

## New England Biolabs Certificate of Analysis

*Product Name:* Monarch<sup>®</sup> Total RNA Miniprep Kit  
*Catalog #:* T2010S  
*Kit Components:* Monarch<sup>®</sup> gDNA Removal Columns (T2017)  
 Monarch<sup>®</sup> RNA Purification Columns (T2007)  
 Monarch<sup>®</sup> Collection Tubes II (T2018)  
 Monarch<sup>®</sup> DNA/RNA Protection Reagent (T2011)  
 Monarch<sup>®</sup> RNA Lysis Buffer (T2012)  
 Monarch<sup>®</sup> Proteinase K (T2001)  
 Monarch<sup>®</sup> Proteinase K Resuspension Buffer (T2002)  
 Monarch<sup>®</sup> Proteinase K Reaction Buffer (T2003)  
 Monarch<sup>®</sup> DNase I (T2004)  
 Monarch<sup>®</sup> DNase I Reaction Buffer (T2005)  
 Monarch<sup>®</sup> RNA Priming Buffer (T2013)  
 Monarch<sup>®</sup> RNA Wash Buffer (T2014)  
 Monarch<sup>®</sup> Nuclease-free Water (T2006)

*Lot #:* 0011709  
*Assay Date:* 09/2017  
*Expiration Date:* 03/2019  
*Storage Temp:* 25°C  
*Specification Version:* PS-T2010S v1.0  
*Effective Date:* 27 Apr 2018

Assay Name/Specification (minimum release criteria)	Lot #0011709
<b>Functional Testing (DNA Recovery and Purity)</b> - Twenty-four Monarch <sup>®</sup> 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 <sup>®</sup> 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<sup>®</sup>)</b> - A 50 µl reaction in Monarch <sup>®</sup> DNase I Reaction Buffer with 1 µg of pBR322 and 5 mU Monarch <sup>®</sup> 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.	<b>Pass</b>



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Assay Name/Specification (minimum release criteria)	Lot #0011709
<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 (10<sup>6</sup> 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>



Authorized by  
Derek Robinson  
27 Apr 2018



Inspected by  
Ana Egana  
01 Sep 2017

