SUPPLEMENTARY MATERIAL

The *rph-1* encoded truncated RNase PH protein inhibits RNase P maturation of pre-tRNAs with short leader sequences in the absence of RppH

(Keywords: RNase P; RNase E; RNA pyrophosphohydrolase)

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Running title: Inhibition of RNase P by a 5' triphosphate

FIGURE LEGENDS

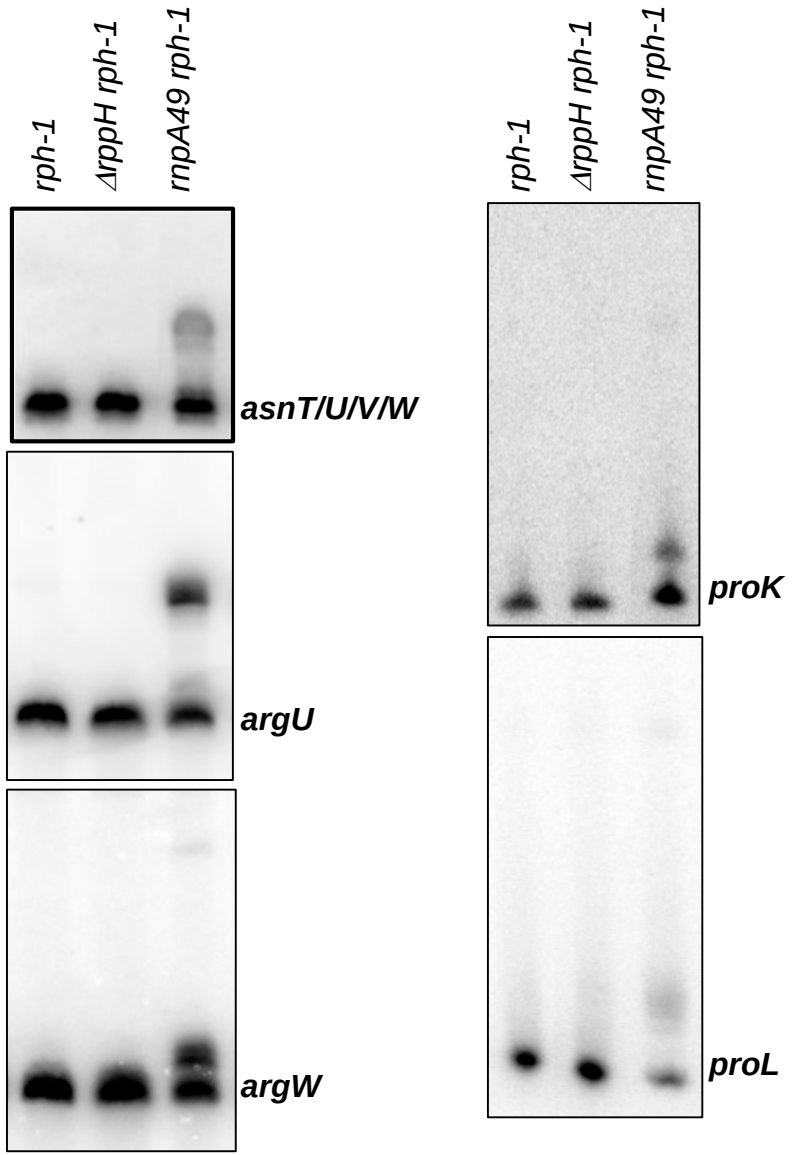
Fig. S1. Northern analysis of monocistronic tRNAs (labelled to the right of the blot) in various genetics backgrounds. Genotypes of the strains used are indicated above each lane. Northern analyses were carried out as described in the Materials and Methods. The blot was probed with ^{32}P-labelled oligonucleotide specific for the mature tRNAs. Lanes unrelated to the work presented here have been removed from the northern blots.

Fig. S2. Identification of 5' and 3' termini of *ileX* transcripts by cDNA cloning and sequencing of circularized RNAs in various genetic backgrounds as described in Materials and Methods. Each downward arrow represents a terminus as determined from the cDNA sequencing. Numbers above the arrow are number of 3' or 5' ends identified by sequencing. An asterisk (*) indicates that some 3' ends at a particular location contained untemplated poly(A) tails of 1-3 nt.

Fig. S3. Northern analysis of the *cysT* and *argX* tRNAs in various genetics backgrounds. Genotypes of the strains used are indicated above each lane. The northern analysis was carried out as described in the Materials and Methods. The blot was probed with ^{32}P-labelled oligonucleotide specific for the mature tRNAs. Lanes unrelated to the work presented here have been removed from the northern blots.

Fig S4. Western blot analysis of the RNase PH protein. Protein samples were separated on 12% SDS-PAGE gels and transferred to PVDF membranes (Immobilon TM-P; Millipore) using a Bio-Rad Mini-Protean 3 electrophoretic apparatus. The membrane was probed with RNase PH (1:10,000 dilution) antibodies using the ECL

Plus™ Western Blotting Detection Kit (GE Healthcare) per manufacturer instructions. The RNase PH antibodies were raised against RNase PH specific peptides by GenScript USA Inc, NJ.



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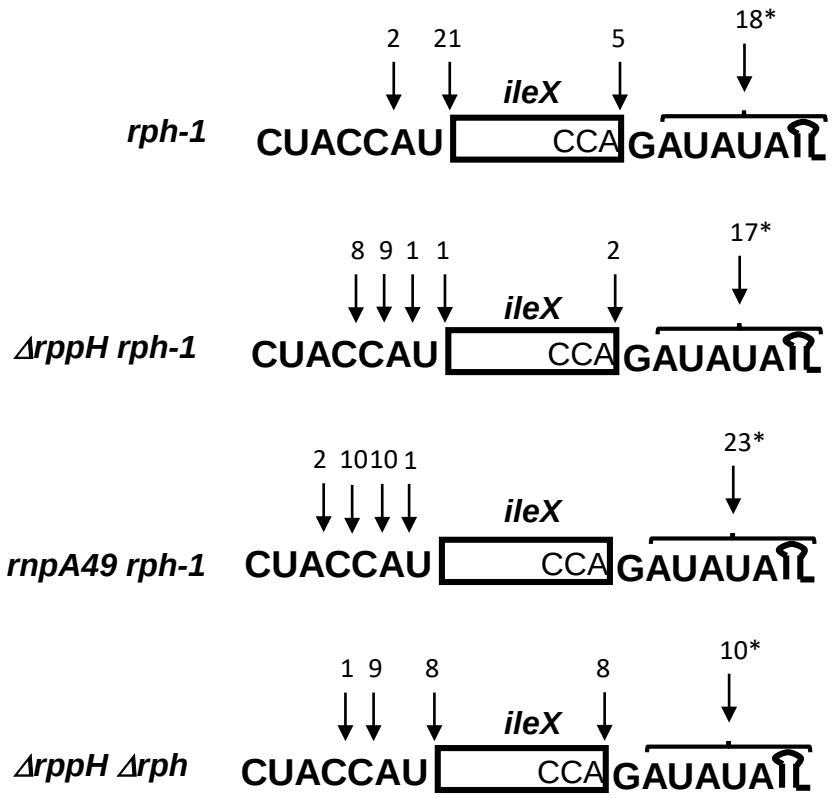

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