

New England Biolabs Certificate of Analysis

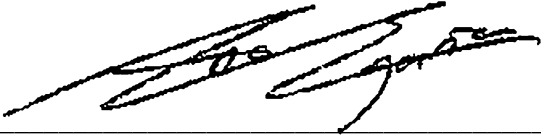
Product Name: Antarctic Phosphatase Reaction Buffer
Catalog Number: B0289S
Concentration: 10 X Concentrate
Packaging Lot Number: 10121415
Expiration Date: 11/2023
Storage Temperature: -20°C
Specification Version: PS-B0289S v1.0
Composition (1X): 50 mM Bis-Tris-Propane-HCl, 1 mM MgCl₂, 0.1 mM ZnCl₂, (pH 6.0 @ 25°C)

Antarctic Phosphatase Reaction Buffer Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
B0289SVIAL	Antarctic Phosphatase Reaction Buffer	10081109	Pass

Assay Name/Specification	Lot # 10121415
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.	Pass
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.	Pass
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.	Pass
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.	Pass

This product has been tested and shown to be in compliance with all specifications.

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Production Scientist
06 Oct 2021



Michael Tonello
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06 Oct 2021