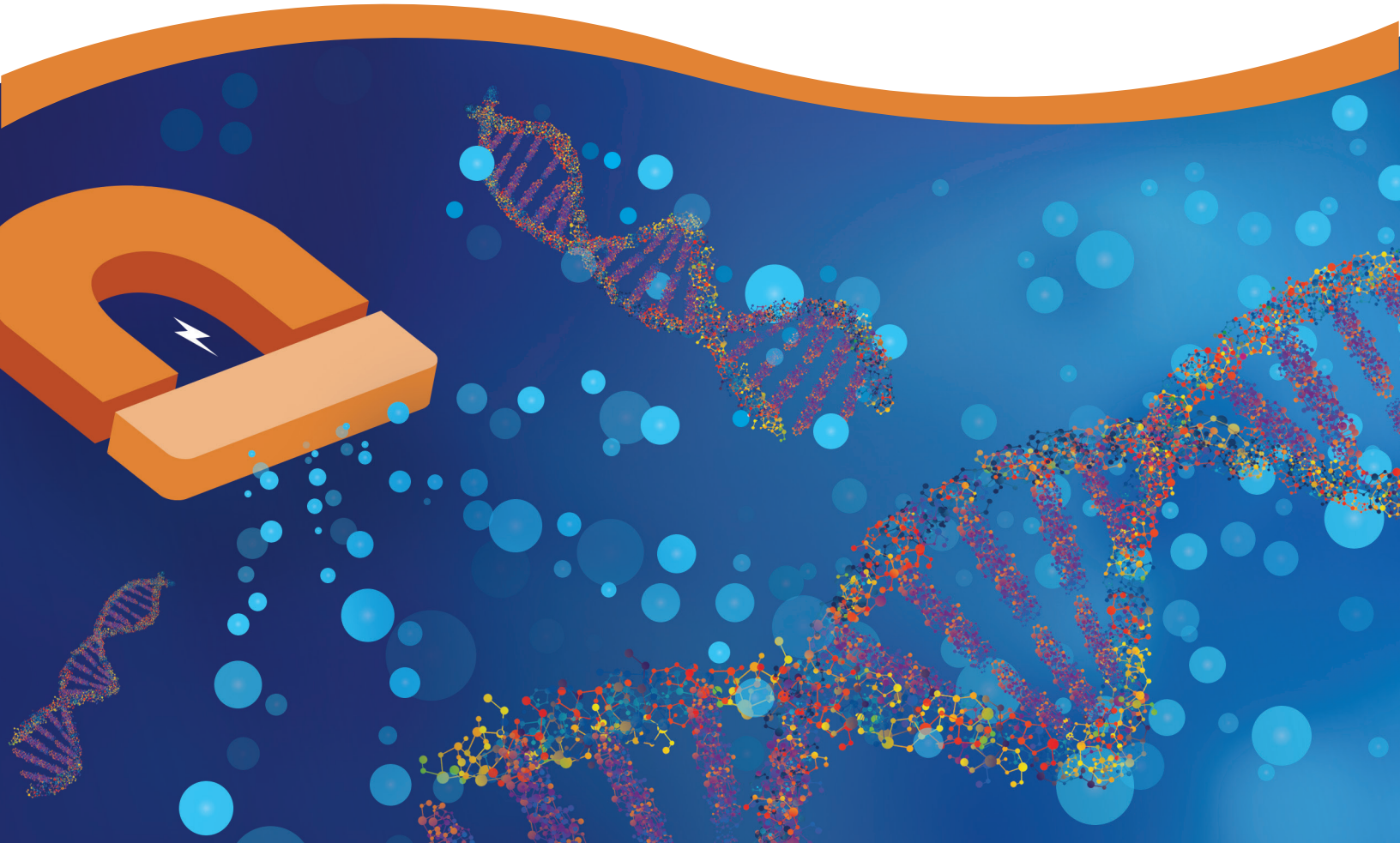
CERES NANO

Are you missing actionable cfDNA results?

