

# NextPrep-Mag™ cfDNA Isolation Kit

High-Yield, Rapid Cell-Free DNA Isolation Kit for NGS Library Prep & Other Applications

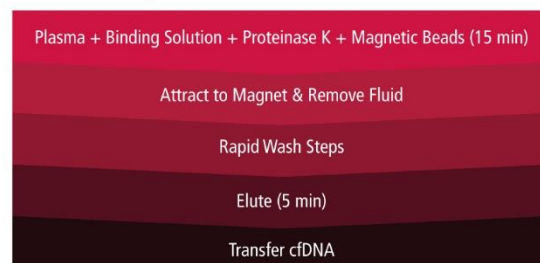
The NextPrep-Mag™ cfDNA Isolation Kit is designed for extracting cell-free DNA (cfDNA) for constructing NGS libraries from human blood plasma or serum, using a fast magnetic bead-based format requiring minimal hands-on time. The isolated cfDNA is ideal for next generation sequencing and PCR analysis. Suitability of the DNA for use in NGS library construction has been verified using the Bioo Scientific NEXTFLEX® Cell Free DNA-Seq Library Prep Kit.

- Ideal for extracting DNA from human plasma or serum for downstream applications such as cell-free DNA sequencing
- No vacuum pumps, vacuum manifolds, or column extenders required
- Automated extraction reagents available for select chemagic™ robotic platforms with 15 mins hands-on time
- Fast, 30 minute manual protocol with minimal hands-on time using a mag-bead based format
- Extracted cfDNA can be used to generate highly concentrated libraries using very few PCR cycles
- Extracted cfDNA is compatible with automated NEXTFLEX® Cell Free DNA-seq library prep workflow on the Sciclone® G3 NGS Workstation

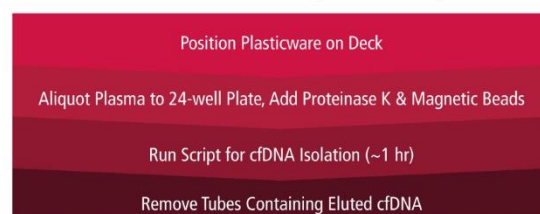
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## Protocol:

The manual procedure, which can be completed in approximately 30 minutes, includes an initial lysis and DNA binding step, wash steps, and elution of cfDNA from the magnetic beads. A distinguishing feature of the kit is the very rapid magnetic bead attraction steps.



The automated procedure, which can be completed in approximately 1 hr 15 mins with only 15 mins of hands-on time, includes a combined protease digestion and DNA binding step, wash steps, and elution of cfDNA from the magnetic bead. All steps are carried out on the chemagic™ robotic platform.



# NextPrep-Mag™ cfDNA Isolation Kit Comparison to the QIAGEN® QIAamp® Circulating Nucleic Acid Kit for Manual Extraction

The NextPrep-Mag™ cfDNA Isolation Kit offers a number of advantages over the QIAGEN® QIAamp® Circulating Nucleic Acid Kit, including the speed of cfDNA manual prep isolations and automation compatibility for high throughput users, while delivering comparable cfDNA yields and higher concentration NGS libraries.

NextPrep-Mag™ cfDNA Isolation Kit	QIAamp® Circulating Nucleic Acid Kit
PREP TIME	
30 min	1 hr & 25 min
PREP METHOD	
Mag bead-based	Column-based
RECOMMENDED PLASMA INPUT	
1 - 5 mL	1 - 5 mL

