# Structural and Kinetic Effects on Changes in the $CO_2$ Binding Pocket of Human Carbonic Anhydrase II

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Figure S1

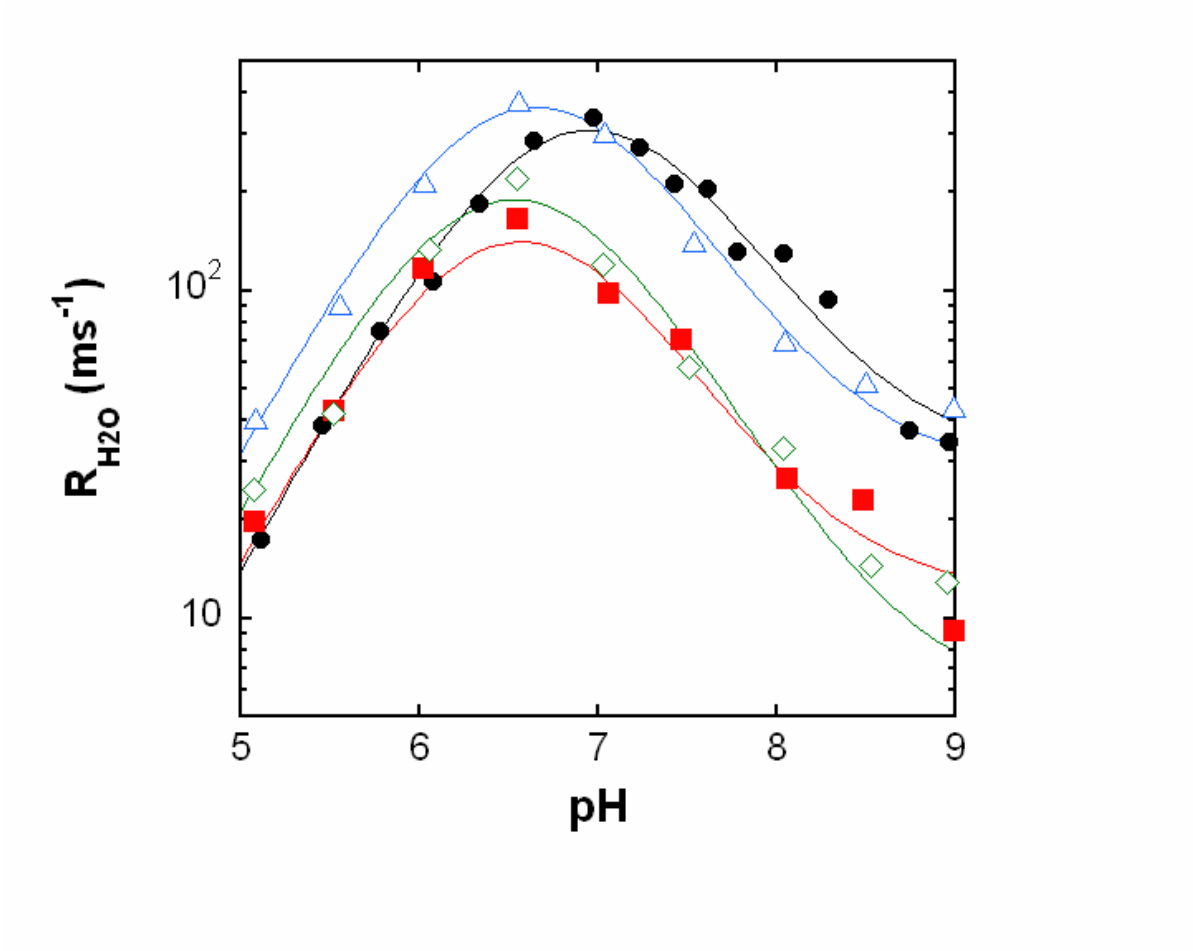


**Figure S1.** pH profiles of $R_{H2O}$/[E] ($s^{-1}$) for the hydration of $CO_2$ catalyzed by the following variants of HCA II: wild type (black, ●); V143A (blue, Δ); V143I (red, ■); and V143L (green, ◊). Data were obtained from rates of depletion of $^{18}O$ from $CO_2$ measured by membrane inlet mass spectrometry at 25 °C in solutions containing 25 mM $^{18}O$-enriched $CO_2$/bicarbonate. No buffers were added.