NEW ENGLAND Biolabs®

240 County Road
Ipswich, MA 01938-2723

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www.neb.com
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New England Biolabs
Certificate of Analysis

Product Name:	*ShortCut RNase III*
Catalog Number:	*M0245S*
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:	*10264910*
Expiration Date:	*10/2026*
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
M0245SVIAL	ShortCut® RNase III	10260290	**Pass**
B1564SVIAL	Glycogen RNase-free	10260291	**Pass**
B0786AVIAL	$MnCl_2$	10260292	**Pass**
B0255AVIAL	10X EDTA	10233306	**Pass**
B0245SVIAL	ShortCut Reaction Buffer	10233305	**Pass**

Assay Name/Specification	Lot # 10264910
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**
Non-Specific DNase Activity (16 Hour) 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.	**Pass**
Protein Purity Assay (SDS-PAGE) ShortCut® RNase III is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	**Pass**
RNase Activity (Extended Digestion)	**Pass**

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Assay Name/Specification	Lot # 10264910
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.	

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

Bo Wu
Production Scientist
25 Oct 2024

Josh Hersey
Packaging Quality Control Inspector
29 Oct 2024