



²H,¹⁵N-CYP101-S-CO (reduced, CO-bound, cytochrome P450cam) with 2 mM camphor, titrated with Pdxr (reduced putidaredoxin, the effector)

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Field strength: 800 MHz

Why is this your favorite spectrum?

Besides being beautiful, this spectrum shows so much detail about the conformational change of the enzyme that results from effector binding. The inserts, showing C357 at fast exchange and L358 at slow exchange, effectively bracket the time scale of the induced conformational change (150–200/s).

Notice the chemical shift of the two amides in the inserts (4.05 and 2.75 ppm!). C357 and L358 are located above the heme in cytochrome P450cam.