NEW ENGLAND BioLabs Inc.
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240 County Road
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www.neb.com
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New England Biolabs
Certificate of Analysis

Product Name:	*ShortCut RNase III*
Catalog Number:	*M0245L*
Concentration:	*2,000 U/ml*
Unit Definition:	*One unit is the amount of enzyme required to digest 1 µg of dsRNA to siRNA in 20 minutes at 37°C in a total reaction volume of 50 µl.*
Packaging Lot Number:	*10128259*
Expiration Date:	*08/2023*
Storage Temperature:	*-20°C*
Storage Conditions:	*10 mM Tris-HCl, 500 mM NaCl, 1 mM DTT, 0.5 mM EDTA, 50% Glycerol, (pH 8.0 @ 25°C)*
Specification Version:	*PS-M0245S/L v1.0*

ShortCut RNase III Component List			
NEB Part Number	**Component Description**	**Lot Number**	**Individual QC Result**
M0245LVIAL	ShortCut® RNase III	10128258	**Pass**
B1564SVIAL	Glycogen RNase-free	10117880	**Pass**
B0786AVIAL	$MnCl_2$	10117879	**Pass**
B0255AVIAL	10X EDTA	10117883	**Pass**
B0245SVIAL	ShortCut Reaction Buffer	10131214	**Pass**

Assay Name/Specification	**Lot # 10128259**
Protein Purity Assay (SDS-PAGE) ShortCut® RNase III is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	**Pass**
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in ShortCut® Reaction Buffer containing 1 µg of a mixture of single and double-stranded [^3H] E. coli DNA and a minimum of 10 units of ShortCut® RNase III incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	**Pass**
RNase Activity (Extended Digestion) A 10 µl reaction in ShortCut® Reaction Buffer containing 40 ng of a 300 base single-stranded RNA and a minimum of 2 units of ShortCut® RNase III is incubated at 37°C. After incubation for 1 hour, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	**Pass**
Non-Specific DNase Activity (16 Hour)	**Pass**

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Assay Name/Specification	Lot # 10128259
A 50 µl reaction in ShortCut® Reaction Buffer containing 1 µg of Lambda-HindIII DNA and a minimum of 6 units of ShortCut® RNase III incubated for 16 hours at 37ºC results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.

Timothy Meixsell
Production Scientist
04 Feb 2022

Josh Hersey
Packaging Quality Control Inspector
04 Feb 2022