# Recombinant RNase A (rRNase A)

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

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| **Catalog #:** | AM2269 |
| **Source:** | A eukaryotic (non-*E.coli*) strain overexpressing bovine pancreas RNase A. This product is guaranteed bovine-free. |
| **Amount:** | 200 µg |
| **Unit Definition:** | One unit is the amount of RNase A required to give an increase of 0.0146 $A_{286}$ units per min in a 1 mL volume at room temperature and is equivalent to 0.1177 Kunitz Units. Assay Conditions: 100 mM Tris-acetate (pH 6.5), 1 mM EDTA, and 1 mM cyclic 2', 3'-CMP. |
| **Materials Not Provided:** | Because of the variety of product applications, no reaction buffer is supplied. |
| **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, and 50% glycerol (v/v). |

## USER INFORMATION

**Product Description:**

Recombinant RNase A (rRNase A), originally cloned from bovine pancreas, is isolated from a eukaryotic (non-*E.coli*) strain that overexpresses this protein. rRNase A is ideal for applications that require bovine-free products. It is also intended for critical applications when the absence of DNase and other nonspecific nuclease activities in the RNase preparation is essential. RNase A is a ribonuclease that specifically cleaves 3' of U and C residues.

**Applications:**

Among other applications rRNase A can be used to remove RNA from DNA preparations. It is active under a wide range of reaction conditions.

For minipreps of plasmid DNA, add RNase A to 20 µg/mL during restriction enzyme digestion reactions. For large-scale plasmid DNA preparations, add RNase A to a final concentration of 20 µg/mL to a crude lysate that has been resuspended in TE. Incubate 20 min at 37°C, then extract with buffered phenol and chloroform/isoamyl alcohol (24:1) and precipitate using 2 M ammonium acetate and 2 volumes 100% ethanol before further purification [2].

**References:**


1. Crook EM, Mathias AP, and Rabin BR. (1960) Spectrophotometric assay of bovine pancreatic ribonuclease by the use of cytidine 2':3'-phosphate. *Biochem J.* **74**:234-238.
2. Ausubel FM, Brent R, Kingston RE, Moore DD, Seidman JG, Smith JA, Struhl K, editors. (2006) *E. coli*, Plasmids, and Bacteriophages (Chapter 1). In Current *Protocols in Molecular Biology*. John Wiley & Sons, Inc. p 1.6.2 and 1.7.9.


## QUALITY CONTROL

Recombinant RNase A is rigorously tested for contaminating nonspecific endonuclease, exonuclease, and protease activity.

## 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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