

## New England Biolabs Product Specification

*Product Name:* Ribonucleotide Solution Mix  
*Catalog #:* N0466S/L  
*Concentration:* 25 mM each NTP  
*Shelf Life:* 24 months  
*Storage Temp:* -20°C  
*Storage Conditions:* Supplied as Sodium salts, pH 7.5  
*Specification Version:* PS-N0466S/L v1.0  
*Effective Date:* 23 May 2018

### Assay Name/Specification (minimum release criteria)

**Endonuclease Activity (Nicking)** - A 50 µl reaction in NEBuffer 4 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 500 nmol of Ribonucleotide Solution Mix incubated for 16 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.

**Functional Testing (High Yield RNA Synthesis)** - 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)** - A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 100 nmol of Ribonucleotide Solution Mix is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using gel electrophoresis.



Date 23 May 2018

Derek Robinson  
Director of Quality Control

