

## New England Biolabs Certificate of Analysis

**Product Name:** *Monarch® Total RNA Miniprep Kit*  
**Catalog Number:** *T2010G*  
**Packaging Lot Number:** *10144555*  
**Expiration Date:** *07/2024*  
**Storage Temperature:** *25°C*  
**Specification Version:** *PS-T2010G v2.0*

<b>Monarch® Total RNA Miniprep Kit Component List</b>			
<b>NEB Part Number</b>	<b>Component Description</b>	<b>Lot Number</b>	<b>Individual QC Result</b>
T2018-21	Monarch® Collection Tubes II	10146189	<b>Pass</b>
T2017-21	Monarch® gDNA Removal Columns	10146187	<b>Pass</b>
T2014-21	Monarch® RNA Wash Buffer	10146185	<b>Pass</b>
T2013-21	Monarch® RNA Priming Buffer	10146178	<b>Pass</b>
T2012-21	Monarch® RNA Lysis Buffer	10146176	<b>Pass</b>
T2011-21	Monarch® DNA/RNA Protection Reagent	10146173	<b>Pass</b>
T2007-21	Monarch® RNA Purification Columns	10146171	<b>Pass</b>
T2006-21	Monarch® Nuclease-free Water	10146168	<b>Pass</b>
T2005-21	Monarch® DNase I Reaction Buffer	10146166	<b>Pass</b>
T2004-21	Monarch® DNase I	10146160	<b>Pass</b>
T2003-21	Monarch® Proteinase K Reaction Buffer	10146151	<b>Pass</b>
T2002-21	Monarch® Proteinase K Resuspension Buffer	10146149	<b>Pass</b>
T2001-21	Monarch® Proteinase K	10146147	<b>Pass</b>

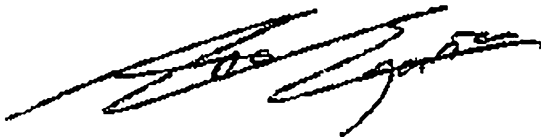
<b>Assay Name/Specification</b>	<b>Lot # 10144555</b>
---------------------------------	-----------------------



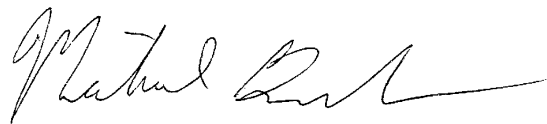
Assay Name/Specification	Lot # 10144555
<p><b>Functional Testing (Proteinase K, Monarch®)</b> A 20 µl reaction in Monarch® Proteinase K Reaction Buffer with 10 µg of MBP5 and 50 ng Monarch® Proteinase K incubated for 5 minutes at 37°C results in &gt;75% digestion of the protein as determined by SDS-PAGE 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>
<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 (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 (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>

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](http://www.neb.com/trademarks) for additional information.



Ana Egana  
Production Scientist  
03 Nov 2022



Michael Burzyk  
Packaging Quality Control Inspector  
03 Nov 2022