

New England Biolabs Certificate of Analysis

Product Name: T4 Polynucleotide Kinase Reaction Buffer
Catalog Number: B0201S
Concentration: 10 X Concentrate
Packaging Lot Number: 10224703
Expiration Date: 09/2026
Storage Temperature: -20°C
Specification Version: PS-B0201S v1.0
Composition (1X): 70 mM Tris-HCl, 10 mM MgCl₂, 5 mM DTT, (pH 7.6 @ 25°C)

T4 Polynucleotide Kinase Reaction Buffer Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
B0201SVIAL	T4 Polynucleotide Kinase Reaction Buffer	10201093	Pass

Assay Name/Specification	Lot # 10224703
<p>Endonuclease Activity (Nicking, Buffer) A 50 µl reaction in 1X T4 Polynucleotide Kinase 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.</p>	Pass
<p>Functional Testing (T4 PNK Reaction Buffer) A 50 µl reaction in 1X T4 Polynucleotide Kinase Reaction Buffer containing 66 µM ³²P-ATP, 0.26 mM 5'-hydroxyl-terminated salmon sperm DNA and 1 unit of T4 Polynucleotide Kinase incubated for 30 minutes at 37°C results in the incorporation of 1 nmol of acid insoluble ³²P as determined by scintillation counting.</p>	Pass
<p>Non-Specific DNase Activity (16 hour, Buffer) A 50 µl reaction in 1X T4 Polynucleotide Kinase Reaction Buffer containing 1 µg of HaeIII digested PhiX174 RF I DNA incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p>	Pass
<p>RNase Activity (Buffer) A 10 µl reaction in 1X T4 Polynucleotide Kinase 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.</p>	Pass

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

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Production Scientist
20 Sep 2023



Michael Tonello
Packaging Quality Control Inspector
03 Jan 2024