NEAT Liquid Biopsy Kit

Capture & Concentrate cfDNA with Confidence.



NEAT Liquid Biopsy Kit Nanotrap Extraction Advanced Technology

More pure cfDNA isolation. More actionable results.

Ceres Nanosciences' Nanotrap® Extraction Advanced Technology (NEAT) Liquid Biopsy Kit uses the Nanotrap hydrogel particle technology to capture and concentrate cell-free DNA (cfDNA) from plasma samples, while simultaneously reducing genomic DNA contamination. The result is a purer and more concentrated cfDNA product, 50–800 bp fragments, that can be used in qPCR, dPCR, ddPCR, and sequencing assays.

Selective Capture of Small-Sized cfDNA Fragments

Higher concentrations of cfDNA with low amounts of genomic DNA (gDNA) enable easier detection of actionable mutations using Nanotrap technology. Differentiate your sample processing using the NEAT Liquid Biopsy Kit, enabling higher detection of cfDNA fragments.

Key Benefits

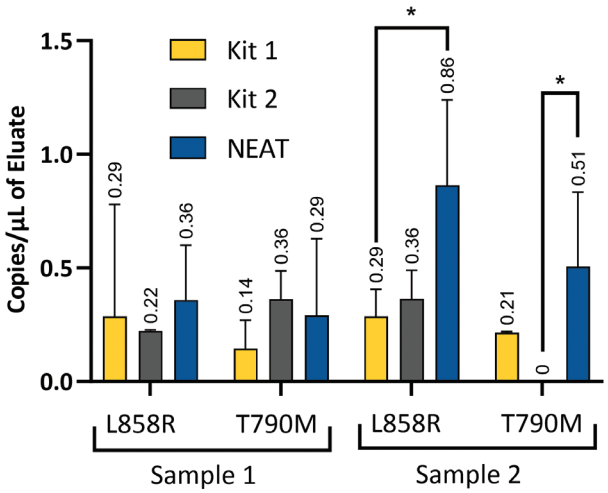
- **Capture and concentrate more cfDNA while reducing gDNA contamination** to ensure your results are actionable.
- **Improved small DNA fragment binding**
- **Save 20+ minutes of hands-on time,** on average.
- **Compatible with your workflow** – from upstream sample collection methods to downstream assays.
- **Take advantage of our expert technical CeresNow support** – get answers when you need them with lightning-fast response times.

Better Detection of Mutant Alleles

It's critical to capture all of the cfDNA in the sample to ensure confidence in your data. The NEAT Liquid Biopsy Kit with Nanotrap Technology helps labs meet this critical need.

- Captures 97% of cfDNA, 50–250 base pairs, in base matrix

Higher cfDNA Concentration



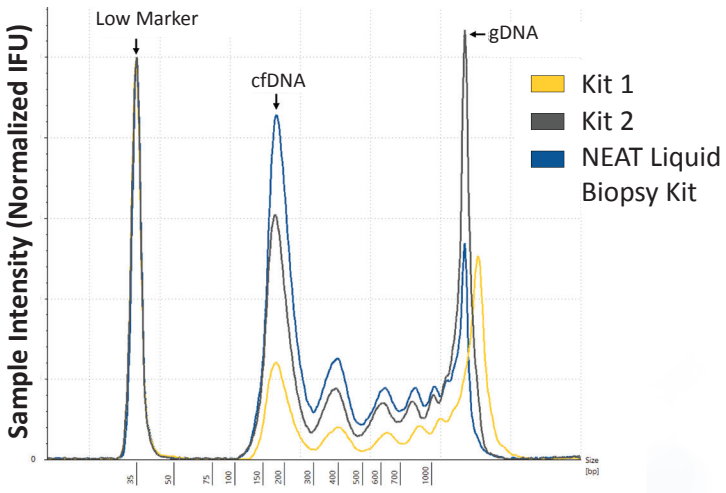
Extraction of 0.125% mutant allele frequency from 4 mL of K2EDTA Plasma | QIAcuity digital PCR system data. Samples are plasma spiked with SeraCare Seraseq cfDNA Standards. Results provide an equal or improved mutant allele detection compared to other cfDNA kits. *p<0.05

Size-Specific DNA Binding

Size-specific enrichment of cfDNA leads to higher detection rates of low frequency cancer mutations.

