

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: 10083346
Expiration Date: 09/2022
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	10080901	Pass
B1564SVIAL	Glycogen RNase-free	10080904	Pass
B0786AVIAL	MnCl ₂	10080903	Pass
B0255AVIAL	10X EDTA	10080905	Pass
B0245SVIAL	ShortCut Reaction Buffer	10062166	Pass

Assay Name/Specification	Lot # 10083346
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
Protein Purity Assay (SDS-PAGE) ShortCut® RNase III is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	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 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass

Assay Name/Specification	Lot # 10083346
<p>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.</p>	<p>Pass</p>

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
02 Oct 2020



Josh Hersey
Packaging Quality Control Inspector
02 Oct 2020