

## New England Biolabs Certificate of Analysis

**Product Name:** RNase If  
**Catalog Number:** M0243S  
**Concentration:** 50,000 U/ml  
**Unit Definition:** 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.  
**Lot Number:** 10052053  
**Expiration Date:** 07/2021  
**Storage Temperature:** -20°C  
**Storage Conditions:** 10 mM Tris-HCl, 100 mM NaCl, 1 mM DTT, 0.5 mM EDTA, 50 % Glycerol, (pH 8.0 @ 25°C)  
**Specification Version:** PS-M0243S/L v1.0

RNase If Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0243SVIAL	RNase If	10045956	Pass
B7003SVIAL	NEBuffer™ 3	10048944	Pass

Assay Name/Specification	Lot # 10052053
<b>Endonuclease Activity (Nicking)</b> A 50 µl reaction in NEBuffer 3 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 50 units of RNase If incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in NEBuffer 3 containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 50 units of RNase If incubated for 1 hour at 37°C releases <0.1% of the total radioactivity.	Pass

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

*Timothy Meixsell*

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Tim Meixsell  
Production Scientist  
27 Jun 2019

*Michael Tonello*

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Michael Tonello  
Packaging Quality Control Inspector  
13 Aug 2019