

New England Biolabs Product Specification

Product Name: *Monarch® Spin gDNA Extraction Kit*

Catalog #: *T3010G*

Kit Components: *Monarch® gDNA Tissue Lysis Buffer (T3011)*
Monarch® gDNA Cell Lysis Buffer (T3012)
Monarch® gDNA Blood Lysis Buffer (T3013)
Monarch® gDNA Binding Buffer (T3014)
Monarch® gDNA Wash Buffer (T3015)
Monarch® gDNA Elution Buffer (T3016)
Monarch® Spin Columns S2C (T3017)
Proteinase K, Molecular Biology Grade (P8200)
Monarch® RNase A (T3018)
Monarch® Spin Collection Tubes (T2118)

Shelf Life: *24 months*

Storage Temp: *25°C*

Specification Version: *PS-T3010G v4.0*

Effective Date: *21 Aug 2024*

Assay Name/Specification (minimum release criteria)

Functional Testing (Blood Cell Lysis Buffer, Monarch®) - Genomic DNA is purified from 8 samples of whole pig blood, with $\geq 2 \mu\text{g}$ of gDNA being recovered in $\geq 80\%$ of the samples. OD 260/280 and 260/230 are ≥ 1.75 in $\geq 80\%$ of the samples.

Functional Testing (Cell Lysis Buffer, Monarch®) - Genomic DNA is purified from 8 individual aliquots cultured human cells (10^6 cells/aliquot), resulting in $\geq 3 \mu\text{g}$ of gDNA being recovered in $\geq 80\%$ of the samples. OD 260/280 and 260/230 are ≥ 1.75 in $\geq 80\%$ of the samples.

Functional Testing (DNA Recovery and Purity) - Twenty-four Monarch® Spin Columns S2C are tested with $10 \mu\text{g}$ of HindIII digested Lambda resulting in $\geq 75\%$ recovery in $\geq 80\%$ of the samples. OD 260/280 and 260/230 are ≥ 1.75 in $\geq 80\%$ of the samples.

Functional Testing (RNase A, Monarch®) - A $10 \mu\text{l}$ reaction in NEBuffer 4 containing 40 ng of fluorescein labeled RNA transcript and RNase A is incubated at 37°C . After incubation for 5 minutes, complete disappearance of the RNA substrate occurs at $\leq 1.0 \mu\text{g/ml}$ of RNase A, as determined by gel electrophoresis using fluorescent detection.

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Assay Name/Specification (minimum release criteria)
<p>Functional Testing (Tissue Lysis Buffer, Monarch®) - Genomic DNA is purified from 8 NEB10-Beta samples, resulting in ≥ 3 μg of gDNA being recovered in $\geq 80\%$ of the samples. OD 260/280 and 260/230 are ≥ 1.75 in $\geq 80\%$ of the samples.</p> <p>* Individual Product Component Note - Standard Quality Control Tests are performed for each component included in Monarch® Spin gDNA Extraction Kit and meet the designated specifications.</p>

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Date 21 Aug 2024

Lauren Brown
Quality Approver

