

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.
Lot Number: 10024686
Expiration Date: 08/2020
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 | 10017032 | Pass |
| B1564SVIAL | Glycogen RNase-free | 10017039 | Pass |
| B0786AVIAL | MnCl ₂ | 10017037 | Pass |
| B0255AVIAL | 10X EDTA | 10017038 | Pass |
| B0245SVIAL | ShortCut Reaction Buffer | 10017036 | Pass |

| Assay Name/Specification | Lot # 10024686 |
|---|----------------|
| Exonuclease Activity (Radioactivity Release) A 50 µl reaction in ShortCut® Reaction Buffer containing 1 µg of a mixture of single and double-stranded [³ H] 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 37°C 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 |

| Assay Name/Specification | Lot # 10024686 |
|--|----------------|
| 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.



Tim Meixsell
Production Scientist
07 Aug 2018



Josh Hersey
Packaging Quality Control Inspector
01 Oct 2018