	CCAT Ser	4 CAT Gly	CAT mPhe	CCAT Leu	CAT Orn	8 CAT Gly

cluster 5 #3 aa	1	2	3	3239
	CAT Val	CAT Phe	CAT Thr	TE

cluster 6 # 4 aa	1	2	3	4	3545
	CAT Gly	CAT Val	CAT Trp	CAT ?	TE

cluster 7 #1 aa	1	4135
	C1AT Gly	TE

***L. ant* 76**

cluster 1 #4 aa	1	2	3	4	240
	CAT Ser	CAT Val	CAT ?	CAT Thr	TE

cluster 2 #1 aa	1	319
	C1AT Gly	TE

cluster 3	606	605	603
	A ?	A ?	A C

cluster 4	2116	2117	2120		2122			2123		2124	2125		2126				
#14 aa			1	2	3	4	5	6	7	8	9	10	11	12	13	14	
	A	T	CAT	CAT	CAT	CCAT	CAmT	CAT	CAT	CAT	CAT	CAT	CAT	CAT	CAT	CAT	TE
	?		Ala	Ala	?	Arg	Asp	Asp	Asp	Asn	Thr	Asp	Pro	?	Ala	Asp	

cluster 5	2594	2595	2596
	A ?	T	C1

cluster 6	2691							2692				
#11 aa	1	2	3	4	5	6	7	8	9	10	11	
	C1AT	CAT	CCAT	CAT	CAmT	CCAT	CAT C	CCAT	CAT	CCAT	CCAT	TE
	Val	Orn	Ser	Glv	mPhe	Leu	Orn	Ser	Val	Tro	?	

cluster 7 #1 aa	3260	3263
	A ?	1 CAT Cys

L. cap 55

cluster 1 #1 aa	2005						
dihydromaltophilin	KS	AT	PS	K	T	1 CAT Orn	TE

cluster 2 #14 aa	2689	2691						2694						2697		2699			
	ATC	1 AT	2 CAT	3 CAmT	4 CCAT	5 CAT	6 CAT	KS	AT	KR	T	7 CAT	8 CAmT	9 CAT	10 CAmT	11 CAT	12 CAT	13 CAT	14 CAT C
	?	Orn	?	?	Thr	Cys	?					Thr	Cys	?	mSer	Ser	Cys	Ser	Orn

cluster 3 # 12 aa	2722							2723					
	1	2	3	4	5	6	7	8	9	10	11	12	TE
	C1AT	CAT	CCAT	CAT	CAmT	CCAT	CAT C	CAT	CAT	CCAT	CCAT	CCAmT	
WAP-8294	Ser	Asn	Ser	Gly	mPhe	Leu	Orn	Gly	Asn	Trp	Orn	mVal	

cluster 4	2738	2737	2736
	A Val	T	C

cluster 5 #3 aa	4975	4976	4977
	1 CAT Gly	2 CAT Gly	3 CAT ?

cluster 6 #1 aa	5004	
	1 C1AT Gly	TE

L. gum 3.2.11

cluster 1	2475												2476			
#11 aa lysobactin	AT Leu	CAT Leu	CAT Phe	CAT Leu	CAT Leu	CAT Arg	CAT Ile	CCAT Thr	CAT Gly	CAT Asn	CAT Ser	TE	TE			

cluster 2 #1 aa	3209						
dihydromaltophilin	KS	AT	PS	K	T	1 C1AT Orn	TE

cluster 3 # 12 aa	3694	3693	3692		3691			3690			3689				
			1	2	3	4	5	6	7	8	9	10	11	12	
	A Leu	T	CAT Arg	CAT Ser	CAT Asp	CAT Asp	CAT Thr	CAT Ser	CAT Asp	CAT Asp	CAT Arg	CAT Ser	CAT Thr	CAT Pro	TE

