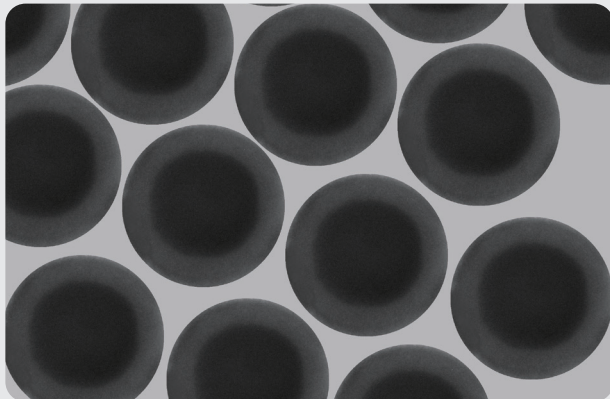


Magnetic Microspheres for cfDNA Extraction

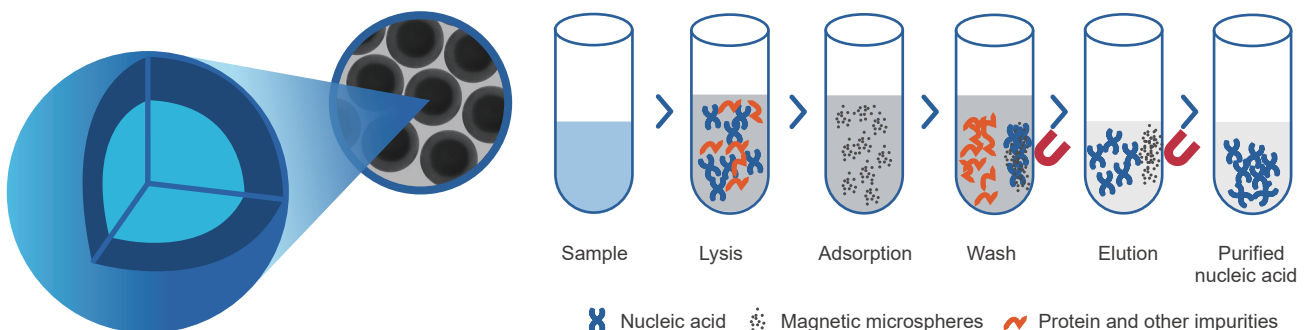


As one of the core technologies in precision medicine, NGS-based liquid biopsy has been widely used in clinical practice. Efficient extraction and purification of cfDNA is a solid foundation to ensure accurate and reliable test results. However, due to the extremely low concentration of target cfDNA in plasma and the complexity of biological samples, it is difficult to efficiently extract and purify cfDNA. VDO Biotech has specially developed cfDNA extraction magnetic microspheres for plasma samples to help improve the efficiency and accuracy of liquid biopsy.



- Large specific surface area, strong binding capacity
- Super paramagnetic microspheres, excellent resuspension performance
- Special surface modification, strong nucleic acid adsorption capacity and easy elution
- Fast magnetic response and magnetic absorption, no magnetic residue
- Large-scale production capacity is up to >100 L/batch, batch-to-batch consistency ensures high reproducibility

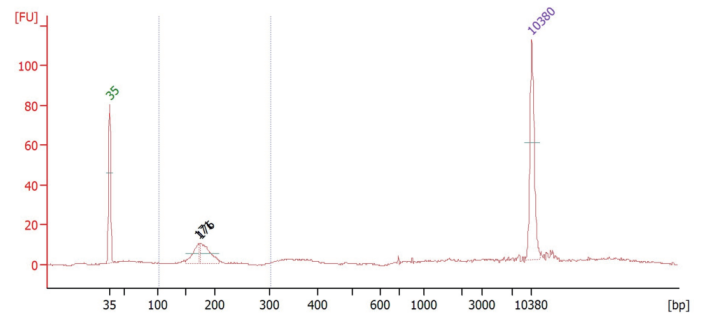
Workflow of cfDNA extraction using magnetic microspheres



Case study of cfDNA extraction using magnetic microspheres

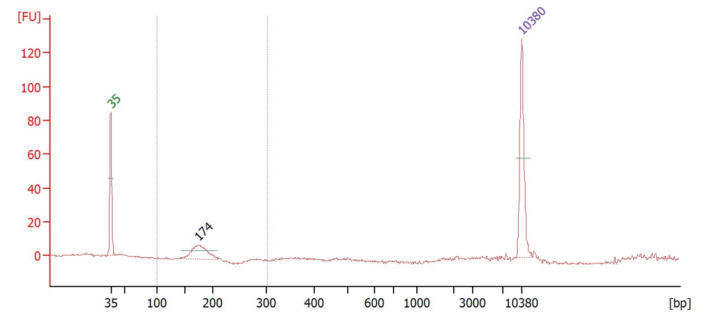
Sample: 1ml plasma

Magnetic Microspheres	Sample	Plasma	Elution Volume	Concentration	Yields
Company A	Sample 1	1 ml	100 µl	0.073ng/µl	7.30ng
	Sample 2	1 ml	100 µl	0.084ng/µl	8.40ng
	Sample 3	1 ml	100 µl	0.076ng/µl	7.60ng
VDO Biotech	Sample 1	1 ml	100 µl	0.119ng/µl	11.90ng
	Sample 2	1 ml	100 µl	0.128ng/µl	12.80ng
	Sample 3	1 ml	100 µl	0.126ng/µl	12.60



Sample: 1ml plasma

Magnetic Microspheres	Sample	Plasma	Elution Volume	Concentration	Yields
Company B	Sample 4	1 ml	45 µl	0.320ng/µl	14.40ng
	Sample 5	1 ml	45 µl	0.332ng/µl	14.94ng
	Sample 6	1 ml	45 µl	0.328ng/µl	14.76ng
VDO Biotech	Sample 4	1 ml	45 µl	0.418ng/µl	18.81ng
	Sample 5	1 ml	45 µl	0.420ng/µl	18.90ng
	Sample 6	1 ml	45 µl	0.412ng/µl	18.54ng



- ▲ Compared with Company A and B, the cfDNA extracted by VDO magnetic microspheres is superior in both yield and purity (using Qubit quantification, Agilent Bioanalyzer 2100 for fragment analysis)

Ordering Information

Cat. No.	Color	Surface Group	Solids	Size
MA200H	Brownish black	OH	2.5%	10ml / 100ml / 1L
MS05HC	Brownish yellow	OH	2.5%	10ml / 100ml / 1L

Other specifications can be customized according to customer requirements.



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