



PHASiFY™

PHASiFY™ MAX cfDNA Extraction Kit

Unlock the potential of liquid biopsy with liquid phase extraction

PHASiFY™ is a novel sample preparation technology based on a proprietary liquid phase extraction mechanism. The technique achieves significantly greater yield of circulating cell-free DNA (cfDNA) compared to traditional solid phase methods such as spin columns and magnetic beads.

The **PHASiFY™ MAX cfDNA extraction** kit isolates and concentrates cfDNA from plasma, demonstrating significantly improved recovery against standard solid phase extraction.



PHASiFY™ Advantage:

- **High Yield:** Multiple fold increase in cell-free DNA recovery compared to solid phase extraction
- **High Concentration:** Flexible elution volume as low as 5 μ L
- **Simplicity of Operation:** No specialized equipment such as magnetic racks and vacuum pumps

Contact us at phasify@phasesci.com.

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PHASIFY™ MAX cfDNA Extraction Kit

A novel liquid phase cfDNA purification and concentration technique

In a head-to-head study at MD Anderson Cancer Center, PHASIFY demonstrated threefold greater cfDNA yield against traditional solid phase extraction (Qiagen QIAamp Circulating Nucleic Acid kit), resulting in increased mutation detection in cancer patient plasma samples.

I. Higher cfDNA Yield

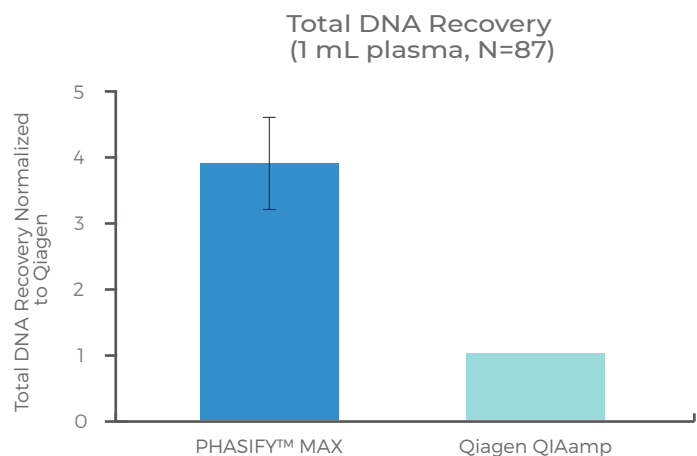


Figure 1 - The cfDNA was extracted from 89 tissue positive cancer patient plasma samples (1 mL) using PHASIFY MAX and the Qiagen QIAamp kit. Total DNA recovery was measured using Quant-iT™ PicoGreen™ dsDNA Assay Kit. On average PHASIFY™ MAX demonstrated a 3.8-fold increase in total DNA recovery compared to Qiagen QIAamp. (P-Value <0.0001 Wilcoxon Signed-Rank). Note, 2 outliers were excluded in which PHASIFY™ MAX generated 209-fold and 800-fold greater recovery.

II. Improved Mutation Detection

Tumor Type	PHASIFY™ MAX (MAF)	Qiagen QIAamp (MAF)
Pancreatic	0.35%	ND
Pancreatic	0.65%	ND
Pancreatic	0.41%	ND
Appendiceal	0.35%	ND
Ovarian	0.80%	ND
Ovarian	0.44%	ND
Colorectal	2.10%	ND
Colorectal	0.24%	ND
Colorectal	0.27%	ND
Colorectal	0.25%	ND
Colorectal	0.50%	ND
Colorectal	0.35%	ND
Colorectal	0.58%	ND

ND = Not Detected, MAF = Mutant allele frequency

Figure 2 - In 13 samples, mutations were detected in samples extracted with PHASIFY™ MAX, but not with Qiagen QIAamp.

III. Greater Recovery of Desired cfDNA Fragments

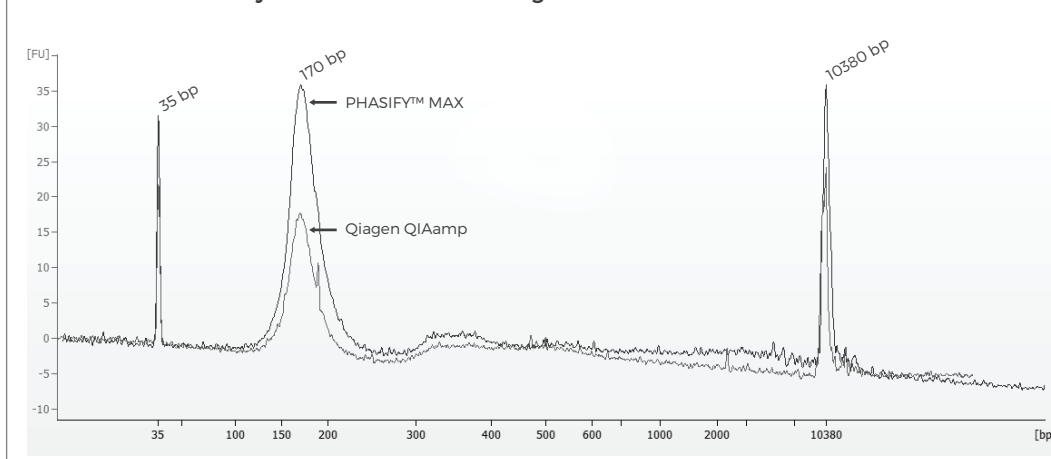


Figure 3 - DNA was extracted from 1 mL healthy human plasma using PHASIFY™ MAX or the Qiagen QIAamp Circulating Nucleic Acid kit. The extracted DNA was analyzed on Agilent Bioanalyzer 2100, where 35bp and 10,380bp peaks correspond to internal markers.

Find out more at www.phasescientific.com

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