

New England Biolabs Product Specification

Product Name: Antarctic Phosphatase Reaction Buffer
Catalog #: B0289S
Concentration: 10X Concentrate
Shelf Life: 36 months
Storage Temp: -20°C
Composition (1X): 50 mM Bis-Tris-Propane-HCl, 1 mM MgCl₂, 0.1 mM ZnCl₂, (pH 6.0 @ 25°C)
Specification Version: PS-B0289S v1.0
Effective Date: 13 Jun 2018

Assay Name/Specification (minimum release criteria)

Endonuclease Activity (Nicking, Buffer) - A 50 µl reaction in 1X Antarctic Phosphatase 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 (Dephosphorylation) - A 23 µl reaction in Antarctic Phosphatase Reaction Buffer containing 1 µg of linear DNA with 5' recessed ends and 1 unit of Antarctic Phosphatase incubated for 30 minutes at 37°C results in ≥95% dephosphorylation as measured by transformation into *E. coli*.

Non-Specific DNase Activity (16 hour, Buffer) - A 50 µl reaction in 1X Antarctic Phosphatase 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 Antarctic Phosphatase 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 polyacrylamide gel electrophoresis.



Date 13 Jun 2018

Derek Robinson
Director of Quality Control

