

## New England Biolabs Certificate of Analysis

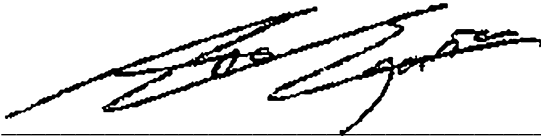
**Product Name:** T4 Polynucleotide Kinase Reaction Buffer  
**Catalog Number:** B0201S  
**Concentration:** 10 X Concentrate  
**Packaging Lot Number:** 10085451  
**Expiration Date:** 11/2022  
**Storage Temperature:** -20°C  
**Specification Version:** PS-B0201S v1.0  
**Composition (1X):** 70 mM Tris-HCl, 10 mM MgCl<sub>2</sub>, 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	10056315	Pass

Assay Name/Specification	Lot # 10085451
<p><b>Endonuclease Activity (Nicking, Buffer)</b>            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 &lt;10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass
<p><b>Functional Testing (T4 PNK Reaction Buffer)</b>            A 50 µl reaction in 1X T4 Polynucleotide Kinase Reaction Buffer containing 66 µM <sup>32</sup>P-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 <sup>32</sup>P as determined by scintillation counting.</p>	Pass
<p><b>Non-Specific DNase Activity (16 hour, Buffer)</b>            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><b>RNase Activity (Buffer)</b>            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, &gt;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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16 Oct 2020



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16 Oct 2020