Creative Enzymes®

# Ribonuclease H from Escherichia coli, Recombinant

*Cat. No. NATE-0657*

*Lot. No.* (See product label)

## Introduction

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| ***Description*** | Ribonuclease H (RNase H) is a family of non-sequence-specific endonucleases that catalyze the cleavage of RNA via a hydrolytic mechanism. Members of the RNase H family can be found in nearly all organisms, from bacteria to archaea to eukaryotes. RNase H's ribonuclease activity cleaves the 3'-O-P bond of RNA in a DNA/RNA duplex substrate to produce 3'-hydroxyl and 5'-phosphate terminated products. In DNA replication, RNase H is responsible for removing the RNA primer, allowing completion of the newly synthesized DNA. |
| ***Applications*** | Ribonuclease H from Escherichia coli has been used in a study to assess metallobi ochemistry of the magnesium ion. Ribonuclease H has also been used in a study to investigate selective inhibitors of HIV-1 reverse transcriptase ass ociated Rnase H activity. |
| ***Synonyms*** | Ribonuclease H; RNase H; EC 3.1.4.34; 9050-76-4 |

## Product Information

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| ***Species*** | Escherichia coli |
| ***Source*** | E. coli |
| ***Form*** | buffered aqueous glycerol solution; Solution in 50% glycerol containing 20 mM Tris-HCl, pH 7.5, 100 mM KCl, 10 mM MgCl2, 0.1 mM EDTA, 0.1 mM DTT and 0.05 mg BSA per ml |
| ***EC Number*** | EC 3.1.4.34 |
| ***CAS No.*** | 9050-76-4 |
| ***Activity*** | 1,000-4,000 units/mL |
| ***Concentration*** | 1 kDa-4 kDa units/mL |
| ***Unit Definition*** | One unit hydrolyzes 1.0 nanomole RNA in 3H-labeled poly (A) • poly (dT) to acid soluble material in 20 min at 37°C. |

## Usage and Packaging

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| ***Package*** | vial of ~30 units |

## Storage and Shipping Information

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| ***Storage*** | −20°C |