

New England Biolabs Certificate of Analysis

Product Name: *Antarctic Phosphatase Reaction Buffer*
Catalog Number: *B0289S*
Concentration: *10 X Concentrate*
Packaging Lot Number: *10173987*
Expiration Date: *03/2025*
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	10140303	Pass

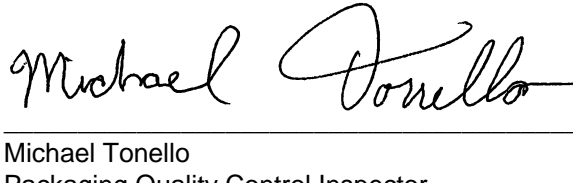
Assay Name/Specification	Lot # 10173987
Endonuclease Activity (Nicking, Buffer) A 50 µl reaction in 1X Antarctic Phosphatase Reaction Buffer containing 1 µg of supercoiled PhiX174 DNA incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	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
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
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 <i>E. coli</i> .	Pass

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.



Darcie Spaulding
Production Scientist
01 Apr 2022



Michael Tonello
Packaging Quality Control Inspector
02 Dec 2022