

New England Biolabs Product Specification

Product Name: Exonuclease I Reaction Buffer
Catalog #: B0293S
Concentration: 10X Concentrate
Shelf Life: 36 months
Storage Temp: -20°C
Composition (1X): 67 mM Glycine-KOH, 6.7 mM MgCl₂, 10 mM βME, (pH 9.5 @ 25°C)
Specification Version: PS-B0293S v1.0
Effective Date: 10 Aug 2018

Assay Name/Specification (minimum release criteria)

Endonuclease Activity (Nicking, Buffer) - A 50 µl reaction in 1X Exonuclease I Reaction Buffer containing 1 µg of supercoiled PhiX174 DNA incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.

Functional Testing (Reaction Buffer) - A 100 µl reaction in 1X Exonuclease I Reaction Buffer containing 0.17 mg/ml of single stranded [³H] DNA and 1 unit of Exonuclease I (*E. coli*) incubated for 30 minutes at 37°C results in the release of 10 nmol of acid-soluble nucleotide as determined by scintillation counting.

Non-Specific DNase Activity (16 hour, Buffer) - A 50 µl reaction in 1X Exonuclease I Reaction Buffer containing 1 µg of PhiX174-HaeIII DNA incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.

RNase Activity (Buffer) - A 10 µl reaction in 1X Exonuclease I Reaction Buffer containing 40 ng of a 300 base single-stranded RNA is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.



Date 10 Aug 2018

Derek Robinson
Director of Quality Control

