

Supporting Tables

Table S1. Transposon insertion mutants with altered *P_{pilY1}-lacZ* reporter activity.

Gene^a	Number of insertions	Miller unit (liquid)^b	Miller unit (surface)^b	Function/pathway
WT	N/A	72±2	147±9	
<i>fimS</i>	1	19±1	75±13	Putative histidine kinase; Alginate biosynthesis
<i>algR</i>	1	17±2	17±5	Response regulatory protein; Alginate biosynthesis,
<i>vfr</i>	5	36±6	38±5	Cyclic AMP receptor protein, transcriptional regulator
<i>pilJ</i>	2	42±1	50±6	Putative methyl-accepting chemotaxis protein
<i>pilK</i>	2	40±2	40±4	Putative methyltransferase
<i>chpA</i>	1	39±7	50±1	Putative chemotaxis protein, histidine kinase
<i>fimV</i>	2	33±3	44±7	Putative aspartate-semialdehyde dehydrogenase; TFP biosynthesis;
<i>pilC</i>	3	26±3	33±6	Inner membrane platform protein; TFP biosynthesis;
<i>fimU</i>	2	17±3	16±0	Minor pilin of TFP
<i>pilY1</i>	2	973±51	5726±126	TFP twitching activity; swarming

				activity
<i>truB</i>	4	38±18	52±14	tRNA pseudouridine 55 synthase
<i>rnpA</i>	1	24±5	41±1	Ribonuclease P protein component
<i>rrmJ</i>	1	29±4	70±1	Cell division protein
<i>sucD</i>	1	41±1	72±7	Succinyl-CoA synthetase alpha chain
<i>thrH</i>	1	44±10	95±15	Homoserine kinase
<i>rbfA</i>	1	50±21	N/A	Ribosome-binding factor A
<i>gshA</i>	1	38±2	61±2	Glutamate--cysteine ligase
<i>miaA</i>	1	20±2	18±1	Delta 2-isopentenylpyrophosphate transferase
<i>nuoN</i>	1	32±2	69±3	Putative methyltransferase, NADH dehydrogenase I chain N
<i>pepA</i>	1	34±0	55±1	Leucine aminopeptidase
Intergenic <i>PA14_28510</i> -28520	1	34±2	44±1	Intergenic region of 28520 and 28510. Both are hypothetical proteins
<i>PA14_01510</i>	1	55±5	N/A	Putative plasmid stabilization system protein
<i>PA14_05210</i>	1	25±2	25±3	Putative membrane protein
<i>PA14_11970</i>	1	39±2	47±1	Methylpurine-DNA glycosylase family protein
<i>PA14_13900</i>	1	39±1	50±2	Hypothetical protein
<i>PA14_15290</i>	1	31±2	49±2	Putative regulatory protein

<i>PA14_39440</i>	1	29±1	43±5	Hypothetical protein
<i>PA14_41150</i>	1	18±5	12±2	Putative permease of ABC transporter
<i>PA14_46510</i>	1	36±3	46±3	Hypothetical protein
<i>PA14_59180</i>	1	39±6	N/A	Topoisomerase I - like protein
<i>PA14_60060</i>	1	45±10	N/A	Hypothetical protein
<i>PA14_72220</i>	1	33±3	N/A	Conserved hypothetical protein

^a Sites of transposon insertion are located within the coding sequences of the indicated genes. In bold indicate genes investigated in this study.

^b Cells were grown in either M8 liquid broth to log phase ($OD_{600} = 0.5$), or on M8 swarming agar (0.5% agar) surface overnight. The Miller units (mean ±SD) from at least three biological replicates were shown.