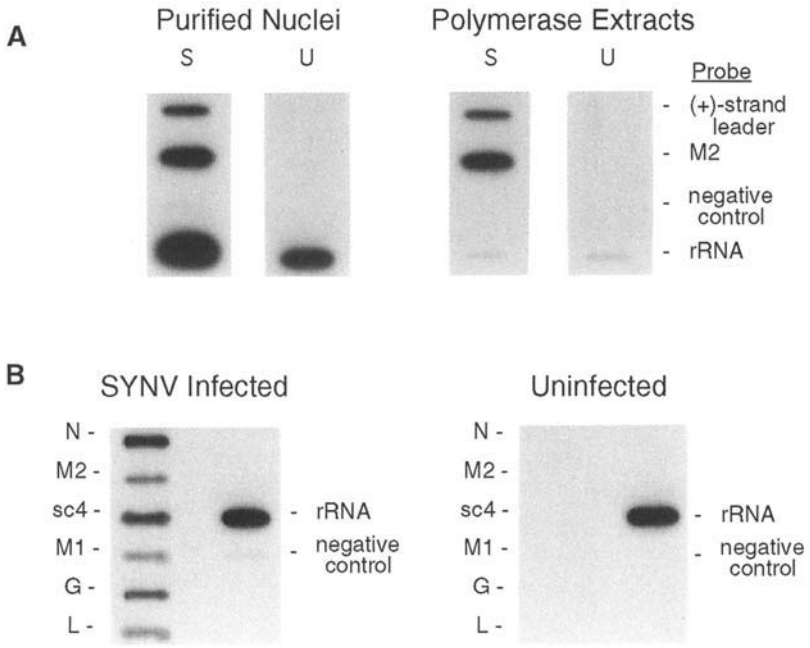

Fig. 4. Slot-blot hybridization of RNA synthesized in reactions containing purified tobacco nuclei and polymerase extracts from nuclei. For this experiment, unlabeled DNA probes representative of various parts of the viral genome, or to a ribosomal DNA clone from plants, were placed in individual slots and filtered onto a nitrocellulose membrane support. The DNA was bound to the membrane, and radioactive RNA products synthesized in 30-min polymerase reactions were used for hybridization. The probes were derived from the SYNV (+)-strand leader RNA, the N, M2, sc4, M1, G, and L genes, and a ribosomal RNA control. **(A)** Illustrates the hybridization of RNA products from purified nuclei and polymerase extracts derived from SYNV-infected tissue (S) and from uninfected plants (U). The results show that nuclei from SYNV-infected plants actively synthesize abundant amounts of the SYNV leader RNA and the M2 RNA, as well as host rRNA; the nuclei from uninfected plants synthesize only the host rRNAs. In contrast, the polymerase activity eluted from the nuclei is specific for the SYNV RNA. **(B)** Shows that nuclei from SYNV-infected plants synthesize each of the SYNV genes and rRNA, and verify that nuclei from uninfected plants synthesize only rRNA.

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