

## New England Biolabs Certificate of Analysis

**Product Name:** T4 RNA Ligase Reaction Buffer  
**Catalog Number:** B0216L  
**Packaging Lot Number:** 10242300  
**Expiration Date:** 11/2025  
**Storage Temperature:** -20°C  
**Specification Version:** PS-B0216S/L v1.0  
**Composition (1X):** 50 mM Tris-HCl, 10 mM MgCl<sub>2</sub>, 1 mM DTT, (pH 7.5 @ 25°C)

T4 RNA Ligase Reaction Buffer Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
P0756SVIAL	Adenosine 5'-Triphosphate (ATP)	10211010	Pass
B1004SVIAL	PEG 8000	10218040	Pass
B0216SVIAL	T4 RNA Ligase Reaction Buffer	10239990	Pass

Assay Name/Specification	Lot # 10242300
<b>Endonuclease Activity (Nicking, Buffer)</b> A 50 µl reaction in 1X T4 RNA Ligase Reaction Buffer containing 1 µg of supercoiled PhiX174 RF I DNA incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	<b>Pass</b>
<b>Non-Specific DNase Activity (16 hour, Buffer)</b> A 50 µl reaction in 1X T4 RNA Ligase 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.	<b>Pass</b>
<b>RNase Activity (Buffer)</b> A 10 µl reaction in 1X T4 RNA Ligase 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 gel electrophoresis.	<b>Pass</b>
<b>pH (buffers/solutions)</b> The pH of 10X T4 RNA Ligase Reaction Buffer is between pH 7.4 and 7.6 at 25°C.	<b>Pass</b>

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

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22 Nov 2023



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06 May 2024