- On average, 1.22x more cfDNA detected compared to other kits
- Binds smaller DNA fragments
- Excludes larger DNA fragments
- Reduces the amount of gDNA in the sample with no additional cleanup

Size Select DNA Binding

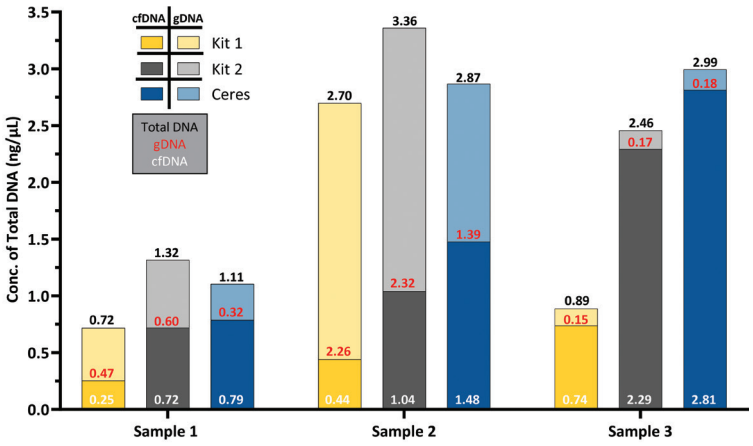


Tapestation traces of extracted cfDNA from 4 mL plasma

Less gDNA Contamination, More cfDNA Detected

gDNA contamination decreases the proportion of cfDNA in the sample – skewing the results and potentially delaying or impairing diagnosis. Variables from the patient to the phlebotomist to the tube can affect the amount of gDNA contaminating a sample. Total DNA measurements (for example, from a Qubit) can hide a sample's vast amount of gDNA contamination.

Total DNA Extracted from 4 mL of Plasma



Tapestation 4200 cfDNA ScreenTape Assay Data

- Improves detection of multiple low-abundance mutant allele gene targets from a single plasma sample.
- Rapid capture and concentration of cell-free DNA, 50–800 base pair fragments.
- Reduced gDNA contamination, 2000 base pair fragments and larger.

The NEAT Liquid Biopsy Kit helps solve the gDNA problem from the first step – yielding high cfDNA concentration with less contaminating gDNA.

How the NEAT Liquid Biopsy Kit Works

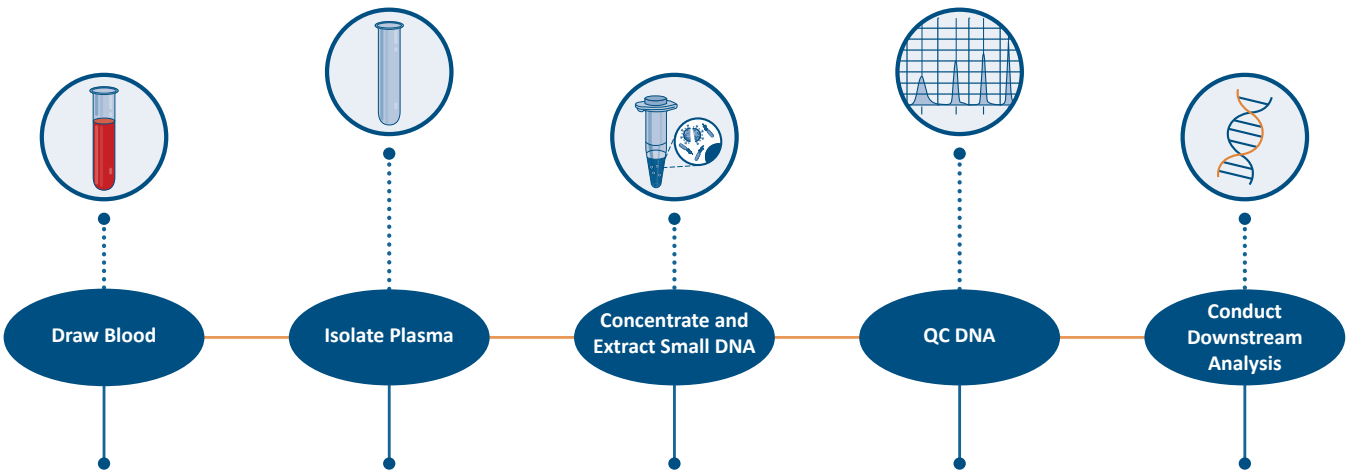
The NEAT Liquid Biopsy Kit contains the novel Nanotrap Particles. These highly porous hydrogel particles, are functionalized with chemical affinity baits that have very high affinities for different classes of analytes. The hydrogel structure facilitates quick exchange with the sample for rapid binding. When incorporated into the NEAT Liquid Biopsy Kit, the Nanotrap Particles enable minimization of gDNA contamination and improves small DNA fragment binding.

