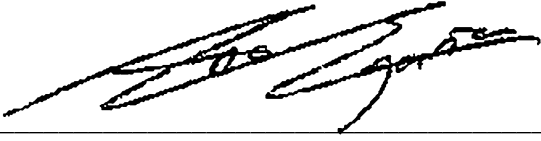


## New England Biolabs Certificate of Analysis

**Product Name:** *Monarch Total RNA Miniprep Kit*  
**Catalog Number:** *T2010S*  
**Lot Number:** *0031810*  
**Expiration Date:** *04/2020*  
**Storage Temperature:** *25°C*  
**Specification Version:** *PS-T2010S v1.0*

Assay Name/Specification	Lot # 0031810
<p><b>Functional Testing (DNA Recovery and Purity)</b> Twenty-four Monarch® RNA Purification Columns are tested with 10 µg of Lambda/BstEII Marker resulting in ≥75% recovery in ≥80% of the samples. OD 260/280 and 260/230 are ≥1.75 in ≥80% of the samples.</p>	<b>Pass</b>
<p><b>Functional Testing (DNA Recovery)</b> Eight Monarch® gDNA Removal Columns are tested with 10 µg of Lambda/BstEII Marker resulting in ≥65% recovery in ≥80% of the samples.</p>	<b>Pass</b>
<p><b>Functional Testing (DNase I, Monarch®)</b> A 50 µl reaction in Monarch® DNase I Reaction Buffer with 1 µg of pBR322 and 5 mU Monarch® DNase I incubated for 10 minutes at 37°C results in digestion of the DNA fragments to ≤500 bp as determined by agarose gel electrophoresis.</p>	<b>Pass</b>
<p><b>Functional Testing (Proteinase K, Monarch®)</b> A 20 µl reaction in Monarch® Proteinase K Reaction Buffer with 10 µg of MBP5 and 50 ng Monarch® Proteinase K incubated for 5 minutes at 37°C results in &gt;75% digestion of the protein as determined by SDS-PAGE using Coomassie Blue detection.</p>	<b>Pass</b>
<p><b>Functional Testing (RNA Yield and Integrity Analysis)</b> Total RNA is purified from 8 individual aliquots of HeLa cells (106 cells/aliquot). Yield of RNA is &gt;5 µg in ≥75% of the samples. OD 260/280 and 260/230 are ≥1.75 in ≥80% of the samples as well as RIN values ≥8 in ≥80% of the samples.</p>	<b>Pass</b>

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



Ana Egana  
Production Scientist  
16 Nov 2018



Heidi Church  
Packaging Quality Control Inspector  
16 Nov 2018