

CLEAN cfDNA, NO COLUMNS REQUIRED

NextPrep-Mag™ Cell-free DNA (cfDNA) Isolation Kits An optimized magnetic bead-based cfDNA extraction solution

By maximizing the workflow and efficiency of our chemistry, the NextPrep-Mag™ cfDNA isolation kits offer a robust, flexible, and high-throughput solution with significant cost-saving to produce high yields of clean cfDNA for your downstream application needs such as next generation sequencing. Reagents are available for both manual and automated extractions that are scalable to a wide range of plasma and serum inputs. Automation kits are available off-the-shelf for extraction of 1.5 mL or 5 mL with accompanying plastics for the chemagic™ 360, MSM I, and Prime™ instruments. The extracted cfDNA has been verified for compatibility using the NEXTFLEX® Rapid DNA-seq kit 2.0 chemistry on the Sciclone® and Zephyr® G3 NGS workstations. With PerkinElmer's suite of automated workstations, the entire extraction-to-sequence-ready-library workflow can be conveniently automated.

With the NextPrep-Mag™ magnetic bead chemistry, the lab will be able to part ways from the antiquated vacuum- and column filter-based extractions that are not only tedious, but also leave the cfDNA elutes littered with potential inhibitors and high molecular weight DNA that could outcompete your valuable cfDNA in downstream applications (Figure 1 and Figure 2). The hands-on-time and turn-around-time is also significantly shortened and the cost per sample is lowered considerably. Aside from replacing labor-intensive protocols with a scalable solution ideal for high-throughput labs, the risk of contamination is also minimized using the NextPrep-Mag™ reagents.

Upgrade your workflow and let the NextPrep-Mag™ chemistry work for you!

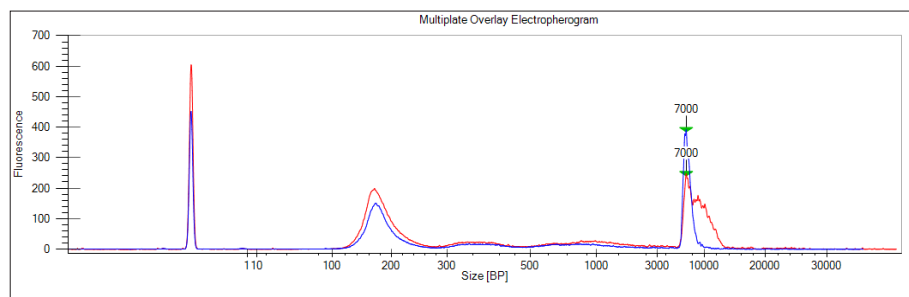


Figure 1: Extracted cfDNA trace on the LabChip® GX Touch™ Nucleic Acid Analyzer instrument (Blue: NextPrep-Mag™ kit, Red: Reagent Q)

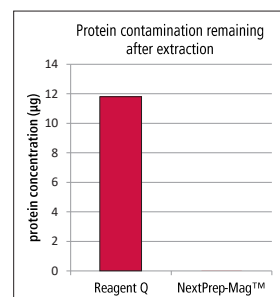


Figure 2: Protein concentration in eluates as analyzed on the Thermo Fisher® Scientific Qubit® instrument.

Extractions	NextPrep-Mag™ (ng/μL eluate)	Reagent Q (ng/μL eluate)
Sample 1	3.62	3.51
Standard Dev	0.20	0.99
Relative Standard Dv.	5.52%	28.20%
Sample 2	3.34	3.69
Standard Dev	0.27	0.68
Relative Standard Dv.	8.08%	18.37%

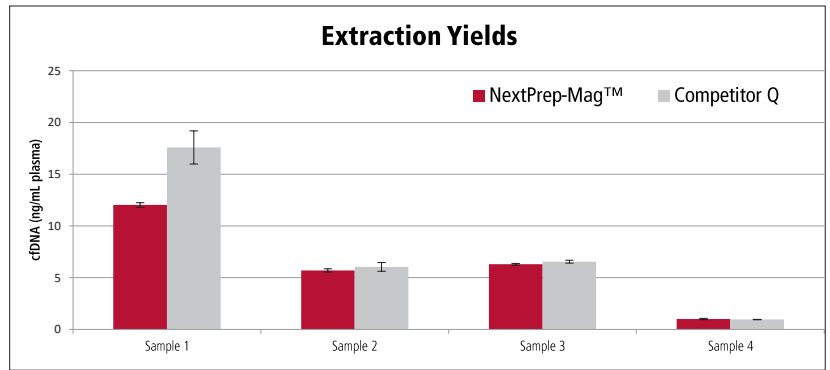


Figure 3: Reproducibility of extractions as analyzed on the Thermo Fisher® Scientific Qubit® instrument. (A) mechanically sheared commercial cfDNA reference standards in synthetic plasma extracted at a 3rd party site following standard protocol per manufacturer's instructions and (B) endogenous cfDNA extracted from commercially purchased normal human plasma following a modified consecutive double elution and concentration/cleanup protocol for both methods.

NEXTPREP-MAG™ vs. REAGENT Q

SAVE TIME & MONEY

HANDS-ON-TIME

~20
MINUTES

NextPrep-Mag™
AUTOMATED

~60
MINUTES

NextPrep-Mag™
MANUAL

~140
MINUTES

Reagent Q
MANUAL ONLY

RELIABILITY / REPEATABILITY

NextPrep-Mag™

Reagent Q

PURITY

cfDNA

Carrier RNA
cfDNA
Impurities/Proteins
Contaminating HMW DNA

SETUP & SAMPLE COST

NextPrep-Mag™

SETUP COST

< \$1,500

(2 magnetic stands for NextPrep-Mag™ kit)

15

(per sample at list)

Reagent Q

SETUP COST

> \$5,000

(vacuum manifold complete package for Reagent Q)

22

(per sample at list)

Information and data collected 10/2018

Replace the ordinary with NextPrep-Mag™!

Are you currently using vacuum pumps for cfDNA extraction? Get 25% off the price you are paying by switching to the NextPrep-Mag™ cfDNA isolation kit. Turn in your vacuum pump for 50% off your current price. Lock in your price!

Request additional details at NGS@perkinelmer.com or speak to your PerkinElmer® representative today.

Learn more at perkinelmer-appliedgenomics.com/cfDNA.

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