

**Kinetic Analysis of *Pseudomonas Aeruginosa* Arginine Deiminase Mutants  
and Alternate Substrates Provides Insight Into Structural Determinants of  
Function<sup>#</sup>**

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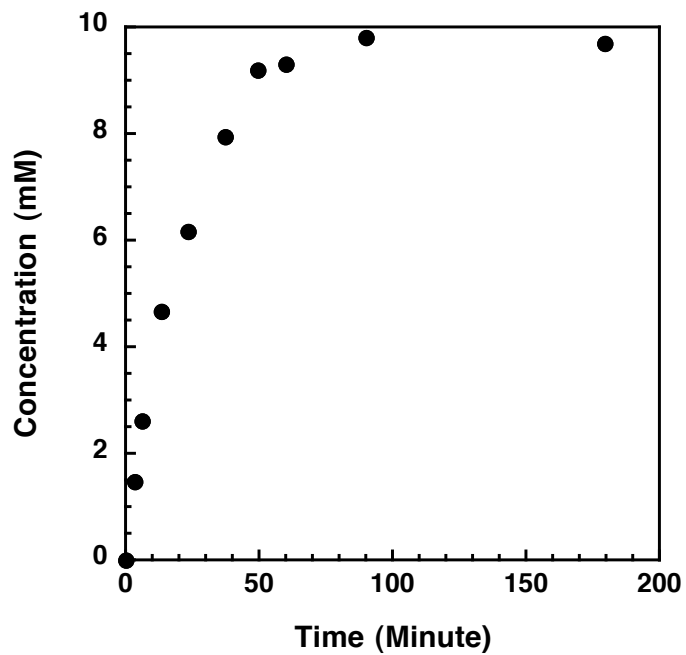
**SUPPORTING INFORMATION**

1 Figure of a time course of the formation of L-citrulline in the reaction of 10 mM N<sup>ω</sup>-amino-L-arginine with 3 μM arginine deiminase.

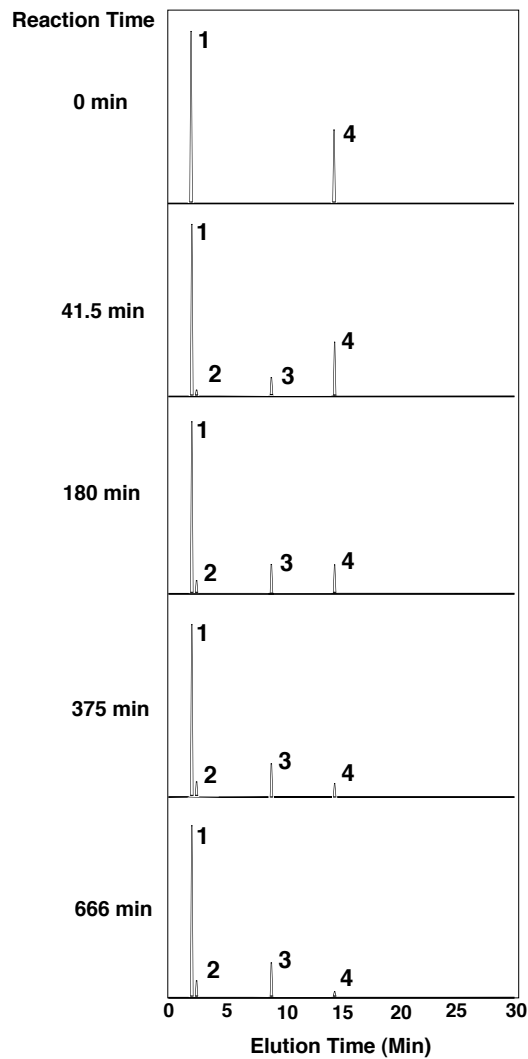
2 Figure of HPLC analysis of the reaction of 10 mM N<sup>ω</sup>-amino-L-arginine with 1 μM arginine deiminase.

