

SUPPLEMENTAL DATA

Table S1. Complete Microarray Analysis of the $\Delta prrF12$ Mutant.

Gene ID	Function of Gene Product	WT High Fe vs. WT Low Fe ¹				$\Delta prrF12$ Low Fe vs WT Low			
PA0792 <i>prpD</i>	methyl-citrate dehydratase	1.4	0.6	0.6	1.5	0.7	0.3	0.4	0.5
PA0793	conserved hypothetical protein	2.5	2.3	2.6	8.0	2.6	1.1	2.5	2.6
PA0794	methyl-isocitrate dehydratase	4.9	8.6	4.9	12.1	4.3	2.1	2.8	3.7
PA0795 <i>prpC</i>	methyl-citrate synthase	9.8	4.0	3.0	3.7	3.2	0.8	2.0	1.7
PA0796 <i>prpB</i>	methyl-isocitrate lyase	4.6	3.0	2.0	3.2	3.5	1.5	2.6	2.6
PA0797	putative GntR-type regulator	1.9	1.3	1.9	1.6	2.0	1.0	1.6	2.5
PA0844 <i>plcH</i>	hemolytic phospholipase C	6.1	4.3	9.8	26.0	3.5	2.3	2.0	2.5
PA0918	cytochrome b561	9.2	5.3	7.0	7.0	13.9	5.3	6.5	11.3
PA1172 <i>napC</i>	periplasmic nitrate reductase	4.9	1.9	6.5	24.3	2.8	2.8	4.3	6.1
PA1173 <i>napB</i>	periplasmic nitrate reductase	17.1	3.0	6.5	26.0	8.0	3.7	5.3	8.0
PA1174 <i>napA</i>	periplasmic nitrate reductase	14.9	2.1	7.5	29.9	13.0	4.3	8.0	13.9
PA1175 <i>napD</i>	periplasmic nitrate reductase	4.9	0.8	2.0	17.1	5.3	2.6	1.6	3.2
PA1176 <i>napF</i>	periplasmic nitrate reductase	42.2	1.1	1.9	17.1	5.7	3.0	1.4	3.2
PA1177 <i>napE</i>	periplasmic nitrate reductase	1.7	0.9	0.7	4.9	2.5	0.9	0.5	1.1
PA1186	possible flavin-dependent	8.0	1.9	8.0	29.9	4.6	4.3	3.0	2.1
PA1562 <i>acnA</i>	aconitase A	5.3	4.6	3.7	3.5	8.6	2.5	6.5	9.8
PA1580 <i>gltA</i>	citrate synthase	3.2	2.8	2.0	0.9	0.8	0.6	0.7	0.9
PA1581 <i>sdhC</i>	succinate dehydrogenase	8.6	5.7	1.9	2.1	2.1	1.3	1.7	2.0
PA1582 <i>sdhD</i>	succinate dehydrogenase	6.1	6.1	2.0	2.5	3.2	1.3	2.0	2.5
PA1583 <i>sdhA</i>	succinate dehydrogenase	4.0	4.6	2.1	2.8	3.7	1.5	2.1	2.5
PA1584 <i>sdhB</i>	succinate dehydrogenase	2.8	3.5	1.2	2.1	4.0	1.1	1.1	1.2
PA1600	putative cytochrome C	1.4	0.9	7.0	16.0	2.1	2.0	2.5	2.3
PA1601	putative aldehyde	16.0	1.6	14.9	52.0	2.1	7.5	12.1	8.0
PA1602	probable oxidoreductase	5.7	1.0	3.7	19.7	3.2	2.8	2.8	2.0
PA1787 <i>acnB</i>	aconitase B	4.9	5.7	3.2	1.6	1.1	0.8	2.3	2.5
PA2378	probable aldehyde	11.3	3.2	3.5	3.5	5.3	2.3	3.5	7.0
PA2379	probable oxidoreductase	7.0	4.9	2.6	1.7	3.0	1.5	2.8	5.3
PA2507 <i>catA</i>	catechol degradation	5.7	7.0	32.0	32.0	5.7	2.8	3.0	3.7
PA2508 <i>catC</i>	catechol degradation	6.1	4.9	27.9	24.3	64.0	1.9	2.6	3.2
PA2509 <i>catB</i>	catechol degradation	2.3	3.2	8.0	12.1	4.6	1.1	3.5	2.5
PA2510 <i>catR</i>	LysR-type regulator	1.7	1.1	3.5	5.7	1.4	1.3	2.0	1.4
PA2511 <i>antR</i>	AraC-type regulator	168.9	6.5	8.6	22.6	104.0	13.0	4.0	4.3
PA2512 <i>antA</i>	anthranilate degradation	52.0	238.9	104.0	238.9	512.0	111.4	2.3	2.1
PA2513 <i>antB</i>	anthranilate degradation	68.6	207.9	194.0	222.9	137.2	73.5	2.6	2.3
PA2514 <i>antC</i>	anthranilate degradation	52.0	73.5	168.9	59.7	55.7	13.9	3.7	3.0
PA2682	dienelactone hydrolase	59.7	18.4	12.1	13.9	29.9	14.9	2.8	2.8
PA2916	hypothetical protein	119.4	1.2	11.3	111.4	5.3	17.1	4.3	3.5
PA2917	hypothetical protein	48.5	2.3	4.0	24.3	4.6	4.3	2.3	2.6
PA3327	probable non-ribosomal peptide	2.3	1.1	2.8	7.5	2.3	2.8	1.4	1.2
PA3328	probable FAD-dependent	2.5	1.3	2.5	13.9	2.3	2.3	1.6	1.4
PA3329	hypothetical protein	5.7	1.7	4.6	13.9	2.5	3.0	3.5	2.8
PA3330	probable short-chain	32.0	2.6	5.3	24.3	4.6	6.5	3.2	2.1
PA3331	cytochrome P450	3.7	2.5	3.7	12.1	2.8	1.9	3.5	3.0
PA3332	conserved hypothetical protein	2.5	2.6	3.5	13.0	3.0	1.9	2.3	1.9

