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# Synthesis of complementary RNA by RNA-dependent RNA polymerases in plant extracts is independent of an RNA primer

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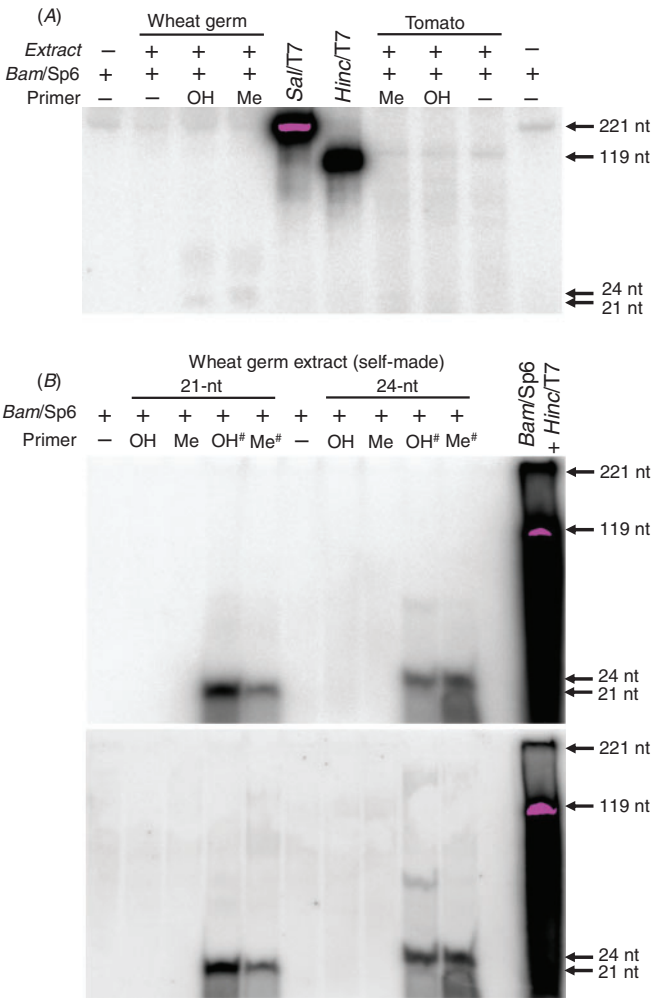


**Fig. S1.** No RDR activities could be detected in wheat germ and tomato leaf extracts. (*A*) RDR assays using wheat germ extract (purchased from Promega) and tomato leaf extract. The faint ~221-nt band was likely due to small amounts of contaminating antisense GUS RNA generated during *in vitro* transcription of *Bam*HI-linearized pMBW448 with Sp6 polymerase, as it was detected in control samples without the plant extracts (the first and last lanes). (*B*) RDR assay using unlabelled or radiolabelled (with the symbol #) RNA primers and wheat germ extract self-prepared according to Tang *et al.* (2003). The upper panel is a direct exposure of the gel blot while the lower panel is from hybridization of the same gel blot with $^{32}$P-labelled *Bam*/Sp6 RNA probe to detect primer-independent product.

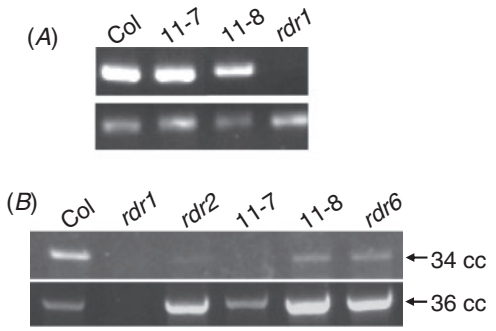


**Fig. S2.** (*A*) PCR-genotyping of RDR1 T-DNA insertion mutants. Primers used were specific for the Salk_112300 line. Absence of band indicates homozygous T-DNA insertion. Plants 11-7 and 11-8 were siblings from another Salk line of RDR1 mutation (Salk_025341). (*B*) RT-PCR detection of RDR1 transcript. Note that no RDR1 transcript was detected in the homozygous *rdr1* mutant, indicating complete loss of RDR1 expression. Plant 11-7 and 11-8 still expressed RDR1 so were likely heterozygous for the T-DNA insertion.