Automation-Friendly

The Nanotrap platform can be integrated seamlessly into research and diagnostic workflows. The technology has been verified on automated platforms for high-throughput sample processing and integrated into point-of-care devices.

- Semi-automatable workflow allows for reduced manual hands-on time
- Compatible with K2EDTA, PAXgene, and Streck blood collection tubes
- Verified methods for 1, 2, and 4 mL sample volumes

Liquid Biopsy Workflow



Draw blood using the recommended gauge needle to prevent cell rupture into the following tube types:

- K2EDTA
- PAXGene®
- Streck BCT

Centrifuge the blood to isolate the plasma.

- K2EDTA: 1 spin
- PAXgene: 1 spin
- Streck BCT

Semi-automated workflow to capture and concentrate low-abundance cfDNA.

- NEAT Liquid Biopsy Kit

Quality control methods include:

- TapeStation
- Bioanalyzer
- Fragment Analyzer
- Qubit
- Picogreen™
- Quant-iT™
- qPCR

Downstream analysis methods include:

- dPCR
- ddPCR
- Sequencing

The NEAT Liquid Biopsy Kit semi-automated workflow with Nanotrap Liquid Biopsy Particles greatly enhances your lab's capability to find actionable results while saving valuable hands-on time.

NEAT Liquid Biopsy Kit Contents

SKU	Product	Description
77300	NEAT Liquid Biopsy Kit	This kit isolates cfDNA from plasma in K2EDTA and PAXgene collection tubes for 100 x 1 mL samples.
77301	NEAT Liquid Biopsy Kit-Streck BCT	This kit isolates cfDNA from plasma collected in Streck Cell-Free DNA BCT® for 25 x 4 mL samples.

Find out how the NEAT Liquid Biopsy Kit can ensure that you capture all actionable cfDNA results.

Watch the short video.

Attribute	Specification
Detection	PCR, Digital PCR, Targeted Next Generation Sequencing
CE/IVD/FDA	Research use only
Technology	Hydrogel particles
Application	cfDNA
Time per 24 samples (1, 2, 4 mL)	Manual EDTA Protocol: 3:00 hours Automated EDTA Protocols: 1:48–2:20 hours/minutes Streck BCT Protocol: 3:30 hours/minutes
Main sample type	Plasma

What's Unique About the NEAT Capture and Concentration Portion of the Workflow?

- Single centrifugation spin with K2EDTA and PAXgene tubes
- Capture and concentration of the cfDNA using Nanotrap Particle patented technology

CeresNow Technical Support

We're here to make your experience with Ceres products as seamless and productive as possible. From the very first introduction, our team is here to help with a full range of services that includes fixed-price support plans that can aid in validation, protocol development, and workflow integration.

