Supporting Information For

The Effect of the Disease-Causing R266K Mutation on the Heme and PLP Environments of Human Cystathionine β-Synthase

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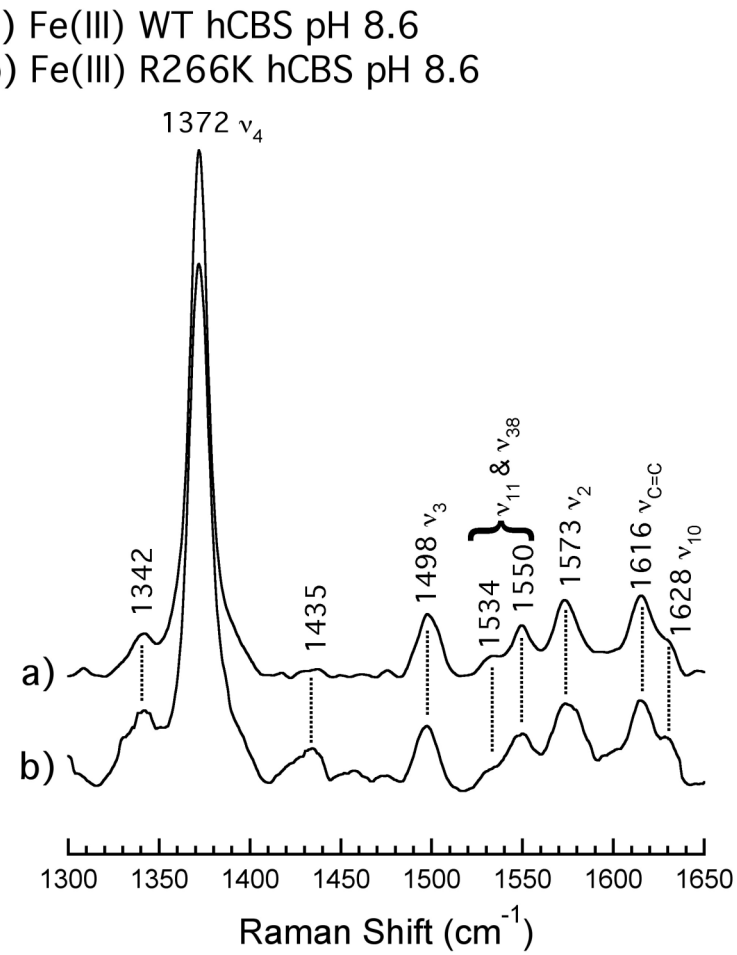

Figure S1. Resonance Raman spectra of Fe(III) A) WT hCBS and B) R266K hCBS. Proteins (141 μM and 235 μM, A and B, respectively) were in 100 mM CHES buffer and 100 mM NaCl, pH 8.6. Spectra were acquired using solution samples by excitation with a 413.1 nm line provided by a Kr^+ laser with 10.5 mW of power at the sample. All measurements were carried out with the sample immersed in a bath of ice water to reduce local heating. Peak positions were calibrated against a K_2SO_4 standard.

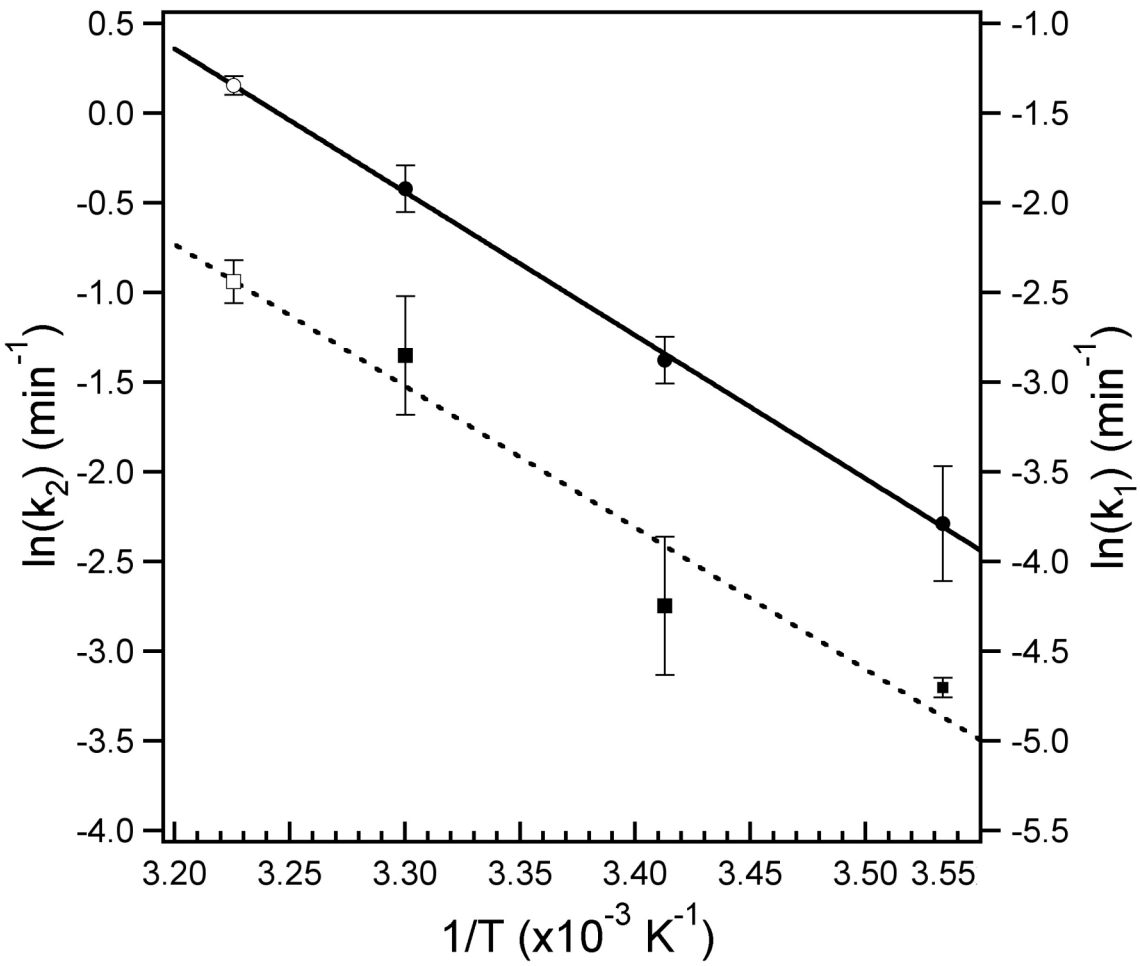

Figure S2. Arrhenius plots of the fit rate constants (min^{-1}) for the loss of the Cys(thiolate)-ligated heme Soret of Fe(II) R266K hCBS. Experimental values of k_1 (solid circles, ●) and k_2 (solid squares, ■) were determined for 10, 20 and 30°C (283, 293, and 303 K, respectively). Extrapolated values for k_1 (open circle, ○) and k_2 (open square, □) were determined at 37°C (310 K). Error bars represent ± one standard deviation of the fit value determined from three replicate measurements.