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Title	Genome sequence reveals that <i>Pseudomonas fluorescens</i> F113 possesses a large and diverse array of systems for rhizosphere function and host interaction
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Strain	Type	INSDC	Size (Mb)	GC%	CDS	rRNA	tRNA	Other RNA	Reference
<i>P. brassicacearum</i> NFM421	Complete	CP002585.1	6.84	60.8	6095	16	65	-	[1]
<i>P. brassicacearum</i> Q8r1-96	Draft (5)	CM001512.1	6.60	61.0	5715	16	65	20	[2]
<i>Pseudomonas chlororaphis</i> subsp. <i>aureofaciens</i> 30-84	Draft(13)	CM001559.1	6.66	62.9	5848	19	74	19	[2]
<i>P. chlororaphis</i> GP72	Draft (347)	AHAY00000000.1	6.63	63.1	6107	-	56	-	[3]
<i>P. chlororaphis</i> O6	Draft (31)	CM001490.1	6.98	62.9	6,223	-	-	-	[2]
<i>P. extremaustralis</i> 14-3 substr 14-3b	Draft (113)	AHIP00000000.1	6.59	60.7	5934	13	49	-	[4]
<i>P. fluorescens</i> A506	Complete	CP003041.1	5.96	60.0	5627	19	69	17	unpublished
<i>P. fluorescens</i> F113	Complete	CP003150.1	6.85	60.8	5862	16	66	9	[5]
<i>P. fluorescens</i> NCIMB 11764	Draft(831)	CM001560.1	6.69	58.6	6011	4	30	-	[6]
<i>P. fluorescens</i> NZ007	Draft(809)	AKBR00000000.1	6.47	60	5730	7	47	-	unpublished
<i>P. fluorescens</i> NZ011	Draft(973)	AJXJ00000000.1	6.8	58.5	5923	6	53	-	unpublished
<i>P. fluorescens</i> NZ052	Draft(440)	AJXH00000000.1	6.82	60.1	6078	5	52	-	unpublished
<i>P. fluorescens</i> NZ17	Draft(1032)	AJXF00000000.1	6.8	63.2	6311	3	48	-	unpublished
<i>P. fluorescens</i> Pf0-1	Complete	CP000094.2	6.85	60.5	5722	19	73	3	[7]
<i>P. fluorescens</i> Q2-87	Draft(2)	AGBM00000000.1	6.36	60.6	5701	19	68	-	[2]
<i>P. fluorescens</i> R124	Draft(77)	ALYL01000000	6.25	60.3	5570	-	-	-	unpublished
<i>P. fluorescens</i> SBW25	Complete	AM181176.4	6.72	60.5	5921	16	66	15	[7]
<i>P. fluorescens</i> SS101	Complete	CM001513.1	6.18	60.0	5372	19	68	17	unpublished
<i>P. fluorescens</i> Wayne1	Draft (90)	CADX01000000	6.86	-	6228	-	52	-	[8]
<i>P. fluorescens</i> WH6	Draft(53)	CM001025.1	6.27	60.5	5833	4	52	-	[9]
<i>P. fluorescens</i> Wood1R	Draft (1437)	CAFF01000000	6.68	-	5897	-	30	-	[8]
<i>P. mandelii</i> JR-1	Draft (96)	AJFM00000000.1	7.10	57.9	6374	5	54	-	[10]
<i>P. protegens</i> Pf-5	Complete	CP000076.1	7.07	63.3	6108	16	71	17	[11]
<i>P. tolaasii</i> NCPPB 2192	Draft(13915)	AJXK00000000	14.37	60.2	12781	10	63	-	unpublished
<i>P. tolaasii</i> PMS117	Draft(357)	AJXG00000000	7.0	60.2	6178	3	52	-	unpublished
<i>Pseudomonas</i> sp Ag1	Draft(113)	AKVH00000000	7.25	-	6482	4	48	-	[12]
<i>P. synxantha</i> BG33R	Complete	CM001514.1	6.30	59.7	5509	19	68	18	[2]