Gene ID	Function of Gene Product	WT High Fe vs. WT Low Fe ¹				$\Delta prrF12$ Low Fe vs WT Low			
PA3333 <i>fabH2</i>	acetyl-CoA ACP transacetylase	1.9	2.1	4.6	17.1	3.5	2.6	3.0	2.5
PA3531 <i>bfrB</i>	bacterioferritin	168.9	24.3	9.2	26.0	3.0	0.9	0.7	0.6
PA3602	conserved hypothetical protein	4.0	3.5	3.2	10.6	18.4	6.1	4.0	4.3
PA3872 <i>narI</i>	nitrate reductase	1.2	1.1	4.3	19.7	2.0	2.3	0.9	1.9
PA3873 <i>narJ</i>	nitrate reductase assembly	1.9	0.9	4.3	12.1	2.0	1.6	1.7	1.5
PA3874 <i>narH</i>	nitrate metabolism	3.7	2.1	21.1	181.0	2.0	17.1	10.6	8.0
PA3875 <i>narG</i>	nitrate reductase	1.1	1.6	7.5	48.5	1.4	4.6	2.3	2.5
PA3876 <i>narK₁</i>	nitrate extrusion protein 1	2.5	1.1	3.7	32.0	2.8	3.0	1.0	0.9
PA3877 <i>narK₂</i>	nitrate extrusion protein 2	2.3	0.9	5.3	73.5	3.0	4.9	1.1	1.0
PA3878 <i>narX</i>	2-component sensor kinase	1.4	2.1	2.5	7.0	3.0	1.5	3.7	2.6
PA3879 <i>narL</i>	2-component response regulator	2.0	2.3	2.1	4.0	2.6	0.8	1.1	1.3
PA4236 <i>katA</i>	catalase	7.5	7.0	3.0	4.0	5.7	3.2	5.3	6.1
PA4366 <i>sodB</i>	Fe-superoxide dismutase	5.3	9.8	5.7	1.4	4.6	1.9	4.6	4.0
PA4809 <i>fdhE</i>	formate dehydrogenase	1.5	1.5	2.8	6.5	3.7	1.6	3.0	4.3
PA4810 <i>fdnI</i>	nitrate-inducible formate	34.3	4.9	9.2	13.9	16.0	6.5	18.4	24.3
PA4811 <i>fdnH</i>	nitrate-inducible formate	78.8	32.0	14.9	104.0	181.0	64.0	55.7	90.5
PA4812 <i>fdnG</i>	nitrate-inducible formate	4.0	8.0	4.9	8.6	24.3	6.5	27.9	48.5
PA4844	probable chemotaxis transducer	9.2	1.9	5.7	19.7	3.5	3.7	6.5	3.7
PA4880	probable bacterioferritin	13.0	7.5	5.3	2.3	14.9	2.1	13.9	21.1
PA5352	conserved hypothetical protein	1.6	4.3	6.1	24.3	1.1	2.0	1.5	1.6
PA5353 <i>glcF</i>	glycolate oxidase subunit	10.6	3.7	9.2	111.4	3.7	16.0	1.5	1.9
PA5354 <i>glcE</i>	glycolate oxidase subunit	0.9	4.9	8.6	97.0	2.8	7.5	2.8	2.6
PA5355 <i>glcD</i>	glycolate oxidase subunit	1.0	5.3	9.2	10.6	1.4	1.6	2.5	2.0

¹Ratio of expression in wild type PAO1 grown in iron-replete conditions vs. wild type PAO1 grown in iron-depleted conditions. $P < 0.0001$ for the expression ratio of each gene in each experiment as determined by GeneSpring® analysis software.

²Ratio of expression in the $\Delta prrF12$ mutant grown in iron depleted conditions vs. wild type PAO1 grown in iron depleted conditions. $P < 0.0001$ for the expression ratio of each gene in each experiment as determined by GeneSpring® analysis software.

Gene/Operon	Complementarity identified between PrrF1 and target mRNA	Identified by: ^{1,2}
PA4880	PrrF1 50 CUCUUCA--GAUUAUCUCCUCAUCAGGCUAAUCACGG 34 	Wilderman, 2004. <i>PNAS</i>
	PA4880 8 CACCAGUAGCCAAAAGAGGA--ACUCCGACUAG-GCC -26	
<i>napCBADFE</i>	PrrF1 80 CGGUUUUUGACCCGGCA-CUUUGCCGG 105 : :	LALIGN
	<i>napE</i> 7 GCAAGUAACCGGGUCGGAGAUACGUCC -20	
<i>narIJHGK₁K₂XL</i>	Identified in PA3869, transcribed convergent to the <i>nar</i> operon:	Target RNA
	PrrF1 74 GCUAAUCACGGUUUUUGACCCGGCACUUUGCCGGGUCUUUUUUUGCCUGCGAUUCG 129 : : : :	
	PA3869 386 CGAGUAUGGCCA----UUAGGCCGUGAAACG---UAGAAAA----GGACGUUGAGC 342	
<i>fdnGHI,fdhE</i>	None identified	N/A

¹LALIGN available at http://www.ch.embnet.org/software/LALIGN_form.html

²Target RNA available at <http://snowwhite.wellesley.edu/targetRNA/>