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## New England Biolabs Certificate of Analysis

Product Name: T4 RNA Ligase Reaction Buffer

Catalog Number: B0216L
Packaging Lot Number: 10176102
Expiration Date: 01/2025
Storage Temperature: -20°C

Specification Version: PS-B0216S/L v1.0

Composition (1X): 50 mM Tris-HCl, 10 mM MgCl2, 1 mM DTT, (pH 7.5 @ 25°C)

T4 RNA Ligase Reaction Buffer Component List				
<b>NEB Part Number</b>	<b>Component Description</b>	Lot Number	Individual QC Result	
P0756SVIAL	Adenosine 5'-Triphosphate (ATP)	10176561	Pass	
B1004SVIAL	PEG 8000	10153719	Pass	
B0216SVIAL	T4 RNA Ligase Reaction Buffer	10153851	Pass	

Assay Name/Specification	Lot # 10176102
Endonuclease Activity (Nicking, Buffer) 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
Non-Specific DNase Activity (16 hour, Buffer) 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
pH (buffers/solutions) The pH of 10X T4 RNA Ligase Reaction Buffer is between pH 7.4 and 7.6 at 25°C.	Pass
RNase Activity (Buffer) 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.

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Maxwell/Elkus Production Scientist 13 Jan 2023

Michael Tonello

Packaging Quality Control Inspector

17 Jan 2023