SUPPORTING INFORMATION

Orotidine 5'-Monophosphate Decarboxylase: The Operation of Active Site Chains Within and Across Protein Subunits.

Tiago A. S. Brandão[‡] and John P. Richard[†,*]

[‡] Department of Chemistry, ICEx, Federal University of Minas Gerais, Belo Horizonte, MG, 31270-901, Brazil.

[†]Department of Chemistry, University at Buffalo, SUNY, Buffalo, New York 14260-3000

* Author to whom correspondence should be addressed: EMAIL: jrichard@buffalo.edu

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Figures S1A - S1C show plots of v/[E] against [OMP] for decarboxylation catalyzed by D37G, D37A and T100'A variants, respectively, of OMPDC at 25 °C, pH 7.1 (30 mM MOPS) and ionic strength of 0.105 (NaCl). The solid lines in Figures S1A - S1C show the non-linear least squares fit of these experimental data to the Michaelis-Menten equation using the values of k_{cat} and K_m from Table 1 in the main text. Figures S2A and S2B show plots of v/[E] against [FOMP] for decarboxylation catalyzed by D37G, D37A variants of OMPDC at 25 °C, pH 7.1 (30 mM MOPS) and ionic strength of 0.105 (NaCl). The solid lines in Figures S2A and S2B show the non-linear least squares fit of these experimental data to the Michaelis-Menten equation using the values of k_{cat} and K_m from Table 1 in the main manuscript.

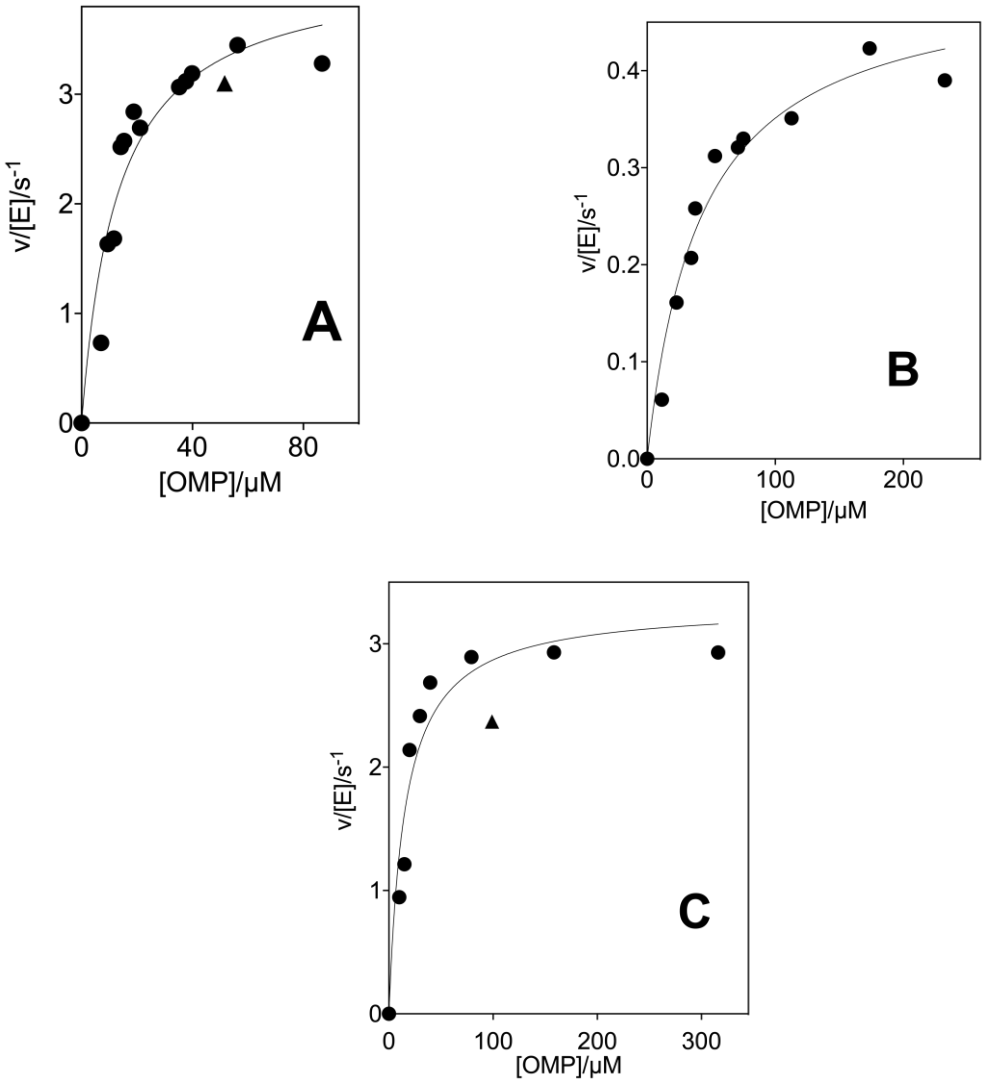

Figure S1. Dependence of *v*/[E] for decarboxylation of OMP catalyzed by variant forms of OMPDC on the concentration of OMP for reactions at 25 °C, pH 7.1 (30 mM MOPS) I = 0.105 (NaCl). Key: A, D37G variant of [OMPDC] = 110 nM; B, D37A variant at [OMPDC] = 210 nM; C, T100'A variant at [OMPDC] = 270 nM.

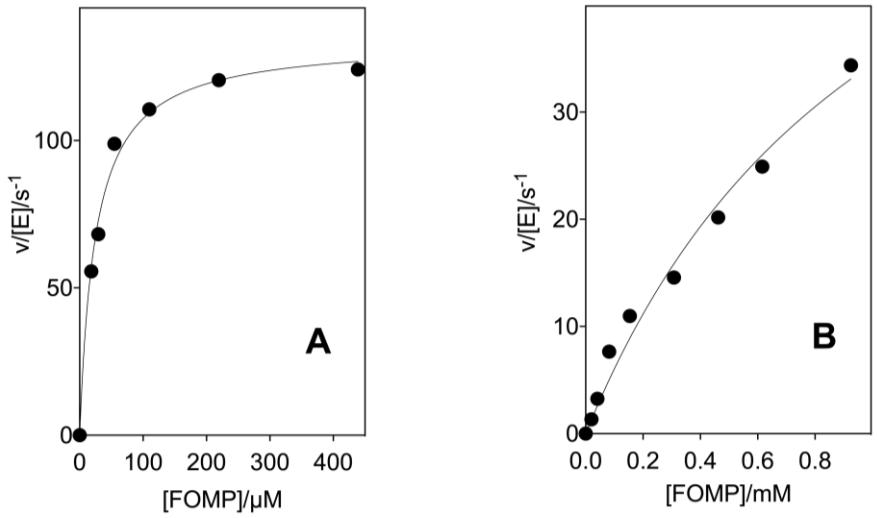

Figure S2. Dependence of *v*/[E] for decarboxylation of FOMP catalyzed by variant forms of OMPDC on the concentration of OMP for reactions at 25 °C, pH 7.1 (30 mM MOPS) I = 0.105 (NaCl). Key: A, D37G variant at [OMPDC] = 56 nM; (B) D37A variant at [OMPDC] = 60 nM.