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Secondary Structure of the SL1 in the Yeast Double-stranded RNA Virus by NMR Spectroscopy

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SL1 is one of the two stem-loop structures of ScV-M1 RNA which plays an important role in protein binding, replication, and packaging. ScV-M1 is known to be an yeast double-stranded RNA virus. Here, we present the secondary structure of SL1 determined by NMR spectroscopy. SL1 consists of a first stem of 4 bp and a second 3 bp stem separated by a single-base A bulge. Formation of the 3 bp stem creates a loop with the sequence GAUUC. This result is consistent with that of earlier biochemical studies. Presently, 3D structural calculations are in progress.