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## New England Biolabs Certificate of Analysis

Product Name: Ribonucleotide Solution Set

Catalog Number: N0450S
Packaging Lot Number: 10242541
Expiration Date: 02/2026
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			
<b>NEB Part Number</b>	<b>Component Description</b>	Lot Number	Individual QC Result
N0454AVIAL	CTP Solution	10227059	Pass
N0453AVIAL	UTP Solution	10227060	Pass
N0452AVIAL	GTP Solution	10227058	Pass
N0451AVIAL	ATP Solution	10227057	Pass

Assay Name/Specification	Lot # 10242541
Endonuclease Activity (Nicking) 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	Pass
<10% conversion to the nicked form as determined by agarose gel electrophoresis.	
Functional Testing (High Yield RNA Synthesis)	Pass
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.	
RNase Activity (Extended Digestion)	Pass
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.	

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

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Dongxian Yue Production Scientist 22 Feb 2024 Michael Tonello

Packaging Quality Control Inspector

23 May 2024

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