

Ribonuclease H from Escherichia coli, Recombinant

Cat. No. NATE-0657

Lot. No. (See product label)

Introduction

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 metallobiology of the magnesium ion. Ribonuclease H has also been used in a study to investigate selective inhibitors of HIV-1 reverse transcriptase associated RNase H activity.

Synonyms Ribonuclease H; RNase H; EC 3.1.4.34; 9050-76-4

Product Information

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

Package vial of ~30 units

Storage and Shipping Information

Storage -20°C