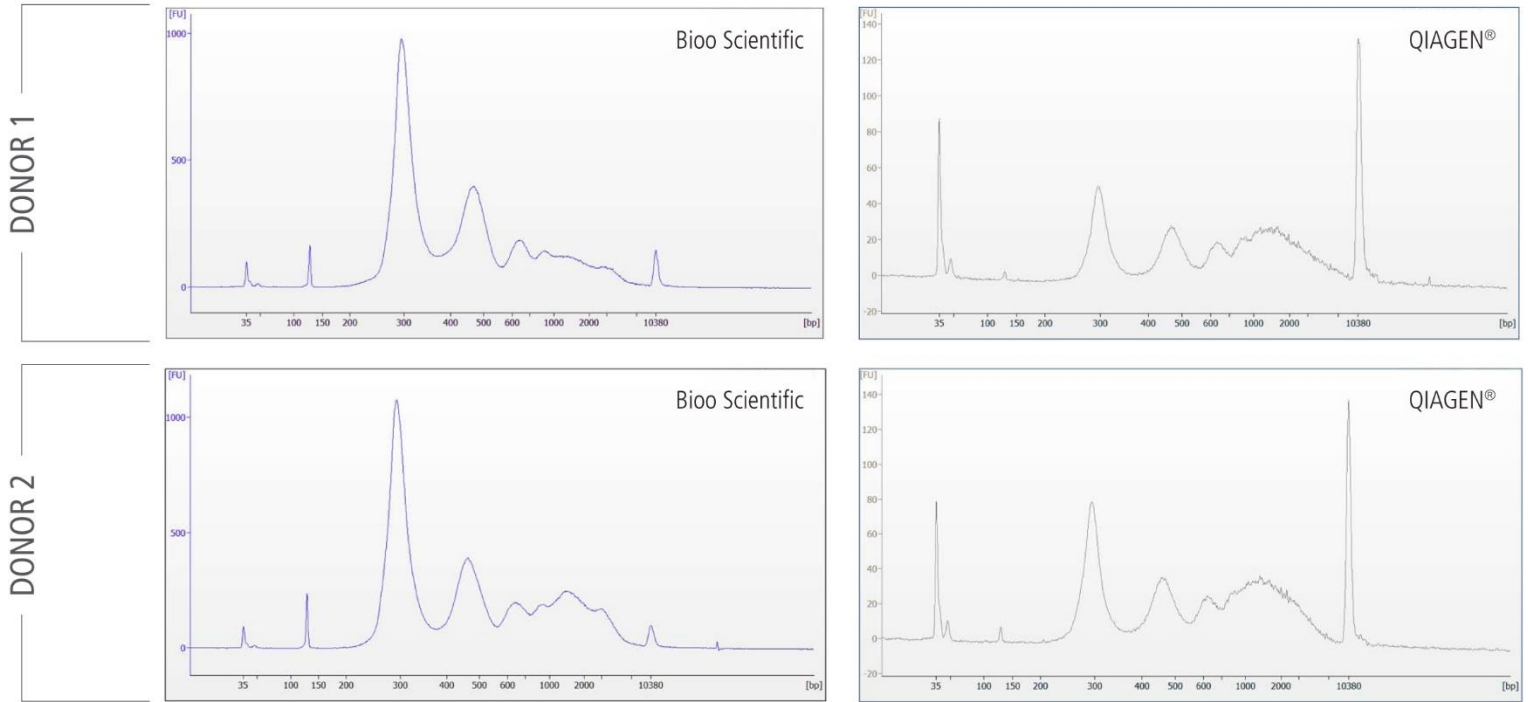


Figure 1. DNA libraries constructed with the NEXTFLEX® Cell Free DNA-Seq Kit using cfDNA isolated from plasma of two healthy donors, via either the NextPrep-Mag™ cfDNA Isolation Kit or the QIAGEN® QIAamp® Circulating Nucleic Acid Kit, as the sample input. Libraries were amplified for 9 PCR cycles. Input of DNA for each library was 32 µL, representing 52% of the cfDNA extracted from 5 mL of plasma.

## Ordering Information

CATALOG #	PRODUCT NAME	QUANTITY
NOVA-3825-01	NextPrep-Mag™ cfDNA Isolation Kit (< 1 mL - 3 mL)	16 - 50 isolations
NOVA-3825-02	NextPrep-Mag™ cfDNA Isolation Kit (3 mL - 5 mL)	50 isolations
NOVA-3825-05*	NextPrep-Mag™ cfDNA Automated Isolation Kit (5 mL)	240 isolations

\* Limited release in US at this time. Accepting early access sites globally.

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