

## New England Biolabs Product Specification

<i>Product Name:</i>	<i>Random Primer Mix</i>
<i>Catalog #:</i>	<i>S1330S</i>
<i>Concentration:</i>	<i>60 <math>\mu</math>M</i>
<i>Shelf Life:</i>	<i>36 months</i>
<i>Storage Temp:</i>	<i>-20°C</i>
<i>Composition (1X):</i>	<i>1 mM dATP, 1 mM dCTP, 1 mM dGTP, 1 mM dTTP, 35 <math>\mu</math>M Hexamers, 25 <math>\mu</math>M dI(23)VN supplied in ultrapure water.</i>
<i>Specification Version:</i>	<i>PS-S1330S v1.0</i>
<i>Effective Date:</i>	<i>05 May 2016</i>

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

**Endonuclease Activity (Nicking)** - A 25  $\mu$ l reaction in NEBuffer 2 containing 1  $\mu$ g of supercoiled PhiX174 DNA and a minimum of 5  $\mu$ l of Random Primer Mix incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.

**Non-Specific DNase Activity (16 Hour)** - A 50  $\mu$ l reaction in NEBuffer 2 containing 1  $\mu$ g of T3 DNA in addition to a reaction containing Lambda-HindIII DNA and a minimum of 5  $\mu$ l of Random Primer Mix incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.

**Phosphatase Activity (pNPP)** - A 200  $\mu$ l reaction in 1M Diethanolamine, pH 9.8, 0.5 mM MgCl<sub>2</sub> containing 2.5 mM *p*-Nitrophenyl Phosphate (pNPP) and a minimum of 20  $\mu$ l of Random Primer Mix incubated for 4 hours at 37°C yields <0.0001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.

**RNase Activity (Extended Digestion)** - A 10  $\mu$ l reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1  $\mu$ l of Random Primer Mix 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.



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