

Plasticity of Cytochrome P450 2B4 as Investigated by Hydrogen-Deuterium Exchange Mass Spectrometry and X-Ray Crystallography*^S

P. Ross Wilderman^{1§}, Manish B. Shah^{1§}, Tong Liu², Sheng Li², Simon Hsu², Arthur G. Roberts¹, David R. Goodlett³, Qinghai Zhang⁴, Virgil L. Woods Jr.², C. David Stout⁴, and James R. Halpert¹

¹Skaggs School of Pharmacy and Pharmaceutical Sciences, University of California, San Diego, La Jolla, CA 92093; The ²Department of Medicine, University of California, San Diego, La Jolla, CA 92093; The ³Department of Medicinal Chemistry, University of Washington, Seattle, WA 98195; and The ⁴Department of Molecular Biology, The Scripps Research Institute, La Jolla, CA 92037.

SUPPLEMENTAL EXPERIMENTAL DATA

Figure S1. UV-visible spectroscopy of ligand-free P450 2B4dH in A) solution and B) crystal. Because of strong absorbance in the Soret region 350-500 nm, only the α and β absorbance bands are shown. Experiments were completed in the buffer used for crystallization of P450 2B4dH containing 50 mM potassium phosphate (pH 7.4 at 4°C), 500 mM NaCl, 1 mM EDTA, 20% (v/v) glycerol and 0.2 mM DTT. The addition of CYMAL-5 did not change the absorbance spectra in panel A significantly (data not shown).

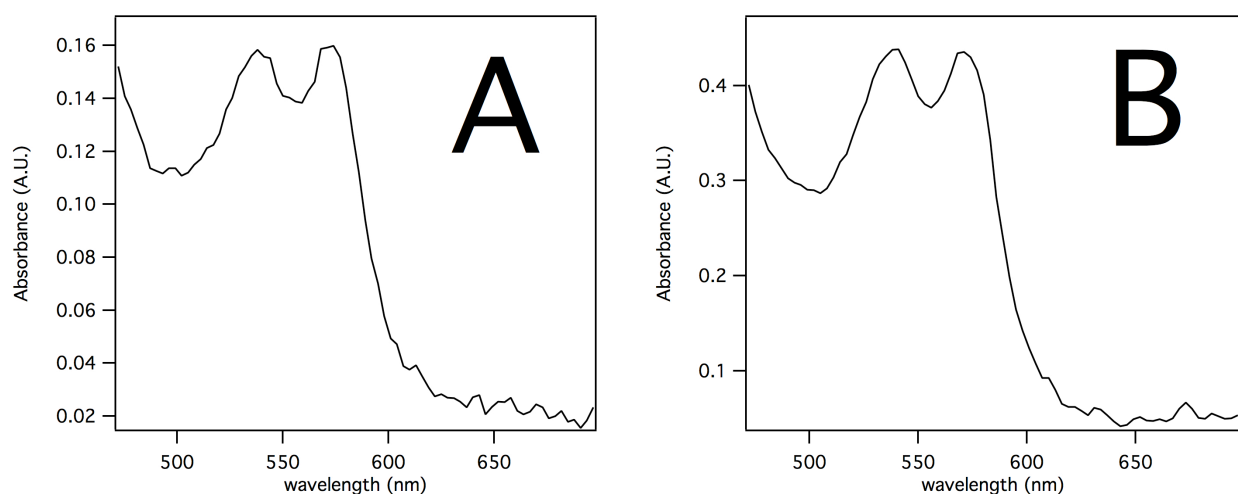


Figure S2. Comparison of the open ligand-free structure and ligand-bound structures of P450 2B4dH. Overlay of open structure (green), 4-CPI-bound structure (purple), and 1-PBI-bound structure (yellow) shows relative differences among plastic regions of the enzyme.

