

Letter to the Editor

NMR assignment of the protein nsp3a from SARS-CoV

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The SARS coronavirus (SARS-CoV) is responsible for the severe acute respiratory syndrome, which affected thousands of people in 2003 and against which there is as yet no efficient treatment (Peiris et al., 2003). The nonstructural protein 3 (nsp3) is a component of the SARS-CoV replicase that mediates RNA replication and processing (Thiel et al., 2003). It comprises seven predicted domains, but similar to most other nonstructural coronavirus proteins, the functions of nsp3 are still only poorly understood. A NMR structure determination of its N-terminal domain, nsp3a, has been started to obtain a structural basis for further studies. For the resonance assignments we employed 2D and 3D heteronuclear NMR experiments with uniformly ^{13}C , ^{15}N -labeled nsp3a(1–112). The assignments are complete except for the backbone H^{N} and ^{15}N of I3, the backbone ^{13}CO of V67, P68, Y108, P109 and E112, the entire sidechain of M103, C^{ζ} and H^{ζ} of F8 and F88, $\text{H}^{\delta 1/\delta 2}$ and $\text{C}^{\delta 1/\delta 2}$ of L36, and C^{γ} and H^{γ} of L66. (BMRB accession number 7019). This study was supported by NIAID/NIH contract #HHSN266200400058C & NIH/NIGMS grant #U54-GM074898.

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

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