<i>Pseudomonas</i> sp GM102	Draft(159)	AKJB00000000	6.65	-	6001	3	58	12	[13]
<i>Pseudomonas</i> sp GM16	Draft(128)	AKJV00000000	6.55	-	5867	2	64	13	[13]
<i>Pseudomonas</i> sp GM17	Draft(280)	AKJU00000000	6.78	-	6085	3	56	13	[13]
<i>Pseudomonas</i> sp GM18	Draft(140)	AKJT00000000	6.29	-	5682	2	61	12	[13]
<i>Pseudomonas</i> sp GM21	Draft(210)	AKJS00000000	6.60	-	6031	3	53	11	[13]
<i>Pseudomonas</i> sp GM24	Draft(399)	AKJR00000000	6.51	-	5828	7	54	12	[13]

Strain	Type	INSDC	Size (Mb)	GC%	CDS	rRNA	tRNA	Other RNA	Reference
<i>Pseudomonas sp</i> GM25	Draft(91)	AKJQ000000000	6.35	-	5684	2	51	11	[13]
<i>Pseudomonas sp</i> GM30	Draft(180)	AKJP000000000	6.14	-	5588	2	58	11	[13]
<i>Pseudomonas sp</i> GM33	Draft(205)	AKJO000000000	6.72	-	6061	2	49	11	[13]
<i>Pseudomonas sp</i> GM41(2012)	Draft(164)	AKJN000000000	6.61	-	6012	3	57	12	[13]
<i>Pseudomonas sp</i> GM48	Draft(200)	AKJM000000000	6.44	-	5845	3	47	11	[13]
<i>Pseudomonas sp</i> GM49	Draft(345)	AKJL000000000	6.58	-	6227	3	57	13	[13]
<i>Pseudomonas sp</i> GM50	Draft(155)	AKJK000000000	6.69	-	6033	3	57	11	[13]
<i>Pseudomonas sp</i> GM55	Draft(163)	AKJJ000000000	6.48	-	5949	7	50	2	[13]
<i>Pseudomonas sp</i> GM60	Draft(181)	AKJI000000000	6.42	-	5884	3	54	2	[13]
<i>Pseudomonas sp</i> GM67	Draft(183)	AKJH000000000	6.50	-	5966	2	57	2	[13]
<i>Pseudomonas sp</i> GM74	Draft(180)	AKJG000000000	6.10	-	5531	5	54	2	[13]
<i>Pseudomonas sp</i> GM78	Draft(235)	AKJF000000000	7.28	-	6681	2	57	1	[13]
<i>Pseudomonas sp</i> GM79	Draft(126)	AKJE000000000	6.70	-	6026	2	58	1	[13]
<i>Pseudomonas sp</i> GM80	Draft(282)	AKJD000000000	6.78	-	6183	3	59	2	[13]
<i>Pseudomonas sp</i> PAMC 25886	Draft (95)	AHHC000000000.1	7.02	59.9	5830	-	50	-	[14]
<i>Pseudomonas sp</i> R62	Draft (991)	AHZM000000000.1	6.32	59.5	5354	-	-	-	[15]
<i>Pseudomonas sp</i> R81	Draft (151)	AHZN01000000.1	6.22	61.7	5602	-	-	-	[15]

Numbers presented in parentheses indicate the number of contigs.

REFERENCES

1. Ortet P, Barakat M, Lalaouna D, Fochesato S, Barbe V, Vacherie B, Santaella C, Heulin T, Achouak W: **Complete genome sequence of a beneficial plant root-associated bacterium, *Pseudomonas brassicacearum***. *J Bacteriol* 2011, **193**(12):3146.
2. Loper JE, Hassan KA, Mavrodi DV, Davis EW, 2nd, Lim CK, Shaffer BT, Elbourne LD, Stockwell VO, Hartney SL, Breakwell K *et al*: **Comparative genomics of plant-associated *Pseudomonas* spp.: insights into diversity and inheritance of traits involved in multitrophic interactions**. *PLoS Genetics* 2012, **8**(7):e1002784.
