

RNase I, *E. coli* Technical Specifications



10,000 Units/ml
Catalog No. 30104-1, -2.

Store at –20°C. Do not store below –20°C

For *In Vitro* Research Use Only.

Not suitable for Drug or Diagnostic use. Not for use in humans or animals.

Lucigen Corporation
2120 W. Greenview Dr.
Middleton, WI 53562 USA
Tel. 608-831-9011
Fax. 608-831-9012
Web www.lucigen.com

Product Description	RNase I converts single-stranded RNA to mononucleoside 3'-monophosphates. RNase I is distinct from many RNases, including RNase A, in that it cleaves between all nucleotide pairs with similar efficiencies. (1,2,3)
Storage Buffer	50% glycerol, 50 mM Tris-HCl (7.5), 100 mM NaCl, 0.1mM EDTA
Stability	RNase I is stable for one year from the date received if stored at –20°C.
10X Reaction Buffer	100 mM Tris-HCl (pH 7.5), 1 M NaCl, 10 mM EDTA
Reaction Conditions	10 mM Tris-HCl (pH 7.5), 100 mM NaCl, 1 mM EDTA, 37°C
Activity Determination	One unit of RNase converts 100 ng of RNA per second to acid-soluble nucleotides at 37°C in 10 mM Tris-HCl (pH 7.5), 100 mM NaCl, 1 mM EDTA
Absence of EndoDNase or nicking activity	Incubation of 50 units of RNase I with 1 µg of supercoiled pUC19 DNA for 16 hours at 37°C results in no detectable conversion to relaxed or linear forms as detected by agarose gel electrophoresis.
Absence of ExoDNase Activity	Incubation of 50 units of RNase I with 1 µg of restriction enzyme-digested lambda DNA for 16 hours at 37°C results in no detectable reduction in molecular weight as detected by agarose gel electrophoresis.
Purity	>99% pure by SDS PAGE

Applications

- DNA cleanup
- RNA structural studies
- cDNA cloning
- Mismatch detection
- RNase protection assays

Protocol

RNase I digestion of DNA from Plasmid Minipreps

1. Isolate plasmid DNA from 1-2 ml of overnight bacterial culture using standard alkaline lysis methods.
2. Add 5 ul of 10X RNase I buffer to 44 ul of plasmid DNA solution.
3. Add 1 ul RNase I.
4. Incubate at 37°C for 30 minutes.
5. Incubate at 70°C for 15 minutes.
6. Purify DNA by standard methods (e.g., binding to affinity column).

Warranty

Lucigen warrants that its products will conform to the standards stated in its product specification sheets in effect at the time of shipment. Lucigen will replace, free of charge, any product that does not conform to the specifications. This warranty limits Lucigen's liability only to the replacement of the product. THIS WARRANTY IS EXCLUSIVE, AND LUCIGEN MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. The stated express warranties, and the remedy provided for breach thereof, are in lieu of all other liability or obligations of Lucigen for any damages whatsoever arising out of or in connection with the delivery, use, performance, or the inability to use any of its products. IN NO EVENT SHALL LUCIGEN BE LIABLE UNDER ANY LEGAL THEORY (INCLUDING BUT NOT LIMITED TO CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT, OR WARRANTY OF ANY KIND) FOR ANY INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES (INCLUDING BUT NOT LIMITED TO LOST PROFITS). Without limiting the effect of the preceding sentence, Lucigen's maximum liability, if any, shall not exceed the purchase price paid by buyer for the product.