

## Ribonucleotide Solution Mix



1-800-632-7799  
info@neb.com  
www.neb.com



N0466S 014120613061

# N0466S

8  $\mu$ mol each rNTP Lot: 0141206 Exp: 6/13

80 mM each rNTP Store at  $-20^{\circ}\text{C}$

**Description:** Ribonucleotide Solution Mix is a buffered equimolar solution of ribonucleotide triphosphates: rATP, rCTP, rGTP and rUTP.

Supplied as: sodium salts in 20 mM Tris-HCl (pH 8.0 @25°C).

**Concentration:** Each nucleotide is supplied at a concentration of 80 mM (total rNTP concentration equals 320 mM).

**Quality Assurance:** Ribonucleotides are certified free of detectable ribonucleases. Functional purity is determined by preparative *in vitro* transcription reactions.

### Quality Control Assays:

**Functional Assay:** A preparative scale *in vitro* transcription reaction at 37°C for 2 hours, containing both BglII and StuI-linearized LITMUS 28iMal templates totaling 1  $\mu$ g DNA in 40  $\mu$ l, with rNTPs at a final concentration of 4 mM each produced the expected 902 bp double-stranded RNA product at a yield of at least 1 pmol (0.59  $\mu$ g) per  $\mu$ l reaction, as confirmed by agarose gel electrophoresis and UV/VIS spectroscopy (nanodrop).

**RNase Activity:** A 10  $\mu$ l reaction in RNA polymerase buffer containing 40 ng of 300 base single-stranded RNA transcript and 1  $\mu$ l rNTP incubated 16 hours at 37°C resulted in < 30% degradation as determined by TBE-urea polyacrylamide gel electrophoresis.

**Note:** To ensure maximum activity upon long-term storage, aliquot and store at  $-80^{\circ}\text{C}$ .

### Companion Products Sold Separately:

T7 RNA Polymerase  
#M0251S 5,000 units  
#M0251L 25,000 units

SP6 RNA Polymerase  
#M0207S 2,000 units  
#M0207L 10,000 units

ShortCut RNase III  
#M0245S 200 units  
#M0245L 1,000 units

CERTIFICATE OF ANALYSIS

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