

## New England Biolabs Certificate of Analysis

**Product Name:** T4 RNA Ligase Reaction Buffer  
**Catalog Number:** B0216L  
**Lot Number:** 10048646  
**Expiration Date:** 05/2021  
**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)	10045567	Pass
B1004SVIAL	PEG 8000	10045988	Pass
B0216SVIAL	T4 RNA Ligase Reaction Buffer	10048447	Pass

Assay Name/Specification	Lot # 10048646
<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.	Pass
<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.	Pass
<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.	Pass
<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.	Pass

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

*Alicia Bielik*

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Alicia Bielik  
Production Scientist  
30 May 2019

*Michael Tonello*

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Michael Tonello  
Packaging Quality Control Inspector  
01 Jul 2019