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Letter to the Editor

^{1}H, ^{13}C and ^{15}N resonance assignments of the pyrazinamidase from *Mycobacterium tuberculosis*

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Pyrazinamidase (PncA, PZase) is a 20 kDa protein. Mycobacteria are known to acquire resistance to the antituberculous drug pyrazinamide (PZA) through mutations in the gene encoding Pyrazinamidase, an enzyme that converts PZA into pyrazinoic acid, the presumed active form of PZA against bacteria. PZA-resistant clinical isolates of *Mycobacterium tuberculosis* are usually defective in PZase activity and there is good correlation between PZA resistance and loss of this enzyme. We initiated a structural study of PncA using NMR spectroscopy. Almost all backbone atoms (^{1}HN, ^{15}N, $^{13}C^{\alpha}$, $^{1}H^{\alpha}$, $^{13}C'$) were assigned except M1 and proline residues. In total, out of all 2161 observable atoms, 1631 were assigned. The backbone and sidechain chemical shifts have been deposited in the BioMagResBank (Accession No. 7059).

References: Konno et al. (1967) *Am. Rev. Respir. Dis.* **95**, 461–469; Miller et al. (1995) *J. Clin. Microbiol.* **33**, 2468–2470; Scorpio and Zhang (1996) *Nat. Med.* **2**, 662–667; Trivedi and Desai (1987) *Tubercle* **68**, 221–224.

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