Supporting Information

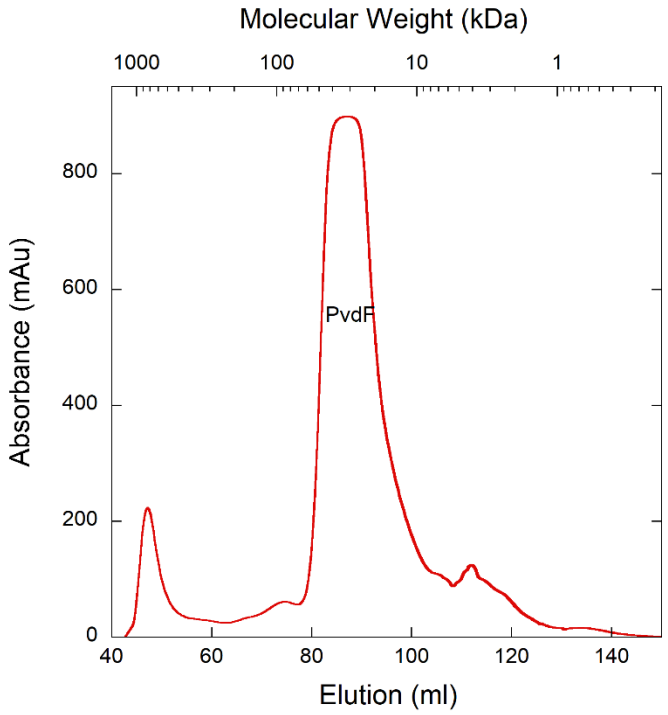
PvdF of pyoverdin biosynthesis is a structurally unique N^{10}-formyltetrahydrofolate-dependent formyltransferase

Nikola Kenjic[1], Matthew R.Hoag[2], Garrett C. Moraski[3], Carol A. Caperelli[4], Graham R.Moran[5], and Audrey L. Lamb[1,*]

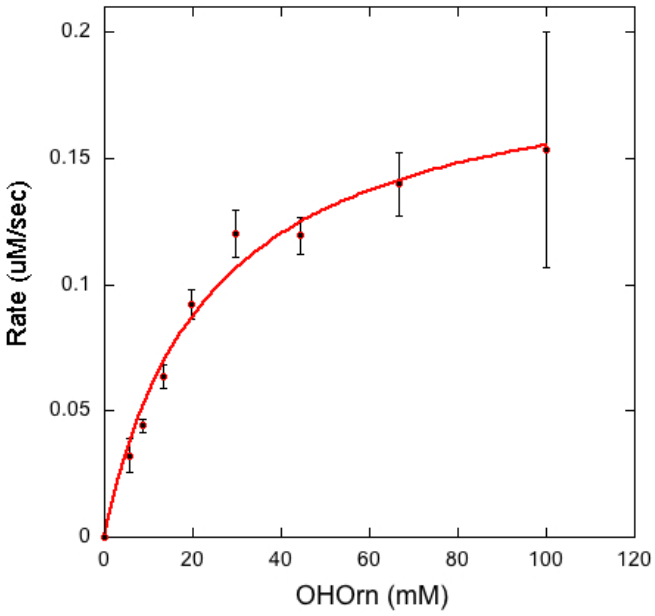
[1]Department of Molecular Biosciences, 1200 Sunnyside Ave, University of Kansas, Lawrence, KS, 66045
[2]Department of Chemistry and Biochemistry, 3210 N Cramer St, University of Wisconsin-Milwaukee, Milwaukee, WI, 53211
[3]Department of Chemistry and Biochemistry, 103 Chemistry and Biochemistry Building, Montana State University, Bozeman, MT, 59717
[4]Winkle College of Pharmacy, University of Cincinnati, ML 0514, 231 Albert Sabin Way, MSB 3109B, Cincinnati, OH, 45267
[5]Department of Chemistry and Biochemistry, 1068 W Sheridan Rd, Loyola University Chicago, Chicago, IL 60660

Contents

Figure S-1: Size exclusion chromatogram
Figure S-2: Michaelis-Menten kinetics using synthesized OHOrn as the varied substrate.



Supplemental Figure S1. Size exclusion chromatography elution profile from a Superdex 200 column (GE Healthcare). PvdF elutes only in the peak at 89 ml, consistent with the molecular weight of a monomer, 31 kDa.



Supplemental Figure S2. Steady state kinetics in the presence of synthesized hydroxyornithine as a substrate. The high value of K_M is rationalized by the instability of the OHOrn substrate. This plot was generated in triplicate using a plate reader on a single day. The kinetic constants derived from the above plot are $K_m = 30 \pm 10$ mM, $k_{cat} = 1.0 \pm 0.2$ sec^{-1}. On subsequent days, the K_M increased and k_{cat} decreased, and the experiment could not be reliably replicated.