3 Figure of ESI-MS determination of the solution from enzyme-catalyzed reaction of 10 mM N<sup>ω</sup>-amino-L-arginine with 10 μM arginine deiminase

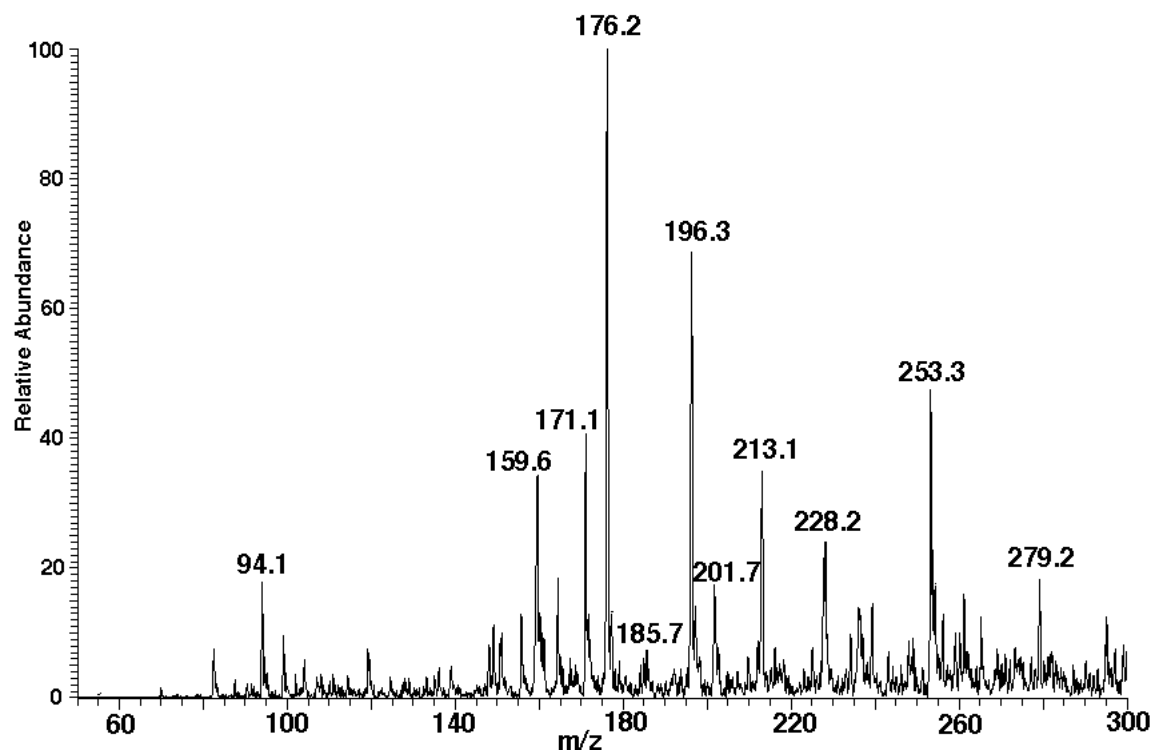
Four pages total.



**Figure S11.** Time course of the formation of L-citrulline in the reaction of 10 mM N<sup>ω</sup>-amino-L-arginine with 3 μM arginine deiminase in 50 mM K<sup>+</sup>(2-N-morpholino-ethane-sulfonate)/20 mM MgCl<sub>2</sub> (pH 5.6) at 25 °C. L-Citrulline was monitored by using the colorimetric, fixed-time assay. (See Materials and Methods)



**Figure SI2.** HPLC analysis of the reaction of 10 mM N<sup>ω</sup>-amino-L-arginine with 1 μM arginine deiminase in 50 mM K<sup>+</sup>(2-N-morpholino-ethane-sulfonate)/20 mM MgCl<sub>2</sub> (pH 5.6) at 25 °C. Peak 1, K<sup>+</sup>(2-N-morpholino-ethane-sulfonate) buffer; Peak 2, hydrazine; 3, Peak 3, L-citrulline; Peak 4, N<sup>ω</sup>-amino-L-arginine. (See Materials and Methods)



**Figure SI3.** ESI-MS determination of the solution from enzyme-catalyzed reaction of 10 mM N<sup>ω</sup>-amino-L-arginine with 10 μM arginine deiminase in 50 mM K<sup>+</sup>(2-N-morpholino-ethane-sulfonate)/20 mM MgCl<sub>2</sub> (pH 5.6) at 25 °C. (See Materials and Methods)