

Letter to the Editor

NMR assignment of the SARS-CoV protein nsp1

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Severe acute respiratory syndrome (SARS) is a life-threatening form of pneumonia caused by a coronavirus (CoV) (Peiris et al., 2003). The nonstructural protein 1 (nsp1) is a component of the SARS-CoV replicase polyprotein that mediates RNA replication and processing (Thiel et al., 2003). Overall, only limited information is available on the functions of most of the coronavirus nonstructural proteins. We started a NMR structure determination to provide a basis for functional characterization of nsp1. For the resonance assignments we used 2D and 3D heteronuclear NMR experiments measured at ^1H frequencies of 600 MHz and 800 MHz with uniformly ^{13}C , ^{15}N -labeled nsp1(13–127). Assignments are complete except for the backbone ^{15}N and H^N of H2, G48, H70 and D82, ^{13}CO of G1, L7, L50, V75, V97 and G116, and the side chain ϵ1CH of all five histidines. In addition to the side chain $^{13}\text{CH}_n$ groups, the chemical shifts of the side chain labile protons of all Asn and Gln, and ϵNH of R18 were also assigned (BMRB accession number: 7014).

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References: Peiris et al. (2003) *Lancet*, **361**, 1319–1325; Thiel et al. (2003) *J. Gen. Virol.*, **84**, 2305–2315.

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