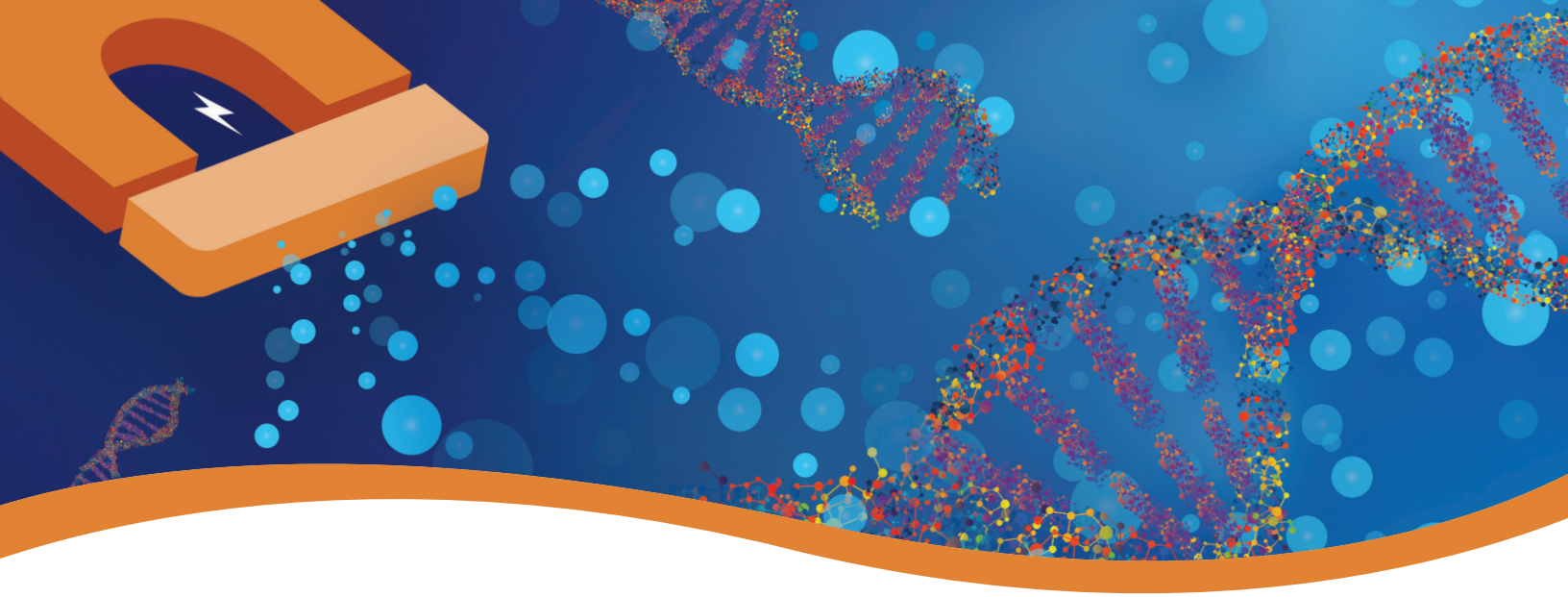
Speak to a Specialist

Fast Response Time
Remote and on-site support available with less than 24-hour response time on normal business days.

Resources
Searchable website with protocols, application notes, and technical notes

Continued Support
Technical customer support from the first meeting to installation and beyond.

Ph.D.-Level Support
One trusted partner for your entire cfDNA sample prep workflow – from capture to extraction.



About Ceres Nanosciences

Founded in 2008, Ceres Nanosciences is a privately held company, located in Northern Virginia, focused on incorporating its proprietary Nanotrap Particle technology into a range of diagnostic and research use products and workflows. Nanotrap Particles capture, concentrate, and preserve low abundance analytes from biological samples, enabling early and accurate detection of diseases. Ceres has worked with and received support from the National Institutes of Health, the Defense Advanced Research Projects Agency, the Bill and Melinda Gates Foundation, Schmidt Futures, the Defense Threat Reduction Agency, the Centers for Disease Control and Prevention, and the Commonwealth of Virginia.

Find out more about Ceres and our technologies – www.ceresnano.com/NEAT
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