

# Isolation and Mapping of a Mutation in *Escherichia coli* with Altered Levels of Ribonuclease H

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A mutant of *Escherichia coli* with altered levels of ribonuclease (RNase) H was isolated after mutagenesis with ethyl methane sulfonate. A procedure for

## MATERIALS AND METHODS

resulting [ $^{32}$ P]poly(A) was separated from unincorpo-

**Bacterial and phage strains.** Strains of *E. coli* column (1 by 60 cm) which had been previously equil-

then added, and incubation was continued for 10 min. terminations were used to adjust the size of aliquot to

To freeze-thaw the extracts, the trays were placed in be assayed (0.2  $\mu$ g of protein per 25- $\mu$ l assay). Acid

a slurry of dry ice-ethanol and then placed in a water solubility was determined as described previously (13).  
bath at room temperature. When thawing was com- Type C was based on the reconstitution of

plete, the trays were returned to an ice-water bath. RNase H in SDS-polyacrylamide gels containing

FIG. 1. SDS-polyacrylamide gel assay of RNase H. Lysozyme-EDTA extracts of 14 *metD*<sup>+</sup> transductants

and KS351 (parent) and FB2 (mutant) strains were electrophoresed in a 15% SDS-polyacrylamide gel which



chromosome. P1 transduction experiments

... 1.4-1.6% of the population with high ... Temisawa (17). Our results with a ColE1-type

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of plasmid colE1 DNA by RNA polymerase ribonucleo-

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ase H, and DNA polymerase I. Cold Spring Harbor

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