New England Biolabs  
Product Specification

<table>
<thead>
<tr>
<th>Product Name:</th>
<th>RNase I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catalog #:</td>
<td>M0243S/L</td>
</tr>
<tr>
<td>Concentration:</td>
<td>50,000 units/ml</td>
</tr>
<tr>
<td>Unit Definition:</td>
<td>One unit is defined as the amount of enzyme required to fully digest 1 picomole of synthetic ssRNA 33-mer in a total reaction volume of 10 µl in 15 minutes in 1X NEBuffer 3 as visualized on a 20% acrylamide gel.</td>
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<tr>
<td>Shelf Life:</td>
<td>24 months</td>
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<tr>
<td>Storage Temp:</td>
<td>-20°C</td>
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<tr>
<td>Storage Conditions:</td>
<td>10 mM Tris-HCl, 100 mM NaCl, 1 mM DTT, 0.5 mM EDTA, 50% Glycerol, (pH 8.0 @ 25°C)</td>
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<tr>
<td>Specification Version:</td>
<td>PS-M0243S/L v1.0</td>
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<tr>
<td>Effective Date:</td>
<td>23 May 2018</td>
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**Assay Name/Specification (minimum release criteria)**

**endonuclease Activity (Nicking)** - A 50 µl reaction in NEBuffer 3 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 50 units of RNase I incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.

**Exonuclease Activity (Radioactivity Release)** - A 50 µl reaction in NEBuffer 3 containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 50 units of RNase I incubated for 1 hour at 37°C releases <0.1% of the total radioactivity.

Derek Robinson  
Director of Quality Control  

Date 23 May 2018

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