

## New England Biolabs Certificate of Analysis

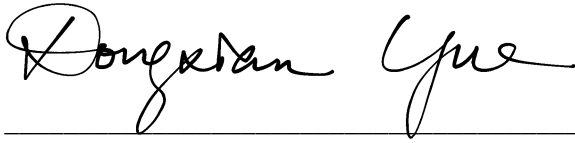
**Product Name:** *Ribonucleotide Solution Set*  
**Catalog Number:** *N0450L*  
**Packaging Lot Number:** *10258663*  
**Expiration Date:** *09/2026*  
**Storage Temperature:** *-20°C*  
**Storage Conditions:** *Supplied as Sodium salts, pH 7.5*  
**Specification Version:** *PS-N0450S/L v1.0*

Ribonucleotide Solution Set Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
N0454AAVIAL	CTP Solution	10254219	Pass
N0453AAVIAL	UTP Solution	10254218	Pass
N0452AAVIAL	GTP Solution	10254217	Pass
N0451AAVIAL	ATP Solution	10254216	Pass

Assay Name/Specification	Lot # 10258663
<b>Endonuclease Activity (Nicking)</b> A 50 µl reaction in NEBuffer 4 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 500 nmol of each ribonucleotide incubated for 16 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	<b>Pass</b>
<b>Functional Testing (High Yield RNA Synthesis)</b> A 20 µl reaction in transcription reaction buffer containing 1 µg FLuc Control Template, 2 µl T7 RNA Polymerase Mix, and 10 mM ribonucleotides (each) incubated for 2 hours at 37°C yields ≥ 150 µg RNA transcript.	<b>Pass</b>
<b>RNase Activity (Extended Digestion)</b> A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 100 nmol of each ribonucleotide is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	<b>Pass</b>

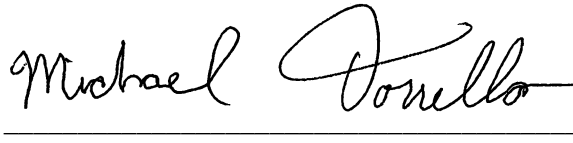
This product has been tested and shown to be in compliance with all specifications.

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Dongxian Yue  
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10 Sep 2024



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Michael Tonello  
Packaging Quality Control Inspector  
11 Sep 2024