

# Certificate of Analysis



## Benzonase<sup>®</sup> Nuclease, 250 U/μl, > 90%

Catalog Number: R1005E  
Lot Number: 1051-1  
Quantity: 1 x 5 KU

### Description

Benzonase is ideal for a variety of applications such as purification of recombinant proteins from cell extracts where complete digestion of nucleic acids is desirable. It is the only known endonuclease which degrades all types of nucleic acids and therefore will give maximum viscosity reduction in cell extracts. This promiscuous endonuclease, which consists of two subunits of 30 kDa each, attacks and degrades all forms of DNA and RNA (single stranded, double stranded, linear and circular) and is effective over a wide range of conditions. Upon complete digestion, all free nucleic acids present in solution are reduced to 5'-monophosphate terminated oligonucleotides 2-5 bases in length. This enzyme is a genetically engineered endonuclease from *Serratia marcescens* produced and purified from an *E. coli* strain.

### Storage Conditions

-20°C (Avoid repeated freeze/thaw cycles and storage at temperatures below -20°C.) When stored as directed the product is guaranteed to maintain stability for 6 months from the date of shipment.

### Storage Buffer

50% glycerol containing 20 mM Tris-Cl, 2 mM MgCl<sub>2</sub>, 20 mM NaCl, pH 8.0

### Unit Definition

One unit of Benzonase Nuclease is defined as the amount of enzyme that causes a  $\Delta A_{260}$  of 1.0 in 30 minutes under standard reaction conditions. One unit corresponds to the amount of enzyme required to digest approximately 37 μg of DNA in 30 minutes.

### Quality Control Specifications

Test	Specifications
Concentration (as determined by unit definition assay)	250 U/μl
Purity	≥ 90%

### Certified By

K. Stephens, QC Manager

### For Research Use Only

#### Warranty

Semba Biosciences, Inc. warrants the product will meet or exceed these specifications when used (under normal conditions) in your laboratory. We will promptly replace the product free of charge if the product does not conform to these specifications. Our obligation and your sole remedy is limited to such replacement in the event the product proves to be defective. No other warranties are expressed or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Semba Biosciences, Inc. is not liable for consequential damages.

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