

## New England Biolabs Certificate of Analysis

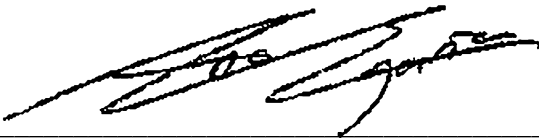
**Product Name:** *Monarch Total RNA Miniprep Kit*  
**Catalog Number:** *T2010G*  
**Packaging Lot Number:** *10053940*  
**Expiration Date:** *00/0000*  
**Storage Temperature:** *25°C*  
**Specification Version:** *PS-T2010G v1.0*

Monarch Total RNA Miniprep Kit Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
T2018-21	Monarch Collection Tubes II (10)	10054028	Pass
T2017-21	Monarch gDNA Removal Columns	10054008	Pass
T2014-21	Monarch RNA Wash Buffer	10054027	Pass
T2013-21	Monarch RNA Priming Buffer	10054026	Pass
T2012-21	Monarch RNA Lysis Buffer	10054025	Pass
T2011-21	Monarch DNA/RNA Protection Reagent	10054024	Pass
T2007-21	Monarch RNA Purification Columns	10054007	Pass
T2006-21	Monarch Nuclease-free Water	10054023	Pass
T2005-21	Monarch DNase I Reaction Buffer	10054021	Pass
T2004-21	Monarch DNase I	10054019	Pass
T2003-21	Monarch Proteinase K Reaction Buffer	10054017	Pass
T2002-21	Monarch Proteinase K Resuspension Buffer	10054015	Pass
T2001-21	Monarch Proteinase K	10054013	Pass

Assay Name/Specification	Lot # 10053940
<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.	<b>Pass</b>
<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.	<b>Pass</b>
<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	<b>Pass</b>

Assay Name/Specification	Lot # 10053940
fragments to ≤500 bp as determined by agarose gel electrophoresis.	
<p><b>Functional Testing (Proteinase K, Monarch<sup>®</sup>)</b> A 20 µl reaction in Monarch<sup>®</sup> Proteinase K Reaction Buffer with 10 µg of MBP5 and 50 ng Monarch<sup>®</sup> 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  
11 May 2020



Heidi Church  
Packaging Quality Control Inspector  
11 May 2020