

## New England Biolabs Certificate of Analysis

**Product Name:** T4 RNA Ligase Reaction Buffer  
**Catalog Number:** B0216L  
**Lot Number:** 10041624  
**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
B1004AVIAL	PEG 8000	10036770	Pass
B0216SVIAL	T4 RNA Ligase Reaction Buffer	10031853	Pass

Assay Name/Specification	Lot # 10041624
<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.



Bo Wu  
Production Scientist  
14 Dec 2018



Michael Tonello  
Packaging Quality Control Inspector  
07 Jun 2019