cluster 4 #5 aa	4391				
	1 AT Ala	2 CAT Ala	3 CAT Arg	4 CAT ?	5 CAT Ala

cluster 5 #1 aa	4985	
	1 C1AT Gly	TE

L. enz C3

cluster 1 #3 aa	0544 1 CAT Gly	0545 2 CAT Gly	0547 3 CAT Phe
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cluster 2 #2 aa	1848 1 CAT Pro?	TE	1851 2 A Phe?
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cluster 3 #6 aa	2099	KS	PS	KR	T	KS	PS	T	KS	PS	KR	T	2100 E	2101 At	2102 T	2103 At	At	At	2104 1 CAT Tyr	2 CAT Ser	3 CAT Phe	4 CAT Phe/Ser	5 CAT Ser	6 CATC Phe/Ser
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cluster 4 #4 aa?	2493	A	1 mAT Thr	2 CAT Tyr	3 CAT Gly	KS	KR	T	KS	KR	T	KS	T	2494 4 CAT ?	KS	PS	KR	mTT	KS	PS	KR	T	KS	TT	KS	KR	T	2495	KS	KR	T	KS	PS	KR	mTTT
---------------------	------	---	-----------------	-----------------	-----------------	----	----	---	----	----	---	----	---	-----------------------	----	----	----	-----	----	----	----	---	----	----	----	----	---	------	----	----	---	----	----	----	------

cluster 5 #10 aa	2577	1 CATT Asp	2 CAT Phe?	2558	3 CCAT Arg	4 CCAT Asp	5 CCAT Thr	2559	6 CAT ?	7 CAT Pro	8 CAT ?	2560	9 CAT Asp	10 CCAT Thr	TE
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cluster 6	2621	C	2623	A ?
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cluster 7 #6 aa	2957	1 AT Ala/Arg	2 CAT Pro	3 CAT Ala/Arg	NAD	2958	4 AT Pro	5 CAT Ala/Arg	2959	6 CAT Pro	NAD
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cluster 8 #1 aa	3215	KS	AT	PS	K	T	1 C1AT Orn	TE
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dihydromaltophilin

cluster 9 #12 aa	3675	1 C1AT Ser	2 CAT Asp	3 CCAT Ser	4 CAT Gly	5 CAmT mPhe	6 CCAT Leu	7 CATC Orn	8 CAT Ser	9 CAT Asn	10 CCAT Trp	11 CCAT Arg	12 CCAmT mVal	TE
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WAP-8294

cluster 10 #1 aa	4984	1 CAT Phe	NAD
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cluster 11 #1 aa	3997	1 C1AT Gly	TE
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Note: C: condensation domain; C1: Condensation domain predicted to be the start of the peptide synthesis, based on phylogenetic analysis; A: adenylation domain; T: thiolation domain; E: epimerase domain; TE: thioesterase domain; M: methyltransferase domain; KS: ketoacyl synthase domain; KR: KR domain; PS: polyketide synthase dehydratase domain; At: acyltransferase domain; NAD: NAD-binding domain. ? indicates prediction was inconclusive.

Table S14. Genetic organization of flagellar apparatus and type IV pilus in *Lysobacter* genomes.

	<i>L. ant</i> ATCC29479	<i>L. ant</i> 76	<i>L. cap</i> 55	<i>L. gum</i> 3.2.11	<i>L. enz</i> C3
Flagellar apparatus					
<i>TCP fam protein</i>	-	-	1457	4578	4623
<i>fliQ</i>	-	-	1458	4579	4624
<i>fliR</i>	-	-	1459	4580	4625
<i>FlhB</i>	-	-	1460	4581	4626
<i>FlhA</i>	-	-	1461	4582	4627
<i>flgF</i>	-	-	1462	4583	4628
<i>flgG</i>	-	-	1463	4584	4629
<i>flgA-like</i>	-	-	1464	4585	4631
<i>flgH</i>	-	-	1465	4586	4632
<i>flgI</i>	-	-	1466	4587	4633
<i>flgB</i>	-	-	1467	4588	4634
<i>flgC</i>	-	-	1468	4589	4635
<i>fliE</i>	-	-	1469	4590	4636
<i>fliF</i>	-	-	1470	4591	4637
<i>fliG</i>	-	-	1471	4592	4638
<i>fliH-like</i>	-	-	1472	4593	4639
<i>fliI</i>	-	-	1473	4594	4640
<i>flgD</i>	-	-	1476	4597	4643
<i>flgE</i>	-	-	1477	4598	4644
<i>fliM</i>	-	-	1478	4599	4645
<i>fliN</i>	-	-	1479	4600	4646
<i>fliO</i>	-	-	1480	4601	4647
<i>fliP</i>	-	-	1481	4602	4648
<i>sigma-70</i>	-	-	1482	4603	4649
<i>TCP fam pro</i>	-	-	-	4604	4650
Type IV pilus					
<i>pilS</i>	2003	1483	4254	4044	4112
<i>pilR</i>	2004	2551	4255	4045	4113
<i>pilA</i>	2005/2006	1197	4256	4046	4114
cluster I <i>pilB</i>	2017	1188	4257	4061	4116
<i>pilC</i>	2018	1187	4258	4062	4117
<i>pilD</i>	2019	1186	4259	4063	4118
<i>pilG</i>	4690	4075	4146	3938	3962
<i>pilH</i>	4689	4074	4145	3937	3961
cluster II <i>pilI</i>	4688	4073	4144	3936	3960
<i>pilJ</i>	4687	4072	4143	3935	3959
<i>pilL</i>	4686	4071	4142	3934	3958
<i>pilK</i>	4685	4070	4140	3933	3957
<i>pilM</i>	4162	4156	1037	0974	932
<i>pilN</i>	4161	4155	1038	0975	933
cluster III <i>pilO</i>	4160	4154	1039	0976	934
<i>pilP</i>	4159	4153	1040	0977	935
<i>pilQ</i>	4158	4152	1041	0978	936
<i>pilE</i>	4261	1741	1583	3629	3575
<i>pilY1</i>	4262	1740	1582	3630	3576
<i>pilX</i>	4263	1739	1581	3632	3577

