

## **Gas-Binding Studies of the Carbon Monoxide Sensor, CooA**

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CooA is a carbon monoxide-sensing (CO-sensing) heme protein transcription factor that regulates gene activation in several bacteria and is a convenient model for studying analogous proteins in the human body. The goal of this study is to understand the specificity and mechanism of gas binding of CooA. To accomplish this, wild type CooA and selected protein variants were purified and then reacted with different diatomic gas molecules. The resulting species were characterized by UV-Visible and fluorescence spectroscopy.

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