

New England Biolabs Product Specification

Product Name: NEBuffer DpnII
Catalog #: B0543S
Concentration: 10X Concentrate
Shelf Life: 36 months
Storage Temp: -20°C
Composition (1X): 50 mM Bis-Tris-HCL, 100 mM NaCl, 10 mM MgCl₂, 1 mM DTT, (pH 6.0 @ 25°C)
Specification Version: PS-B0543S v1.0
Effective Date: 21 Jun 2018

Assay Name/Specification (minimum release criteria)

Endonuclease Activity (Nicking, Buffer) - A 50 µl reaction in 1X NEBuffer DpnII 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 (Restriction Digest, Buffer) - A 50 µl reaction in 1X NEBuffer DpnII containing 1 µg of Lambda dam- DNA and 1 unit of DpnII incubated for 1 hour at 37°C results in complete digestion of the substrate DNA as determined by agarose gel electrophoresis.

Non-Specific DNase Activity (16 hour, Buffer) - A 50 µl reaction in 1X NEBuffer DpnII 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.

pH (buffers/solutions) - The pH of 10X NEBuffer DpnII is between pH 5.9 and 6.1 at 25°C.

RNase Activity (Buffer) - A 10 µl reaction in 1X NEBuffer DpnII 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 polyacrylamide gel electrophoresis.



Date 21 Jun 2018

Derek Robinson
Director of Quality Control

