# RNase Cocktail™ Enzyme Mix

**Store at –20°C.**
***Do not store in a frost-free freezer.***

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| **Catalog #:** | AM2286 | AM2288 |
| **Amount:** | 1 mL | 5 x 1 mL |

**Product Description:** RNase Cocktail™ Enzyme Mix contains two highly purified ribonucleases, RNase A and RNase T1.

**Source:** RNase A is manufactured from Bovine pancreas by a USDA-approved source. RNase T1 is purified from an *E. coli* strain overexpressing the Ribonuclease T1 gene of *Aspergillus oryzae*.

**Unit Concentration:** RNase A at 500 U/mL; RNase T1 at 20,000 U/mL

**Unit Definition:** One unit of RNase A is the amount required to give an increase in absorption at 286 nm of 0.0146 absorbance units per minute in a 1 mL volume. Unit assay conditions: 100 mM Tris-acetate (pH 6.5), 1 mM EDTA and 1 mM cyclic 2', 3'-CMP.

100 Units of RNase T1 is the amount of enzyme that yields an increase in absorption at 260 nm of 0.01428 units per min at room temperature using 60 ug/mL yeast total RNA as a substrate. One Unit measured using yeast RNA as substrate is equivalent to 1 Unit in the previous Ambion assay (25 Units of activity corresponds to a change of 0.01 $A_{260}$ unit in 1 min at room temperature using GpA as substrate).

**Storage Conditions:** Store at –20°C. ***Do not store in a frost-free freezer.***

**Storage Buffer:** (Not included) 10 mM HEPES (pH 7.2), 20 mM NaCl, 0.1% Triton X-100, 1 mM EDTA and 50% glycerol (v/v).

## USER INFORMATION

**General Information:** RNase Cocktail™ Enzyme Mix can be used to replace RNase A in applications where it is desirable to degrade RNA, such as plasmid minipreps and genomic DNA restriction enzyme digestions. RNase A cleaves RNA after C and U residues and generally leaves fragments of RNA large enough to be visible on agarose gels and precipitable in ethanol. RNase T1 cleaves after G residues. Consequently, the use of both enzymes together results in a reduction in RNA fragment size over the use of either enzyme alone.

**Applications:** Replace RNase A in your current protocols with RNase Cocktail Enzyme Mix at equivalent RNase A concentrations. The cocktail contains 500 U/mL RNase A and 20,000 U/mL RNase T1.

To clean up minipreps for restriction enzyme digests, add approximately 2.5 µL RNase Cocktail Enzyme Mix to 50 µL of a miniprep prior to, or concurrent with, restriction enzyme digestion.

***Note***: RNAse Cocktail Enzyme Mix is a highly concentrated protein solution. If a precipitate is visible in the tube, vortex thoroughly and then microcentrifuge briefly (about 2 sec) before use.

## QUALITY CONTROL

RNase Cocktail Enzyme Mix is rigorously tested for contaminating nonspecific endonuclease, exonuclease, and protease activity. Functionality is determined in a ribonuclease protection assay.

## OTHER INFORMATION

**Material Safety Data Sheets:** Material Safety Data Sheets (MSDSs) can be printed or downloaded from product-specific links on our website at the following address: www.ambion.com/techlib/msds. Alternatively, e-mail your request to MSDS_Inquiry_CCRM@appliedbiosystems.com. Specify the catalog or part number(s) of the product(s), and we will e-mail the associated MSDSs unless you specify a preference for fax delivery. For customers without access to the internet or fax, our technical service department can fulfill MSDS requests placed by telephone or postal mail. (Requests for postal delivery require 1–2 weeks for processing.)

**Warranty and Liability:** ***For research use only. Not for use in diagnostic procedures.***

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