cluster IVa	<i>pilW</i>	4264	1738	1580	3633	3578
	<i>pilV</i>	4265	1737	1579	3634	3579
	<i>pre-pilin</i>	4266	1736	1578	3637	3580
cluster IVb	<i>pilE</i>			1656	3548	3621
	<i>pilY1</i>			1655	3549	3622
	<i>pilX</i>			1654	3550	3623
	<i>pilW</i>			1653	3551	3624
	<i>pilV</i>			1652	3552	3625
	<i>pre-pilin</i>			1651	3553	3626
cluster V	<i>pilT</i>	0732	1544	1295	1211	1163
	<i>pilU</i>	0731	1545	1296	1212	1164
	<i>pilZ</i>	4190	4183	1006	0947	0901
	<i>pilZ_2</i>	4892	3493	3441	1744	1619

Note: Genes are indicated by genome identification number. For Type IV pilus: entire pathways are located in five different gene clusters (I-V), with homologues of pilZ distributed throughout all five genomes.

L. ant: *Lysobacter antibioticus*; L. cap: *L. capsici*; L. gum: *L. gummosus*; L. enz: *L. enzymogenes*.

Table S15. Genetic organization of the General Secretory Pathway and twin-arginine translocation pathway in the *Lysobacter* genomes.

		<i>L. ant</i> ATCC29479	<i>L. ant</i> 76	<i>L. cap</i> 55	<i>L. gum</i> 3.2.11	<i>L. enz</i> C3
General Secretory Pathway						
cluster I	<i>gspD</i>	4300	1135	4315	4115	4172
	<i>gspN</i>	4301	1134	4316	4116	4173
	<i>gspM</i>	4302	1133	4317	4117	4174
	<i>gspL</i>	4303	1132	4318	4118	4175
	<i>gspK</i>	4304	1131	4319	4119	4176
	<i>gspJ</i>	4305	1130	4320	4120	4177
	<i>gspI</i>	4306	1129	4321	4121	4178
	<i>gspH</i>	4307	1128	4322	4122	4179
	<i>gspG</i>	4308	1127	4323	4123	4180
	<i>gspF</i>	4309	1126	4324	4124	4181
	<i>gspE</i>	4310	1125	4325	4125	4183
cluster II	<i>yajC</i>	3222	1804	1725	3455	3514
	<i>secD</i>	3221	1805	1726	3454	3513
	<i>secF</i>	3220	1806	1727	3453	3512
others	<i>secG</i>	202	2988	3018	2197	2158
	<i>secY</i>	3383	3908	3934	3743	3770
	<i>secE</i>	3417	3943	3966	3777	3803
	<i>secA</i>	2202	1183	4262	4066	4122
	<i>secB</i>	4996	4722	321	340	5031
Twin-arginine translocation pathway						
	<i>tatA/E</i>	1226	141	5186	5166	122
	<i>tatB</i>	1225	142	5185	5166	123
	<i>tatC</i>	1224	143	5184	5166	124
	<i>RDD fam</i>	1223	144	5183	5166	125
	<i>tatD_1</i>	1651	2184	2161	5166	3058
	<i>tatD_2</i>	1395	5183	5713	5166	5364

Note: All genes are indicated by locus ID number. Gene positions and transcriptional directions within the genome are presented from top to bottom in the table.

L. ant: *Lysobacter antibioticus*; *L. cap*: *L. capsici*; *L. gum*: *L. gummosus*; *L. enz*: *L. enzymogenes*.