3. Shen X, Chen M, Hu H, Wang W, Peng H, Xu P, Zhang X: **Genome sequence of *Pseudomonas chlororaphis* GP72, a root-colonizing biocontrol strain**. *J Bacteriol* 2012, **194**(5):1269-1270.
4. Tribelli PM, Raiger lustman LJ, Catone MV, Di Martino C, Revale S, Mendez BS, Lopez NI: **Genome sequence of the polyhydroxybutyrate producer *Pseudomonas extremaustralis*, a highly stress-resistant Antarctic bacterium**. *J Bacteriol* 2012, **194**(9):2381-2382.
5. Redondo-Nieto M, Barret M, Morrissey JP, Germaine K, Martinez-Granero F, Barahona E, Navazo A, Sanchez-Contreras M, Moynihan JA, Giddens SR *et al*: **Genome sequence of the biocontrol strain *Pseudomonas fluorescens* F113**. *J Bacteriol* 2012, **194**(5):1273-1274.
6. Vilo CA, Benedik MJ, Kunz DA, Dong Q: **Draft Genome Sequence of the Cyanide-Utilizing Bacterium *Pseudomonas fluorescens* Strain NCIMB 11764**. *J Bacteriol* 2012, **194**(23):6618-6619.
7. Silby M, Cerdano-Tarraga A, Vernikos G, Giddens S, Jackson R, Preston G, Zhang X-X, Moon C, Gehrig S, Godfrey S *et al*: **Genomic and genetic analyses of diversity and plant interactions of *Pseudomonas fluorescens***. *Genome Biology* 2009, **10**(5):R51.
8. Rong X, Gurel FB, Meulia T, McSpadden Gardener BB: **Draft genome sequences of the *Pseudomonas fluorescens* biocontrol strains Wayne1R and Wood1R**. *J Bacteriol* 2012, **194**(3):724-725.
9. Kimbrel JA, Givan SA, Halgren AB, Creason AL, Mills DJ, Banowetz GM, Armstrong DJ, Chang JH: **An improved, high-quality draft genome sequence of the Germination-Arrest Factor-producing *Pseudomonas fluorescens* WH6**. *BMC Genomics* 2010, **11**:522.
10. Jang SH, Kim J, Hong S, Lee C: **Genome sequence of cold-adapted *Pseudomonas mandelii* strain JR-1**. *J Bacteriol* 2012, **194**(12):3263.
11. Paulsen IT, Press CM, Ravel J, Kobayashi DY, Myers GS, Mavrodi DV, DeBoy RT, Seshadri R, Ren Q, Madupu R *et al*: **Complete genome sequence of the plant commensal *Pseudomonas fluorescens* Pf-5**. *Nat Biotechnol* 2005, **23**(7):873-878.
12. Wang Y, Gilbreath TM, 3rd, Kukutla P, Yan G, Xu J: **Dynamic gut microbiome across life history of the malaria mosquito *Anopheles gambiae* in Kenya**. *PLoS One* 2011, **6**(9):e24767.
13. Brown SD, Utturkar SM, Klingeman DM, Johnson CM, Martin SL, Land ML, Lu TY, Schadt CW, Doktycz MJ, Pelletier DA: **Twenty-one genome sequences from *Pseudomonas* species and 19 genome sequences from diverse bacteria isolated from the rhizosphere and endosphere of *Populus deltoides***. *J Bacteriol* 2012, **194**(21):5991-5993.
14. Shin SC, Kim SJ, Hong SG, Ahn do H, Lee YM, Lee H, Lee J, Park H: **Genome sequence of *Pseudomonas* sp. strain PAMC 25886, isolated from alpine glacial cryoconite**. *J Bacteriol* 2012, **194**(7):1844.
15. Mathimaran N, Srivastava R, Wiemken A, Sharma AK, Boller T: **Genome sequences of two plant growth-promoting fluorescent *Pseudomonas* strains, R62 and Rr81**. *J Bacteriol* 2012, **194**(12):3272-3273.